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EPISTEMOLOGICAL DEVELOPMENT IN PRE-MINISTRY
UNDERGRADUATES ATTENDING SECULAR
UNIVERSITIES

A Dissertation
Presented to
the Faculty of
The Southern Baptist Theological Seminary

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Christopher Lynn Sanchez

May 2022

APPROVAL SHEET

EPISTEMOLOGICAL DEVELOPMENT IN PRE-MINISTRY
UNDERGRADUATES ATTENDING SECULAR
UNIVERSITIES

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Anthony W. Foster

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Date _____

To Melisa, Joshua, and Hannah, who are truly gifts from God.
You are my beloved family, my encouragement on the journey,
and my inspiration to follow the Lord wherever he may lead.

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LIST OF ABBREVIATIONS

BCM	Baptist Collegiate Ministry
CSID	Center for the Study of Intellectual Development
MID	Measure of Intellectual Development

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PREFACE

A meeting with an academic advisor decades ago at the urging of my wife culminates in this present work. I count myself both blessed and privileged to contribute to the ongoing research on this important topic currently being conducted in the doctoral program of The Southern Baptist Theological Seminary. My prayer is that this body of research will bring honor and glory to the Lord Jesus Christ while benefitting the churches of the Southern Baptist Convention.

An undertaking such as this dissertation requires broad support from many people. The first person I must acknowledge is my beloved wife, Melisa, who has constantly encouraged me for over twenty years of my higher education journey. This adventure would not have been impossible without your love, support, patience, and understanding as this writing occurred. To our children Joshua and Hannah: you have inspired me to become a better man in so many ways and be the godly example of a father that you both richly deserve. You are young adults now and are certainly old enough to understand the layers of meaning in that statement. Both of you are a blessing from the Father. To my friend Dr. Clay Anthony, I am grateful for the inspiration to continue my education and nudging me towards The Southern Baptist Theological Seminary. You were right: it has been difficult but worth every challenge.

I am deeply grateful to the faculty of the Billy Graham School of Missions, Evangelism, and Ministry at The Southern Baptist Theological Seminary for seeing something in me you could successfully shape and refine into a practitioner-scholar through the Doctor of Philosophy program. Thank you to Dr. Timothy Paul Jones and Dr. Michael Wilder for your giving so generously of yourselves both inside and outside the classroom. Thank you to Dr. Anthony Foster, Dr. Shane Parker, Dr. Gregg Allison, and

Dr. Justin Irving for your investment as well. I must also thank Dr. John David Trentham for your encouragement, patience, and for always having just the right words to say as you guided the development of this dissertation. I especially want to thank Bruce Cannon for his friendship. Your wisdom, humility, and Christlikeness as we wrestled through the EdD program and encouragement to complete the PhD bridge mean more than I can put into words. You are truly the big brother I never had!

I began this academic journey as part the congregation of First Baptist Church Woodstock—led by Johnny Hunt at the time—that supports international missionaries, the planting of churches across the nation and around the world, and that makes sure the widows and the poor in our congregation and community are aided to the best of our ability. I am especially grateful for the love and friendship of Allan Taylor these many years. You inspired me to continue sharpening my gifts for His use.

As this academic journey comes to a conclusion, I owe a debt of gratitude to the Northside Baptist Church in Valdosta, GA, led by Dr. Robby Foster, where I have been blessed to serve since January 2016. Sweet people, outstanding leadership, remarkable staff, and a place of service I could not have imagined. As I consider the end of this season, I see the providence of God on full display and I am humbly reminded that before time itself, He had a plan and a purpose for my life. Glory be to God!

Christopher Sanchez

Hahira, Georgia

May 2022

CHAPTER 1

INTRODUCTION

In his dissertation research, John David Trentham explored the variance of epistemological development in pre-ministry undergraduates across different institutional contexts using the Perry Scheme as a theoretical lens.¹ This research focused on three types of higher education institutions. The first was the secular college or university, which Trentham defined as those institutions that entail a secular environment as it relates to community and curriculum. The second was the confessional Christian liberal arts college or university, which is defined as educational institutions that entail a Christian environment as it relates to community and curriculum, guided and governed by a Protestant-evangelical statement of faith. The third institution was the Bible College, which is defined as an institution that entails a Christian environment as it relates to community and curriculum, guided and governed by a Protestant-evangelical statement of faith.

Trentham's work has been followed by a number of very helpful additional studies that have sought to expand upon various aspects of his original research. Dale Leatherman expanded upon Trentham's earlier work by broadening the population studied to include pre-ministry undergraduates attending confessional versus non-confessional liberal arts colleges or universities noting that though students at confessional institutions scored higher than their counterparts at non-confessional

¹ William G. Perry, *Forms of Intellectual and Ethical Development in the College Years: A Scheme*, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 1999).

institutions, the difference was slight.² Justin Mullins considered the context from which college students come before arriving on the college or university campus concluding that students coming from public, private, and homeschool background have similar epistemological positioning though homeschool graduates did reflect an earlier position than their counterparts in his study.³

Jonathan Stuckert focused additional research on 30 male seminary students concluding there is little difference between those who were current seminary students and those within six months of college graduation in Trentham's original study.⁴ Adding some balance to Stuckert's work, Jennifer Kintner focused her thorough research on the epistemological development among women in evangelical seminaries concluding epistemological positioning and maturation for female seminary students is generally consistent with that of male seminary students.⁵

The population studied by Trentham was previously unexamined with regard to the study of undergraduate intellectual and ethical development. As with Trentham's original study, a guiding principle for this present research is the evident consistency between the developmental scheme proposed by William Perry and the biblical pattern for transformative maturation unto wisdom through progressive sanctification. This study seeks to replicate Trentham's previous work interacting with the Perry Scheme as a means for evaluating and comparing developmental trends among pre-ministry undergraduates in secular universities. This study will also follow Stuckert's first and

² Warren Dale Leatherman Jr., "Comparing Epistemological Development among Pre-Ministry Undergraduates Attending Confessional versus Non-Confessional Liberal Arts Colleges or Universities" (EdD thesis, The Southern Baptist Theological Seminary, 2017), 125-26.

³ Justin Robert Mullins, "Exploring the Impact of Secondary Educational Contexts on College Student Formation and Development" (EdD thesis, The Southern Baptist Theological Seminary, 2017), 103.

⁴ Jonathan Derek Stuckert, "Assessing Epistemological Development among Evangelical Seminarians" (EdD thesis, The Southern Baptist Theological Seminary, 2016), 115-16.

⁵ Jennifer Jeanne Kintner, "Assessing Epistemological Development among Women in Evangelical Seminaries" (EdD thesis, The Southern Baptist Theological Seminary, 2018), 211.

fifth recommendations for follow-up research—specifically of previous study participants—providing longitudinal data on a segment of the populations studied by Trentham.⁶

Introduction to the Research Problem

Trentham’s prior work demonstrated the inadequacies of existing studies to address the distinctiveness of varying types of institutions in promoting epistemological maturity among evangelical students. Studies exploring the intellectual development of pre-ministry undergraduates are conspicuously missing from the literature are prior to Trentham’s research.⁷

Need for Study

Trentham’s research is a starting point in developing an understanding of epistemological maturity in future ministry professionals. Students in secular universities have very different developmental influences as compared to their counterparts in Bible colleges and confessional Christian liberal arts colleges or universities. Replicating Trentham’s earlier study focusing exclusively on a larger population of pre-ministry undergraduates will serve to validate or refute conclusions drawn in the original study.

Student affairs practitioners utilize developmental theories such as the Perry Scheme on secular college and university campuses to shape the developmental influences students experience during their college years. This is not limited to curriculum or programs of study but is inclusive of all aspects of campus life including shaping students’ extracurricular experiences.⁸

⁶ Stuckert, “Epistemological Development among Evangelical Seminarians,” 122-23.

⁷ John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (PhD diss., The Southern Baptist Theological Seminary, 2012), 1-2. Trentham notes the importance of institutional type with regard to the development of the worldview, identity, and lifestyle in pre-ministry undergraduates.

⁸ Edward G. Whipple and Rena K. Murphy, “Student Activities,” in *Rentz’s Student Affairs Practice in Higher Education*, ed. Audrey L. Rentz and Fiona J. D. MacKinnon, 3rd ed. (Springfield, IL: C.

Benefit of Study

As with Trentham's original study, this study benefits a number of particular groups including pre-ministry students themselves, teachers, administrators, and others among them. One group possibly overlooked that bears mention are Christian parents seeking to understand the benefits and pitfalls of sending their children to secular institutions of higher learning. The Trentham study found that secular university pre-ministry students made the commitment to ministry during the middle or late periods of their college careers.⁹ This may influence the parenting decisions of Christians earlier in the lives of their children as they consider the educational context that best suits the developmental needs of their children during their college years. This study will also provide the first set of longitudinal data for the specific body of research inspired by Trentham's original study.

Institutional Type Studied

The Trentham study explored epistemological development in pre-ministry undergraduates across three types of institutions: secular university, confessional Christian liberal arts university, and Bible college. This study is focused exclusively on those pre-ministry undergraduates attending secular universities. The statements of identity, mission, and purpose these secular institutions provide a view of the qualities they deem to be important aspects of their various approaches to educating their students.

The following are statements of mission and vision taken from the current student handbook published by secular universities from which participants for this study may be enlisted:

C. Thomas, 2004), 307. Student affairs practitioners understand that students spend the majority of their time outside the classroom. Therefore, the importance of shaping the emotional, social, moral, physical, and even mental impacts of campus activities takes on a greater importance in shaping the development of individual students.

⁹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 207.

Kennesaw State University is a comprehensive public university that serves primarily northwest Georgia and Atlanta. With nationally recognized liberal arts, professional, and continuing education programs, KSU offers exemplary disciplinary and interdisciplinary education at the baccalaureate, master's, specialist, and professional doctoral^[SEP] levels. KSU's students prosper in a supportive environment with faculty, staff, and administrators who are vitally engaged in student life. KSU's academic programs^[SEP] are collaborative and creative, emphasizing both the development and application of knowledge. The KSU community values and promotes integrity, global awareness, technological literacy, diversity, and lifelong learning.

Kennesaw State University is among the best learning-centered comprehensive universities in the country and is expanding its programs of distinction to meet state and national needs. KSU provides excellent and accessible education, promotes research and scholarship, fosters community engagement, supports intellectual inquiry, and contributes to economic development. KSU alumni are well educated in the liberal arts, leaders in their chosen professions, and engaged citizens whose global awareness and lifelong learning make them visionary leaders for Georgia, the nation, and the world.¹⁰

Another example of a statement of vision and mission is that of the University of Kentucky as follows:

Mission

The University of Kentucky is a public, land grant university dedicated to improving people's lives through excellence in education, research and creative work, service, and health care. As Kentucky's flagship institution, the University plays a critical leadership role by promoting diversity, inclusion, economic development, and human well-being.

Vision

The University of Kentucky will be one of the nation's 20 best public research universities.

Values

The University of Kentucky is guided by its core values:

Integrity

Excellence

Mutual respect and human dignity

Diversity and inclusion

Academic freedom

Personal and institutional responsibility and accountability

Shared governance

A sense of community

¹⁰ Kennesaw State University, "Student Handbook & Planner 2013-14," accessed February 21, 2014, http://kennesaw.edu/student_life/studenthandbook.php.

Work-life sensitivity
Civic engagement
Social responsibility¹¹

A third example of a statement of vision and mission is provided from Oregon State University as is as follows:

Vision Statement

Oregon State University aspires to be recognized nationally for excellence in academic advising among land grant institutions.

Mission Statement

Oregon State University academic advising is a teaching and learning process dedicated to student success. Academic advising engages students in developing a plan to realize their educational, career and life goals.

Values Statement

The values associated with OSU advising are closely aligned with the stated values of the university.

Accountability: We are committed to providing timely, accurate, and intentional advising.

Diversity: We honor the unique nature and interests of each student. Advising services and delivery methods will be shaped to fit the diverse needs of our campus populations.

Respect: We seek to establish a reciprocal relationship with students based on an ethic of care and shared responsibility.

Social Responsibility: We foster a culture of independent thinking and global awareness so that students make informed, socially responsible choices consistent with their academic, career and life goals.

Integrity: We seek to engage students in a fair and professional process of meaningful self-reflection and authentic inquiry.¹²

Similar statements of mission and vision are easily located by searching the websites of most secular colleges and universities across the country. They generally include language supporting diversity, respect for others, and social responsibility

¹¹ University of Kentucky, “2009-2014 Strategic Plan,” accessed November 11, 2014, http://www.uky.edu/Provost/strategic_planning/mission.htm.

¹² Oregon State University, “Vision, Mission, Values, Goals, Statements,” accessed October 28, 2014, <http://oregonstate.edu/senate/committees/aac/vmvggs/>.

implying the need to be engaged in social justice. None of these statements explicitly explain how each institution defines these terms.

Theoretical Foundations

In his original study, Trentham affirmed that social-environmental influences are pervasive and consequential in the lives of all people.¹³ This finding is consistent with the Christian worldview. Humans, created in the image of God, are created for relationships and for living in community.¹⁴ The social-environmental influences present throughout society are also present on university campuses and impact student development. Though this is true of all students, Christian students are also guided by the Holy Spirit (John 16:13) within their social-environmental context. Still, student affairs practitioners on secular campuses are intentional in attempting to create social-environmental settings that are diverse and inclusive of racial minorities as well as students whose gender identity differs from that which were biologically assigned at birth. Student affairs practitioners cast themselves as specialized experts in the area of *students*.¹⁵ Utilizing their training and education in developmental theories, student affairs practitioners seek to shape the way in which they advise students, assist with program development, and guide the formation of policy on campus.¹⁶

¹³ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 4.

¹⁴ John S. Hammett, "Human Nature," in *A Theology for the Church*, ed. Daniel L. Akin, David P. Nelson, and Peter R. Schemm (Nashville: B&H Academic, 2007), 367-69.

¹⁵ Don Hossler, "From Admissions to Enrollment Management," in Rentz and MacKinnon, *Rentz's Student Affairs Practice*, 79-80.

¹⁶ Nancy J. Evans, "Psychosocial and Cognitive-Structural Perspectives on Student Development," in *Student Services: A Handbook for the Profession*, ed. John H. Schuh et al., 5th ed., Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2011), 174-75.

Epistemological Development in College: The Perry Scheme

The Perry Scheme was the first theory to be widely used in student affairs practice.¹⁷ Originally published in 1970, William Perry's *Forms of Intellectual and Ethical Development in the College Years: A Scheme* remains the foremost authority on epistemological development in college students. A great deal of research has been done in the years since the publication of Perry's seminal work.

The Perry Scheme is a model that identifies the progression of epistemological growth in college students. As epistemological growth occurs, individuals move through Perry's various positions ultimately making commitment to values and assumptions while remaining open to amending one's worldview should potentially valid truth claims come to light. Thus, Perry asserts that epistemological development is a logical sequence "in which one form leads to another through differentiations and reorganizations that are required for the meaningful interpretation of increasingly complex experience."¹⁸

The scheme. The Perry Scheme is a cognitive-structural theory that attempts to describe the way people view the world. Perry describes the scheme in general terms as two primary ways of thinking—dualistic (positions 1-4) and relativistic (positions 5-9). The scheme lends itself to being summarized by a four-category approach including Dualism, Multiplicity, Contextual Relativism, and Commitment within Relativism.¹⁹

Dualism: Position 1 begins with the simplest of assumptions about the nature of knowledge and values. In this position, truth is absolute and provided by an authority

¹⁷ Nancy J. Evans et al., *Student Development in College: Theory, Research, and Practice*, 2nd ed., Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2010), 85-86.

¹⁸ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 3.

¹⁹ William G. Perry, "Cognitive and Ethical Growth: The Making of Meaning," in *The Modern American College: Responding to the New Realities of Diverse Students and a Changing Society*, ed. Arthur W. Chickering, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 1981), 80.

figure.²⁰ As the students transitions into position 2 difference of opinion is seen more as an error or mistake on the part of others and *the* answer will be found.²¹

Multiplicity: In position 3, the student arrives at a place where there is room for uncertainty but the *truth* is still discoverable. The move into this position is considerable as it brings into question the previously unquestionable authority figures in the student's life.²² Transitioning to position 4 finds the student shifting from holding the view of differing opinions being an error or mistake to a view that others are entitled to their views with all opinions being valid.²³

Contextual Relativism: It is as this point in development that Perry states a drastic revolution must be accounted for.²⁴ Here in position 5, dualism gives way to relativism and analytical skills emerge in students as they make this leap forward. In this position, the student accepts that all thought and all knowledge is understood to be correct based on the context in which they find it.²⁵ Rarely do students progress beyond position 5 in their college years, accepting contextual relativism. For those students who do, position 6 awaits where the moment of realization concerning the necessity of commitment occurs. Everything the student has learned in life is questioned with the understanding that commitments must be made. At this position commitment has not yet been made but only foreseen.²⁶

²⁰ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 66.

²¹ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 87.

²² Perry, *Forms of Intellectual and Ethical Development in the College Years*, 99-100.

²³ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 106-7.

²⁴ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 121.

²⁵ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 122-24. Perry notes that position 5 represents the point of critical division between "belief" and the possibility of "faith" in terms of religion (146). In position 5 one can no longer "believe" in the unquestioned sense. Rather, "faith" requires an act of commitment on the part of the individual.

²⁶ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 161.

Commitment within Relativism: Position 7 is the point in the student's epistemological development where he has committed to who he is or who he will be in major areas of life.²⁷ In position 8, the responsibility to the commitments made in position 7 are explored and in position 9 we find a level of maturity in which the individual understands who he is in his commitments and how he will live them out.

Theological Foundations

Christians view the world through more than a theoretical lens. Christians believe God created the universe and everything in it from nothing and was originally very good; he created it to glorify himself.²⁸ In my research, I readily acknowledge this statement. Similar to the Trentham study, I reflect in my research the understanding that redemptive development apart from the presence of the Holy Spirit in the life of the Christian is not possible. In addition, in similar fashion to Trentham's study, I assume the capability of interacting with secular development models with the understanding that those models are not fully compatible with the biblical principles for sanctification of the Christian.²⁹ Those models must be viewed through the theological lens of Scripture.

Personal Identity and Epistemological Maturity

The Christian worldview holds that God has made himself known to man and this revelation is universal and clear (Rom 1:19-20). As such, ignorance of God is what John Frame calls a culpable ignorance.³⁰ Beyond this natural revelation, God has also revealed himself through his prophets, apostles, and biblical writers. That God is

²⁷ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 170.

²⁸ Wayne A. Grudem, *Systematic Theology: An Introduction to Biblical Doctrine* (Grand Rapids: Zondervan, 1994), 262.

²⁹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 13.

³⁰ John M. Frame, *The Doctrine of God, A Theology of Lordship* (Phillipsburg, NJ: P&R, 2002), 200-201.

knowable is not to say that everything there is to know about God has been revealed to man (Rom 11:33-34, quoting Isa 40:13). Though Scripture makes the distinction between things that were once hidden and revealed later (1 Cor 2:9; 1 Tim 3:16), there remain mysteries about God beyond his revelation of himself (Deut 29:29). However, elements of personal identity and development for the Christian have been revealed.

Adoption. Upon becoming a Christian through faith in Jesus Christ, believers are adopted into the family of God (John 1:12; 1 John 3:1-2). This adoption was planned before creation and serves as the believer's assurance of both remaining in and growing in the faith (Eph 1:5). Among the many benefits of this adoption Christians receive is the gift of the Holy Spirit who, among many other things, provides guidance in living the Christian life (Luke 11:13). From a developmental standpoint, adoption into the family of God also means the Christian receives discipline from God the Father (Heb 12:5-6, quoting Prov 3:11-12).

Sanctification. Occurring throughout the life of the Christian, sanctification (Col 3:10) is a progressive work of God and man that makes us more and more free from sin and more like Jesus Christ in our actual lives.³¹ As this progressive, developmental work takes place, the believer grows in maturity and holiness (Heb 5:11-14; 1 Pet 1:14-16) and deeper commitment to God. The very nature of positive development is defined by the doctrine of sanctification.³² By putting on the Lord Jesus Christ (Rom 13:14), the believer is transformed into the image of Christ (2 Cor 3:18).

These elements of personal development clearly articulated in Scripture lead to continued epistemic growth in the life of the believer. God elects his people in holiness and for holiness. This holiness is positional in that Christians are to be uniquely devoted

³¹ Grudem, *Systematic Theology*, 746.

³² Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 13.

to God (Lev 11:44; 20:7; Deut 7:6; 26:16; Josh 3:5; John 17:19; Rom 15:16; Cor 1:2; 6:11; 7:14) and ethical in they are set apart from the world and commanded to live uprightly (Exod 19:6; Matt 5:48; 1 Thess 4:3, 7; Heb 12:14; 2 Pet 3:11).³³

This growth is expected to produce mature believers characterized by wisdom. Though people do not share in God’s wisdom, God can impart wisdom to his people to assist them in their daily lives that they might live appropriately and in a manner consistent with God’s revealed will.³⁴ Solomon provides an example for believers by asking God for wisdom (2 Chr 1:7-13) and James’s advise to his readers is to do the same (Jas 1:5).

Interaction with Secular Developmental Theories

A wise approach to any secular developmental theory is a careful assessment of the merits of the theory. The authority of Scripture is the guiding principle of this research and is the lens through which the Perry Scheme assessed. Trentham points out that the world can be observed by social scientists that can identify human developmental patterns and behaviors but the noetic effects of sin greatly hinder the ability of those social scientists to rightly interpret the data they collect during their observations.³⁵ These observations describe *human* nature neglecting the biblical norms of epistemological development and their goal of conformity to Christ. The secular social scientist sees “self-actualization” or “self-identity” as the ultimate goal of epistemological development whereas the Christian understands “Christlikeness” as being the ultimate goal epistemological development. These views are mutually exclusive in nature since the former has elevating *self* as the ultimate goal and the latter has elevating *Christ* as the

³³ Michael F. Bird, *Evangelical Theology: A Biblical and Systematic Introduction* (Grand Rapids: Zondervan, 2013), 136.

³⁴ Bird, *Evangelical Theology*, 136-37.

³⁵ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 15.

ultimate goal. Thus, secular and biblical developmental models recognize consistent patterns of maturation but recognize opposite goals. Trentham refers to this relationship as an *inverse consistency*.³⁶

Purpose Statement

The intent of this study was to replicate Trentham's previous work on the epistemological development in pre-ministry undergraduates focusing exclusively on those undergraduates in secular universities, using the Perry Scheme as a theoretical lens.

Research Question

What is the relationship between pre-ministry undergraduates' attendance at a secular college or university and progression through Perry's positions of intellectual and ethical maturity?

Delimitations

1. This research is delimited to replicate as closely as possible the previous study conducted by Trentham in 2012.
2. This research is delimited to students enrolled in secular colleges or universities who participated in the interviews.
3. This research is delimited to include pre-ministry undergraduates who planned to enroll at an evangelical seminary after graduation. This delimitation will create a more homogeneous sample, which will allow the researcher to validate or invalidate the conclusion of the previous study.
4. This research is delimited to include individuals who are "traditional" college seniors or recent graduates (ages 20-25). This delimitation replicates the previous study and will eliminate numerous factors of variability within the sample that could have potentially negated the significance of the findings.
5. This research is delimited to include only college seniors or recent graduates from four-year institutions, who were earning (or had recently earned) a bachelor's degree.

³⁶ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 223. This is appendix 1 of Trentham's original study.

6. This research is delimited to the observation of college students in their final academic year before graduation, or in the immediate months following graduation. This study thus will not trace the epistemological development throughout the student's college careers. The interviews will, however, capture the students' reflections concerning their undergraduate experiences.
7. This research is delimited to original study participants who agreed to participate in a follow-up interview seven years after their initial interviews conducted in 2015. This delimitation allows the researcher to compare changes in the scoring and analyze the findings from the original interviews.

Terminology

Given that this research sought to replicate the Trentham study, terminology common with the Trentham study as it applies to the focus of this work, pre-ministry undergraduates in secular universities was employed here.³⁷

Biblical wisdom: Application of God's revealed truth through the practice of one's daily life, or *living skillfully* within God's embedded order for the universe.³⁸

Commitment (uppercase C): A personal affirmation, choice, or decision made-even while acknowledging the contextual, relativistic nature of knowledge and truth-as a means of defining one's worldview and identity.³⁹

Decentering: Developmental process that is reiterated at each new stage of growth in which one undergoes a refocusing of perspective in order to make sense of new knowledge and experiences; mediated by the processes of assimilation and accommodation.⁴⁰

³⁷ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 17-20. Only the terms specifically utilized in Trentham's study, which are commonly used in this research, are provided.

³⁸ Daniel J. Estes, *Hear, My Son: Teaching and Learning in Proverbs 1-9* (Downers Grove, IL: InterVarsity Press, 2003), 26.

³⁹ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 150.

⁴⁰ Bärbel Inhelder and Jean Piaget, *The Growth of Logical Thinking from Childhood to Adolescence: An Essay on the Construction of Formal Operational Structures* (London: Routledge and Kegan Paul, 1972), 341-42.

Dualism: Division of meaning into two realms or absolute categories, e.g., good versus bad, right versus wrong, we versus they; all knowledge is quantitative.⁴¹

Evangelical: Transdenominational designation for Christians, churches, and Christian institutions that adhere to a particular set of essential beliefs, including “(1) the supreme authority of Scripture for knowledge of God and as guide to Christian living, (2) the majesty of Jesus Christ as incarnate God and Lord, and the savior of sinful humanity, (3) the lordship of the Holy Spirit, (4) the need for personal conversion, (5) the priority of evangelism for both individual Christians and for the church as a whole, and (6) the importance of Christian community for spiritual nourishment, fellowship, and growth.”⁴²

Meta-thinking: The capacity to examine thought, including one’s own.⁴³

Multiplicity: A plurality of “answers”, points of view, or evaluations, with reference to similar problems or topics, which assumes judgments cannot be made from among opinions; characterized by statements such as, “Anyone has a right to their own opinion.”⁴⁴

Perry Scheme: The shortened and most common reference to William G. Perry’s model of epistemological development.⁴⁵

Positions: The stages of development in the Perry Scheme (1-9), representing a progression of perspectives with regard to knowledge, truth, and authority.⁴⁶

Progressive sanctification: The divine working of the Holy Spirit within the believer in conforming him into the likeness of God in accordance with the stated will of

⁴¹ Perry, “Cognitive and Ethical Growth,” 20-21.

⁴² Bird, *Evangelical Theology*, 20-21.

⁴³ Perry, “Cognitive and Ethical Growth,” 88.

⁴⁴ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 287.

⁴⁵ Perry, “Cognitive and Ethical Growth,” 77n1.

⁴⁶ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 287.

God (Rom 8:29). Man is not passive but rather is responsible to work and grow in the matters pertaining to salvation.⁴⁷

Relativism: A plurality of points of view, which assumes that knowledge and truth is qualitative and requires context for meaning.⁴⁸

Secular university: Educational institution that entails a secular environment as it relates to community and curriculum with broad academic offerings across a wide range of disciplines emphasizing research, progress, and diversity.⁴⁹

Procedural Overview

Consistent with the procedure used by Trentham, this qualitative research used semi-structured interviews to collect data from a sample population of thirty pre-ministry students who were either in the final academic year or are recent graduates. A pilot study consisting of three students was conducted to validate my ability to properly conduct and transcribe interviews. The pilot study did not indicate any modifications of the interview protocol were needed. The study participants were from the secular university context. Once identified, I obtained general personal information prior to the interview being conducted. Information requested included school and degree-program information, future vocation and academic plans, and church affiliation.

The semi-structured interviews were organized according to the adapted version of the Perry Interview Protocol used by Trentham. Additionally, the Trentham Interview Protocol was employed.⁵⁰ The interviews consisted of open-ended questions

⁴⁷ Millard J. Erickson, *Christian Theology*, 3rd ed. (Grand Rapids: Baker Academic, 2013), 897-901.

⁴⁸ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 287.

⁴⁹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 20.

⁵⁰ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 226-30. These interview protocols were subject to modification pending the completion of a pilot study to validate the data gathering of the researcher. Modifications were deemed unnecessary after the pilot study was completed.

designed to be general in nature and were followed by questions designed to be more specific and elicit responses detailing participants' values and epistemological positions. Each interview was no more than one hour in length and was recorded for transcription purposes.

Eight participants from the original 2015 study population agreed to participate in a second interview. The same semi-structured interview protocols were used as the original interviews though follow-up questions varied for the purpose of eliciting more detailed responses to allow for a comparison between participant's original values and epistemological positions and current scoring. Each follow-up interview was no more than one hour in length and was recorded for transcription purposes.

Research Assumptions

1. Interviewees provided accurate representations of their personal beliefs and characteristics.
2. The CSID provided unbiased and scholarly informed scoring and analysis of the transcribed interviews.

CHAPTER 2

PRECEDENT LITERATURE

This research study builds on the earlier work of John-David Trentham's study of pre-ministry undergraduates. Whereas Trentham's study population was composed of students across three differing institutional contexts, this research uses a similar design and method to that of Trentham's study focusing on the epistemological development of pre-ministry undergraduates in secular universities only.¹

The rise of secularism on the campuses of American universities is undeniable. A recent example of this is the media coverage of the enforcement of an executive order issued by Charles Reed, Chancellor of The California State University (CSU), which retracted recognition of InterVarsity Christian Fellowship has been extensive in news outlets.² This action affected all twenty-three chapters in California. The university system later reversed this decision after the negative public response.

To understand the impact of rising secularism on pre-ministry undergraduate students in secular universities, the biblical expectation for human beings must first be addressed. The first grouping of subsections that follows briefly treats epistemological development from a biblical-theological perspective. The second and third grouping of subsections address secularism in student services and the psychosocial changes that occur during the college years. The fourth grouping of subsections provides a modest

¹ John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (PhD diss., The Southern Baptist Theological Seminary, 2012).

² To see the executive order, see Charles B. Reed, "Student Activities - Executive Order 1068," The California State University, December 21, 2011, <https://www.csun.edu/sites/default/files/eo-1068.pdf>.

review of the Perry Scheme. The final section explains Trentham's "principle of inverse consistency" as a paradigm for interacting with Perry and provides an argument for the importance for such a principle.

Biblical View of Human Development

This study focuses on redeemed Christians who self-identified as being pre-ministry completing their undergraduate work in the context of secular universities. As such, there are a number of facets of Christian doctrine that non-Christians challenge. The doctrine of creation is perhaps the most controversial part of Christian theology. This doctrine is under attack from competing religions and well as from the scientific and philosophic communities.³ These attacks continue on the campuses of secular universities and are of particular importance to this study. To understand these attacks, it is necessary to understand the biblical worldview held by evangelical Christians about the beginning of humanity. This is seen through the biblical-historical metanarrative of creation, fall, redemption, and restoration. The Christian telos for humanity is in full view throughout this metanarrative and defines human development as it relates to social communities and the God himself.⁴ It is this metanarrative that informs and influences the balance of Christian doctrine.

Creation of Man

The Bible teaches that God created the universe. He did so for good and sufficient reasons that fulfill his purposes.⁵ All of creation serves to glorify God. The creation of man is included in this and was initially good. When God created Adam and

³ Chad Owen Brand, "The Work of God: Creation and Providence," in *A Theology for the Church*, ed. Daniel L. Akin, Bruce Riley Ashford, and Kenneth Keathley, rev. ed. (Nashville: B&H, 2014), 205.

⁴ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 24.

⁵ Millard J. Erickson, *Christian Theology*, 3rd ed. (Grand Rapids: Baker Academic, 2013), 344.

Eve, he did so in a distinct and personal way. Beginning with Adam, “then the Lord God formed the man of dust from the ground and breathed into his nostrils the breath of life, and the man became a living creature” (Gen 2:7).⁶ The Bible tells of Adam being placed in the Garden of Eden to work and keep it. Adam is also told what he may and may not eat in the garden and was warned not to eat from the tree of the knowledge of good and evil lest he die.

God states that it is not good for man to be alone resulting in the creation of Eve from Adam’s body. “So the Lord God caused a deep sleep to fall upon the man, and while he slept took one of his ribs and closed up its place with flesh. And the rib that the Lord God had taken from the man he made into a woman and brought her to the man” (Gen 2:21-22). God personally created Adam and Eve in his image (Gen 1:26), uniting them in marriage (Gen 2:24), and placing them in the garden where they were innocent and unashamed (Gen 2:25). The special creation of Adam and Eve demonstrates that humans are very different from animals though our physical bodies may have some similarities.⁷

The Fall of Man

The special relationship with God that Adam and Eve enjoyed came to an abrupt end. Rather than acknowledging that they have been given dominion over the entire created order, Eve listens to a creature, the serpent, and succumbs to temptation. Adam also rebels against God and eats of the fruit the tree of knowledge resulting in both experiencing estrangement from God (Gen 3:6-8).⁸ This introduction of sin into the world and resulting effects upon man are profound. The moral purity Adam and Eve were

⁶ Unless otherwise noted, all Scripture quotations come from the *English Standard Version*.

⁷ Wayne A. Grudem, *Systematic Theology: An Introduction to Biblical Doctrine* (Grand Rapids: Zondervan, 1994), 265-66.

⁸ James M. Hamilton Jr., *God’s Glory in Salvation through Judgment: A Biblical Theology* (Wheaton, IL: Crossway, 2010), 75.

created with is lost. Their intellect is corrupted and the *imago Dei*, though still present, is distorted.⁹

In their desire to be like God and understand good and evil, Adam and Eve were actually seeking moral autonomy independent of God, the giver of morality.¹⁰ The result of the fall is spiritual blindness and deafness for mankind. The need for special revelation, the manifestation of God to particular people at particular times and place, became more acute after the fall. As in the garden before the fall, God remains personal throughout Scripture entering into covenants with various individuals such as Noah and Abraham and with the nation of Israel.¹¹ Millard Erickson argues that special revelation antedated the fall but after the problems of sin, guilt, and depravity had to be addressed along with providing a means for atonement and redemption.¹²

Redemption of Man

The sin of Adam in the garden brought sin into the entire world. Since that time, all of humanity has been enslaved to sin. Ultimately, the Lord Jesus Christ redeems mankind from the bondage of sin through his death on the cross and Christians are united with Christ through their belief in him. Union with Christ is to be united with Christ in His death and resurrection.¹³ This union is not merely some sort of occurrence in time in the life of the believer when salvation is applied. Union with Christ is a way of describing

⁹ Grudem, *Systematic Theology*, 444.

¹⁰ Peter J. Gentry and Stephen J. Wellum, *Kingdom through Covenant: A Biblical-Theological Understanding of the Covenants* (Wheaton, IL: Crossway, 2012), 216-27. The decision by Adam and Eve to self-legislate made them God-like in a sense but also deprived them of the benefit of God's guidance. Man is unable to foresee the consequences of his choices long term and is also unable to see completely the various issues before him before making moral decisions.

¹¹ Erickson, *Christian Theology*, 144-46.

¹² Erickson, *Christian Theology*, 144-46. Erickson also points out that while special revelation is superior to general revelation, the two mutually require each other and harmonious. It is only when general and special revelation are developed independently of one another that conflict between the two arises.

¹³ Anthony A. Hoekema, "The Reformed Perspective," in *Five Views on Sanctification*, ed. Stanley N. Gundry, Counterpoints (Grand Rapids: Zondervan, 1987), 63.

how believers share in Christ in eternity, in past history, in the present, and in the future.¹⁴ The apostle Paul clearly articulates this in Romans 6:3-11 where he states believers are dead to sin and alive *in Christ Jesus*:

Do you not know that all of us who have been baptized into Christ Jesus were baptized into his death? We were buried therefore with him by baptism into death, in order that, just as Christ was raised from the dead by the glory of the Father, we too might walk in newness of life.

For if we have been united with him in a death like his, we shall certainly be united with him in a resurrection like his. We know that our old self was crucified with him in order that the body of sin might be brought to nothing, so that we would no longer be enslaved to sin. For one who has died has been set free from sin. Now if we have died with Christ, we believe that we will also live with him. We know that Christ, being raised from the dead, will never die again; death no longer has dominion over him. For the death he died he died to sin, once for all, but the life he lives he lives to God. So you also must consider yourselves dead to sin and alive to God in Christ Jesus. (Rom 6:3-11)

There are many other passages that refer to believers being *in Christ*¹⁵ and there are also a number of passages where *Christ is in us*,¹⁶ yet it is the incarnation that is the basis for union with Christ. Since Christ united himself to mankind in the incarnation, the Holy Spirit can now unite man to him.¹⁷ Without the incarnation, there can be no atonement for our sins on the cross, defeat of death through the resurrection, and ascend in our nature to the right hand of God. Without the atonement, there can be no salvation and no union with Christ.

Justification is the foundation of the union. Michael Horton states this change in legal standing before the Lord is instituted in the upper room when Christ instituted the Supper. He sees this as the official issuance of the last will and testament of Jesus,

¹⁴ Michael Scott Horton, *The Christian Faith: A Systematic Theology for Pilgrims on the Way* (Grand Rapids: Zondervan, 2011), 587.

¹⁵ See John 15:4, 5, 7; 1 Cor 15:22; 2 Cor 5:17; 12:2; Gal 3:28; Eph 1:4; 2:10; Phil 3:9; 1 Thess 4:16; 1 John 4:13.

¹⁶ See Rom 8:10; 2 Cor 13:5; Gal 2:20; Eph 3:17; Col 1:27.

¹⁷ Robert Letham, *Union with Christ: In Scripture, History, and Theology* (Phillipsburg, NJ: P&R, 2011), 40-41.

offering the cup as the blood of the covenant (Matt 26:28).¹⁸ Paul compares the covenant to a man-made covenant stating that no one changes it once it has been ratified (Gal 3:15). The writer of Hebrews says that at the death of Christ, his last will and testament went into effect, which granted believers the entire inheritance that Christ won for us in history. It is this legal aspect of the union that is the basis for God's righteous and just dispensing of all other gifts of the union with Christ, from sanctification to glorification.

Justification is the primary motif for understanding union with Christ. Without justification, or the change in legal standing if you will, there can be no sanctification. After justification, personal and positional sanctification come into view. Personal in that increasing in personal holiness, resistance to temptation, and growing in Christlikeness is progressively taking place throughout the Christian's lifetime. Positional in that, at the time of justification, Christians are set aside for divine use by God (1 Kgs 7; 2 Tim 2:20-21).

Restoration of Man

Whereas justification is a change in legal standing before God and sanctification is increasing in personal holiness as believers are being conformed to the image of Christ, glorification involves the restoration of man to a state of moral integrity that is even greater than that originally enjoyed by Adam and Eve in the garden. This restoration means being completely freed from the presence of sin.¹⁹

The term glorification is multidimensional in meaning involving both collective and individual eschatology.²⁰ The restoration of the spiritual nature of individual believers is completed at the time of death when Christians are finally set

¹⁸ Horton, *The Christian Faith*, 591.

¹⁹ Michael F. Bird, *Evangelical Theology: A Biblical and Systematic Introduction* (Grand Rapids: Zondervan, 2013). 545.

²⁰ Erickson, *Christian Theology*, 924-25.

completely free from the bondage of sin. Restoration is more than spiritual. Adam and Eve were real people God created before they rebelled and sinned against him. Restoration of man also includes receiving a resurrection body (1 Cor 15:20, 23, 49; Phil 3:21). These imperishable bodies will be free from disease and injury and demonstrate the fullness of God's perfect wisdom in creating human beings in his own image.²¹ These new resurrection bodies will be like the resurrection body of Jesus Christ himself.

Perry's Theory of Intellectual and Ethical Development

The preceding section provides a brief biblical-theological underpinning of the evangelical understanding of humanity. It is through this lens that the literature was reviewed and interpreted. Trentham's original study affirmed that social-environmental influences are pervasive and consequential in the lives of all people;²² a finding that is consistent with the Christian worldview. Humans, created in the image of God, are created for relationships and for living in community.²³ Humans are also created to learn.²⁴ It is a natural outworking of this to state that social-environmental influences present on university campuses impact student development in the same way as observed in other settings.

This section introduces William Perry's landmark scheme of ethical and intellectual development in the college years. Building on Piaget's work, Perry sought to trace the path from adolescence into adulthood with a specific focus on college students. Prior to undertaking his initial study, Perry's work with the Bureau of Study Counsel at Harvard College led to observations of the diverse reactions to the relativism that

²¹ Grudem, *Systematic Theology*, 832. Paul also states that resurrection bodies will be raised in glory, implying an inherent beauty and/or attractiveness these new bodies will have.

²² Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 4.

²³ John S. Hammett, "Human Nature," in Akin, Ashford, and Keathley, *A Theology for the Church*, 305-6.

²⁴ William R. Yount, *Created to Learn: A Christian Teacher's Introduction to Educational Psychology*, 2nd ed. (Nashville: B&H Academic, 2010), 1.

permeates the intellectual and social atmosphere of their pluralistic university.²⁵ Though these observations were of students, who sought counseling on campus, Perry rightly concluded that the experiences they shared could not be unique among college students. Further, Perry assumed the struggles these students shared with his team were relevant outside of the college experience.²⁶

Theory, Research, and Applications

All cognitive-structural theories of student development have their origins in the work of Jean Piaget.²⁷ There is a common thread that runs through all such developmental theories as well which includes a series of stages through which all people pass. The developmental process is viewed as constructions and reconstructions of knowledge, belief, and value structures in response to encountering new information or experiences that conflict with the current structures in place.

Perry's theory focuses on the *forms* in which a person perceives the world around them rather than the content itself. The advantage Perry saw in this approach lay in the transcendence of *forms* of seeing, knowing and caring over content. Put simply, the times in which people live are constantly changing but the general pattern of epistemological development at the higher level of *forms* lasts through many generations.²⁸ The scheme begins with simplistic forms and progresses to complex forms

²⁵ William G. Perry, *Forms of Intellectual and Ethical Development in the College Years: A Scheme*, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 1999), 4. Perry observed student reactions towards the notion of multiple frames of reference from unintelligible to violent shock to joyful liberation. He also observed some students arriving on campus that had already passed through this experience and were fully exploring different ways of thinking about the world around them.

²⁶ Perry, *Forms of Intellectual and Ethical Development in the College Years*, xliii.

²⁷ Ernest T. Pascarella and Patrick T. Terenzini, *How College Affects Students*, vol. 2, *A Third Decade of Research*, 2nd ed., Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2005), 33.

²⁸ Perry, *Forms of Intellectual and Ethical Development in the College Years*, xliii.

through which individuals make personal commitments in a relativistic world of limited knowledge.²⁹

Perry was well aware of the narrowness of the pool of students that participated in his original longitudinal study. In the preface of his book *Forms of Ethical and Intellectual Development in the College Years*, Perry acknowledged this limitation as well as the question of the relevance of his scheme as time passed. His response was to simply say “a solid answer could be derived only from repeated studies in diverse settings.”³⁰

In his similar study which focused on students of Bible colleges, Long noted the areas of commonality between the foundational assumptions of the Perry Scheme as well as areas of dissimilarity. He then asked if Bible college administrators should use caution when incorporating the Perry Scheme as a guide for their own educational philosophy.³¹ Secular institutions of higher education have found the Perry Scheme helpful in understanding students in general and specifically in designing programs that promote student development answering. The major ways the Perry Scheme is helpful include: establishing program goals, planning the steps to implement the program, and in evaluating the effectiveness of the program.³² Researchers, administrators, and student services practitioners have benefited a great deal from Perry’s original research.

²⁹ Nancy J. Evans et al., *Student Development in College: Theory, Research, and Practice*, 2nd ed., Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2010), 85.

³⁰ Perry, *Forms of Intellectual and Ethical Development in the College Years*, xliv.

³¹ Gregory Brock Long, “Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges According to the Perry Scheme” (EdD thesis, The Southern Baptist Theological Seminary, 2014), 50.

³² Patricia M. King, “William Perry’s Theory of Intellectual and Ethical Development,” *New Directions for Student Services* 1978, no. 4 (1978): 44-45. King argues the importance of recognizing the design and structure of the class as an important variable related to students’ intellectual development.

Levels, Positions, and Transitions

In the broadest sense, the Perry Scheme may be thought of as two different categories of epistemological development: dualistic (positions 1-4) and relativistic (positions 6-9) centered on position 5.³³ It is in position 5 that a drastic revolution occurs in the student in which the relativistic nature of the world around him becomes apparent. Though not yet transitioned into the relativistic positions in the scheme that will come later, the student now sees the possibilities. Figure 1 illustrates the structure of the Perry Scheme.³⁴

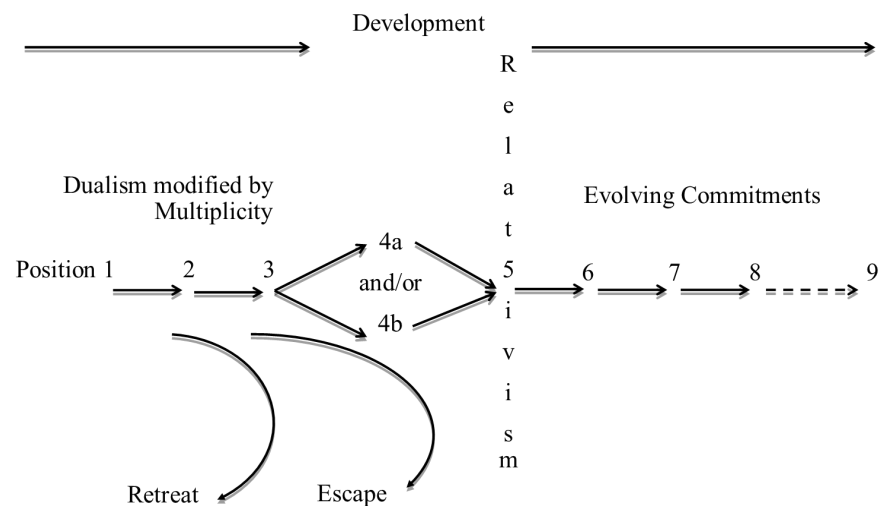


Figure 1. The Perry Scheme map of development

Perry chose to use the term “position” rather than “stage” because positions are by definition static whereas development is by definition movement.³⁵ Further, position

³³ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 64.

³⁴ William G. Perry, “Cognitive and Ethical Growth: The Making of Meaning,” in *The Modern American College: Responding to the New Realities of Diverse Students and a Changing Society*, ed. Arthur W. Chickering, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 1981), 80.

³⁵ Perry, “Cognitive and Ethical Growth,” 78.

makes no assumptions about the duration spent there.³⁶ He found the positions to be obvious and familiar. In the various Transitions between positions, Perry became fascinated in the variety of ways in which students were able to move from old patterns of thinking and meaning which had failed them to different ways of thinking that they believed would help them to make sense of their experiences. Each position both includes and transcends the earlier ones.³⁷

Dualism modified. Position 1 (*Basic Duality*) begins with the simplest of assumptions about the nature of knowledge and values. In this position, truth is absolute and provided by an authority figure. As students transition into position 2 (*Multiplicity Pre-Legitimate*) difference of opinion is seen more as an error or mistake on the part of others and *the* answer will be found. In position 3 (*Multiplicity Legitimate but Subordinate*), the student arrives at a place where there is room for uncertainty in his thinking but the *truth* is still discoverable. The move into this position is considerable as it brings into question the previously unquestionable authority figures in the student's life.³⁸

Transitioning to position 4a (*Multiplicity Coordinate*) finds the student shifting from holding the view of differing opinions being an error to a view that others are entitled to their views with all opinions being valid. Yet, even though the opinions of others are valid, those opinions are not tied to anything other than the person who holds them.³⁹ This leads to the understanding there is more than one way to approach a problem, which leads to the discovery of meta-thought on the part of students. Position

³⁶ Patrick G. Love and Victoria L. Guthrie, "Perry's Intellectual Scheme," *New Directions for Student Services* 1999, no. 88 (Winter 1999): 6-7.

³⁷ Perry, "Cognitive and Ethical Growth," 80. Perry also notes that the earlier positions in his scheme cannot do without the later and this fact defines the movement from position to position as *developmental* rather than simply being a change or a phase the student is passing through.

³⁸ Perry, "Cognitive and Ethical Growth," 82-83.

³⁹ Perry, "Cognitive and Ethical Growth," 85.

4b (*Relativism Subordinate*) offers a smoother transition for those less entrenched in the perceived security of Multiplicity.⁴⁰ The door for relativism is open as the student is willing to consider different approaches to problems en route to forming his own opinion.

Relativism. It is at this point in development that Perry states a drastic revolution must be accounted for. Here in position 5 (*Relativism*), dualism gives way to relativism and analytical skills emerge in students as they make this leap forward.⁴¹ In this position, the student accepts that all thought and all knowledge is understood to be correct based on the context in which they find it.

Deflections from growth. Some students may pause for a period of time, a year or more, often aware that Commitment lies ahead. *Temporizing* is the term Perry used to describe a student whose cognitive growth paused for over a full academic year. During this period, the student may experience lateral growth-spreading out and consolidating a position recently attained.⁴² *Retreat* is an active rejection of growth and regression to dualism influenced by hatred of others.⁴³ The more complex reactions of alienation were labeled as *escape* by Perry.⁴⁴

Development resumed. Students continued their growth, as they are able to come to grips with the implications of Relativism.⁴⁵ Position 6 (*Commitment Foreseen*) is where the moment of realization concerning the necessity of commitment occurs. Everything the student has learned in life is questioned with the understanding that

⁴⁰ Perry, "Cognitive and Ethical Growth," 86.

⁴¹ Perry, "Cognitive and Ethical Growth," 87.

⁴² Perry, *Forms of Intellectual and Ethical Development in the College Years*, 199-200.

⁴³ Perry, "Cognitive and Ethical Growth," 80.

⁴⁴ Perry, "Cognitive and Ethical Growth," 91.

⁴⁵ Perry, "Cognitive and Ethical Growth," 92-93.

commitments through his own faith must be made. At this position, commitment has not yet been made but only foreseen.

The evolving of commitments. (7) *Initial Commitment*; (8) *Orientation in Implications of Commitment*; (9) *Developing Commitments*. Position 7 is the point in student's epistemological development where he has committed to who he is or who he will be in major areas of life. In position 8, the responsibility to the commitments made in position 7 are explored and in position 9 we find a level of maturity in which the individual understands who he is in his commitments and how he will go about living out those commitments.

The Principle of Inverse Consistency

The final area that will be reviewed is Trentham's principle of inverse consistency. The governing premise through which the approach to developmental models, including the Perry Scheme, the secularism found on public university campuses, etc. must be a firm commitment to the authority of Scripture. The principle of inverse consistency, as introduced by Trentham in his dissertation⁴⁶ and later elaborated on in a pair of journal articles.⁴⁷ In the first article, "Reading the Social Sciences Theologically (Part 1): Approaching and Qualifying Models of Human Development," Trentham establishes the manner in which Christians may profitably *approach* and *qualify* social science models of human development and introduces the principle of inverse consistency.⁴⁸ In the second article, "Reading the Social Sciences Theologically (Part 2): Engaging and Appropriating Models of Human Development," Trentham develops and

⁴⁶ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 121-29.

⁴⁷ John David Trentham, "Reading the Social Sciences Theologically (Part 1): Approaching and Qualifying Models of Human Development," *Christian Education Journal* 16, no. 3 (2019): 458-75; Trentham, "Reading the Social Sciences Theologically (Part 2): Engaging and Appropriating Models of Human Development," *Christian Education Journal* 16, no. 3 (2019): 476-94.

⁴⁸ Trentham, "Reading the Social Sciences Theologically (Part 1)."

applies the principle by establishing a methodology by which Christians may *engage* and *appropriate* social science models of human development.⁴⁹

In summary, Trentham explains that secular social sciences—and for my purpose here resulting models such as the Perry Scheme—are devotedly secular in their orientation. For Christians seeking to maintain biblical fidelity in their approach to the social sciences, an interpretative tool is required to aid in navigating the paradox between the secular understanding and biblical understanding of common human patterns and experiences secular social scientists and Christian social scientists observe.⁵⁰

Definition of the Principle

In simplest terms, inverse consistency is a principle maintaining that secular models and biblical models observe similar orderliness of human development but inversely describe the development as it relates to *telos* (self-identification versus Christlikeness).⁵¹ Trentham provides the following as a formal definition: “Social Science models of human development are typically oriented unto counter-biblical ideals, even while they may describe modes and means of growth that reflect authentic patterns of personal maturity.”⁵²

Within Trentham’s definition are two premises. The first is that biblical models and secular models of human development are consistent with their respective presuppositions and as such are inversely oriented.⁵³ In other words, Christian scholars will affirm that human development is primarily caused by God with a goal of man progressively becoming conformed to the image of Jesus Christ whereas secular social

⁴⁹ Trentham, “Reading the Social Sciences Theologically (Part 2).”

⁵⁰ Trentham, “Reading the Social Sciences Theologically (Part 1),” 473.

⁵¹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 19.

⁵² Trentham, “Reading the Social Sciences Theologically (Part 1),” 474.

⁵³ Trentham, “Reading the Social Sciences Theologically (Part 2),” 483.

science views human development as primarily a natural phenomenon with a goal of attaining or realizing one's own significance in life.

The second premise embedded in the definition of inverse consistency is the recognition that biblical and secular models of human development both involve elements of growth and maturity that are similar to one another though oriented differently in terms of their respective understanding of causes, outcomes, etc. The result is often a consistent pattern observed by both.⁵⁴

Stated another way, secular models describe human maturation with the goal of self-actualization whereby people are making increasingly higher levels of personal commitments in a relativistic world.⁵⁵ By contrast, Scripture clearly teaches the intended path of human development leads to being conformed to Christ (Rom 8:29; 2 Cor 3:18). Trentham states further that “the social sciences must be approached and qualified with theological conviction, clarity, and wisdom. And then they must be engaged and appropriated accordingly.”⁵⁶

The Inverse Consistency Protocol

Trentham establishes inverse consistency as a hermeneutic principle and appropriation as the goal of interpretation of developmental model.⁵⁷ He also provides a helpful, four-step protocol for applying this principle. A brief explanation of each step follows.

Step one: Envision redemptive maturity. The interpretative aim of this step is to develop a thoroughgoing confessional-doctrinal vision and imagination for human

⁵⁴ Trentham, “Reading the Social Sciences Theologically (Part 2),” 483-84.

⁵⁵ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 170-71.

⁵⁶ Trentham, “Reading the Social Sciences Theologically (Part 1),” 474.

⁵⁷ Trentham, “Reading the Social Sciences Theologically (Part 2),” 488.

development unto Christlikeness.⁵⁸ In other words, the goal of this step is to establish the normative theological framework related to human development. This step serves to delimit what is possible and regulate how Christian scholars expect human development to take place. This step also calls Christian scholars to imagine what redemptive development may *look like* in the real world.

Step two: Read for Receptivity. Gain a deep and thorough understanding of the proposed paradigm with intellectual honesty and precision.⁵⁹ This important step assumes reading and understanding the paradigm from direct/primary sources rather than relying on secondary sources of information. It is during this step that coming to a firsthand understanding of the author's philosophical and ideological footing principally by reading the author's primary sources. One should be able to defend the author's work in a way recognizable and commendable by the author. Receptive reading thus is an exercise in intellectual honesty while not necessarily accepting the assertions put forth by an author in his/her paradigm.

Step three: Employ reflective discernment. Interpret the paradigm from a critically reflective and charitably reflective perspective.⁶⁰ This two-fold approach to reflective discernment is vital. From the critically reflective perspective, the reader considers the ways in which a given paradigm are anthropocentric rather than Christocentric in nature. From the charitably reflective perspective, the reader considers the ways in which a given paradigm may reflect or enrich a normative theological framework related to human development.

⁵⁸ Trentham, "Reading the Social Sciences Theologically (Part 2)," 488-90.

⁵⁹ Trentham, "Reading the Social Sciences Theologically (Part 2)," 490-91.

⁶⁰ Trentham, "Reading the Social Sciences Theologically (Part 2)," 491-92.

Step four: Identify appropriative outlets. Carefully identify the various contexts and processes in which the model may be utilized to inform or enhance the practice and administration of Christian education.⁶¹ As Christian scholars seek to examine secular social science models, appropriation is the ultimate goal. Readers seek to know in what ways can priorities and/or practices from these models be utilized and how can the things learned from a particular model be leveraged to inform or improve teaching, leadership, or other educational goals. Though not a normative source in developing one's vision for redemptive maturity, the social sciences can be used profitably.

Applying Inverse Consistency to the Perry Scheme

Having briefly explained the principle of inverse consistency and the four-step protocol for applying the principle, along with a brief description of the Perry Scheme, here an analysis of the Perry Scheme with Trentham's protocol follows.

Step One: Envision Redemptive Maturity

The interpretative aim of this step is to develop a thoroughgoing confessional-doctrinal vision and imagination for human development unto Christlikeness.⁶² While acknowledging that Scripture is not an exhaustive source of scientific knowledge about human behavior, the hermeneutic typology one adopts is important. Trentham helpfully builds on Richard Mouw's work in which Mouw describes the general tendencies of these traditions.⁶³ The "hermeneutic of caution" or "qualifying integrationist" position described by Trentham is the proper footing to begin this analysis.⁶⁴ That is to say,

⁶¹ Trentham, "Reading the Social Sciences Theologically (Part 2)," 492-93.

⁶² Trentham, "Reading the Social Sciences Theologically (Part 2)," 488-90.

⁶³ Richard J. Mouw, *He Shines in All That's Fair: Culture and Common Grace: The 2000 Stob Lectures* (Grand Rapids: Eerdmans, 2001), 90-93.

⁶⁴ Trentham, "Reading the Social Sciences Theologically (Part 2)," 481-83.

beginning from a position in which the assumption is that there may be something of value for the Christian scholar to be derived from the Perry Scheme is appropriate.

There is also the firm belief that Scripture is normative and the claims made by the model in question are to be weighed against the truth of God's word. Scripture teaches that God created the universe and he did so for good and sufficient reasons that fulfil his purposes.⁶⁵ Creation is the first part of the metanarrative of Scripture. The fall of man is the second part of this metanarrative and may best understood as Adam and Eve, desiring to be like God and understand good and evil, sought moral autonomy independent of God, the giver of morality.⁶⁶ Through their rebellion against God, sin was brought into the world.

The third part of this metanarrative is the redemption of man in which the Lord Jesus Christ redeems mankind from the bondage of sin through his death on the cross and Christians are united with Christ through their belief in him. Union with Jesus Christ is to be united with him in his death and resurrection.⁶⁷ The fourth part of this metanarrative is the restoration of man, known as glorification. This multidimensional term involves the restoration of the spiritual nature of man, which occurs at the time of death, and the receiving of a resurrection body which will be free from disease and injury. Faithful Christians believe Adam and Eve were real people God created before they rebelled and sinned against him and the resurrection bodies they receive will be like the resurrection body of Jesus Christ himself.⁶⁸

⁶⁵ Brand, "The Work of God: Creation and Providence," 205.

⁶⁶ Gentry and Wellum, *Kingdom through Covenant*, 216-17.

⁶⁷ Hoekema, "The Reformed Perspective," 63.

⁶⁸ Christopher Lynn Sanchez, "Epistemological Development in Pre-Ministry Undergraduates Attending Secular Universities" (EdD thesis, The Southern Baptist Theological Seminary, 2015), 21-22.

Step Two: Read for Receptivity

Gain a deep and thorough understanding of the proposed paradigm with intellectual honesty and precision.⁶⁹ The Perry Scheme, summarized on pages 6-8 of this article, referenced the work of Perry himself in articulating Perry's understanding of the epistemological development of college students he gleaned from many years of study. It is with some confidence that Perry, or what we may call Perry scholars, would easily recognize and commend this summary as true to Perry's own descriptions of his work. For the purposes of this article, the summary provided will stand on its own as step two of the inverse consistency protocol.

Step Three: Employ Reflective Discernment

Interpret the paradigm from a critically reflective and charitably reflective perspective.⁷⁰ In critically reflective terms, Perry's model proposes a series of developmental stages through which individuals progress much as Piaget did before him. Though there can be some movement backward cognitively speaking in this progression through these stages (referred to as positions by Perry) one cannot "go home again" because development alters their perception of the world around them.⁷¹ Progression through these positions necessarily builds on the position before and results in ever more complex understandings of the world through lived experience. In particular, the transition from dualism, where all that can be known is known and that information is provided from authoritative sources, to relativism, where all knowledge is understood to be qualitative and dependent upon the context in which it is found. The notion of each person having "their own truth" fits neatly inside the Perry Scheme.

⁶⁹ Trentham, "Reading the Social Sciences Theologically (Part 2)," 490-91.

⁷⁰ Trentham, "Reading the Social Sciences Theologically (Part 2)," 491-92.

⁷¹ Pascarella and Terenzini, *How College Affects Students*, 2:33.

In charitably reflective terms, Christian scholars benefit from the Perry Scheme in several ways including the correct observations of people progressing through stages that reflect human development from simpler to more complex understandings of the world. Perry's observation of some students who deflect from personal growth through temporizing, retreat, or escape are also very helpful in understanding human behavior.⁷² People develop at different paces one from another and the mechanisms some employ to delay their own development is helpful for Christian scholars to understand.

Step Four: Identify Appropriative Outlets

Carefully identify the various contexts and processes in which the model may be utilized to inform or enhance the practice and administration of Christian education.⁷³ In my own research utilizing the Perry Scheme, the population studied were self-identified as being pre-ministry. That is to say, these were college undergraduates within six months of graduation that were accepted into graduate programs at a seminary. This body of research could be very helpful to seminary admissions and student affairs/services departments in helping these new graduate students assimilate into the community of scholars on seminary campuses.

Other valuable ways Christian scholars might use Perry Scheme studies include assisting those who mentor college students in various contexts considering their future and providing relevant insight into college students for campus ministries on both secular and Christian college settings. Christian scholars serving in secular institutions of higher learning may also benefit from Perry Scheme studies as they are often among the most influential people in the lives of young Christians on these campuses.

⁷² Perry, "Cognitive and Ethical Growth," 90-92.

⁷³ Trentham, "Reading the Social Sciences Theologically (Part 2)," 492-93.

Importance of the Principle

The goal of the various human development theories, including the Perry Scheme, is to understand and explain human behavior that is observed. The problem is the lens through which those observations are interpreted. As Christians with a commitment to the authority and sufficiency of Scripture, we understand human development in an entirely different manner that is mutually exclusive to the humanistic approaches employed by secular theorists.

That is not to say those scientists have not accurately observed developmental patterns in humans. Quite the opposite is true. The observations made are accurate and Christians make similar observations. The difference is in the manner in which those observations are interpreted. Absent a biblical-theological understanding of the nature of human beings, creation and fall, the plan for redemption and restoration, and the noetic effect of sin, these observations are misunderstood.

Where the secular social scientist observes individual growth, Christians observe growth in Christlikeness. Perry's view of human development as progressive in nature is consistent with that of Scripture though both reach far different conclusions. Coming to this understanding, it becomes necessary to interact with Perry critically rather than simply attempting to integrate the Perry Scheme into our biblical framework.

Trentham's concept of inverse consistency provides Christians with valuable focus, allowing us to use the Perry Scheme as an interpretative map in our work with students while also allowing us to maintain our commitment to the authority and sufficiency of Scripture. This is especially important in the study of Christian students on the campuses of secular universities since the environment is designed to be as inclusive as possible.

Additional Perry-Related Studies

Since the publication of my study in 2015, a number of additional studies have been completed focusing on various related populations identified as important for follow

up by those earlier studies. Collectively, this body of research represents a significant addition to the literature that should prove as beneficial to future researchers, administrators, and student services practitioners as the research that preceded it.

As described previously, Trentham began a new body of research utilizing the Perry Scheme exploring a previously unstudied population, pre-ministry undergraduate students. His study focused on a pre-ministry undergraduates across three types of institutions: secular university, confessional Christian liberal arts university, and Bible college. Trentham's work much more than one more research study to be published en route to earning his own Doctor of Philosophy. His work served to catalyze an entire body of research that continues to grow each year. There are a number of additional studies focusing on various similar populations while there are others that are decidedly more narrow and study populations that have been overlooked in earlier research. What follows is a description of those studies identifying the author, year of publication, specific population studied, and a summary of the results reported.

Gregory Brock Long

Long was the first to follow Trentham publishing his study in 2014. In his study, he focused on pre-ministry undergraduates attending Bible colleges.⁷⁴ Long's findings were similar to those of Trentham for pre-ministry undergraduates attending Bible colleges. Perry scores from Long's study compared to Trentham's from this institutional context were quite similar.⁷⁵

Given that many theologically conservative Christians believe the Bible restricts certain ministry vocations to men, Long noted it was unsurprising that a higher number of men expressed interest in participating in his study than women. Additionally, though 14 institutions were represented, only 20 percent—6 of the 30 pre-ministry

⁷⁴ Long, "Epistemological Development of Pre-Ministry Undergraduates."

⁷⁵ Long, "Epistemological Development of Pre-Ministry Undergraduates," 85-86.

undergraduates participating in his study—were women. Long pointed out that this was consistent with Perry’s original work.⁷⁶

Long’s findings also included the observation that 67 percent of his study participants mentioned the primacy of relationships as the most significant aspect of their college experience similar to Trentham’s 80 percent responding in the same manner.⁷⁷ Long also observed that nearly half of his study participants studied at more than one institution of higher learning before transferring to the Bible college from which they completed their education.⁷⁸ Among his suggestions for further research, Long included a longitudinal study in which the same pre-ministry students are interviewed multiple times.⁷⁹

Bruce Richard Cannon

With a study that analyzed pre-ministry students from one of Trentham’s institution types, Cannon published a study focusing specifically on pre-ministry undergraduates attending confessional Christian liberal arts colleges or universities.⁸⁰ Similar to the Long’s findings, Cannon’s study yielded findings largely consistent with those reported by Trentham.

Cannon’s study population of 30 pre-ministry undergraduates represented 10 institutions though 12 of them—40 percent—attended Oklahoma Baptist University. Cannon also has a considerably higher percentage of women in his study with 33 percent

⁷⁶ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 77. See also Perry, *Forms of Intellectual and Ethical Development in the College Years*, 9. This is an observation others also note in their research highlighting the need for additional studies focused specifically on pre-ministry women.

⁷⁷ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 131.

⁷⁸ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 133.

⁷⁹ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 137.

⁸⁰ Bruce Richard Cannon, “Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities” (EdD thesis, The Southern Baptist Theological Seminary, 2015).

compared to Long earlier work with 20 percent, Trentham with 13 percent, and Sanchez's concurrent study with 27 percent.⁸¹

Unlike Trentham's earlier research that found 70 percent of confessional Christian Liberal arts university students viewed relationships as the most significant aspect of college, Cannon reported only 37 percent of his study participants cited relationships as most significant. This was a similar percentage that identified community as the leading factor in college which students may have conflated in their responses.⁸² This is interesting in light of another theme Cannon noted: exposure, or lack of exposure, to non-Christians. The recurring nature of the comments is best characterized as lamenting either the lack of contact with those of other faith traditions on their campus or lamenting that there were non-Christians on the campus.⁸³ These comments from Cannon's study population were curious given that all of those students chose to attend a confessional Christian liberal arts college or university.

Cannon also recognized gender as an issue with Perry research among pre-ministry students. He specifically mentioned the need to conduct additional studies specifically focused on women but also mentioned further needing to study African-American, Hispanic, and Asian colleges and universities.⁸⁴ Cannon also mentions the need to conduct similar research focused on incoming freshman from Trentham's three institution types.⁸⁵

⁸¹ Cannon, "Epistemological Development in Pre-Ministry Undergraduates," 65-66.

⁸² Cannon, "Epistemological Development in Pre-Ministry Undergraduates," 110-11.

⁸³ Cannon, "Epistemological Development in Pre-Ministry Undergraduates," 113-16.

⁸⁴ Cannon, "Epistemological Development in Pre-Ministry Undergraduates," 129-30.

⁸⁵ Cannon, "Epistemological Development in Pre-Ministry Undergraduates," 130.

Christopher Lynn Sanchez

My own work—concurrently completed and published in 2015 alongside that of Cannon—completed an initial, deeper study of Trentham’s original institution types by focusing on pre-ministry undergraduates attending secular universities. The results of the study are detailed in this volume. My study is mentioned here to indicate where it fits among the others in this timeline.

Jonathan Derek Stuckert

Stuckert’s work departed from the narrower focus of Trentham’s original study and those that followed by Long, Cannon, and Sanchez. He broadened the population types being studied by analyzing evangelical seminarians in his study published in 2016.⁸⁶ Specifically, he focused on students enrolled in theological seminaries accredited by The Association of Theological Schools (ATS) and earned a Master of Divinity degree—the typical degree for vocational ministry preparation—who self-identified as being evangelical.⁸⁷ Those completing other seminary degree programs were delimited from the study population. Further, Stuckert’s population of 30 study participants was delimited to male participants 30 years of age or younger. He chose this population with the understanding at the time of his study that another researcher planned a similar study delimited to women.⁸⁸

Interestingly, Stuckert noted in his results that his study population had MID scores consistent with earlier studies, including those conducted by Trentham, Long, Cannon, and Sanchez.⁸⁹ Considering the fact that Stuckert’s population was older, 8-9

⁸⁶ Jonathan Derek Stuckert, “Assessing Epistemological Development among Evangelical Seminarians” (EdD thesis, The Southern Baptist Theological Seminary, 2016).

⁸⁷ Stuckert, “Epistemological Development among Evangelical Seminarians,” 55.

⁸⁸ Jennifer Jeannean Kintner, “Assessing Epistemological Development among Women in Evangelical Seminaries” (EdD thesis, The Southern Baptist Theological Seminary, 2018), 56. Kintner’s similar study delimited to women is discussed below.

⁸⁹ Stuckert, “Epistemological Development among Evangelical Seminarians,” 112.

years in some cases, a significant level of growth would be reasonable to expect. However, Stuckert also reported that William Moore included in his analysis of the interview transcripts a suggestion that for graduate students “as people get older, their lived experiences diverge more and more so assessing developmental perspectives gets messier and more complex at the same time.”⁹⁰

Like researchers before him, Stuckert also recommended a sort of longitudinal study that measures the same study participants some five or so years into ministry or vocation that would provide to better understand these students experiences. Additionally, he suggested a study focused on seminarians older than 30 years of age that have significant work and life experience prior to entering seminary as a potential way of determining if age is more of a determiner for epistemological development rather than program content and environment.⁹¹

Finally, Stuckert mentioned his all-male study population and reminded his readers of the benefit of future studies that either included female participants or were exclusively focused on female study participants noting the interesting comparisons in how men and women view seminary, ministry, intellectual community and development different from one another.⁹² His desire to expand the scope of Perry-related studies to include seminarians from a variety of demographic backgrounds and possessing divergent life experiences is helpful and provided useful suggestions for other researchers that would later follow.

Warren Dale Leatherman

In 2017, Leatherman returned to one of Trentham’s original institution types with his study focused on comparing pre-ministry undergraduates attending confessional

⁹⁰ Stuckert, “Epistemological Development among Evangelical Seminarians,” 115.

⁹¹ Stuckert, “Epistemological Development among Evangelical Seminarians,” 122-23.

⁹² Stuckert, “Epistemological Development among Evangelical Seminarians,” 123.

versus non-confessional liberal arts colleges or universities.⁹³ While Trentham’s earlier work, and the follow-up studies conducted by Cannon and Sanchez, included confessional Christian and secular institutions, Leatherman saw the need to focus a study on comparing pre-ministry students coming from these confessional and non-confessional liberal arts institutions.

He defined non-confessional liberal arts institutions as those with no current profession of Christian faith as part of its core values or beliefs.⁹⁴ Even if the school was confessional in the past—such as Mercer University in Georgia, founded upon Christian and denominational beliefs—but have since abandoned those once strongly held views.⁹⁵ Thirty-one pre-ministry undergraduates comprised Leatherman’s undergraduate pre-ministry study population representing 18 different institutions, 14 denominations, hailing from 7 states.⁹⁶

Leatherman observed epistemological positioning and maturation among pre-ministry students in his study population scored consistently with those in previous studies by Trentham, Long, Cannon, Sanchez, and Stuckert.⁹⁷ He also noted in his findings that pre-ministry undergraduate students were both growing in their commitment to full-time vocational ministry though they were doing so in different ways. Students in confessional institutions tended to be more focused on pursuing a ministry focused on the pastorate while those attending non-confessional institutions were more focused on preparing for a future ministry serving in various parachurch organizations.⁹⁸

⁹³ Warren Dale Leatherman Jr., “Comparing Epistemological Development among Pre-Ministry Undergraduates Attending Confessional versus Non-Confessional Liberal Arts Colleges or Universities” (EdD thesis, The Southern Baptist Theological Seminary, 2017).

⁹⁴ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 55.

⁹⁵ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 4-6.

⁹⁶ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 67-68.

⁹⁷ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 117-18.

⁹⁸ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 118-19.

Additionally, Leatherman reported these students stated that they valued their liberal arts education greatly. He noted they also tended to appeal to Scripture more as a tool for inquiry from which to derive evidence for defense rather than understanding Scripture as direct revelation and Truth. “Instead of viewing Scripture as one way God reveals himself and helps to orient one’s life, its used more from a utilitarian purpose. The Bible is used like an encyclopedia to answer questions.”⁹⁹

In contrast to earlier Perry-related studies, Leatherman’s population were 65 percent female. This is a significant departure that could be caused by the fact that a higher percentage of women attending college in recent years when compared to men though he also points out it may simply be this particular sample.¹⁰⁰ He recommended further research to determine if more women are entering full-time vocational ministry as this may have implications for seminaries. Overall, Leatherman found that students attending confessional institutions did have slightly higher scores than their counterparts attending non-confessional institutions.¹⁰¹

Justin Robert Mullins

Also published in 2017, Mullins continued to broaden the study population focused on in earlier research and explored the impact of secondary educational contexts on college student formation and development.¹⁰² Unlike earlier research previously mentioned, Mullins focused exclusively on people age 18 years of age whose final four years of pre-college education was completed in a single environment—homeschool, private school, or public school—and identified as entering freshmen in an institution of

⁹⁹ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 118. This was reported to be Trentham’s response to his research data.

¹⁰⁰ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 123-24.

¹⁰¹ Leatherman, “Epistemological Development among Pre-Ministry Undergraduates,” 126.

¹⁰² Justin Robert Mullins, “Exploring the Impact of Secondary Educational Contexts on College Student Formation and Development” (EdD thesis, The Southern Baptist Theological Seminary, 2017).

higher education. Studying this population would provide valuable insight into the influence of pre-college learning environments on progression through Perry's positions of intellectual and ethical development. The influence of these various environments is recognized by scholars studying public education thus an examination from a Christian perspective is appropriate.¹⁰³ Mullins's purposeful study population was further delimited to pre-ministry pre-college students from three specific institutional contexts: community college, liberal arts college, and Bible college/seminary.¹⁰⁴

Mullins provides a helpful description of the three pre-college environments. Beginning with public education, he states this is the dominant form of pre-college education in the United States explaining that a primary driver of this for the majority of families is funding is provided by government by way of taxes and other government funding.¹⁰⁵ He goes on to point out major challenges faced by public schools including the highest dropout rate of the three major pre-college learning environments, larger class sizes (i.e., higher number of students per teacher), lower achievement test scores, and more important from a Christian perspective, the abandonment of biblical principles.¹⁰⁶ Given this last point, Mullins rightly points out the opportunity for Christian families with children in public schools be light in an otherwise dark place.¹⁰⁷

Next, Mullins describes private education as the second most common pre-college learning environment. The schools are privately funded and accredited providing families with an education that better conform to their values, morals, worldviews, and

¹⁰³ Kristen A. Renn and Robert Dean Reason, *College Students in the United States: Characteristics, Experiences, and Outcomes* (San Francisco: Jossey-Bass, 2013), 63-81.

¹⁰⁴ Mullins, "Impact of Secondary Educational Contexts," 14.

¹⁰⁵ Mullins, "Impact of Secondary Educational Contexts," 52.

¹⁰⁶ Mullins, "Impact of Secondary Educational Contexts," 53.

¹⁰⁷ Mullins, "Impact of Secondary Educational Contexts," 54.

the educational goals they have for their children.¹⁰⁸ Mullins goes on to report that while students that attend private schools tend to have higher academic achievement than their public-school counterparts, these institutions are not without their own challenges. These schools deliver a curricular content taught by like-minded faculty that reflects more agreeable values for families though the increased financial burden placed on families and limited access to private secondary schools limits the number of families for whom private schools are genuinely an educational option.¹⁰⁹

Finally, Mullins concludes his explanation of pre-college learning environments with his description of homeschool education beginning with statistics indicating though this is the oldest of the pre-college learning options, it has now become the options experiencing the fastest rate of growth in the United States.¹¹⁰ Like private education previously discussed, homeschool students experience higher academic achievement than those in public education while also allowing parents complete control of their child's education. Challenges for this option include the debatable critique of retreating from the culture and sheltering children as well as questions about the qualifications of the parents themselves to adequately teach the curriculum to their children.¹¹¹

Among Mullins's findings is that public school students interacted with peers who held opposing views at a far greater level than either their private school or homeschool peers.¹¹² This is not surprising given the lack of opportunity for private school or homeschool students. Also not surprising is the greater ability of private school and homeschool students to articulate faith development compared to public school

¹⁰⁸ Mullins, "Impact of Secondary Educational Contexts," 55.

¹⁰⁹ Mullins, "Impact of Secondary Educational Contexts," 55-56.

¹¹⁰ Mullins, "Impact of Secondary Educational Contexts," 56.

¹¹¹ Mullins, "Impact of Secondary Educational Contexts," 56-57.

¹¹² Mullins, "Impact of Secondary Educational Contexts," 106-7.

students where such is not a focus of the curriculum.¹¹³ It is also notable that homeschool student reflect an earlier epistemological position than peers from either public or private school environments.¹¹⁴

Participants in Mullins’s research included a considerably larger number of women than most other studies mentioned thus far. Of his 30 study participants, 17 were female and 13 were male—56.7 percent and 43.3 percent respectively.¹¹⁵ Participants from both private school and homeschool were evenly divided though participants from public schools were 30 percent male and 70 percent female. He recommended further research in each of the pre-college learning environments individually much like the follow-up studies that were completed by Long, Cannon, and Sanchez that each focused on the institution types first studies by Trentham.¹¹⁶ Unlike other researchers, Mullins did not recommend research into the differences between male and female study participants though such a suggestion would easily fit into the body of research already conducted and the recommendations for further research.

Jennifer Jeannean Kintner

In the opening of her research published in 2018, Kintner asks the question, “Could it be that women’s epistemological development differs or that their experience differs from men’s?”¹¹⁷ Following Stuckert’s earlier work that focused on male seminarians, Kintner assessed epistemological development among women seminarians in evangelical seminaries. Similar to research published by Stuckert, she focused on students enrolled in theological seminaries accredited by The Association of Theological

¹¹³ Mullins, “Impact of Secondary Educational Contexts,” 107.

¹¹⁴ Mullins, “Impact of Secondary Educational Contexts,” 104-5.

¹¹⁵ Mullins, “Impact of Secondary Educational Contexts,” 74.

¹¹⁶ Mullins, “Impact of Secondary Educational Contexts,” 112.

¹¹⁷ Kintner, “Epistemological Development among Women,” 1.

Schools (ATS) and enrolled in a Master of Divinity degree program—the typical degree for vocational ministry preparation—who self-identified as being evangelical. Unlike Stuckert’s earlier all-male population who had completed their degree program at the time of their study participation, Kintner’s study participants were delimited to those who had completed a minimum of 75 percent of their studies.¹¹⁸ Those completing other seminary degree programs were delimited from the study population. Further, Kintner delimited her study population to participants that had completed less than 25 percent of their coursework through distance learning.

Kintner was unable to meet the quota for study participants after four months. Further review of the ATS website noted that Dallas Theological Seminary had been excluded from the initial search for potential study participants because they do not offer a Master of Divinity degree. Instead, all of their would-be Master of Divinity students receive a fourth year of schooling free and instead receive a Master of Theology degree. Kintner’s supervisor approved included those students in her study.¹¹⁹ The study population of 30 women were evenly divided with 15 from the denominational category and 15 from the inter/multidenominational category.¹²⁰ Departing from earlier researchers, Kintner did not limit the age of her study population reasoning that a review of the literature revealed women attend schooling at various ages because of life stages and circumstances.¹²¹

Among Kintner’s findings was female seminarians had MID scoring consistent with participants in earlier studies. The MID average for Kintner’s study population was 3.31 placing them in the stage of Multiplicity.¹²² This is significantly higher than

¹¹⁸ Kintner, “Epistemological Development among Women,” 17.

¹¹⁹ Kintner, “Epistemological Development among Women,” 95.

¹²⁰ Kintner, “Epistemological Development among Women,” 18.

¹²¹ Kintner, “Epistemological Development among Women,” 84-85.

¹²² Kintner, “Epistemological Development among Women,” 209-11.

Mullins's population of pre-ministry high school students who averaged 2.777 which is not surprising given the differences in age and life experiences. This result is similar to Stuckert's findings in his population of male seminarians with an average of 3.25 and in the range of pre-ministry undergraduates that ranged from 3.1 to 3.45. The similarity with Stuckert's research was also not surprising given previous studies found no differences on epistemological positioning based on gender. The primacy of relationships was noted in Kintner's population consistent with earlier studies as well.¹²³

A notable difference between Stuckert's all-male population versus Kintner's all-female population of seminarians was the different view of the importance of supervised field education to their seminary experience. Stuckert reported this at the lowest importance by male seminarians.¹²⁴ Kintner and Stuckert agree that the reasoning behind this may be that male seminarians experienced more ministry opportunities in the church than did their female counterparts, a need her study participants pointed out during their interviews.¹²⁵ That difference notwithstanding, demographically, female seminary students were very similar to male seminary students in terms of full-time status, residential status, and work between completing college and attending seminary. Additionally, they are quite similar their use of distance course to advance their education, mentorship, and even growing up in the church.¹²⁶ Additionally, the primacy of relationships remained with Kintner noting this recurring theme from Trentham's original study published in 2012.

A unique characteristic Kintner found among female seminarians was the emphasis of consider one's own story and the importance of listening to the stories of

¹²³ Kintner, "Epistemological Development among Women," 217-18.

¹²⁴ Stuckert, "Epistemological Development among Evangelical Seminarians," 114.

¹²⁵ Kintner, "Epistemological Development among Women," 207-8. See also Stuckert, "Epistemological Development among Evangelical Seminarians," 114-15.

¹²⁶ Kintner, "Epistemological Development among Women," 208.

others and how these personal stories impacted their education. Though only found in one third of her study participants, Kintner noted that six different institutions were represented both from denominational and inter/multidenominational seminary contexts.¹²⁷

Kintner's research was the first of its kind exploring epistemological development among women in evangelical seminaries and she rightly points out there is still much study to be done in the field. Among her recommendations for future research is a study of each institutional context she focused on in her work as well as an additional study pairing men and women from each institution type for a closer comparison.¹²⁸ Like other researchers before her, Kintner also recommended a longitudinal study for comparison and a study of women in degree programs other than the Master of Divinity.¹²⁹ She concludes by stating, "Though they are more alike than different in their epistemological development, investigations into their different patterns and perspectives is appropriate to further the discipleship and training of women in the church and in the academy."¹³⁰

Bethel Anne Agtani Bumanglag

Bumanglag continued the trend of broadening Trentham's original study population and other precedent studies by assessing epistemological development in Southeast Asian graduate students at American evangelical seminaries. As there has been little to no research assessing epistemological development among international students

¹²⁷ Kintner, "Epistemological Development among Women," 218-19.

¹²⁸ Kintner, "Epistemological Development among Women," 228-29.

¹²⁹ Kintner, "Epistemological Development among Women," 232.

¹³⁰ Kintner, "Epistemological Development among Women," 233.

and their interactions with American evangelical seminaries, this cross-cultural emphasis adds a richness and diversity lacking in the precedent studies published to date.¹³¹

Her study population was delimited to Southeast Asian students who held an F-1 student visa from Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam attending ATS accredited American evangelical seminaries enrolled in Master of Arts or Master of Divinity programs.¹³² Earlier studies completed by Stuckert and Kintner delimited their populations to Master of Divinity students but Bumanglag was unable to do so due to the limited number of Southeast Asian seminarians in the United States in general at the time of her study.¹³³ Further, these 30 students must have completed at least one semester of study in their respective programs to participate in the research.¹³⁴ In terms of gender, Bumanglag's study population was identical to my own original study in terms of the gender breakdown consisting of 22 men and 8 women.¹³⁵

Among Bumanglag's findings was her study population overall had a mean MID score of 3.379 which was consistent with pre-ministry undergraduates, male seminarians, and female seminarians. Interestingly though, the mean score of the female participants in her population was 3.625 versus 3.29 of the male participants. There are a number of factors she mentions as possible contributors to this difference including

¹³¹ Bethel Anne Agtani Bumanglag, "Assessing Epistemological Development in Southeast Asian Graduate Students in Evangelical Seminaries" (EdD thesis, The Southern Baptist Theological Seminary, 2021), 1-11, 16-18.

¹³² Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 20.

¹³³ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 87.

¹³⁴ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 21.

¹³⁵ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 85.

varying educational backgrounds, prior work experience, and the widely varying ages of her participants ranging from 24 to 52 years of age.¹³⁶

Like both Stuckert and Kintner before her, Bumanglag also pointed out the alarming nature of graduate students in seminaries—many of whom had graduated or were 75 percent through their respective academic programs—having almost identical MID scores as pre-ministry undergraduate students.¹³⁷ Explanations offered include age and previous experience as well as the fact that graduate schools—including seminaries—do not explicitly promote intellectual development.¹³⁸ Kintner tested the age hypothesis by excluding study participants over age 30 in her results and yet did not see a statistical difference between that test and Stuckert’s findings. Bumanglag did note a statistical difference in her study population when she compared the difference in MID scores between the 14 members of her population aged 30 and under versus the 16 members of her population aged 31-52 years. The former had a mean MID score of 3.28 while the latter had a mean MID score of 3.458. Speaking to a group of faculty and PhD students, Trentham suggests results from the studies conducted by Stuckert and Kintner may suggest that seminaries’ emphasis on transmitting orthodoxy more than epistemological growth may also be a contributing factor to the MID scores reported in those two studies.¹³⁹

Bumanglag also reported that Southeast Asian students with prior graduate education and work experience had higher MID scores and recommended this as an area

¹³⁶ Bumanglag, “Epistemological Development in Southeast Asian Graduate Students,” 95-98. See also Stuckert, “Epistemological Development among Evangelical Seminarians,” 115, where he quotes William Moore, who stated, “as people get older, their lived experiences diverge more and more so assessing developmental perspectives gets messier and more complex at the same time.”

¹³⁷ Bumanglag, “Epistemological Development in Southeast Asian Graduate Students,” 98.

¹³⁸ Stuckert, “Epistemological Development among Evangelical Seminarians,” 75.

¹³⁹ John David Trentham and Jonathan Derek Stuckert, “The Scandal of the Seminarian Mind? Findings, Questions, and Overtures for Practitioners in Theological Higher Education” (paper presented at the Society of Professors in Christian Education, Dallas, TX, 2017).

for future research. She also suggests a similar study assessing epistemological maturity among Asian and non-American Western students attending seminaries in the United States both on campus as well as online.¹⁴⁰ Additionally, she suggests a study comparing Southeast Asian seminarians studying in the United States with similar seminarians studying in their home countries and a study focused on international students who have acquired previous degrees in the United States with those who have never lived in other countries or the United States prior to coming to American seminaries.¹⁴¹

Brief History of American Higher Education

To understand the current state of American secular universities, it is necessary to have a basic understanding of the historical origins and evolution of those institutions. What follows is not intended to provide an exhaustive survey of the development of American colleges and universities but rather to provide an overview. The sense one should draw from such a brief review is that each generation of college students and their parents, administrators, financial supporters, and government officials has grappled with the issue of who should be educated, how should this be accomplished, and who should fund the institutions carrying out the task of education.¹⁴² What follows is a consideration of some of the social landmark events in American history that have shaped American higher education.

¹⁴⁰ Bumanglag, “Epistemological Development in Southeast Asian Graduate Students,” 167.

¹⁴¹ Bumanglag, “Epistemological Development in Southeast Asian Graduate Students,” 168.

¹⁴² John R. Thelin and Marybeth Gasman, “Historical Overview of American Higher Education,” in *Student Services: A Handbook for the Profession*, ed. John H. Schuh et al., 5th ed., Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2011), 21.

Early American Colleges

College today is essentially an English idea brought to New England by English Protestants dissenting from the established church in the seventeenth century.¹⁴³ The Puritans arrived in New England and first set about building their houses, building convenient places for God's worship, and establishing civil government. Next on their list of priorities was to establish a college, which was accomplished in October of 1636. The college at Newtown would later be renamed Harvard with instruction likely beginning two years later in 1638.¹⁴⁴ Harvard was the first of nine colleges founded before the American Revolution.¹⁴⁵ These nine schools shared the same broad sense of dual purpose to educate civic leaders and prepare learned clergy for the ministry of Jesus Christ.

The American Revolution had two notable effects on these nine colleges. The first was the events leading up to the war pushed the schools into active political involvements; second was the disruption to the schools as it relates to academic schedules, damage to school grounds, declines in student enrollments and college finances.¹⁴⁶ The politicization of American college campuses has continued throughout American history. The "Commonwealth Whig" political philosophy from the seventeenth century and the "Natural Rights" concepts of the eighteenth century combined into an

¹⁴³ Andrew Delbanco, *College: What It Was, Is, and Should Be* (Princeton, NJ: Princeton University Press, 2012), 37. Education was vitally important to the Puritans whose ideas of higher education were shaped by their own experiences in the colleges of Cambridge and Oxford.

¹⁴⁴ Christopher J. Lucas, *American Higher Education: A History* (New York: St. Martin's Griffin, 1996), 103-4.

¹⁴⁵ Delbanco, *College*, 105. The other eight are the College of William and Mary (founded in 1693); the Collegiate School of New Haven (chartered in 1701 and later renamed Yale College); the College of Philadelphia (founded in 1740 and later renamed the University of Pennsylvania); the College of New Jersey (founded in 1746 and later renamed Princeton College); King's College (founded in 1754 and later renamed Columbia University); the College of Rhode Island (founded in 1764 and later renamed Brown University); Queen's College (founded in 1766 and later renamed Rutgers College); and Dartmouth College (founded in 1769).

¹⁴⁶ Willis Rudy, *The Campus and a Nation in Crisis: From the American Revolution to Vietnam* (Madison, NJ: Fairleigh Dickinson University Press, 1996), 3. Students and professors largely supported the Patriot-Whig side of the struggle and were aligned with public opinion of the day. Most members of these early college communities took loyalty oaths to the new Revolutionary authorities.

ideology that was taught in the classroom, preached by the presidents of those colleges, and assigned as extracurricular reading to students.¹⁴⁷

Universities in the Nineteenth Century

At the dawn of the nineteenth century, there were twenty-five degree-granting colleges in the United States and by 1820 there were fifty-two.¹⁴⁸ This slow growth in American higher education accelerated significantly in the forty years that followed with the total number of degree-granting institutions rising to 241 by 1860.¹⁴⁹ The schools that were founded during this period were diverse ranging from universities to seminaries to scientific schools with curricula that diverged beyond liberal arts and included medicine, law, engineering, theology, military science, and agriculture.¹⁵⁰

Political divisions were pronounced on America's college and university campuses as the Civil War drew closer. When Southern troops attacked Fort Sumter on April 12, 1861, the time to turn strong words into action arrived forcing many to take stands they had hoped would never have to be taken.¹⁵¹ There was great fear among administrators and faculty that colleges would be forced to cease operations, at least until the war had concluded. The schools in the North fared better than their counterparts located in Southern states. Colleges in the Northern states were located a considerable

¹⁴⁷ Rudy, *The Campus and a Nation in Crisis*, 48-50. The new social contract of the new nation would be to maintain the highest possible standards in institutions of higher education so that the new society could produce a "Natural Aristocracy" that could lead in a constructive and wise direction. Higher education would make the success of the American Revolution secure.

¹⁴⁸ John R. Thelin, *A History of American Higher Education*, 2nd ed. (Baltimore: Johns Hopkins University Press, 2011), 41.

¹⁴⁹ Thelin, *A History of American Higher Education*, 41-42. This total does not include forty colleges that were founded during this time that ceased operation by 1860. See also Lucas, *American Higher Education*, 116-21, where he discusses the various types of schools founded in the first half of the nineteenth century. In his view the number of schools, especially denominational schools that he describes as being able to offer little more than the rudiments of secondary-level education.

¹⁵⁰ Thelin, *A History of American Higher Education*, 42-43.

¹⁵¹ Rudy, *The Campus and a Nation in Crisis*, 61-62.

distance from war zones while those located in Southern states were generally located in the middle of the most dangerous areas where fighting was taking place.¹⁵²

By the end of the war in 1865, the fate of Northern and Southern higher education was markedly different. In the North, the strong wartime economy made significantly increased funding available for higher education. In fact, twelve new colleges were founded while the war was still going on.¹⁵³ Colleges in the South fared much differently. With meager resources, Southern college presidents, and boards of trustees began the difficult work of reviving their respective institutions of higher education.¹⁵⁴

Universities in the Twentieth Century

In the period that followed the Civil War, the American public school system saw rapid expansion at the pre-collegiate level. There were 1,026 public high schools with an enrollment of 72,158 students in 1870 whereas at the beginning of the twentieth century there were 6,005 such schools with an enrollment of 519,251 in 1900.¹⁵⁵ These schools sent ever-increasing numbers of students into state universities.

Though the Civil War had receded from recent memory, a new war was on the horizon. The majority of American higher education institutions were pro-Ally though there were considerable efforts made by antiwar student groups and their supporters

¹⁵² Rudy, *The Campus and a Nation in Crisis*, 63-66. Another factor that contributed significantly to the success of Northern colleges was the strong economy, mostly from war industries whereas the Southern economy was in ruins by the conclusion of the conflict. Still, schools in both the North and South saw large declines in enrollment as young men answered the call of their countries to volunteer for military service. This trend was further exacerbated in the North when the federal government turned to conscription to bolster their depleted military ranks.

¹⁵³ Rudy, *The Campus and a Nation in Crisis*, 98-99.

¹⁵⁴ Rudy, *The Campus and a Nation in Crisis*, 99-100.

¹⁵⁵ John Seiler Brubacher and Willis Rudy, *Higher Education in Transition: A History of American Colleges and Universities*, 4th ed., Foundations of Higher Education (New Brunswick, NJ: Transaction, 1997), 160.

among the faculties at their respective schools.¹⁵⁶ Eventually, influenced by her colleges and universities, America entered the Great War. The decisive factor that transformed academics into supporters of the war was the decision made by Germany to undertake unrestricted submarine warfare against all ships, including neutral American vessels.¹⁵⁷ Student enlistments varied widely from campus to campus though all saw declines in enrollments.¹⁵⁸ College presidents expressed their public support for the war effort while privately they worried about the survival of their respective institutions.¹⁵⁹

The period of time between the two World Wars saw large increases in the percentage of American who attended college. In 1917 fewer than 5 percent of Americans between the ages of eighteen and twenty attended college but by 1937 that number increased to 15 percent.¹⁶⁰ This increase in student enrollment also saw continued diversification of institutional types including technical institutes, business schools, women's colleges, teachers' colleges, and junior colleges across the country.¹⁶¹

By 1939, war once again dominated international affairs. On August 23, 1939, Hitler and Stalin signed a non-aggression pact that surprised the world.¹⁶² By the spring of 1940, President Roosevelt received bipartisan support for sending increased aid to forces fighting Hitler. This was controversial on campuses across America. As with the

¹⁵⁶ Rudy, *The Campus and a Nation in Crisis*, 121-22.

¹⁵⁷ Rudy, *The Campus and a Nation in Crisis*, 121-22. Rudy finds irony in the fact that war hysteria had submerged the special values of freedom, critical judgment, and objectivity that had set higher learning apart from other forces in society.

¹⁵⁸ Thelin, *A History of American Higher Education*, 200.

¹⁵⁹ Thelin, *A History of American Higher Education*, 200. At this time, most higher learning institutions relied heavily on enrollments and tuition payments. President Wilson offered a solution to the problem by creating the Student Army Training Corps that established on-campus training programs for officers and cadets funded by the federal government. 540 colleges and universities across the nation became training campuses.

¹⁶⁰ Thelin, *A History of American Higher Education*, 205.

¹⁶¹ Thelin, *A History of American Higher Education*, 206. The development of the "junior college" is a distinctly American creation in higher education.

¹⁶² Rudy, *The Campus and a Nation in Crisis*, 128-29.

First World War, faculty largely supported the war effort though student attitudes were decidedly different and anti-war.¹⁶³ Students largely opposed the Second World War and the role they were expected to play. This would change with the Japanese attack on Pearl Harbor on December 7, 1941. College students joined their fellow Americans in supporting Congress's declaration of war.¹⁶⁴

American higher education continued to expand in the period that followed World War II. During this period, the research university surfaced as a new entity that earned American scholarship international respect.¹⁶⁵ To put the growth of higher education into perspective, it is helpful to consider the enrollment figures. In 1940, total student enrollment was slightly fewer than 1.5 million students but by 1970, enrollment at all colleges and universities grew rapidly and was over 7.9 million students.¹⁶⁶ Access and affordability were key drivers for this growth aided by a strong post-war economy.

As America became involved in Vietnam, antiwar protests began on campuses across the nation. Between 1963 and 1968, student protests were news events that gained attention nationally. However, despite what many Americans thought, those intense protests tended to be isolated to a small group of campuses with everyday life, even on those campuses, largely unaffected.¹⁶⁷ It is interesting to note that the expected escalation of violent protests into the early 1970s did not materialize. Rather, these protests declined

¹⁶³ Rudy, *The Campus and a Nation in Crisis*, 136-40. Student attitudes were shaped by a number of factors including a distrust of professors who would not be required to sacrifice their lives through military service. There was also a distrust of the government developed by the same professors in their students. Further complicating attitudes was the institution of conscription. Ironically, student response to conscription was a renewed interest in ROTC programs that had been previously criticized.

¹⁶⁴ Rudy, *The Campus and a Nation in Crisis*, 148-49.

¹⁶⁵ Thelin, *A History of American Higher Education*, 260. During this time the for-profit higher education sector, including vocational and trade schools also emerged further complicating American higher education.

¹⁶⁶ Thelin, *A History of American Higher Education*, 261.

¹⁶⁷ Thelin, *A History of American Higher Education*, 309-10.

considerably with the economic downturn thought to have been a significant contributing factor.¹⁶⁸

Student unrest continued into the early 1970s but waned by 1973. This was followed by a decline in enrollment in 1975-1976 and brought with it fear that the decline would continue.¹⁶⁹ Colleges and universities recognized during this time that student bodies would not always be traditional full-time, residential students between eighteen and twenty-two years of age. The generation of undergraduate students on campus in the late 1970s did not embrace the political activism of earlier generations though they did remember their collective power to influence life on campus.¹⁷⁰ Students and their families were no longer satisfied with the lean services the campuses of the 1960s had offered. Career planning services and other student services proliferated across American campuses.¹⁷¹

As the twentieth century came to a close, much of higher education was following the lead of elite research universities having adopted the “publish or perish” mentality of those schools.¹⁷² Beginning in the 1990s, there was a robust public discussion centering on political correctness brought into the nation’s consciousness by the publication of Dinesh D’Souza’s book *Illiberal Education: The Politics of Race and*

¹⁶⁸ Rudy, *The Campus and a Nation in Crisis*, 196-97. The economic downturn had depressed the labor market for college graduates, graduate schools experienced enrollments at capacity, and there was lack of good jobs available. The demographic who struggled most were recent PhD graduates in humanities, which also happened to be an area that produced many of the anti-war protesters. Given the change in the competitive environment for employment opportunities, many students simply saw political activism on campus as potentially hazardous to their future employment prospects.

¹⁶⁹ Thelin, *A History of American Higher Education*, 326-27.

¹⁷⁰ Thelin, *A History of American Higher Education*, 326-27.

¹⁷¹ Thelin, *A History of American Higher Education*, 327-38. Other services offered to students included replacing old gymnasias with state-of-the-art health and fitness centers, apartment suites complete with kitchens, lounges, coeducational residence halls, etc. The continuing growth of American higher education brought about the need for schools to compete with one another for students.

¹⁷² Thelin, *A History of American Higher Education*, 355-57.

Sex on Campus.¹⁷³ D'Souza charged the editors of alumni magazines of having moved too far to the political left. These discussions in higher education led higher education faculty and administrators to reconsider undergraduate curriculum and the very nature of the college experience.

Universities into the Twenty-First Century

From Puritan beginnings, American colleges and universities have become much more than centers preparing people for civic service and clergy for ministry. American higher education now consists of very diverse collection of schools each with goals to serve particular segments of the American education consumer. Yet, the origins of American higher education cause many within the academe discomfort. Andrew Delbanco provides a helpful insight:

Yet, many academics have a curiously uneasy relation with these origins, as if they pose some threat or embarrassment to our secular liberties, even though the battle for academic freedom against clerical authority was won long ago. Reminding many major university presidents today of the historical roots of the institutions they lead likely elicits the response of the proverbial Victorian lady who, upon hearing of Darwin's claim that men descend from apes, replied that she hoped it wasn't so-but if it were, that it not become widely known. The fact that many American colleges and universities were founded for the purpose of training pastors, teachers, and, more broadly, public servants ought not be ignored or hidden.¹⁷⁴

Delbanco goes on to say a tour of American colleges and universities would likely leave one with few preconceptions intact.¹⁷⁵ Higher education today reflects the larger culture in which it is found, as it always has. Generally speaking, there is a sense of drift on many campuses today. Among the lingering effects of the financial crisis of 2008-2009 are doubts about the best path to prosperity in twenty-first-century America.

¹⁷³ Lucas, *American Higher Education*, 273-75. See also Thelin, *A History of American Higher Education*, 253, where he mentions that in spite of the provocative nature of these discussions, they tended to be overrun by the dominant trends in funding for higher education research and development.

¹⁷⁴ Delbanco, *College*, 65.

¹⁷⁵ Delbanco, *College*, 147-49.

Today students flee subjects such as the arts or literature in search of those they consider to be more marketable such as economics. The question is now this: “What is useful?”¹⁷⁶

Secularism on University Campuses

Avoiding the historic founding of many colleges and universities in the United States coincides with the shift in American culture from the religious nature underpinning much of the founding of the nation towards a more secular society. Secularism is the belief that religion should not play a role in government, education, or other parts of public society.¹⁷⁷ In other words, secularism is a distinct indifference to or rejection of religion and religious considerations. It comes as no surprise that secular universities would avoid any behavior that could be construed as endorsing a particular religion. It is interesting that the term *tolerance* is frequently invoked.

D. A. Carson points out the subtle difference between the verb *to tolerate* and the noun *tolerance*.¹⁷⁸ Rather than accepting the existence of different views as the definition of the verb suggests, the new view of tolerance as seen in the definition of the noun *tolerance*, the acceptance of different views as being equally true and valid as one’s own is becoming the norm on university campuses around the United States. Increasingly arguing differing points of view, especially in terms of exclusive truth claims, is seen as being intolerant and no longer permissible. Ironically, in the quest to support diversity in the strongest terms, intellectual diversity is reduced and “competition” is stymied in the marketplace of ideas.

¹⁷⁶ Delbanco, *College*, 147-49. In Delbanco’s view this shift borders on a panic about post-college life and how young American undergraduates will go about determining their vocation, finding a husband or wife, meaningful work, how to save, and how to balance their actual needs with their desires.

¹⁷⁷ D. W. Gill, “Secularism, Secular Humanism,” in *Evangelical Dictionary of Theology*, ed. Walter A. Elwell, 2nd ed., Baker Reference Library (Grand Rapids: Baker Academic, 2001), 1085.

¹⁷⁸ D. A. Carson, *The Intolerance of Tolerance* (Grand Rapids: Baker Academic, 2012), 2-6.

Providing an example to support his view, Carson also notes the attempts to “derecognize” chapters of InterVarsity Christian Fellowship at Tufts, Harvard, Rutgers, the University of North Carolina, and others in the last ten years.¹⁷⁹ As previously mentioned, Charles Reed, Chancellor of The California State University, successfully derecognized InterVarsity on all of his campuses though his successor reversed course only months later.

Student Affairs

Student affairs departments on campuses around the country have taken on the challenge of creating a diverse campus environment. The interaction of people from various social classes and ethnic backgrounds is a positive influence on the lives of all students. When behaviors that Scripture identifies as sinful is included in the diversity efforts of these departments, Christian students are often conflicted though this need not be so. Rather, Christian students on college and university campuses should recognize this diversity as an opportunity to learn how to share their faith in this context.

Student affairs practitioners consider themselves to be educators with a goal of collaborating with students, faculty, academic administrators, and others to assist in accomplishing the overall institutional goal of student learning.¹⁸⁰ As the profession is practiced today, student learning is at the forefront of student affairs though that was not always so. From the late 1800s to the mid-1960s, student personnel work was the focus of what would become student affairs. The student development movement followed this movement from the mid-1960s to the late 1980s. The contemporary student learning and

¹⁷⁹ Carson, *The Intolerance of Tolerance*, 30.

¹⁸⁰ Gwendolyn Dundy and Stephanie A. Gordon, “The Development of Student Affairs,” in Schuh et al., *Student Services*, 73.

personal development emphasis followed beginning in the late 1980s and continues to the present.¹⁸¹

The role of student affairs practitioners varies from school to school. Some are focused on admissions or enrollment management; others on academic advising while still others are concerned with diversity of the student body and life campus for students. Regardless of their respective roles on campus, student affairs practitioners cast themselves as specialized experts in the area of *students*.¹⁸² Under a classic model of student affairs organizations, the administrative functions of enrollment management are within the purview of student affairs. Here several of those areas will be addressed in greater detail.

Knowledge of student development theory. Student affairs practitioners place a very high value on having a thorough knowledge of human development theories such as the Perry Scheme.¹⁸³ One of the primary purposes for such understanding is to improve and inform the practice of their profession.¹⁸⁴ To further the profession and to properly serve students, student affairs practitioners are encouraged to learn theory and use it in addressing problems of consequence on their campuses. Additionally, student development theory assists practitioners in forming connections with faculty and enhances the view of their role in the higher education setting.¹⁸⁵

¹⁸¹ Audrey L. Rentz, "Students Affairs: An Historical Perspective," in *Rentz's Student Affairs Practice in Higher Education*, ed. Audrey L. Rentz and Fiona J. D. MacKinnon, 3rd ed. (Springfield, IL: C. C. Thomas, 2004), 27-28.

¹⁸² Don Hossler, "From Admissions to Enrollment Management," in Rentz and MacKinnon, *Rentz's Student Affairs Practice*, 79-80.

¹⁸³ Edward G. Whipple and Rena K. Murphy, "Student Activities," in Rentz and MacKinnon, *Rentz's Student Affairs Practice*, 307.

¹⁸⁴ Student Affairs Administrators in Higher Education, "Who We Are: Student Affairs-Student Learning and Development," 2014, <https://www.naspa.org/about/student-affairs/student-learning-and-development>.

¹⁸⁵ Evans et al., *Student Development in College*, 26-27.

Another primary purpose in understanding developmental theories is the belief that developmental growth is a desirable educational goal and may even be a moral end.¹⁸⁶ Student affairs practitioners see as part of their professional responsibility the obligation to assist and encourage students as they pass through the various stages of development as understood by the various developmental theorists, including Perry. Beyond this professional sense of duty exists the moral responsibility to these students. It may be viewed as morally wrong not to help these students pass through the various stages of development. As the experts on the topic of students, student affairs practitioners view their profession as best positioned to assist students in their development.

There is a self-centeredness or sense of self-importance on display in student affairs. Nearly thirty years ago, Allan Bloom observed that students themselves were quite self-centered.¹⁸⁷ This observation begs the question: are students self-centered because of the work of student affairs or do student affairs practitioners simply reflect the students they seek to serve? Perhaps this impression is a result of student affairs practitioners' response to their critics' claims of their elevating development theory to icon status.¹⁸⁸

Diversity and inclusion. As previously mentioned, student affairs departments on university campuses have taken on the challenge of creating a diverse environment on campus. Discussion of diversity focused on differences in cognitive development, style, motivation of the student, etc. during the student development movement. The focus on

¹⁸⁶ Pascarella and Terenzini, *How College Affects Students*, 2:17.

¹⁸⁷ Allan Bloom, *The Closing of the American Mind: How Higher Education Has Failed Democracy and Impoverished the Souls of Today's Students* (New York: Simon and Schuster Paperbacks, 2012), 82-83.

¹⁸⁸ Evans et al., *Student Development in College*, 39-40. The authors attempt to explain that no single resource stands as *the* foundational basis for practice. The authors approach their topic from a secular humanist perspective with no inclination that biblical truth informs their research.

diversity expanded with the change in focus on student learning and personal development to include social diversity.¹⁸⁹ In recent years, debate has centered on curriculum and instructional strategies. Socially diverse groups have claimed the curriculum taught is designed in such a way as to focus on Western intellectual tradition of European-descended males. These groups also claim that instruction takes place in a manner that does not promote their academic success as it largely excludes insights from other cultures.¹⁹⁰

Student affairs practitioners at secular universities have taken up the challenge of ensuring their campuses are places that fully embrace diversity. The first step is to remove perceived privileges one cultural group has over other cultural groups with the idea being doing so teaches there is more than one way to view situations.¹⁹¹ Other steps include removing barriers to cultural expression for all students and being intentional about recruiting decisions that include hiring staff from a broad range of backgrounds. This effort to support diversity has wholeheartedly embraced the lesbian, gay, bisexual, and transgendered (LGBT) normalization efforts broadly taking place in the United States and may be a result of more faculty, staff, and students openly identifying as LGBT individuals.¹⁹²

Some see the failure to make a formal effort to promote diversity being educationally negligent.¹⁹³ With the dramatic shifts taking place in American culture

¹⁸⁹ Nancy Chism, "Taking Student Diversity into Account," in *Teaching and Learning in the College Classroom*, ed. Kenneth A. Feldman and Michael B. Paulsen, 2nd ed. (Boston: Pearson Custom, 1998), 185-86. Chism states diverse racial and ethnic backgrounds have a greater presence on campus and women constitute half or more of the total student population on many campuses. Further, students who are older than the traditional age range are re-entering the education system. LGBTQ students are more open about their presence on campus as well.

¹⁹⁰ Chism, "Taking Student Diversity into Account," 185-86.

¹⁹¹ Bettins C. Shuford and Carolyn J. Palmer, "Multicultural Affairs," in Rentz and MacKinnon, *Rentz's Student Affairs Practice*, 233-34.

¹⁹² Shuford and Palmer, "Taking Student Diversity into Account," 228.

¹⁹³ Mitchell J. Chang, Jeffrey F. Milem, and Anthony Lising Antonio, "Campus Climate and Diversity," in Schuh et al., *Student Services*, 56.

today, student affairs practitioners believe they can ill afford to miss the opportunity to shape the thinking of undergraduate students and support the democratic principles they value and strongly espouse.¹⁹⁴ Just what are the principles that are being referred to? On many secular college and university campuses in the United States, principles that reflect a man-centered understanding of existence devoid of the biblical understanding of the created order is common:

Og and El, Our Neanderthal ancestors, had a problem. To be sure, Og and El, and their tribe, had lots of problems, but this was the most vexing yet. Although they did not know it or even understand the problem, they were beginning to think too much about their children, about the tribe, and about life generally. Og and El did not understand that the issue really was that their brains and minds were becoming more complex and more differentiated. Having a good brain was an advantage and was necessary for survival. Og and El were not very big or very fast compared to other animals. They were not particularly strong or keen of sight, smell, or hearing. But they could think and plan and remember. The problem was that this ability to conceptualize caused them to wonder-to need to know, to speculate, and to be unhappy when they did not have answers. Perhaps it was something poignant, like the death of a child, or just the mundane cycle of the seasons that first elicited a search for a larger meaning to life, but whatever it was, the quest could have soon led to depression, insanity, and death for the members of the tribe and therefore the tribe itself.¹⁹⁵

It is clear from this quote specifically and the literature generally that the principles being supported are secular humanism, which I interpret to be a philosophical perspective that supports human reason, ethics, and naturalism while staunchly opposing religious teaching as merely superstition or supernaturalism. A clearer contrast between the teaching of Scripture and the principles supported by student affairs practitioners cannot be found. The result is a campus environment that is uninviting to Christian students at best or hostile at worst.

¹⁹⁴ Chang, Milem, and Antonio, "Campus Climate and Diversity," 56.

¹⁹⁵ Stan Carpenter, "The Philosophical Heritage of Student Affairs," in Rentz and MacKinnon, *Rentz's Student Affairs Practice*, 3.

With over 60 percent of college students self-identifying as being Christians,¹⁹⁶ this apparent hostility would seem to contradict the goal of campus diversity. However, if one subscribes to secular humanism and also views those who hold to Judeo-Christian values to be the privileged cultural group, this approach does not contradict the stated goals at all. If anything, it is the most obvious approach student affairs practitioners can take to pursuing their agenda. With consistent evidence of declines in students' religious affiliations and greater tolerance for the religious views of others during their college years,¹⁹⁷ it would appear that the approach being taken by student affairs practitioners is accomplishing its goals of creating a diverse yet secular campus.

Perry saw the role of religious Absolutes and the Positions of Commitment as a special subject. In his view, theologically speaking, position 5 represents a critical division between "belief" and the possibility of "faith."¹⁹⁸ In Perry's view, belief itself does not require any sort of investment on the part of the believer but to become faith it must first be doubted. It is in the face of doubt that faith becomes Commitment though it is made in the context of a relativistic world.¹⁹⁹ Perry saw this as the "special case" or exception that people are capable of making. When viewing the worldview of another person, the worldview must be respected. For Perry, people must paradoxically view the worldview of the other person as wrong while also acknowledging that the worldview in question is no more wrong than his own. Such a view must, out of necessity, deny the existence of moral absolutes as presented in Scripture.

¹⁹⁶ Zanita E. Daver, "Get to Know Your Graduates: Highlights from the Profile of Today's College Student," *Leadership Exchange* 7 (Spring 2009): 15.

¹⁹⁷ Pascarella and Terenzini, *How College Affects Students*, 2:284.

¹⁹⁸ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 146.

¹⁹⁹ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 146.

Campus life. A chilly climate on campus is one in which certain ethnic or social minorities feel less than welcome. Minority status is antithetical to inclusion and often limits the availability of role models for mentoring.²⁰⁰ A brief survey of mission statements of eight research universities including the University of Georgia, the University of Tennessee, the University of Louisville, Ohio University, University of Oregon, the University of California Los Angeles, the University of New Mexico, and the University of Connecticut reveals a commitment to diversity on the part of each school.

Students of public universities should expect a campus rich in diversity when they arrive. Eric Dey believed colleges and universities should shape the values of students.²⁰¹ Dey's research demonstrated that institutional context has an influence on students' political orientations during college. He also found that the larger social context had an influence on students above and beyond that of the institution. These two influences operate independently of one another and can either work in concert or in opposition.²⁰²

Campus life for students, by design, focuses on inclusion and safety, encourages involvement, and attempts to build community. All of these elements play an important part in campus life for the student and in accomplishing the goals of the institution to advance the principles they espouse. The importance of safety and inclusion is especially important for students who are part of an ethnic or social minority group on campus. This includes the artifacts on campus related to gender distinctions and religious traditions. For example, even after changing their mascot to a bear, many University of

²⁰⁰ Charles Carney Strange and James H. Banning, *Educating by Design: Creating Campus Learning Environments That Work*, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2001), 123.

²⁰¹ Chang, Milem, and Antonio, "Campus Climate and Diversity," 43. Dey's work is viewed as essential for understanding the far-reaching educational benefits for all students of enrolling a diverse student body.

²⁰² Eric L. Dey, "Undergraduate Political Attitudes: Peer Influence in Changing Social Contexts," *Journal of Higher Education* 68, no. 4 (July-August 1997): 410.

Mississippi alumni and students continue to wave rebel flags and support the former mascot, Colonel Rebel, in spite of the fact that many African Americans find the former mascot a painful reminder of racial division. Christmas decorations are another example of the sort of friction between tradition and the desire for inclusion on campus. Symbols create powerful images that carry with them social constructs regardless of the high intentions of their creators.²⁰³

Student activities are an integral part of campus life for students. Greek letter social organizations, student government, and special events such as homecoming and family weekends provide some meaningful activities for students. In addition, leadership development programs, student union programming, and other activities all help to provide activities that enhance the student development by complementing classroom instruction.²⁰⁴ Student affairs practitioners are intimately involved with student activities often sponsoring lecture series along with other programs designed to enhance race relations, offering experiences intended to reinforce service learning, and offering opportunities for community service.²⁰⁵

Influences on Curriculum

The final area that Student Affairs practitioners seek to utilize their expertise in students is to influence curriculum in the various programs of study within the college or university. Students enter the classroom with some expectation regarding the content of the class and the material that will be taught.²⁰⁶ That they bring with them a worldview along with their educational goals, the values with which they were raised, etc. is to be

²⁰³ Strange and Banning, *Educating by Design*, 129.

²⁰⁴ Whipple and Murphy, "Student Activities," 299-301.

²⁰⁵ Whipple and Murphy, "Student Activities," 310-11.

²⁰⁶ Kenneth A. Feldman and Michael B. Paulsen, eds., *Teaching and Learning in the College Classroom* (Needham Heights, MA: Simon & Schuster Custom, 1998), 209.

expected. The same is true of the faculty retained by universities large and small. At times, the secular worldview held by faculty is openly displayed such as the recent article published in the *New York Times* by David Barash, a biology professor at the University of Washington. In the article, Barash discusses how evolutionary science has narrowed the available space for religious faith.²⁰⁷ He states that while students are not required to forgo their faith to pass his class, they will find that their professor does not share their Christian faith and knowingly teaches contrary to the biblical worldview.

External influences on curriculum. In the United States, public universities are funded, in part, through taxes paid by the citizens of the state in which those institutions reside.²⁰⁸ All fifty states support a public university system offering subsidized tuition for residents of the state. Providing affordable higher education for citizens benefits the entire state economically. Businesses are attracted to states with a well-educated workforce. The political climate at any given time has a direct impact on the funding of public universities, which can influence curriculum design and delivery.

Taxpayer funding from the state in which the university resides is not the only financial influence exerted on these schools. Indirectly, these institutions also receive funding by way of federal student loans. Full-time undergraduate students at 4-year degree-granting public institutions rose from 75 percent in the 2006-2007 academic year to 83 percent in the 2011-2012 academic year.²⁰⁹ Federal financial aid is a key part of funding most students' academic endeavors and the institutions that they attend.

²⁰⁷ David P. Barash, "God, Darwin, and My Biology Class," *New York Times*, September 27, 2014, http://www.nytimes.com/2014/09/28/opinion/sunday/god-darwin-and-my-college-biology-class.html?module=Search&mabReward=relbias%3Ar&_r=0.ba

²⁰⁸ Lisa R. Lattuca and Joan S. Stark, *Shaping the College Curriculum: Academic Plans in Context*, 2nd ed. (San Francisco: Jossey-Bass, 2009), 71.

²⁰⁹ National Center for Education Statistics, "Grants and Loan Aid to Undergraduate Students," April 2014, http://nces.ed.gov/programs/coe/indicator_cuc.asp.

In addition to funding from state taxpayers directly to universities and the indirect funding received through federal student loans, both of which are influenced by political concerns, accreditation is a major concern for colleges and universities. Each school must receive accreditation from an accrediting agency recognized by the United States Department of Education to be eligible to receive federal student loans.

Most institutions attain eligibility for federal funds by holding accredited or preaccredited status with one of the accrediting agencies recognized by the Secretary, in addition to fulfilling other eligibility requirements. For example, accreditation by a nationally recognized institutional accrediting agency enables the institutions the agency accredits to establish eligibility to participate in the federal student financial assistance programs administered by the U.S. Department of Education (Department) under Title IV of the Higher Education Act of 1965, as amended.²¹⁰

There are six regional accrediting agencies in the United States. Accreditation is a form of self-regulation through which member institutions develop, amend, and approve accreditation requirements that each member must adhere to. Accountability is through a peer review rigorous process. Each accreditor states that participation in the accrediting process is voluntary though failure to do so and forgo accreditation results in the vast majority of students to seek to meet their educational goals elsewhere, particularly those who choose to participate in federal loan programs but also many concerned about the stigma of having an unaccredited degree.

The purpose of accreditation is to demonstrate that a given institution meets established academic standards, assist institutions with determining the suitability of transfer credits from institution to institution, and establish criteria for professional certifications and licensure in particular fields. Interestingly, accrediting agencies are also tasked with protecting institutions against harmful internal and external pressure²¹¹

²¹⁰ United States Department of Education, “National Recognition of Accrediting Agencies by the U.S. Secretary of Education,” September 24, 2014, https://www2.ed.gov/admins/finaid/accred/accreditation_pg3.html#Recognition.

²¹¹ United States Department of Education, “National Recognition of Accrediting Agencies by the U.S. Secretary of Education,” September 24, 2014, http://www2.ed.gov/admins/finaid/accred/accreditation_pg3.html#Recognition.

though the definition of what those internal and external pressures might be are not discussed.

Internal influences on curriculum. In addition to the external influences on college and university curriculum, there are also internal influences that should be mentioned. The institutional mission expressed by secular colleges and universities has tremendous influence on curriculum design and delivery. Each accrediting agency recognizes the differing missions of various institutions yet as part of the accrediting process requires that each school has the resources to carry out its stated mission.²¹² The mission of the institution is vital to the accrediting process and all of the programs of the school should be traceable back to the mission or purpose for which the institution was established.²¹³ The following quote articulates the view of the Southern Association of Colleges and Schools:

Accreditation by SACS Commission on Colleges signifies that the institution (1) has a mission appropriate to higher education, (2) has resources, programs, and services sufficient to accomplish and sustain that mission, and (3) maintains clearly specified educational objectives that are consistent with its mission and appropriate to the degrees it offers, and that indicate whether it is successful in achieving its stated objectives.²¹⁴

The faculty at the institution has a very strong influence on curriculum delivery as evidenced in the opening of the current section of this chapter. Like students, faculty brings expectations into the classrooms that include the academic freedom to present the material in the manner they professionally deem appropriate. It comes as no surprise that

²¹² Southern Association of Colleges and Schools Commission on Colleges, “The Principles of Accreditation: Foundations for Quality Enhancement,” 2018, 3, <https://sacscoc.org/app/uploads/2019/08/2018PrinciplesOfAccreditation.pdf>.

²¹³ The manner in which each accrediting agency presents the accrediting process varies somewhat. Presentation notwithstanding, each agency carries out its work in more or less the same way according to very similar procedures.

²¹⁴ Southern Association of Colleges and Schools Commission on Colleges, “The Principles of Accreditation: Foundations for Quality Enhancement,” 3.

students and faculty differ in what they consider good or effective teaching though their differences are actually rather small.²¹⁵

Faculty also has a strong influence on curriculum development. The professional knowledge base possessed by faculty is essential in developing curriculum that thoroughly covers the subject matter. The method used to develop curriculum differs from school to school. For example, in some schools curriculum proposals originate in an academic department and are reviewed at progressively higher levels including a faculty senate. In other schools, curriculum approval with the school, college, or department directly involved is acceptable.²¹⁶

The influence of collective bargaining also bears mention. In the United States, over sixty percent of public universities are part of labor unions.²¹⁷ The involvement of unions in faculty promotions, tenure, sabbaticals, and even research support are often subject to union review. The impact of union involvement can be quite significant when issues arise that concern terms of employment of faculty. For example, the number of students advised or incentives for curriculum development can be influenced by labor unions.²¹⁸ Discipline, administrative authority, curricular matters, faculty appointments, tenure, promotions, sabbaticals, and research support are among the issues that are subject to negotiation under a collective bargaining agreement.²¹⁹

²¹⁵ Feldman and Paulsen, *Teaching and Learning in the College Classroom*, 234. Though students and faculty have different ideas about what effective teaching is the extant evidence clearly shows those differences to be much smaller than originally thought. Table 4 (Feldman and Paulsen, 233) provides a valuable summary of eighteen different data points, which shows an average correlation of +0.71.

²¹⁶ Lattuca and Stark, *Shaping the College Curriculum*, 72-73.

²¹⁷ Lattuca and Stark, *Shaping the College Curriculum*, 74.

²¹⁸ Lattuca and Stark, *Shaping the College Curriculum*, 74.

²¹⁹ Lattuca and Stark, *Shaping the College Curriculum*, 74.

CHAPTER 3

METHODOLOGICAL DESIGN

Using Trentham’s 2012 dissertation as the foundation, the current study explores the epistemological development of pre-ministry undergraduates attending secular universities and their progression through the Perry Scheme. This study is intended to replicate his original methodology.¹ This chapter will detail that methodology including the research question, design overview, population, sample, delimitations, and limitations of generalization, instrumentation, and procedures.

Research Question

What is the relationship between pre-ministry undergraduates’ attendance at a secular college or university and progression through Perry’s positions of intellectual and ethical maturity?

Design Overview

This is a qualitative research study focusing on the variance of epistemological development of no fewer than thirty pre-ministry undergraduates in secular colleges and universities. Participants were interviewed using the Standardized Perry Interview Protocol, which consists of pre-determined, open-ended questions. Follow-up probes were used to focus study participants’ responses on their experiences helping to clarify their intellectual and ethical thought processes.

¹ John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (PhD diss., The Southern Baptist Theological Seminary, 2012). This chapter relies heavily on the descriptions of methodology from Trentham’s original research.

Upon completion of the interview process, I transcribed the interviews and forwarded them to William S. Moore, director of the Center for the Study of Intellectual Development (CSID) for analysis and scoring.²

Population

The population for this study consisted of pre-ministry undergraduate students of secular colleges and/or universities. “Pre-ministry” as defined by Trentham included those students who retain active membership in a local church, self-identify as intending to pursue vocational ministry, and express an intention to enroll in seminary.³

Sample

The sample studied in this research consisted of purposefully selected individuals.⁴ This sampling technique was used to select individuals who were likely to be “information-rich” with respect to the focus of the study.⁵ I contacted seniors and recent graduates of secular universities to identify those meeting the criteria. The schools attended may offer religious studies but the schools themselves are secular in nature.⁶

Delimitations

1. This research is delimited to replicate as closely as possibly the previous study conducted by Trentham in 2012.

² See appendix 5 for detailed information regarding Moore and the CSID. For information regarding the interview scoring procedure, see appendix 6.

³ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 132.

⁴ John W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed. (Thousand Oaks: SAGE, 2014), 189; John W. Creswell and Vicki L. Plano Clark, *Designing and Conducting Mixed Methods Research*, 2nd ed. (Los Angeles: SAGE, 2011), 173-74.

⁵ Joyce P. Gall, Meredith D. Gall, and Walter R. Borg, *Applying Educational Research: A Practical Guide*, 5th ed. (Boston: Pearson/Allyn & Bacon, 2005), 310.

⁶ An example of such a school would be the University of Tennessee, which offers religious studies as part of their College of Arts & Sciences, as does the University of Michigan in their College of Literature, Science, and the Arts (see <http://religion.utk.edu/> and <http://www.lsa.umich.edu/students/academicrequirements/majorsminors/religionstudiesinrespectively>).

2. This research is delimited to students enrolled in secular colleges or universities who participated in the interviews.
3. This research is delimited to include pre-ministry undergraduates who planned to enroll at an evangelical seminary after graduation. This delimitation will create a more homogeneous sample, which will allow the researcher to validate or invalidate the conclusion of the previous study.
4. This research is delimited to include individuals who were “traditional” college seniors or recent graduates (ages 20-25). This delimitation replicated the previous study and eliminated numerous factors of variability within the sample that could have potentially negated the significance of the findings.
5. This research is delimited to include only college seniors or recent graduates from four-year institutions, who were earning (or had recently earned) a bachelor’s degree.
6. This research is delimited to the observation of college students in their final academic year before graduation, or in the immediate months following graduation. This study thus will not trace the epistemological development throughout the student’s college careers. The interviews will, however, capture the students’ reflections concerning their undergraduate experiences.
7. This research is delimited to original study participants who agreed to participate in a follow-up interview seven years after their initial interviews conducted in 2015. This delimitation allows the researcher to compare changes in the scoring and analyze the findings from the original interviews.

Limitations of Generalization

1. This study is limited to the secular colleges and universities in which it was conducted similar to Perry’s original study where he noted his results were limited to the specific institutional context in which his research was conducted.⁷
2. Since this study is delimited to undergraduate students at secular colleges and universities, the research findings may not apply to students who are not undergraduates or those in other institutional contexts.
3. Since this study is delimited to pre-ministry undergraduates with plans to enroll in an evangelical seminary after graduation, the findings may not be generalizable to non-evangelical pre-ministry undergraduates.

Instrumentation

This research is intended to replicate Trentham’s original methodology as closely as possible. To this end, I utilized the instrumentation from the original research.

⁷ William G. Perry, *Forms of Intellectual and Ethical Development in the College Years: A Scheme*, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 1999), 15.

Thesis and Dissertation Study Participation Forms

The research began with the completion of a Thesis Study Participation Form.⁸ This form was used to document consent to participate in the study as well as capture personal information such as undergraduate major, current church membership, intention to enroll in seminary after graduation, etc. Participants in the follow-up interview completed the Dissertation Study Participation Form which documented consent to participate in the study as well as capture personal information such as seminary or other graduate schools attended, degree earned, current place of service, and intention to seek further education.⁹

Interview Protocol

The Standardized Perry Interview Protocol, Alternate Perry Interview Protocol, and an adapted Trentham Interview Protocol were utilized to conduct telephone interviews of study participants lasting as long as one hour. The interviews are designed to encourage responses that assist the researcher in determining the epistemological positions of the participants. For the follow-up interviews, an adapted Sanchez Interview Protocol that incorporated additional questions about seminary experience.¹⁰

Procedures

As a replication study, I closely followed the methodology of Trentham's original research. The design of this study consists of six steps whereas Trentham's original work included five steps. This additional step consisted of customizing the Trentham Interview Protocol. The customization entailed adding a line of questioning

⁸ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 134. This form has been modified to reflect the current study. See appendix 1 for the form used in this study.

⁹ See appendix 2 for Dissertation Study Participation Form used in this study.

¹⁰ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 226-30. See also appendices 4-7 for these interview protocols.

exploring the impact of attending events sponsored by Student Services/Student Affairs. The remaining five steps that follow here are as follows: (1) recruit study participants having each complete a Thesis Study Participation Form, (2) conduct a pilot study, (3) conduct and transcribe interviews with study participants and submit to the CSID for scoring, (4) perform an independent content analysis utilizing Trentham's categories for assessing Taxonomy of Virtues for Christian Knowing, and (5) evaluate the scoring provided by the CSID and the content analysis and determine research findings and draw conclusions.¹¹

Recruit Study Participants

I began my efforts by contacting a dozen seminaries around the country to seek their assistance in locating recently admitted students to their programs with plans to begin their studies Fall 2015. Unfortunately, all of these schools declined to provide any assistance. Next, I contacted 108 BCM campus ministers for assistance. I received responses from 15 yielding 12 study participants from 4 schools. The remaining 18 study participants were located using Internet social media platforms. Each study participant completed a Thesis Study Participation Form and returned it to me prior to being interviewed.

Conduct a Pilot Study

The next step I took was to complete a pilot study with my first three study participants. The purpose of the pilot study was to practice my interviewing technique and provide transcripts to Moore to confirm they were suitable for scoring. Using the Trentham Interview Protocol, I interviewed three participants, transcribed the interviews, and sent them to CSID for scoring. Moore confirmed that my interview transcripts were suitable for scoring purposes.

¹¹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 135.

Conduct, Transcribe, and Submit Interviews for Scoring

Thesis Study Participation Forms were obtained and the semi-structured interviews were scheduled and conducted with the remaining 27 study participants. The amount of time for each interview varied widely by study participant with several taking about 30 minutes, the longest taking around 70 minutes, and most taking between 40-50 minutes to complete. In between the scheduled interviews, transcription work began and continued throughout the interview process until completed. Interview transcripts were then forwarded to CSID for scoring in batches of 10 until a total of 30 submitted for scoring.

Conduct Independent Content Analysis

While the interview transcripts were being scored by the CSID, I conducted an independent analysis of the data using Trentham's categories of Taxonomy of Virtues for Christian Knowing:

(1) a recognition of the God of the Bible as metaphysically ultimate, and of revelation as the source and most basic component for knowledge and development; (2) a clear articulation of the relationship between faith and rationality; (3) a preference for higher-level forms of thinking according to Bloom's Taxonomy; (4) a prioritization of wisdom-oriented modes of learning and living; (5) a reflective criteria of assessing one's own beliefs and values, as well as divergent beliefs and values; (6) a recognition of social-environmental influences on one's learning and maturation; (7) a pursuit of personal development that results from mutual interdependence and reciprocity in one's relationships with authority figures and peers; (8) a sense of personal responsibility for gaining, maintaining, and progressing in knowledge; (9) a preference for active involvement in the teaching and learning process; and (10) a convictional commitment to one's own worldview—maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews—through testing and discernment. These ten elements may be classified in three categories: Biblically-founded presuppositions for knowledge and development (1); metacognition, critical reflection, and contextualistic orientation (2-5); and personal responsibility for knowledge acquisition and maintenance—within community (6-9).¹²

¹² Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 137.

Once I completed my analysis, I forwarded the data to Trentham for review and correction.

Evaluate Findings and Draw Conclusions

The CSID scored the interviews utilizing the Measure of Intellectual Development (MID), its internal rating procedure.¹³ Upon receipt of the scoring and accompanying notations from the rater, I analyzed the returned scores along with the independent analysis using Trentham's Taxonomy of Virtues for Christian Knowing. I then used my analysis to render my findings and draw my conclusions in addressing the research question for this study.

Follow-Up Study

Approximately seven years after the original interviews were conducted, the study population was contacted again with a request to consider continuing their participation in this research. Ten participants from the original study agreed to be interviewed again as a follow up.

Dissertation Study Participation Form

Each participant completed the Dissertation Study Participation Form.¹⁴ This form is a variation of the Thesis Study Participation Form used in the original study. The form was used to document consent to participate in the follow-up study as well as capture additional personal information related to events since the original interview (e.g., did the study participant enter seminary and complete a degree program?).

¹³ See appendix 7.

¹⁴ See appendix 2.

Interview Protocol

The Standardized Perry Interview Protocol, Alternate Perry Interview Protocol, and an adapted Trentham Interview Protocol were utilized to conduct telephone interviews of study participants lasting as long as one hour. As previously stated, the interviews are designed to encourage responses that assist the researcher in determining the epistemological positions of the participants.

Procedures

Similar procedures were followed in the follow-up study with the exception of a pilot study. Given the familiarity of the researcher with the instruments and experience in conducting semi-structured interviews, an additional pilot study was deemed unnecessary. As with the original study, the Dissertation Study Participation Forms were obtained and the semi-structured interviews conducted with ten participants. The amount of time for each interview did not vary by more than ten minutes with each taking 30-40 minutes to complete.

The ten interviews were transcribed and forwarded to CSID for scoring. While awaiting the results, I conducted an independent analysis of the data using Trentham's categories of Taxonomy of Virtues for Christian Knowing.¹⁵ Once I completed my analysis, I forwarded the data to Trentham for review.

The CSID scored the interviews in the same manner as the previous interviews. Upon receipt of the scoring and accompanying notations from the rater, I analyzed the returned scores along with the independent analysis using Trentham's Taxonomy of Virtues for Christian Knowing. The findings from the earlier study and the follow-up study were then compared.

¹⁵ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 137.

CHAPTER 4

ANALYSIS OF FINDINGS

This research study focused on the epistemological development of college seniors or recent graduates from secular colleges and universities with plans to enter vocational ministry. Using the Perry Scheme as a model and research conducted by John David Trentham, I examined the progression of a geographically diverse population of study participants pursuing a wide range of undergraduate studies through the positions of intellectual maturity as defined by the Perry Scheme. This qualitative study utilized purposeful sampling and semi-structured interviews to gather data from participants. This chapter presents my analysis of the data collected and an analysis of the strengths and weaknesses of the research design.

Compilation Protocol

The data used for this study was obtained through personal interviews I conducted with the members of the study population. Before each interview, study participants completed and returned the Thesis Study Participation Form. Participants in the follow-up study completed and returned the Dissertation Study Participation Form. These interviews were conducted using the Trentham Interview Protocol, which is a customized version of the Perry Interview Protocol. The Trentham Interview Protocol and the Thesis Study Participation Form are included in appendices 1 and 4.

I used Skype™ to make the telephone calls to study participants and digitally recorded the interview using Softonic® Call Recorder software designed to be used with Skype™. The audio files were transcribed using NCH Software's Express Scribe software. The transcribed interviews were sent to William S. Moore, Director of the

CSID, who evaluated and scored the data according to the MID identifying the epistemological position according to the Perry Scheme of each study participant. Additionally, I conducted my own independent content analysis utilizing Trentham's ten Taxonomy of Virtues for Christian Knowing.

Thesis Participation Form Data

Upon locating a recent graduate or current college senior attending a secular college or university willing to participate in the research study, a Thesis Study Participation Form was sent via email to him or her for completion. This form provided the participants with a brief explanation of the study but also served several other functions. There is the section where the participant formally affirmed his or her consent to participate in the study. Next were questions that confirmed the participant met the parameters of the study population. Finally, the form captured information such as institutional context, intention to enter vocational ministry, and local church involvement. The following are observations obtained from the Thesis Study Participation Forms.

Gender

Seminary populations are predominately male. Given this fact, it is expected that any representative sample of pre-ministry undergraduates will be predominately male. Long's population only included six women in his study.¹ Trentham's population included four women.² In this study, eight women, or 26.7 percent of the study population, participated in this study. The difference between the number of men and women in this study is consistent with Long's and Trentham's earlier work demonstrating

¹ Gregory Brock Long, "Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges According to the Perry Scheme" (EdD thesis, The Southern Baptist Theological Seminary, 2014), 77.

² John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (PhD diss., The Southern Baptist Theological Seminary, 2012), 141.

a much larger percentage of men versus women who identify as pre-ministry. Cannon's concurrent research had 10 women in his study population.³ Perry's original study participants were almost exclusively male as well.⁴

Mullins's work focused on pre-ministry high school students from various contexts and included 13 men and 17 women⁵ while Leatherman's study of pre-ministry undergraduates in confessional and non-confessional liberal arts institutions had an even more divergent gender representation with 11 men and 20 women participating in his research.⁶ Bumanglag's study population of Southeast Asian seminarians mirrored my own in terms of gender with 22 men and 8 women participating.⁷ Studies conducted by Stuckert and Kintner each focused exclusively on male and female seminarians respectively.

Institutional Context

This population for this study included current seniors and recent graduates from eighteen universities located in ten states. The high number of universities represented and the small sample size from each does not permit a comparative analysis. This does provide a helpful level of diversity to this study for a number of reasons. First, all but two institutions are public universities with the exceptions being Stetson

³ Bruce Richard Cannon, "Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities" (EdD thesis, The Southern Baptist Theological Seminary, 2015), 65.

⁴ Perry, *Forms of Intellectual and Ethical Development in the College Years*, 17; Mary Field Belenky et al., *Women's Ways of Knowing: The Development of Self, Voice, and Mind*, 10th anniversary ed (New York: BasicBooks, 1997), 9.

⁵ Justin Robert Mullins, "Exploring the Impact of Secondary Educational Contexts on College Student Formation and Development" (EdD thesis, The Southern Baptist Theological Seminary, 2017), 74.

⁶ Warren Dale Leatherman Jr., "Comparing Epistemological Development among Pre-Ministry Undergraduates Attending Confessional versus Non-Confessional Liberal Arts Colleges or Universities" (EdD thesis, The Southern Baptist Theological Seminary, 2017), 123-24.

⁷ Bethel Anne Agtani Bumanglag, "Assessing Epistemological Development in Southeast Asian Graduate Students in Evangelical Seminaries" (EdD thesis, The Southern Baptist Theological Seminary, 2021), 136.

University and the University of Charleston, West Virginia. Additionally, 16 of 18 schools and 27 of 30 study participants attend or graduated from a public university.

The type of institution that the study participants attended further diversifies the population. In addition to the two private universities, six of the public universities were land-grant institutions, Space Grant⁸ institutions, or both. This diversity of institutional type influences the mission and unique environment of each school resulting in cultural diversity.

The diverse population for this study is drawn from ten different states across three different geographic regions of the United States. The Southeastern states are well represented by six states and twenty-three study participants. The Midwest is represented by two states and four study participants while the Southwest is represented by two states and three study participants. Table 1 identifies the specific institutions represented in this study as well as their location, geographic region, and the number of study participants from each.

Table 1. Study participants by institution

<i>Institution</i>	<i>State</i>	<i>Participants</i>	<i>Region</i>	<i>Type</i>
Iowa State University	IA	1	Midwest	Land-grant
Southern Illinois University	IL	1	Midwest	Public
University of Illinois	IL	2	Midwest	Land-grant / Space-grant
Troy University	AL	1	Southeast	Public
University of Central Arkansas	AR	1	Southeast	Public
Stetson University	FL	2	Southeast	Private

⁸ Sandra May, "About the Space Grant Project," NASA, July 28, 2015, <http://www.nasa.gov/stem/spacegrant/about/index.html>. NASA initiated the National Space Grant College and Fellowship Program, also known as Space Grant, in 1989, which is a national network of colleges and universities are working to expand opportunities for Americans to understand and participate in NASA's aeronautics and space projects by supporting and enhancing science and engineering education, research and public outreach efforts.

<i>Institution</i>	<i>State</i>	<i>Participants</i>	<i>Region</i>	<i>Type</i>
Georgia Institute of Technology	GA	1	Southeast	Public
Kennesaw State University	GA	3	Southeast	Public
Morehead State University	KY	1	Southeast	Public
Northern Kentucky University	KY	1	Southeast	Public
University of Kentucky	KY	5	Southeast	Land-grant
Western Kentucky University	KY	5	Southeast	Public
University of Charleston WV	WV	1	Southeast	Private
West Virginia State University	WV	1	Southeast	Land-grant
West Virginia University	WV	1	Southeast	Land-grant / Space-grant
East New Mexico University	NM	1	Southwest	Public
Southwestern Oklahoma State University	OK	1	Southwest	Public
University of Central Oklahoma	OK	1	Southwest	Land-grant

Degree and Program of Study

The Thesis Study Participation form included an inquiry as to the degree and program of study of the participants. Thirteen students completed or are finishing a Bachelor of Arts while the other seventeen are completed or are finishing a Bachelor of Science degree. Two participants pursued a double major explaining the number of degrees totaling 32. Table 2 details the diverse programs of study the participants of this study pursued.

Table 2. Study participants' program of study

<i>Degree</i>	<i>Major</i>	<i>Number</i>
BA	Anthropology	1
BS	Anthropology	1

<i>Degree</i>	<i>Major</i>	<i>Number</i>
BS	Biology	1
BS	Broadcast Journalism	1
BA	Business Management	1
BS	Child, Adult, & Family Services	1
BS	Communications	1
BS	Community & Leadership Development	3
BS	Computer Science	1
BS	Economics	2
BA	Political Science	1
BS	Elementary Education	1
BA	English	2
BS	English	1
BA	General Business	1
BA	General Studies	1
BA	Music History	1
BA	Psychology	2
BS	Psychology	2
BA	Recreational Administration	1
BS	Religion	1
BA	Religious Studies	2
BS	Social Work	2
BA	Western Philosophy	1

Local Church Involvement

Consistent with the earlier studies completed by Trentham and Long, this study focused exclusively on evangelical students and recent graduates who are preparing for vocational ministry.⁹ All of the participants of this study responded that they maintained active membership of a local church during their college years. The Thesis Study Participation Form also asked about the specific area of ministry in which they were involved during their college years. The majority participated in worship ministry in with

⁹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 143; Long, “Epistemological Development of Pre-Ministry Undergraduates,” 79-80.

many others serving with various age-group ministries.¹⁰ Table 3 details these responses. It is interesting to note that the total in table 3 exceeds the number of pre-ministry undergraduates participating in the study population due to their participation in more than one area of ministry.

Table 3. Study participants’ area of ministry involvement in their local church

<i>Ministries</i>	<i>Number</i>
Children	7
College	9
Sunday School	1
Youth	4
Worship	20
Young Adult	1
Outreach	2
Student	1

Many of the participants of this study elaborated on the importance to them of being involved in a local church during their time as a college student. This is significant as these students were under no obligation to be engaged with a church. Grant put this way:

Yeah, I would say probably just finding a local church to get involved in. I know for me in my freshman year or whatever I did not see the importance of a local church, which really just was awful for my growth and for my walk, and I would just say one thing that I really wish college students would see was the importance of a local church; especially within a secular university, as well.

The importance of being part of a local church was expressed by many of the study participants though Zachary was probably the most concise: “One of the things that has helped me the most is being involved in a local church as well as the BCM. It is

¹⁰ For the purpose of this study, I did not clarify between music specifically or worship service leadership when defining worship ministry.

important for us to remember that we're always called to be a part of a local church. We should always go back to the local church itself.”

Even without any requirements from their educational institutions, all thirty of study participants demonstrated the importance of involvement in church through their membership in a local church and their service in specific areas of ministry within the congregation.

Para-Church Ministry Involvement

In addition to membership in a local church and service in at least one area of ministry, all but four study participants were active in a para-church ministry during their time as college students. Just over half of study participants were also part of BCM. This number is consistent with the number of students referred to me by BCM campus ministers specifically for this study. Table 4 details the various para-church ministries.

Table 4. Para-church ministries study participants were involved with during college

<i>Para-Church Ministry</i>	<i>Number</i>
BCM	16
BSU Christian Challenge	1
Campus Crusade	2
Church on the Street	1
FCA	3
Freedom Forever Ministries	1
IMB	1
Wesley Foundation	2
Youth Explosion for Christ	1

Decision to Pursue Vocational Ministry

The Thesis Study Participation Form included questions concerning entering vocational ministry and whether or not the student planned to enroll in seminary after

college, even if not immediately. Without exception, all of the study participants plan to enter vocational ministry at some point after college. All but two participants in this study have definite plans to attend seminary. The two who have not reached a decision are considering doing so. Both desire to enter ministry sooner and are willing to forgo additional education to do so. Concerning the necessity of a seminary education for service in ministry, Zachary W. stated,

I don't know how specifically necessary it is. I think God can equip anybody and doesn't need to use a seminary to do it. If that's seminary for me, and that's how God chooses to prepare me for the rest of my life, then I want to do that and be obedient to His will for my life. I always think of is Peter and John before the council in Acts and what it says is that they recognized they were common, uneducated men and they realized that they had been with Jesus. I think that's all your ministry necessarily needs; it doesn't matter what you're educational level is as long as you are living your life out for Christ and it's apparent to those around you I think God is going to cover the middle ground for you.

The timing of the decision to enter vocational ministry varied among the participants of this study. Several stated they had made this decision prior to entering college; two while in high school and one in sixth grade. Of the remaining 27 students, almost half, 13, made the decision to enter ministry sometime during their sophomore year of college. Seven students made the decision to enter vocational ministry during their freshman year of college while the balance of study participants did so during their junior or senior years of college. These findings are similar to Trentham's original study, in which 9 of the 10 participants in secular universities (90 percent) made the commitment to vocational ministry mid-late college.¹¹ Figure 2 details the decisions made by the study population.

¹¹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 146.

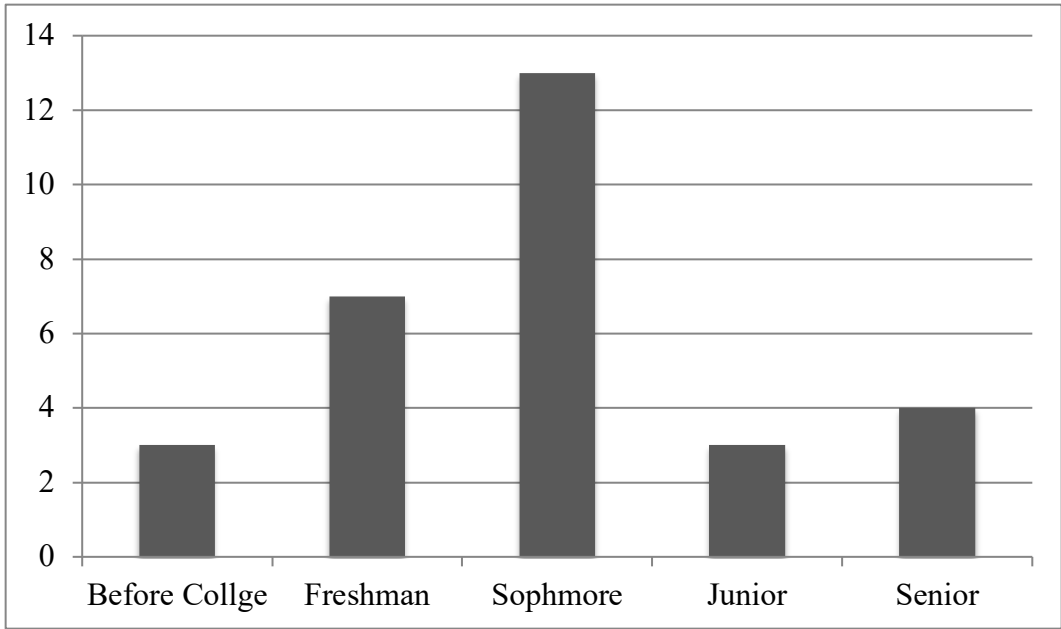


Figure 2. Time periods when students made commitments to vocational ministry

Research Question

What is the relationship between pre-ministry undergraduates’ attendance at a secular college or university and progression through Perry’s positions of intellectual and ethical maturity?

Summary of Findings of Original Study

The scores provided by William S. Moore of the CSID informed my analysis of the research question. This section includes an explanation of the rating procedure used by the CSID followed by the generalized findings of my research, a more detailed analysis, and specific positional examples.

CSID Ratings and Reporting

Interviews remain the major approach for assessing the Perry Scheme while also providing what is arguably the richest source of data on intellectual development.¹² The CSID has an established scoring procedure for evaluating interview data provided in interview transcripts. This procedure is essentially identical to that which is used to score data collected using the CSID's essay instrument, the *Measure of Intellectual Development (MID)*. The *MID* is designed to specifically assess the part of the Perry Scheme that is cognitive/intellectual in focus.¹³ The full explanation of the *MID* ratings procedure is included in appendix 6. Moore describes the 3-digit ratings when using the *MID*,

Individual ratings on the **MID** are represented by a 3-digit number which reflects the dominant and (if necessary) the subdominant position/s rated in the essay. This system extends the Perry scheme continuum from 4 steps--that is, positions 2, 3, 4, and 5--to 10 steps: 222, 223, 233, 333, 334, 344, 444, 445, 455, & 555. Solid ratings (like 333) reflect a "stable position" perspective; the two steps between each stable position indicate transitional essays. As examples, 223 represents "dominant position 2 opening to position 3," while 233 indicates "dominant position 3 with trailing position 2." The ratings thus reflect an assessment of the cognitive complexity displayed by the essay with respect to classroom learning along a linear, simple stage model continuum.¹⁴

In other words, *MID* ratings progress in one-third positional increments allowing a better understanding of where a respondent is in terms of transition from one stable position to the next. In this study, two participants were rated with a stable position 3 (e.g., "333") with a third rated as position 3 with a glimpse of position 4 (e.g., "333(4)"). All other study participants received ratings indicating a transitional position. See appendix 7 for a complete list of Perry Scheme ratings and their numerical equivalents for the participants of this study.

¹² Center for the Study of Intellectual Development, "Interview Format," Perry Network, accessed December 30, 2021, http://perrynetwork.org/?page_id=19.

¹³ William S. Moore, *Interpreting MID Ratings* (Olympia, WA: Center for the Study of Intellectual Development, 2004), 1.

¹⁴ Moore, *Interpreting MID Ratings*, 1.

For this research study, William S. Moore, Director of the CSID, received and viewed all interview transcripts and assigned positional ratings. Ratable, relevant statements according to the Perry Scheme made by my study participants were identified based on common cues. The primary cues cited by Moore among study participants are presented in figure 3 below.

Cues for position 2	Focus on facts/content - What to learn
	“Teacher (Authority) is all” (T-centered)
	Use of absolutes and/or dichotomies in language
Cues for position 3	Concern for process/methods - How to learn
	Opening to multiplicity (multiple perspectives)
	Focus on practicality/relevance
	Learning a function of teacher/student relationships
	Student responsibility = working hard and/or learning skills
	Discussion endorsed (peers provide diversity of opinions)
	Quantity/qualifiers; lots of details
Cues for position 4	Focus on ways of thinking - How to think
	Concern with independent thinking, freedom of expression
	“New Truth” rules (absolutes within multiplicity)
	Student more active, taking more responsibility for learning
	Rejects grading and/or memorizing (“regurgitation”)
	Comfort with multiplicity, connections across disciplines
Cues for position 5	Endorses seminar, argument, discussion of ideas

Figure 3. Primary cues cited among study participants

A total of three readings were used in evaluating each of the interview transcripts. The first reading was made to allow the rater to become familiar with the content of the transcript. During the second reading, the rater identified key statements and passages of text that indicate Perry position of the study participant. During the third and final reading, the rater confirmed the initial rating and provided an explanation of the rating as needed.

Generalized Findings

Consistent with the CSID's reported scoring and the rater's analysis of the interview data, the general finding of this study with regard to the research question 1 is that progression through Perry's epistemological development among pre-ministry undergraduates attending secular universities is similar to typical college students.¹⁵ Moore states, "In general, traditionally-aged students enter college in the position 2-position 3 transition and exit college 4 (or so!) years later in the position 3-position 4 transition."¹⁶

The mean score of study participants in this study was 3.10 indicating position-3 4 transition. This score is very similar to the average score of 3.135 reported by Trentham among the students from the same institutional context in his study.¹⁷ There were 17 study participants (56.7 percent) who were rated below the typical range (position 3 or lower), 11 (36.7 percent) were rated within the typical range (between position 3 and 4), and 2 (6.7 percent) were rated above the typical range (position 4 or above).

There is some difference between the ratings of participants of this study compared to those in Trentham's study from the same institutional context: 50 percent (5) below the typical range, 30 percent (3) within the typical range, and 20 percent (2) above the typical range. Figure 4 compares the percentage of study participants from each study.

¹⁵ Moore, *Interpreting MID Ratings*, 3.

¹⁶ Moore, *Interpreting MID Ratings*, 3.

¹⁷ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 163.

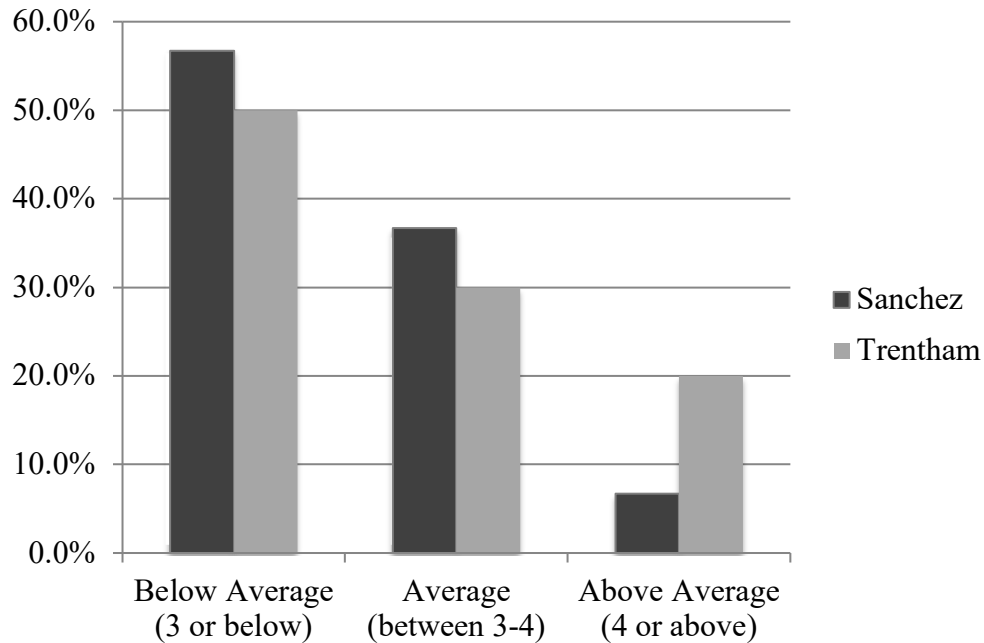


Figure 4. Percentage of study participants in each range

Concerning the gender of study participants, Moore states, “There seems to be no consistent difference [in average Perry Scheme positioning] by gender.”¹⁸ The 8 female participants of this study had an average score of 3.13 while the 22 men in the study had an average score of 3.09. Even with 26.7 percent of the study participants being women, this slight difference in scores does not allow for any conclusions given the total size of the population for this study.

Moore notes, “There is a modest but statistically significant effect by classification and by age, with the former seeming to be a stronger factor (with a great deal depending on the nature of the curricular interventions and learning experiences occurring in those intervening years).”¹⁹ Consistent with Moore’s statement, the ages of the participants of this study did not have an impact on this study. This was expected

¹⁸ Moore, *Interpreting MID Ratings*, 3.

¹⁹ Moore, *Interpreting MID Ratings*, 3.

given the participants of the study were exclusively current seniors or recent graduates from secular universities.

For the purpose of calculating the mean positions and transitions, Trentham assigned a whole number to stable ratings (e.g., 3 for a 333 rating), and applying a “.5” numerical value to the transitional ratings (e.g., 3.5 for 334 or 344).²⁰ Using the method of calculation, the mean of transitions and stable positions for the participants in this study was 3.05 compared to a mean score of 3.135 for the participants in Trentham’s study from the same institutional context.²¹ Figure 5 illustrates the mean and the range of scores of the participants of this study.



Figure 5. Range and mean of study participant scores

Positional Examples

During the review process, each interview transcript was rated by the CSID. This rating procedure included looking for primary cues that indicate the Perry position of the study participant. Figure 6 provides specific examples of statements that were marked position 2-3, or position 3 by the rater and the primary cues the rater observed. None of the study participants were rated below position 2-3.

²⁰ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 151.

²¹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 152.

Statements rated position 2 or 2-3	Aiden: We need to be a people that both teach the mind factual things, conceptual things, but more than that we need to be people who teach morality who teach the heart.	<p>Primary Cues:</p> <ul style="list-style-type: none"> •Focus on facts/content - What to learn •“Teacher (Authority) is all” (T-centered) •Use of absolutes and/or dichotomies in language
	Zachary C.: A teacher can either make or break a college course. They need to be approachable and make students feel comfortable. They need to be available to answer questions and not just stand up and lecture. They’re a guide.	
	Chloe: I pray and go to my Bible and see what it says before I go to see what the world says. I try to do a lot of research and find out everything I can before making a decision.	
Statements rated position 3	Hannah: I think just the practical responsibilities that you have to learn; you start paying your own rent at some point in college, you start paying your own cell phone bills, and then I think just realizing being an adult is a lot more than just turning 18 that its proving you can take care of yourself and that you are ready to do life rather than just sit in a classroom.	<p>Primary Cues:</p> <ul style="list-style-type: none"> •Focus on practicality/relevance •Student responsibility = working hard and/or learning skills •Learning a function of teacher/student relationships •Discussion endorsed (peers provide diversity of opinions) •Quality/qualifiers; lots of details •Opening to multiplicity (multiple perspectives)
	Eli: I think very practical assignments. One of my business classes I had to do a union labor analysis for the class so it was finding out the terms and the things that we learned in the class and looking them up online for a certain area. I think things that combine to make it real world applicable are good.	
	Eli: A lot of these interactions, especially with my atheist friend, challenged me personally to find answers to my faith and why I believed what I believe. In that sense, I really grew.	
	Olivia: I’ll try to listen to people around me who I respect a lot, and see what they have to say. I’m not saying that I’m going to make their opinions my own but I am going to listen.	

Figure 6. Examples of statements and cues among positions 2-3 and 3 study participants

Figure 7 presents examples of statements indicating dominate position 3 opening to position 4 and of dominate position 4 trailing position 3 and primary cues used by the rater to make this determination. This group of study participants accounted for eleven members of the population.

Statements rated position 3- 4	Natalie: process of learning how you figure things out. Students need to become responsible for their own learning so they can continue to grow after college.	Primary Cues: •Concern for process/methods - How to learn •Focus on ways of thinking - How to think •Quality/qualifiers; lots of details •Learning a function of teacher/student
	Gabriel: I have always met it with understanding, and then it also challenges me to go and research, and look, and think, and ponder on the ideas that they brought up and to see if do I disagree with it, why do I disagree with it, how do I disagree with it. It makes me a better person, and a better understanding of my faith.	
	Levi: so just the chance to sit under people who I know have studied this, and know these things, and be able to learn from them, to hear their perspectives and how they came to the conclusion that they reached on one issue or another.	
Statements rated for position 4- 3	Amanda: realizing well, I never, church always told us this, but come to think of it, it never actually says that in Scripture, that is just something that our culture in the Bible belt, the South, tends to believe.	Primary Cues: •“New Truth” rules (absolutes within multiplicity) •Student more active, taking more responsibility for learning
	Richard: we are testing our interpretations, and I think that willingness to question, and to think through things critically and to just have an informed Christianity really resonates with me.	
	Micah: The reason why I say that is because I think in response papers you are not just giving the professor just the “right answer,” but you are actually giving them your opinion and your reflection on the answer that is given, you know.	

Figure 7. Examples of participant statements and cues among positions 3-4 and 4-3

Two participants in this study were scored as being dominant position 5 trailing position 4. They were twenty-one and twenty-two years of age respectively indicating that age was not a factor in their epistemological position. Figure 8 presents examples of statements indicating dominant position 5 trailing position 4 rating of these two members of the study population.

Statements rated for position 5-4	Charles: I had to realize well I am probably not going to convince him based off of anybody's argument.	Primary Cues: Endorses seminar, argument, discussion of ideas
	Jason: one professor in particular that gives particular model that all of his classes followed and I took more of his classes where he did not ask us to know things about whatever stories or books we were reading, but he asked us to create arguments about them, and he wanted arguments, you know he didn't want you to say something that everyone already agreed with, or to say something that could never be proved, but to take some portion of it and ask questions of the text, and see if the text holds up under those. And so, I think those situations where you are asked to make the argument, have to defend what you say, I think those are ones that I would enjoy.	

Figure 8: Examples of participant statements and cues rated position 5-4

Trentham’s Taxonomy of Virtues for Christian Knowing

While the interview transcripts were being reviewed and scored by the CSID, I conducted an independent analysis of them seeking examples of Trentham’s ten Taxonomy of Virtues for Christian Knowing. Statements identified as being applicable for each category were compiled, coded, and sent to Trentham for review. A number of statements were rejected from inclusion. The remaining statements were compared to the scores and ratings provided by the CSID. During his research, Trentham found that, “generally speaking, higher [Perry] positional ratings among participants coincided with more instances of priorities addressed by participants.”²²

During Trentham’s analysis of his study population following his structured framework of Taxonomy of Virtues for Christian Knowing, his findings were consistent *overall* with the findings of the CSID concerning the variations of the level of epistemological maturity within the population. “That is to say, generally speaking, higher positional ratings among participants coincided with more instances of priorities

²² Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 167.

addressed by participants.”²³ In Trentham’s study, those participants rated as being below-average in Perry Scheme positioning (position 2-3 and position 3) addressed an average of 1.2 priorities, participants rated as average (position 3-4) addressed an average of 2.3 priorities, and those who were rated above average (position 4 or above) addressed an average of 5.5 priorities.²⁴

In Long’s study, those participants rated as being below-average in Perry Scheme positioning (position 2-3 and position 3) addressed an average of 2.6 priorities, participants rated as average (position 3-4) addressed an average of 3.4 priorities, and those who were rated above average (position 4 or above) addressed an average of 4.6 priorities.²⁵ The current study produced similar findings with study participants rated as being below-average in Perry Scheme positioning (position 2-3 and position 3) addressed an average of 1.8 priorities, participants rated as average (position 3-4) addressed an average of 4.6 priorities, and those who were rated above average (position 4 or above) addressed an average of 5.5 priorities. Figure 9 compares the average priorities addressed according to positional groupings in Trentham’s, Long’s, and this study.

²³ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 167.

²⁴ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 168.

²⁵ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 92.

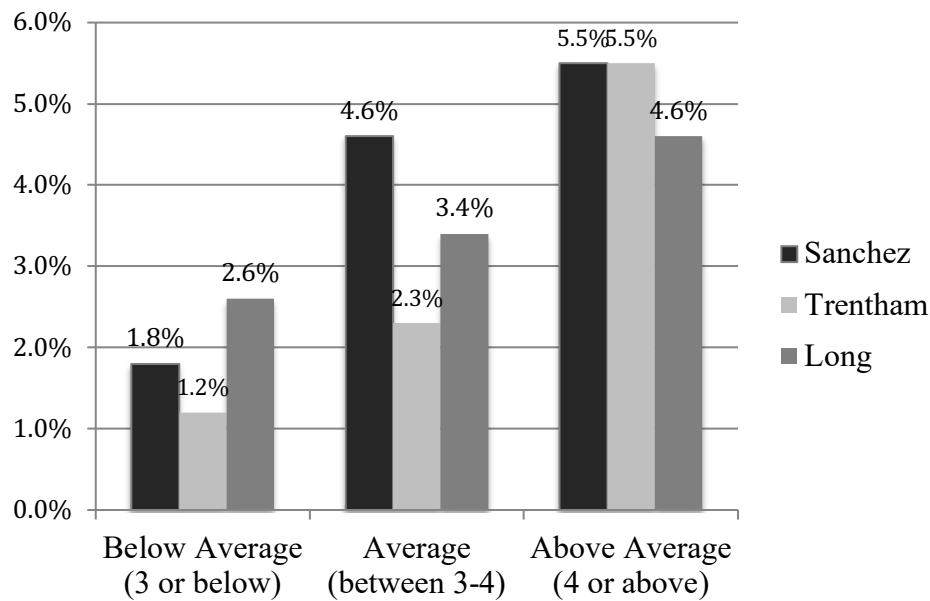


Figure 9. Average priorities addressed according to positional grouping

Similar with the findings of Trentham and Long, this study showed consistency between the number of the Trentham epistemological priorities that the study participants addressed and their respective Perry Scheme positioning. However, the correlations between Perry Scheme positioning and the individual priorities are less apparent. The next section describes each of the Trentham priorities followed by a brief summary of findings related to each priority accompanied by a distinct example.

Presuppositions for Knowledge and Development

“Biblically-founded presuppositions for knowledge and development” is Trentham’s first of three categories of Taxonomy of Virtues for Christian Knowing. Within this category are two sub-categories: “God and revelation” and “faith and rationality.” The interview transcripts for each participant were analyzed to identify individual statements that evidenced a personal awareness of these two individual priorities.

God and revelation. Trentham defined “God and revelation” as “a recognition of the God of the Bible as metaphysically ultimate, and of revelation as the source and most basic component for knowledge and development.”²⁶ Study participants evidence this priority through statements that consciously acknowledge their presuppositional faith claims and revelation as the key component for the development of knowledge. In Trentham’s study, 9 participants (30 percent) provided statements reflective of this sub-category.²⁷ 11 participants (36.7 percent) provided statements reflective of this sub-category in Long’s study.²⁸ In this study, 14 participants (46.7 percent) addressed this priority. Charles, who scored a dominate 5 trailing 4 in the Perry Scheme rating, clearly articulates this priority in his response to a question about the relation that proof has to personal knowledge, or beliefs, or faith:

Okay, yeah, so I think essentially it comes to doctrine. You know all doctrine is needed to be Scripturally rooted, right. If you can't point to it in Scripture then don't talk to me at all about it. You are not going to convince me of it. And I always jokingly tell people, I will believe anything you tell me if you show me in the Bible. Right. If you can convince me from Scripture that it is there, then I will believe it, I am willing to. But it has to be good, and it's not just good evidence, but it is good argument. It is okay, well you are not drawing conclusion X from you know a thesis of not-X, you know, you are not contradicting yourself in your argument, in your arguing of whatever. Something I think proof plays an interesting role, because a lot of things you can't prove factually or empirically right. We can't observe a lot of the different ideas, of different doctrines of Christian faith, and so the proof that comes from it, I think is the basis in Scripture, that's the proof.

Faith and rationality. Trentham’s second priority relating to biblical presuppositions is defined as “a clear articulation of the relationship between faith and rationality.”²⁹ In other words, expressions of Christian faith that are underpinned by reason. Richard, one of only three participants in this study to do so, articulates this

²⁶ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 170.

²⁷ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 170.

²⁸ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 94.

²⁹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 171.

priority in his response to a line of questioning about his response to challenges to his faith during his college years:

You know, I spoke about religious studies classes that I took and I think those challenges were important because I have truly come to believe that if you are afraid of your faith being tested as my discipler was, or at least he was afraid of mine being tested and crumbling, I don't think that is a faith that is worth holding onto necessarily, if it is not willing to submit itself. We are not testing God here, we are testing our interpretations, and I think that willingness to question, and to think through things critically and to just have an informed Christianity really resonates with me.

Metacognition, Critical Reflection, and Contextual Orientation

The second of Trentham's three categories of Taxonomy of Virtues for Christian Knowing addressed the primary elements of cognitive maturation that held prominence in Perry's original study. This category contains four sub-categories: forms of thinking, wisdom-oriented modes of thinking, criteria for assessing beliefs and values, and social-environmental influences. Generally, study participants with responses in 3 of 4 sub-categories correspond with CSID positional ratings.

Forms of thinking. Trentham's third priority overall, *forms of thinking* is defined as "a preference for higher-level forms of thinking according to Bloom's Taxonomy."³⁰ Bloom's hierarchical formulation is one of the standard tools for recognizing and classifying the most "important and long-lasting fruits of education" in terms of cognitive complexity."³¹ Bloom's Taxonomy established a codification system that educators used to assist them with the design of learning objectives that are hierarchical in nature. Prior to its publication, there was little agreement as to the nature

³⁰ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 172.

³¹ David R. Krathwohl, "A Revision of Bloom's Taxonomy: An Overview," *Theory into Practice* 41, no. 4 (September 2002): 212-18.

of educational objectives.³² Research that is more recent has yielded the Revised Taxonomy of progressive cognitive modes. The six categories of the Revised Taxonomy are: Remember, Understand, Apply, Analyze, Evaluate, and Create.³³ The content analysis of this priority focuses on instances of the three highest cognitive modes.

There were 14 participants (46.7 percent) overall and 6 from secular universities (60 percent) in Trentham's study that evidenced instances of higher-level preferences³⁴ while 19 participants (63.3 percent) evidenced higher-level preferences in Long's study.³⁵ In this study, similar to Trentham's original study, there were 21 participants (70 percent) who evidenced higher-level preferences with regard to the three highest modes. The only participants who did not evidence this priority were rated below average. All average and above average participants evidenced this priority. Figure 10 expresses these figures.

Trentham speculates that the reason for such a large number of study participants on secular campuses may be related to the confrontational nature of the secular university environment for evangelical students.³⁶ Trentham's study participants that attended secular universities all experienced challenges to their core beliefs though some articulated the emergence of a missional perspective.³⁷ This missional perspective was also expressed when describing encounters with oppositional worldviews.³⁸

³² Robert J. Marzano and John S. Kendall, *Designing & Assessing Educational Objectives: Applying the New Taxonomy* (Thousand Oaks, CA: Corwin Press, 2008), 1. Bloom adopted Ralph Tyler's idea that a specific educational objective should contain a clear reference to a specific type of knowledge as well as the indications that communicate understanding or demonstrate the skill related to that knowledge.

³³ Krathwohl, "A Revision of Bloom's Taxonomy," 214.

³⁴ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 172.

³⁵ Long, "Epistemological Development of Pre-Ministry Undergraduates," 95.

³⁶ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 173.

³⁷ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 196-97.

³⁸ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 198-99.

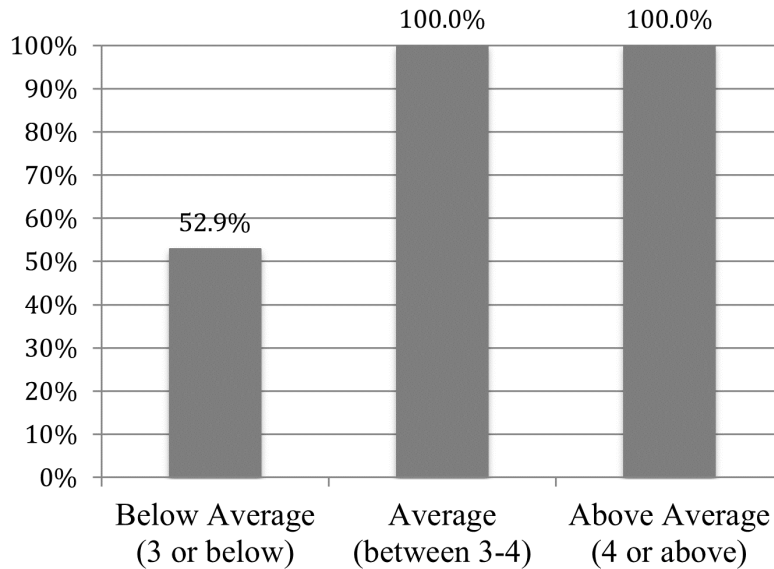


Figure 10. Higher forms of thinking-percentage of students evidencing

Michael, scored dominant 4 trailing 3, demonstrates higher-level thinking as he talks about evaluating his college environment:

Through them, I was able to see how they lived their lives because they were older than me and I gained a lot of wisdom from them and insight as far as reading the Bible and how to live your life as a Christian and to carry on this vision of making more disciples as they had made me (made a disciple of me). I would say that what I would look back on as the most important thing.

Responding to a question concerning how he arrives at his position on core issues and secondary issues, Sean explains, “I think you evaluate the information you have and the sources by which you acquired the information and if the situation demands action then you take the step you feel is most appropriate and with the most wisdom you have.”

Perhaps the best quote from the participants in this study to demonstrate a preference for higher forms of thinking according to Bloom’s taxonomy is this one from Andrew:

We can’t simply hide in our little Christian bubble but at the same time we have to understand that people are not going to give our beliefs the same respect they demand that we give to theirs. I had to really get my head around that and it took me

a couple of years to figure that out for myself. When I was doing that, I was like is this really how I am going to spend my life. Am I really going to believe these things and when I was doing that I kept coming back to the same place that the Bible is true and if it is true then I'm going to have to deal with it. We have to deal with the world as it is and not as we would like want it to be.

Wisdom-oriented modes of thinking. In the second subcategory addressing primary elements of intellectual maturity, Trentham sought examples of “prioritization of wisdom-oriented modes of learning and living.”³⁹ In his research, Trentham only recorded 4 instances (13.3 percent) of such statements.⁴⁰ Long’s research recorded statements from 7 participants (23.3 percent) affirming this priority.⁴¹ This study recorded a total of 7 statements from 7 participants (23.3 percent) such as this one from Amanda in her response to a question about the importance of mentoring relationships for college students:

I think much can be said about having somebody who is older than you and wiser, who is not related to you, be able to speak into your life because yeah, your parents will always be able to speak into your life. But, it is a different relationship that you have with a mentor. They tend to be a little bit less biased about decisions that you make. Where, maybe your parents want you to do one specific thing, not necessarily like a good or bad thing, it is not like.

Michael’s expressed a similar appreciation in his response to the same question:

Through them, I was able to see how they lived their lives because they were older than me and I gained a lot of wisdom from them and insight as far as reading the Bible and how to live your life as a Christian and to carry on this vision of making more disciples as they had made me (made a disciple of me). I would say that what I would look back on as the most important thing.

Sean also demonstrated this epistemological priority and competency in his response to a question about his decision-making process about what to believe or to choose concerning difficult or uncertain issues with information that is limited,

³⁹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 174.

⁴⁰ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 174.

⁴¹ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 98.

incomplete, or unclear by stating, “I think you evaluate the information you have and the sources by which you acquired the information and if the situation demands action then you take the step you feel is most appropriate and with the most wisdom you have.”

Criteria for assessing beliefs and values. In the third subcategory addressing primary elements of cognitive maturation, Trentham sought examples of “a reflexive criteria of assessing one’s own beliefs and values, as well as divergent beliefs and values.”⁴² Similar to Trentham’s study, which recorded consistent statements from 4 participants (13.3 percent) overall and one from a single student (3.3 percent) from a secular university, and Long’s study, which recorded consistent statements from 6 participants (20 percent), this study recorded consistent statements from 2 participants (6.7 percent). In his response to a line of questioning concerning how he evaluates diverse or conflicting views when he encounters them, Charles stated,

Yeah, well I want to understand them as best as I can and get the best picture. I don't want to be ignorant of them and have like a half-truth response when in reality I am just misunderstanding what they say. So when I encounter something I want to actually understand what they are saying to the best of my ability and then to go back to Scripture, go back to historical doctrine and let that be my foundation and work my way back to a solution, and that may involve helping find, okay well Augustine may have said this, or Luther may have said this, or some guy may have said this, or is it Biblical because it is based off Scripture and so I think it is a good idea, so I will use that too. But I think I have to understand what the opposition is as best as I can to address it. Otherwise, then, it is just probably creating more problems about if I have a misconstrued idea of what the person is saying.

Social-environmental influences. The last sub-category, and sixth overall is “a recognition of social-environmental influences on one’s learning and maturation.”⁴³ Trentham’s research only yielded 3 participants (10 percent) with responses for this priority while Long’s research recorded consistent responses from 11 participants (36.7 percent). In this study, responses from 13 participants (43.3 percent) were recorded

⁴² Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 175.

⁴³ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 175.

including this one from Lucy where she addressed his interactions with people of different faiths or different worldviews than her own:

One day we talked about homosexuality; one day we talked about transgender and whether transgender are even mentioned in the Bible. We talked about race and crime and we talked about drugs and we talked about all of these different worldly issues and having an biblical understanding of those issues, and being able to communicate those in a way where students don't just shut me out simply because I'm the Christian girl in the class. That has been an extreme challenge but I think I have grown a lot through that. I think I have only been super into the Bible for about three years and my opinions are based more off of my experiences or my mom or grand mom telling me what or how I should believe. So I think my classes have forced me to develop my own perspective and worldview.

Personal Responsibility for Knowledge- within Community

The third and final category of Trentham's Taxonomy of Virtues for Christian Knowing addressed "Personal responsibility for knowledge acquisition and maintenance-
within community."⁴⁴ Trentham's intent with this category was to identify evidence of study participants' self-motivation and personal commitment for continued epistemological growth and personal development in the context of community.⁴⁵ This final category contains four sub-categories.

Interdependence and reciprocity. The first sub-category and seventh priority overall is "a pursuit of personal development that results from mutual interdependence and reciprocity in one's relationships with authority figures and peers."⁴⁶ The priority identifies statements made by participants that express an understanding of benefiting from being in a learning community by gaining knowledge and also of one's responsibility to make a meaningful contribution back to the learning environment. A total of 5 study participants (16.7 percent) overall and only a single participant from a

⁴⁴ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 176-77.

⁴⁵ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 177.

⁴⁶ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 177.

secular university (10 percent of this subgrouping) provided statements consistent with this priority in Trentham's research.⁴⁷ In Long's research, 8 participants (26.7 percent) made such statements while 7 participants (23.3 percent) did so in the current study.

Describing how he has changed during his college years, Gabriel said,

I think definitely one way would be just relational. You know honestly it is such a drastic contrast between when I came into college and now as a senior. But I would venture to say, mentally, physically, and spiritually, I have changed in all respects. Whether it is mentally having more open-mindedness; whether it is physically being more comfortable in my own skin and sort of figuring out what kind of fashion I liked, and what I liked to wear; and that sort of thing or whether it is how I do my hair. Or you know even spiritually I have met so many people in college that have just poured into me and in return I have gotten to pour into other people and so that has just totally helped me spiritually. I never would have dreamed when I graduated high school that I would be headed toward seminary, but it is just another product of me changing while in college and something that I am really happy about, so.

Personal responsibility. This next sub-category sought to identify expressions that provided "a sense of personal responsibility for gaining, maintaining, and progressing in knowledge."⁴⁸ There were 14 participants (46.7 percent) in Trentham's study while only 7 (23.3 percent) in Long's study that made statements consistent with priority. In this study, 8 participants (26.7 percent) made statements consistent with this priority including this comment made by Gabriel while discussing how a person should change during their time in college:

I believe that if you remain unchanged throughout your whole collegiate experience, you did something wrong or the university did something wrong or I don't know. But everyone that I have ever really known that went to college, and came back a little bit different and I think that is a testament to what education does and when we look at the data, we can see that education changes crime rates in the area, and makes people more wealthy, and happier, and a lot of other things, and so I think that the ideal student will become more educated, will become socially more educated, and will be able to function in the workplace better than before they got their degree.

⁴⁷ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 177.

⁴⁸ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 178.

Charles articulated a similar view about ongoing education taking a strong position on the importance of progressing in personal knowledge in his description of an ideal college education:

Like I said, I am a big believer in self-education. The only reason I am going for the piece of paper is that people say I need the piece of paper to have it on my wall one day. And the track I am on now, I will have all my master's textbooks read before I finish my under grad just because that is what I enjoy reading in general. But I think an ideal college is one where you develop good relationships with your professors, and good relationships with students around you and you are there just for the sake of getting knowledge, but you are there and you are building relationships with people, and you are being a positive influence in whatever way that looks like on your college campus, and the way that looks like in seminary may very different than the way it looked like for me at [my school].

Active and engaged learning. The third priority in this category and ninth overall was defined by Trentham as “a preference for active involvement in the teaching and learning process.”⁴⁹ Half of the 30 participants in this study articulated this priority while 18 (60 percent) did so in Trentham’s study and 22 students (73.3 percent) did so in Long’s study. Emily expressed this preference in her response to a question concerning what constitutes her ideal college course:

I think generally it is one where the students and professors get to interact with each other, actually have a conversation. For me, the best classes I have ever taken have all been seminar classes where there are less than 25 of us around a table with a professor, and it doesn't matter what the subject is, just having that smaller contact where you are able to ask questions in the middle of the lecture or see the professor directly and that they actually get to know your name, and it does not have to be a professor.

Lucy’s short response to a question with regard to her view of the role of the teacher in her ideal college course also clearly indicated a preference for active involvement in the teaching and learning process:

By the time we get to college, we should be able to guide our own education. If you’re motivated and you want to know something, you’re going to figure it out. So facilitator or a teacher is someone who is providing you with the resources to do so

⁴⁹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 179.

but the student is the one who get out of a course that they want to get out of the course.

Convictional commitment. The final sub-category in this category and the tenth priority overall examines study participants statements concerning “Convictional commitment” defined as “a convictional commitment to one’s own worldview-maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews-through testing and discernment.”⁵⁰ In Trentham’s research, there were 2 participants from secular universities (20 percent of the secular university subgroup and 6.7 percent overall) that clearly expressed this priority.⁵¹ There were also 2 participants (6.7 percent) in this study who demonstrated this epistemological priority.

Charles articulates this priority, elaborating on this in some detail, while answering a question about important but debatable issues when there are multiple options that seem valid. He said,

So primary are the ones that we are all going to agree on and the ones that we will abide for and they are salvation through faith alone, and Christ alone, by God’s grace alone, and then when you get to maybe like an idea of eschatology you know I consider myself more of an amillennialist than anything else and so I am probably like in the extreme minority in amillennials, but I still love the people I go to church with and we can disagree, and we can have good edifying conversations, but at the end of the day it is not a hill that I am going to die on, but it is something that I want to be convinced of. But it is not going to make me ruin a relationship with somebody or not be friends, and not interact with somebody just because they may be you know a pretribulational, premillennialist. You know, it is not going to ruin my afternoon lunch with them. We can get together and play golf on Saturday, like we can still do that. But at the same time, we can have those good. Because my parents, we disagree a lot theologically, but it is funny because I have given them books to read and they gave me books to read and we have good discussions about it, but I am not going to say I don’t like my parents, and enjoy spending time with them, because I am going to have dinner with them tonight. But they are a pretty good example. Like they are not amillennialist, and they are probably not as reformed as I am in some of my theological convictions. But you know, they are awesome, and it is fun, and actually I really enjoy the times when we can kind of jokingly debate different ideas and leave edified from it.

⁵⁰ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 179.

⁵¹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 179.

A graphical representation of Trentham’s priorities and competencies provides a clear view of the similarities of his study participants from secular universities and those from the current study. Figure 11 illustrates this similarity.

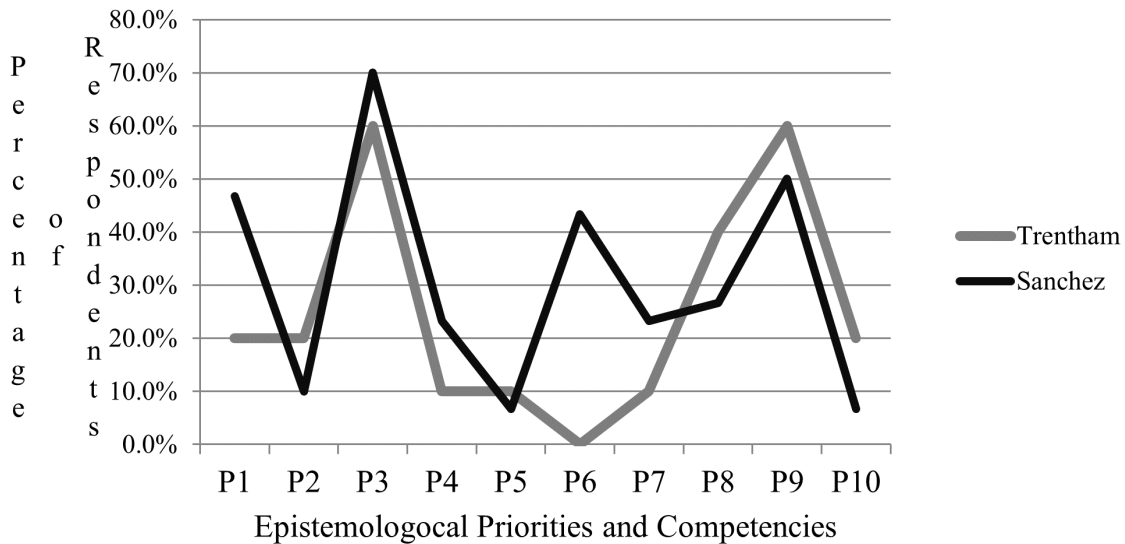


Figure 11. Comparison of Taxonomy of Virtues for Christian Knowing among study participants from secular universities

A graphical representation of Trentham’s priorities and competencies from Trentham’s cross-institutional sampling compared to Long’s research published in 2014 and the current study demonstrates a similar overall distribution. Figure 12 illustrates this and includes data from Bruce Cannon’s Doctor of Education thesis, in which he studied students from confessional Christian liberal arts colleges and universities and was conducted concurrently with my own research.⁵²

⁵² Cannon, “Epistemological Development in Pre-Ministry Undergraduates,” 110.

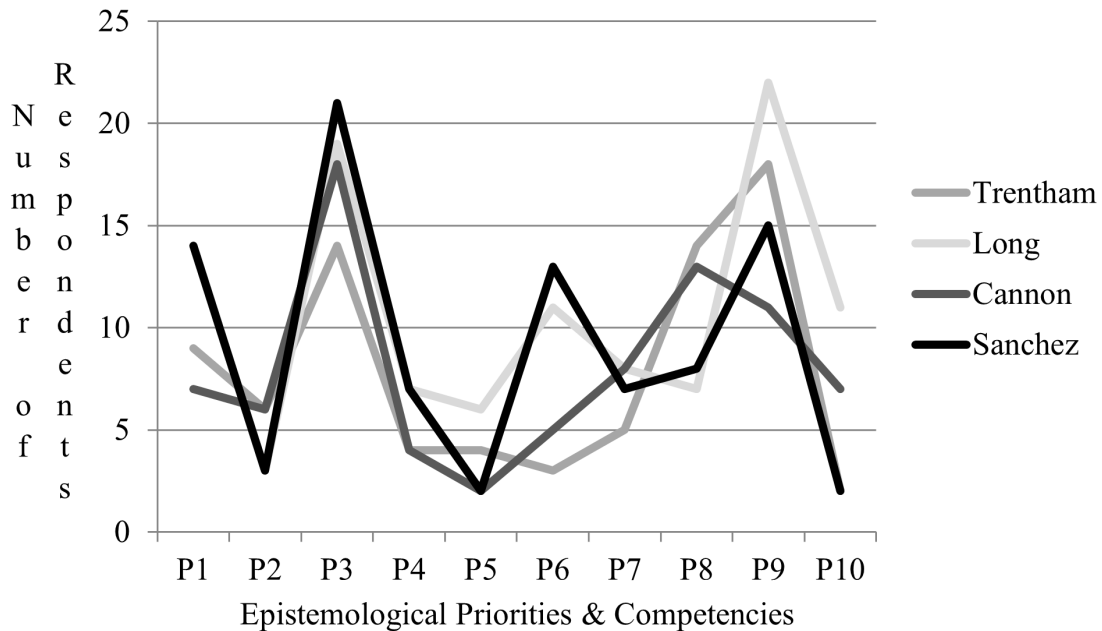


Figure 12. Cross-institutional comparison of epistemological priorities and competencies among study participants

Recurring Themes

The previous sections in this chapter have presented findings from the analysis of the CSID and my own content analysis of each interview transcript following Trentham’s epistemological priorities. In the presentation of his research findings, Trentham’s also discussed common themes that became apparent during his analysis of interview transcripts. Trentham judged these themes to “bear relevance to participants’ developmental (generally) and epistemological (specifically) perspectives.”⁵³ The themes Trentham identified included the primacy of relationships, mentors, relationship with teachers, the purpose of college, impact of college, perspective regarding seminary, and “the bubble.” Consistent with the approach taken by Long in his study,⁵⁴ I analyzed the transcripts in this study to determine if the same common themes were present or if other

⁵³ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 180.

⁵⁴ Long, “Epistemological Development of Pre-Ministry Undergraduates,” 104.

themes could be identified among the seniors and recent graduates of secular universities that participated.

The primacy of relationships (in general). Trentham reported the “most prominent common theme that voluntarily emerged among participants in this study was the primacy of relationships as the most significant single, formative aspect of their overall college experiences.”⁵⁵ Following Perry, Trentham, Long, and I began each interview with the question, “Thinking back through your college experience overall, what would you say most stands out to you?” In Trentham’s study, 7 out of 10 (70 percent) of secular university students focused on the primacy of relationships.⁵⁶ In this study, 15 of 30 participants answered this question based on the primacy of relationships. Brian’s response to this question provides an example that demonstrates this:

I think looking through college, I just see how my friend group has changed immensely since high school and just how I was able to find good friends who had good vision in mind. Now when I see the crowd I hung out with in high school there is just that disconnect there. I have been able to find some really uplifting friends and just a challenge for me to want to find other friends who are willing to see that you can still be a Christian and still have a great college experience.

Additionally, 8 other participants articulated the primacy of relationships in their college experience bringing the total to 23 of 30 (76.7 percent). In her response to the closing question inquiring about anything that may not have been asked about, Lucy said this:

I think that discipleship is something that is super important and is often underappreciated. I came into college fresh off a broken leg. I was just looking for something to do and because five senior girls cared enough about me to take me to coffee once a week, my something to do turned into discipleship and I learned more and grew more in my first year of college than I ever have in my entire life. I really value discipleship and really think it’s super important. And now those relationships, with me being the one, learning it’s turn into me having a yearning for pouring into others so I have gotten to pour into freshman girls this past year and they’ve taught me just as much as I hope I’ve taught them. I do think the campus

⁵⁵ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 181.

⁵⁶ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 182.

ministries are such a blessing because discipleship is so important but it goes beyond that. Not being so caught up in the campus ministry that you forget to live among the sinners as Jesus did so finding that balance between biblical community and outreach has been something that has been really important in my college career.

Most of the students in the current study expressed a fondness for their professors and several described the relationship with some professors as being more like a friendship. Only one described the relationship with a professor as having significantly impacted their college experience.⁵⁷

The influence of mentors. The majority of Trentham's study participants, 26 of 30 (86.7 percent), indicated the presence of at least one mentor in their lives during their college years with 6 of the 10 who attended a secular university (60 percent of this subgroup) indicated having pastoral-type mentorship with campus ministry leaders.⁵⁸ All 30 respondents in this study indicated that they had a mentor during their college years. Additionally, 18 of 30 (60 percent) indicated a mentoring relationship with a pastor or minister of their local church. Speaking about the impact of this mentoring relationship in his life, Charles said,

So the campus master at [my church]. I am his assistant, and so we spend a lot of time with one another on a 1 on 1 setting and he kind of mentors me through ministry in general, pastoral ministry, but also through school and he took a lot of philosophy classes at Southeastern, so he kind of helped work through some different things with me that may be difficult to understand or difficult to kind of grasp, I guess. But he is a huge part of my growth over the past couple of years of having him. He played such a close role in my life.

A campus ministry leader served as a mentor to 5 participants in this study. Michael talked about the lack of a male influence in his life and how campus ministry leaders influenced him while in college saying,

Like I mentioned, I didn't have any positive male influence in my life so I think these people that mentored me they provided me with this positive figure. The benefits from that were I saw the value of having a good work ethic, I say the value

⁵⁷ See Amanda's comment previously quoted (p. 107).

⁵⁸ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 183-84.

of being intentional with everything I do, being a good steward of what I have; really pursuing the life of the mind; having an attitude of learning constantly. Really loving people, I don't that is something I had going into college as a freshman. But, through meeting these people and having them invest in me and mentor me, their love not just for me, but for others as well, left a huge impression on me and that's something that I've carried with me since they've graduated and moving on. And, that is something that I will carry with me after college as well.

Only 3 participants in this study indicated that one of their professors or another teacher mentored them during their time in college. Lucy provides an example saying,

I have a professor in class who is a believer who has been monumental in helping me figure out what I want to do with my life. I've had her for probably six classes now. She's seen how I interact with others, she's read my papers, and she knows what I'm passionate about. She has been so patient, even as a secular professor, she has helped me to explore ministry options. She has been wonderful.

One of the remaining students indicated his father was his mentor with the other 3 indicating an older friend served as a mentor. Describing the impact of this relationship in his life, Gabriel speaks to the openness of the relationship and their ability to discuss any topic saying,

Well one of the impacts is that I am going to seminary now. He goes to seminary, actually, and we became close friends my freshman year, his sophomore year and so all three years that we were together at college and we maintained that relationship while he has been at Southern. And so I talk to him about everything that is going on in my life and he does the same with me, and I am able to share with him problems, and struggles in my life, and he shares with me the same, and so I know that sort of sounds like an accountability part and the one-year gap does sort of help him to mentor me in certain ways, and he has gone through things that I have not in ways. So that has been extremely beneficial as far as my experience in college.

The importance of relationships with teachers. Trentham's research indicated that clear distinctions between students from different institutional contexts could be drawn based on the nature of the relationships students had with their professors.⁵⁹ Comments from participants in the current study were favorable in terms of professors being open and 12 commented that they had the opportunity to get to know

⁵⁹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 185.

their professors yet did not take advantage of those opportunities. Several others indicated that they held little interest in developing a relationship beyond what was necessary to complete a given course in which they were enrolled.

One of the study participants expressed a desire to cultivate deeper relationships with his professors yet lacked the knowledge of how he might do so. In response to a question about getting to know his professors while in college, Richard responded,

Not as many as I would have liked and I think that I am not a first-generation college student, technically, but I kind of am in the traditional sense, so I would have really appreciated somehow getting the advice on how you make those connections with professors. I have heard stories of professors inviting students to have dinner at their homes, and that has never been the case for me, and so I guess I have always just felt kind of awkward about going about building a relationship with the professor.

In a follow-up question about his relationship with professors he had known the best, Richard commented that it was usually after the class with a given professor had ended. He said,

[The relationship was] very amicable. And again with the professors that I have gotten to know the best, it is through social media actually that we have gotten closer, sort of after the class, having added them on Facebook, or Twitter, or whatever, that has been really cool and seeing the way that we continued just seeing each other as people through social media was kind of cool and I actually had one of my Spanish professors, who again I got to know very well through real life and on line, write one of my recommendation letters for seminary, which was really cool.

The purpose of college. Another differentiating characteristic noted by Trentham in his study was the varying perspectives on the essential purpose of college from differing institutional contexts. Trentham noted that 70 percent of the students from a secular university participating in his study indicated the purpose of college was “to ‘grow up’ or mature in personal (self-identity) and the practical (self-responsibility) ways; to increasingly exhibit a sense of personal responsibility regarding education and

life.”⁶⁰ A large percentage of participants in the current study also reflected this priority. 83 percent, 25 of 30 participants, made statements affirming personal maturity as the purpose of college including this statement made by Richard:

I think the rapid degree to which I was forced to become more mature. I think that didn't really stand out to me until maybe a few weeks ago when I just started looking back and thinking back to the person I was 3-1/2 years ago walking into school and to who I am today. There has been quite a bit of growth, and I kind of shake my head when I am thinking back at freshman me, I guess.

There were four of these participants also stated that preparation for their future vocation was a secondary purpose for college. These were joined by 4 others who expressed vocational preparation as the primary reason for college, such as this remark from Olivia: “My view of an ideal college education would be graduating with a degree, whether that be associates, bachelors, masters, whatever, that leaves you feeling prepared to handle whatever comes next, whether that be a job or more schooling or whatever.”

Two students who stated that maturing was the primary purpose for college also expressed the importance of worldview. Chloe very succinctly addressed this by stating, “I guess in college what really changed was my worldview and how I just see people in the world. I grew up in a place where there were not a lot of other cultures around and only two ethnicities in the whole county.”

Micah elaborated on this with the following statement in response to a question about how a student should change through college:

I think they should change to better understand what exactly they believe in and develop their own worldview. I think you have a lot of college students who are just completely lost, or they are not founded in anything, and so they will fall for anything. You know. And so I think it is very important that students change in a way that they honestly have no doubt in what they believe in, they are able to just sit there, at least say, “you know what, I believe this for A, B, and C reasons, and here is why I believe this is supported,” and at that point I believe you know, a person is still able to further grow because you can engage in conversation and in dialogue with other folks with different beliefs and stuff, and then you can actually kind of challenge to see whether is what I believe in true, is it right, or is it wrong and is it

⁶⁰ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 188.

false. You know. So you sort of kind of, I think that really changes a student, is what they believe in.

Impact of college. Students change in many ways as a result of their college experience. Cognitively, morally, psychosocially, and socioeconomically, research indicates college has an enormous impact on the personal development and growth of students.⁶¹ Responding to the question, “How would you compare yourself as a college freshman with yourself now?” Fourteen of 30 participants (46.7 percent) in Trentham’s study indicated they were now “a completely different person” than they were upon arrival at college.⁶² Similar to Trentham’s findings, 14 participants (46.7 percent) in this study also provided responses indicating a complete change in who they were at the time of being interviewed compared to beginning their college career. In her response, Amanda exclaimed, “Oh, gosh. I feel like I need to go back and apologize to everybody who knew me as a college freshman. No, I mean I think it was just they think you grow up and before you are in college, and yeah, you go from being a teenager to an adult. So, nothing beyond I think just basic growing up.”

Evan elaborated on his response in spiritual terms saying,

Ok, freshman Joe Starks was pretty immature, I didn’t really take the gospel seriously, and I just sort of used God almost like an ATM. I considered myself a Christian, I was a Christian, but I didn’t think about the gospel, preach the gospel to myself everyday. I didn’t see my daily need for the Lord. Just on a personal level, on a character level, I worked really hard and I was successful. Academic life I considered success really important, but I had a lot of success idolatry with that.

Framing her response in terms of her transition from selfish to selfless with an emphasis on the importance of relationships, Lucy replied,

Well, I came in super prideful wanting to be the center of attention and not really knowing what I wanted to do with my life but wanting to be the best at whatever it was. Now I’ve gotten to a point where I can honestly say that I am super humbled to

⁶¹ Alexander W. Astin, *What Matters in College? Four Critical Years Revisited*, Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 1993), 396-437; Ernest T. Pascarella and Patrick T. Terenzini, *How College Affects Students*, vol. 2, *A Third Decade of Research*, 2nd ed., Jossey-Bass Higher and Adult Education Series (San Francisco: Jossey-Bass, 2005), 571-626.

⁶² Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 189.

be used in whatever fashion the Lord would use me in. Right now my major is community and leadership development so recently I got to be part of a program that taught professors how to play football so I got to play in the faculty football game which was like the best thing ever. I think before I was really self-centered and wanted to only do things that would get me ahead but now I find myself in a much more sacrificial and selfless position where I just want to experience things and be with people and love on people and be as helpful as I can in whatever respect that is. Like I said, I hated school coming in but now I love it. I think I have changed immensely since being a freshman.

Trentham indicated a correlation between positional ratings in the higher range and responses reflecting this perspective.⁶³ No such correlation was found in this study with positional rankings among respondents reflecting this perspective scattered from below average, average, and above average.

Perspective regarding seminary. All responses to questions about perspectives regarding seminary in Trentham's study were assignable to one of two positions with a single exception. The first position is that of having an "idealistic" perspective regarding seminary-the view that seminary is primarily necessary and beneficial for the knowledge and skills that are to be gained there, in preparation for vocational ministry."⁶⁴ All ten of the participants from secular universities in Trentham's study reflected this view. The second category Trentham identified was that of a "practical-utilitarian" view seeing seminary as a requirement for obtaining employment in a ministry position.⁶⁵

All 30 participants in this study expressed their intention to enroll in seminary, reflecting an idealistic perspective; with 22 (73.3 percent) either already enrolled or in the process of determining which school they would apply. Recognizing the liberal nature of her undergraduate education, Amanda cites her need for the knowledge gained from a seminary education as a foundation for her future career in ministry saying,

⁶³ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 190.

⁶⁴ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 193.

⁶⁵ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 194.

You know, I am wanting to go to seminary because while my undergraduate degree was fantastic and I love anthropology, there was absolutely zero spiritual application that I was taught, and I was able to make those applications myself, but I am really looking forward to and really wanting to get a deeper knowledge just of basic Biblical principles that I had never had in college, because again I never went to a Christian school so it is not like I had any required religion classes, or anything, and I never took those; and I am wanting to go into some form of ministry. So I think that it would be good to have the foundation of seminary to build off of the more liberal education in anthropology that I have had.

Richard clearly articulates the idealistic view, as described by Trentham, in his lengthy explanation for his reasoning behind enrolling in seminary:

That is a good question. I don't know about necessary, but I think it would be really great. I started thinking about school, seminary, theology school, two years ago or so when I realized that all of these questions that I had as I was sort of wrestling with doubt in my faith but I realized that I had not a lot of people would talk to and that if I got theological training if it was formed by an institution that taught good theology at a seminary, and that was really well-established, that I could then be that person to whom young people might be able to talk with candidly about questions or doubts, or whatever, concerns they had with the faith. So that was kind of how I started getting the idea that it was a good thing, or would be I guess that it would be I don't know about necessary but informative, positive experience for me. And then in the years since then, I haven't heard the Voice of God or anything, not like in the stories that people tell, but I feel such a I was talking about one of my pastor friends about whether I should study social work or theology and he asked me to explain to him each of the fields and what drew me to them, and then he stopped me after a couple of minutes and he said, "you know the way you talked about social work, it is very interesting. But the way you talked about theology, I don't know if you noticed but you were glowing, you lit up," and I really think that is true, and why I feel it is necessary for me to study those, just some sort of vocation or calling toward it, although I am not sure what the end of that will be exactly.

Sean's response, albeit brief, provided what can be viewed as a summary of the views expressed by many others when he stated:

I just know that, I want to handle the scriptures well and know them as well as I can. And keep them as well as I can, I think that is our responsibility as a shepherd. I want to learn more just in general how to live out the calling God's given me.

"The bubble." Trentham reported many respondents from Bible college and liberal arts universities mentioning the term "the bubble" in his study to describe their particular institutional context. Long noted only 3 such responses (10 percent) in his

study.⁶⁶ In the current study, there were 4 instances (13.3 percent) of participants using the term “bubble” to describe their institutional context. Andrew replied to a question about challenges to his faith in this way: “It’s important to be reminded of who the enemy is and what you’re up against and not just become numb in some Christian bubble where you’re just focused on hanging out with Christian friends. We need to be constantly reminded of the spiritual war that is at hand every day.”

Brian also used the term “bubble” in his description of an ideal college education but, like 7 other students, employed the term “real world” as he talked about the environment:

I see a college education being an area that you’re interested in, something you’re not forced into by your family. I feel like it is going to be an opportunity to see the real world, you know what it’s really like, outside of a rural middle class area like you may have grown up in. To actually see what’s going on in America, to see what’s going on internationally, and to see what’s really going on on campus. Personally I like a large public university where you get to see non-Christians every day, where there is a diverse group, where there are international students, where you’re not separated in a bubble. So it is important to see different aspects of the world so you’re not thrown off by the lostness in the world when you go to get a job in the real world.

Nathan described what he liked about his education and the difference between his childhood compared to transitioning into adulthood by saying, “It has prepared me heavily for the real world, and for living on my own, and what all of that means, and for thinking for myself really because when I started college I was thinking based off of what my parents told me, and that is a good thing when you are a kid, but not when you are an adult.”

⁶⁶ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 194; Long, “Epistemological Development of Pre-Ministry Undergraduates,” 113. Long goes on to point out that other terms were used to compare and contrast the Bible college environment with different institutional contexts with which his study participants have experience prior to transferring to the Bible college from which they would graduate.

Benjamin viewed his college experience quite differently, seeing it more in terms of the campus experience preparing him for life after college rather than his program of study:

Less of my actual time at Iowa State prepared me for life after college but it gave me the opportunity to meet a myriad of different people. And also it gave me kind of a goal to work towards for being in class while still allowing a lot of free time to spend time with people in relationship. I guess my time in college gave me opportunities to learn what it means to live life. My classes and my professors didn't really prepare me for the real world.

Similar to Long's study, participants in the current study used terms other than "bubble" when comparing and contrasting their institutional context. A total of 11 participants (36.7 percent) in this study used either the term "bubble" or "real world" in this way.

Findings Related to Secular College/University Culture

Educational institutions are not value free.⁶⁷ The policies and practices adopted by these institutions influence the culture on campus and impact students. Trentham investigated three specific social-environmental conditions in his research to determine the impact they may have on epistemological maturity: challenges to personal beliefs and values, interactions with ideological diversity, and exposure to multiple disciplines.⁶⁸ In addition to these three conditions, I also explored the possible influence of events sponsored by Student Services/Student Affairs.

Challenges to Personal Beliefs and Values

Trentham inquired first about challenges to the personal beliefs and values of his study participants. All of the participants in his study from secular universities

⁶⁷ Arthur W. Chickering, Jon C. Dalton, and Liesa Stamm Auerbach, *Encouraging Authenticity and Spirituality in Higher Education* (San Francisco: Jossey-Bass, 2006), 9.

⁶⁸ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 195-96.

indicated their core values and beliefs had been challenged during their college years.⁶⁹ Trentham also noted that none of those students reported doubting their beliefs as a result of these challenges. The 30 participants in the current study were also asked, “Through college (in your classes, especially, did you encounter ideas which challenged your beliefs and values?” 29 of 30 participants (96.7 percent) indicated they had experienced challenges to their personal beliefs. Charles, a Western Philosophy major, indicated that he experienced such challenged in nearly every class saying,

I mean in just about any class! We are reading Nietzsche, in my 19th century philosophy class, or Hegel, or Marx, or any of those guys, always challenging to hear different ideas espoused, thought of and I think that it is good exposure because it helps you. I think when Paul says confirm your calling and I think that part of the classroom setting is to help to do that for me. Yesterday I was talking to a buddy of mine and he asked if doubt was a good thing and I said I think it is. I think it is useful asking the question why, or asking questions in general. I think it gives us answers, and that we can find answers to these questions, and that we shouldn't be afraid of them. So I think I definitely have been challenged. Different ideas, different world views, in my classroom setting, whether it is from the professor or the person we are reading, or classmates.

Amanda shared her experience as an anthropology major saying, “Since day one of my anthropology classes, I have encountered things that are completely contrary to what I was taught as a kid and what I believe.” When asked about her reaction to those sorts of challenges, she replied,

You know, I think that is one thing where it shifted a bit throughout the years. Initially it was very abrasive and I was super defensive and it got to a point where it was like well, people kind of believe crazy things, whatever, you can't pick every battle. But example: The very foundation of anthropology is in cultural relativism, which is the idea; I mean I am sure you know what that means. The idea that there is no right or wrong, it is all just relative, it is all just cultural. And so that obviously is pretty contrary to Scripture. At the same time, I have learned how to and this is maybe where I have become a bit more liberal, is realizing what is sin and what is simply just different.

Lucy's response to the initial question reflected answers provided by others when elaborated in some detail on her experience in a diversity class:

⁶⁹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 195-96.

Absolutely, especially with everything going on with race and gender I have been very challenged to not just have an opinion not just based on preference but based on what the Bible says about these issues. One day we talked about homosexuality; one day we talked about transgender and whether transgender are even mentioned in the Bible. We talked about race and crime and we talked about drugs and we talked about all of these different worldly issues and having an biblical understanding of those issues, and being able to communicate those in a way where students don't just shut me out simply because I'm the Christian girl in the class. That has been an extreme challenge but I think I have grown a lot through that. I think I have only been super into the Bible for about three years and my opinions are based more off of my experiences or my mom or grand mom telling me what or how I should believe. So I think my classes have forced me to develop my own perspective and worldview.

It is important to note that all 29 of these respondents indicated that this was a positive experience for them and that is caused them to reflect on their person beliefs and values more deeply than they had previously. Most also indicated these encounters served to strengthen their Christian faith.

There was a single student who reported that her beliefs and values had not been challenged. Emily stated, "Not really actually. No. I can't think of a class that has challenged my belief. If anything, it has been a different option, but it has never been forced, or never been pushed as this is something that you have to believe. So, no I really haven't had that problem or encountered that."

When asked if such challenges are important, she elaborated on her previous response revealing what could be, by comparison, the reason she did not consider her experience in class to be challenges to her faith. Speaking about her brother's recent conversion to Judaism, she said,

They can be, especially if you don't have an understanding that your way is not the only way. I mean my brother has actually converted to Judaism, so for me I have had very different perspectives on a lot of things, because I now have a family member who is of a different faith, a blood family member, very close family member who is of a different faith or faith tradition. So now, I am dealing with the fact of trying to see how we both can be right or right with God and be okay.

Interactions with Ideological Diversity

The second social-environmental condition Trentham investigated "was the nature and impact of participants' interaction with interfaith dialogue across varying

institutional types.”⁷⁰ Trentham’s findings were virtually identical to the previous condition examined.

The findings of this study were similar to the previous condition as well. When asked about common interactions with people who held different worldviews than their own, 27 participants (90 percent) indicated they had interacted with such people within their institutional context. James described one experience this way when asked about his encounters with people from a different faith:

Yes, absolutely. The last two semesters there was a group of Pakistani guys that would come to the BCM because they loved to play Ping-Pong. You may not realize this but Kentucky has a large international community with people from all over the world. I got to invest in four or five Pakistani guys and that was really cool. They were probably the most hard-nosed Muslim guys who were genuinely the nicest guys you could meet who loved getting to see America.

In her extracurricular role as a tutor to student athletes, Lucy described the different worldviews she has experienced saying,

Yes, I’ve been in groups with people who are leaders of LGBT groups and people who are trying to get marijuana legalized or guns this and guns that or whatever. It is a pretty liberal school so the environment is pretty liberal. I also tutor athletes and that is probably where I’ve seen the most variety in religion and beliefs just because there are so many cultures I’ve gotten to deal with. During that hour or so of tutor time we often have 20 minutes or so of just sitting and talking together. So I’ve learned a lot and have had a lot of conversations about faith and spirituality and worldly issues. Many of the times the people don’t agree with me, at least at the beginning, so yes, I’ve had a lot of opportunities to talk with different people with different viewpoints.

Olivia eagerly responded to a follow-up question about her experience with diversity on campus about a student from a different religious background that converted to Christianity:

I think I experienced a lot more of, like people who necessarily who didn’t really believe anything. So like when I went back to Wisconsin and going home to my family and discussing all of the things I am involved in, I have a lot of interesting conversations there. Then there was this one freshman guy who came in who was Muslim and came up to one of our BCM activities and he said I am a Muslim and I don’t know anything about Christianity, teach me. And so he spent the last year

⁷⁰ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 198.

learning more about our faith and accepted Christ just a few weeks ago. It was incredible to be part of that experience.

There were 3 students (10 percent) who stated they did not commonly interact with other people who held different faiths or worldviews. Grant, a broadcast journalism major at Troy University said, “I had a few friends who were Buddhists or had some kind of Hindu faith, but there really wasn’t a lot of religious diversity [on campus].” Henry, a general business major at Southwestern Oklahoma State University, replied, “Commonly, no. Even though it is a secular school I’d say eighty percent of the students were still Christians, or claimed to be, so even though there was plenty of diversity on the campus, I didn’t commonly run into a lot of that.” The third student to state she did not commonly interact with people who held a different faith or worldview was Emily, who was also the only study participant to state her personal beliefs and values went unchallenged during her time as a college student. She related her personal experience with this comment:

I mean I kind of got pulled into the church and foundation that I am a part of and that I work at and then I don't leave that much, but then also we don't talk about faith in class a lot of times. So honestly, I don't know about my classmates and how they believe. So a lot of times I don't know if I have interacted with someone who is Jewish, or who is Muslim, or who is from an international country and is here with a different cultural set of beliefs. So there is a lot of yes but no. I haven't interacted with a lot of people or talked about it a lot but I know they are there.

Exposure to Multiple Disciplines

The third social-environmental condition Trentham explored was study participants’ exposure to multiple disciplines during their college years. He noted there was no “relationship between encountering or valuing interdisciplinary studies and pre-ministry students’ epistemological maturity.”⁷¹ In the current study, all participants indicated that they had been exposed to multiple disciplines during their college careers. Further, all study participants indicated that they felt this exposure benefited their overall education. General education coursework was specifically mentioned by 15 (50 percent)

⁷¹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 200.

of study participants. While many did not care for the classes and related coursework, all made statements affirming the need for such classes. Michael spoke about the benefit he may see as a future minister:

I think those classes provided me with a point of reference. For example, one of my teachers I had a conversation with her and I asked her about what she believed in her faith. She said that she doesn't adhere to any denomination because I know the roots of the rituals being performed in each of the faiths. Had I not taken that class, I don't know if I would have known where she was coming from. But by taking the different courses, I was able to say ok I think you are correct in trying to critique the ritualness of said faiths and were able to have a conversation from that. Had I not taking those classes I wouldn't have known how to respond to that.

Influence of Events Sponsored by Student Services/Student Affairs

In addition to the three social-environmental conditions Trentham explored, I also investigated the influence of events sponsored by the Student Services departments of the schools study participants attended. All study participants were asked the following question: "Through college did you participate in extracurricular activities that were sponsored by student services, or student affairs, which ever term your school uses for that group?" Half of all study participants indicated that they did participate in such events. Among the study participants who participated, 9 participants indicated their participation was voluntary and did not coincide with any of their coursework, 3 indicated their attendance was required, and 3 indicated they participated in events that were both required and voluntary. Describing an event he voluntarily attended, Gabriel remarked:

So one was called Spring Fling where they bring a carnival basically to campus, and all sorts of amusement rides, and free food, and stuff like that so that was neat. All sorts of concerts throughout the year, throughout my four years that I have gotten to go see. There was career workshop type thing, career fairs where employers would come in and you can hand them your resume, and get an interview with them, and stuff like that. There were just a lot of opportunities that our student services offered that were really useful.

Eli spoke of an event he attended in lieu of class as required by the professor: "I know one of the things that sticks out in my mind was a Business Beyond the

Classroom and my professors canceled class and required us to attend and that was really helpful with working with people with helping to transition from the classroom to actually being out in the business world after college.”

Andrew’s comment was typical of those who attended events voluntarily and those required by a particular class: “For me it kind of varied. There were a couple of classes that had something required and one or two others where it was for extra credit. There was stuff to go to just for fun too.”

Students with a lower epistemological positioning attended these events at much lower percentages than their peers with a higher positioning. Figure 11 shows the percentage of students by category that attended events sponsored by Student Services/Student Affairs.

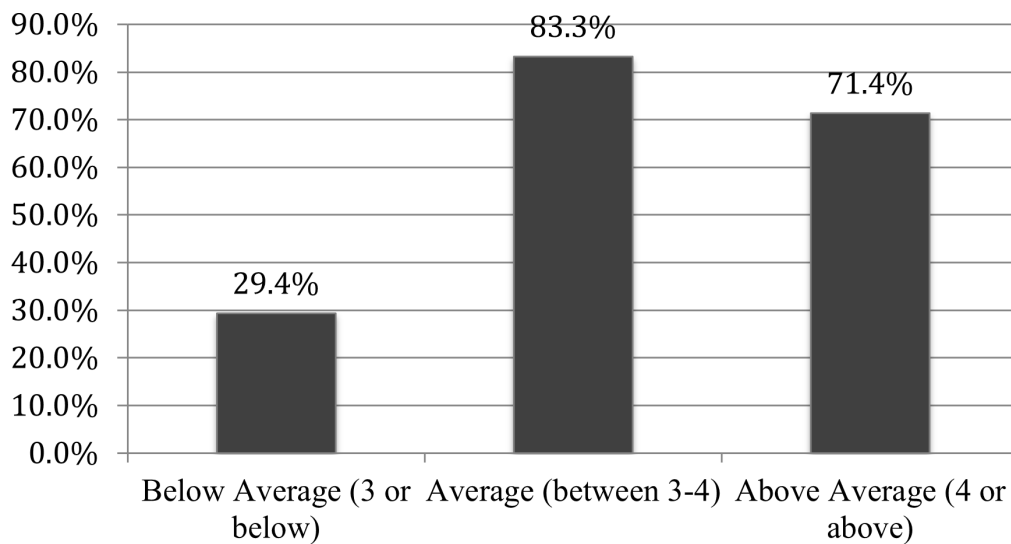


Figure 13. Percentage of students attending events sponsored by Student Services

Of those pre-ministry undergraduate students with a below average (3 or below) epistemological positioning, 60 percent attended events as a requirement while students with average positioning (between 3-4) attended as a requirement 40 percent of

the time and above average students (4 or above) attended as a requirement only 20 percent of the time. These findings suggest a possible correlation between epistemological positioning and voluntary attendance and with Trentham's Taxonomy of Virtues for Christian Knowing. However, due to the small population size, further research is necessary.

Findings of Follow-Up Study

At the time the original study was conducted in 2015, a number of participants connected with me via various social media platforms, primarily Twitter. Several of these connections remained intact since that time though interactions with any of those individuals was rare if at all. Importantly, these connections did not become close and a critical distance was kept—albeit unintentionally—between myself and the participants in my original research.⁷²

A number of other Perry-related studies—previously discussed—included a recommendation for longitudinal data to be collected from participants in these earlier studies. In my own earlier work I included a recommendation for a follow-up study that studies the influence of seminary on the epistemological development of the original study participants. Such follow-up studies offer the opportunity for seminaries to better determine how well their graduates have been prepared for ministry.

Seven years after the original surveys were conducted, study participants were contacted about participation in a follow-up study. The purpose of this follow-up study is to obtain longitudinal data to determine the level of additional epistemological positional growth and maturity in the original study population once they have completed seminary and had the opportunity to enter vocational ministry for a period of time. Participation in

⁷² This was a concern in an earlier study where the researcher initially considered his familiarity with the participants in his study to be a strength when it may have been that familiarity actually prevented him from probing as deeply as he might have otherwise. See Jonathan Derek Stuckert, "Assessing Epistemological Development among Evangelical Seminarians" (EdD thesis, The Southern Baptist Theological Seminary, 2016), 110.

the follow-up study was not delimited to original participants that completed seminary largely due to challenge in locating a large enough group willing to participate in another structured interview.

Initially, contact was attempted using the email addresses provided at the time of the original study. Most participants provided student email accounts from their undergraduate institutions that appeared to be no longer valid. A number did receive the email and replied. Several opted not to participate while several others agreed to be interviewed again. Contact was also attempted using social media. Eight members of the original study population (26.7 percent) agreed to participate in the follow-up study.

Dissertation Participation Form Data

Follow-up study participants completed and returned the Dissertation Participation Form. This form provided the participants with a brief explanation of the follow-up study but also served several other functions. There is the section where the participant formally affirmed his or her consent to participate in the follow-up study. The form also captured information such as graduate institutional context, graduate degree program pursued and completed (or not completed), and the place of service study where participants are currently employed. The following are observations obtained from the Dissertation Study Participation Forms followed by a table summarizing the data.

Gender. The original study population consisted of 22 men and 8 women. As noted earlier, this was not entirely unexpected at the time the original study population was recruited. In the follow-up study, an equal distribution of four men and four women chose to participate.

Seminary or graduate school attended. All eight of the follow-up study participants enrolled in seminary or graduate school with seven of the eight graduating with a degree. Six schools located in five states are represented. Five students enrolled at

The Southern Baptist Theological Seminary with three completing their degree programs there. One transferred to Wheaton College where she graduated. Two graduated from University of the Cumberlands, one of whom transferred from The Southern Baptist Theological Seminary. One enrolled at and graduated from Houston Baptist University. The eighth student enrolled at Southeastern Baptist Theological Seminary but dropped out of his program after completing two classes.

Degree program completed. Three study participants completed the master of divinity degree, all at The Southern Baptist Theological Seminary while three others completed the master of arts degree. One study participant completed the master of teaching degree which led to licensure in the state in she resides. The eighth study participant enrolled in seminary and completed two online classes before dropping out. He stated he took these two classes while working and struggled with the online format.

Table 5 details the gender of each study participant, the various institutions they attended and the degrees they earned. At the time of the original study, all pre-ministry undergraduates expressed their intention to attend seminary and verified this through their acceptance into at least one institution. Given that participation in the original study was not dependent on matriculating—only initial acceptance by one or more schools—it was not known until the completion of the follow-up study if participants actually matriculated at the institution that had granted admission. Also provided in table 5 is concerning whether or not the study participant is currently serving in some sort of vocational ministry role or not and the job title of their current occupation.

Table 5. Demographic data of follow-up study participants

<i>Gender</i>	<i>Seminary/Grad School</i>	<i>State</i>	<i>Degree</i>	<i>Ministry</i>	<i>Ministry/Occupation</i>
male	Houston Baptist Univ.	TX	MA	No	Public School Teacher
male	Southeastern Seminary	NC	n/a	No	Assembly Plant Worker
female	Southern Seminary	KY	MDiv	Yes	Missions Organization
male	Southern Seminary	KY	MDiv	No	UPS Supervisor
male	Southern Seminary	KY	MDiv	Yes	Pastor Local Church
female	Univ. of the Cumberland	KY	MAT	No	Public School Teacher
female	Univ. of the Cumberland	KY	MA	Yes	Christian Journalism
female	Wheaton College	IL	MA	Yes	Foreign Field

Summary of Findings of the Follow-Up Study

As with the original study, the scores were provided by William S. Moore of the CSID. This section will not include an explanation of the rating procedure used by the CSID followed by the generalized findings of my research as this was provided in a previous section. Here a detailed analysis of CSID position ratings and specific positional examples are provided. Also, a comparison of results from both the original study and follow-up study are provided as well as comparison with data from studies conducted by other researchers.

CSID ratings and comparison. Each of the participants in the follow-up study demonstrated significant and consistent developmental growth in the years following college and after completing their masters degrees. Mean scores increased twenty percent as did the median scores compared to the 2015 study. Table 6 provides a comparison of position ratings and categories from the original 2015 study and the follow-up 2022 study.

Table 6. Comparison of 2015 and 2022 positional ratings and categories

<i>Name</i>	<i>Position Rating 2015</i>	<i>Categories 2015</i>	<i>Position Rating 2022</i>	<i>Categories 2022</i>
Lucy	3.33	Dominant 3 opening to 4	4.00	Position 4
Amanda	3.67	Dominant 4 trailing 3	5.00	Position 5
Chloe	2.67	Dominant 3 Trailing 2	3.67	Transition 3/4
Hannah	3.00	Stable 3	4.33	Transition 4/5
Charles	4.67	Dominant 5 trailing 4	5.00	Position 5
Thomas	2.33	Dominant 2 opening to 3	3.33	Transition 3/4
Aiden	2.33	Dominant 2 opening to 3	3.67	Transition 3/4
Evan	3.33	Dominant 3 opening to 4	4.33	Transition 4/5
	3.17	Mean	4.17	
	3.17	Median	4.17	
	3.33	Mode	5.00	

Positional examples. The rating procedure included looking for primary cues that indicate the Perry position and the follow-up study participant. Figure 14 presents examples of statements indicating position 2 or 2-3 and position 3. Here absolutes are observed as well as opening to multiplicity and a focus on practicality and the relevance of their college experiences.

Statements rated position 2 or 2-3	Aiden: An ideal college education is learning where there is a conversation between the teacher and the student. I think that's kind of the model that Jesus took up. I think that's the model that makes the student perform at peak. So, for me, I don't like the only; I do like the lectures. But, it's probably like two out of ten of the lecturers that I actually enjoy. If that makes sense. Like, that their personality can truly carry a class. I guess it would depend on the topic. But, my idea of education is conversation, proposition of ideals, and then interaction.	<p>Primary Cues:</p> <ul style="list-style-type: none"> •Focus on facts/content - What to learn •“Teacher (Authority) is all” (T-centered) •Use of absolutes and/or dichotomies in language
	Thomas: Through college a student should mature for sure. They should learn that their decisions and their actions have consequences. In the real world—college is kind of a hybrid and sort of almost the real world but not quite—your actions have consequences and some things can completely ruin your life.	
Statements rated position 3	Chloe: good prep for knowing just how to teach well, knowing how to prepare lessons well, knowing how to scaffold learning and the building block of learning and knowing how to teach. I think that was helpful because I see myself using those skills with my children and with people here.	<p>Primary Cues:</p> <ul style="list-style-type: none"> •Focus on practicality/relevance •Student responsibility = working hard and/or learning skills •Learning a function of teacher/student relationships •Discussion endorsed (peers provide diversity of opinions) •Quality/qualifiers; lots of details •Opening to multiplicity (multiple perspectives)
	Hannah: Looking back today, the thing that stands out to me most is people pouring into me that I got a lot of in college. The word for it might be discipleship but I think it encompassed a lot more.	
	Aiden: I would say an ideal college education is one that allows you the ability to work in your desired field. You know, to get a job in your desired field when you're done.	
	Lucy: I do think that college helped prepare me for life by helping me learn time management and prioritize tasks.	

Figure 14. Examples of participant statements and cues among positions 2, 2-3, and 3

Figure 15 presents examples of statements indicating position 3-4 and 4-3 where discussion is endorsed, ways of thinking are considered, beginning to see connections across disciplines.

Statements rated position 3-4	Evan: Comparing myself today to when I was coming into college, it allowed me to see a broader picture of the world and it allowed me to build a community with people that I was able to have relationships and grow out of that social awkwardness and really just helped me learn that people have different perspectives on different things.	<p>Primary Cues:</p> <ul style="list-style-type: none"> •Concern for process/methods - How to learn •Focus on ways of thinking - How to think •Quality/qualifiers; lots of details •Learning a function of teacher/student
	Charles: Through college students should be learning to take in information and maybe you regurgitate it in terms of affirming it but then incorporating it into your own knowledge base and using the information. It should probably help them figure out what they're passionate about.	
	Lucy: [Through a great college course] I think you gain relationships; you gain confidence; you gain motivation for the next course. I became eager to be a part of that community and when you start having classes that become a community . . . you gain lots from community!	
Statements rated for position 4-3	Evan: The most beneficial assignments are those where you read the data and you read what happened and then you're asked to critically think about something. And you have to take it and process it and come to your conclusion about what happened there.	<p>Primary Cues:</p> <ul style="list-style-type: none"> •“New Truth” rules (absolutes within multiplicity) •Student more active, taking more responsibility for learning
	Hannah: I take a lot of things people say and all of the opinions and try to see everything and try to understand. Maybe my ethnically diverse background helps me too but I will literally sit down with someone I know I disagree with and talk with them and ask them to help me understand whatever it is we're talking about.	

Figure 15. Examples of participant statements and cues among positions 3-4, and 4-3

Figure 16 presents examples of statements and cues among positions 4-5 and 5 where connections across disciplines is evident as well as endorsing seminar, argument, and discussion of ideas.

Statements rated for position 4-5	Charles: I think the role of the teacher is to facilitate . . . or maybe being the product expert to use the language of the work I do know. More of a knowledge or course director. If we're getting off track to be the person that keeps us all on task. He should know when to step away and allow conversation to happen and when to step back in to keep things moving along.	Primary Cues: Comfort with multiplicity, connections across disciplines
	Chloe: One would argue that when we become Christians our worldview changes. So I don't know that college is the only way we change but one of the ways that we change. So, just focusing on college I don't know that everyone necessarily changes through college. I certainly know some people that didn't. I mean, over those years you should change just living in a different context.	
Statements rated for position 5	Amanda.: I can hold positions strongly but also try to remember that there are people in different camps that are really smart cookies and they have their views and my views are different. I can acknowledge that others have views I do not hold but I try to be generous and assume the best of others.	Primary Cues: Endorses seminar, argument, discussion of ideas

Figure 16. Examples of participant statements and cues among positions 4-5 and 5

Comparisons with Stuckert, Kintner, and Bumanglag

As described in detail in the literature review, there are a number of Perry-related studies that have been conducted in recent years. Most focused on undergraduates nearing or having recently completed their college programs. In Mullins's study, high school students from various contexts were analyzed. All of these studies are valuable and add to the literature base as well as work to enhance the understanding specifically of students that feel lead to answer God's call to vocation ministry. For the purposes of comparison, it is more appropriate to use studies of graduate students—seminarians in particular—considering my follow-up study focused on epistemological development of an earlier pre-ministry undergraduate study population that has now completed their

seminary training. As such, studies completed by Stuckert, Kintner, and Bumanglag are the most suitable for comparison. Table 7 illustrates the studies conducted, the researcher that conducted each study, the population type, the institution types studied beginning in 2012 with Trentham and concluding with Bumanglag in 2021.

Table 7. Previous Perry-related studies conducted with pre-ministry students

<i>Researcher</i>	<i>Population Type</i>	<i>Institution Type</i>
Trentham	Pre-ministry Undergraduates	Bible, confessional liberal arts, secular
Long	Pre-ministry Undergraduates	Bible colleges
Cannon	Pre-ministry Undergraduates	Confessional liberal arts
Sanchez	Pre-ministry Undergraduates	Secular universities
Stuckert	Pre-ministry seminarians	Seminaries
Mullins	Pre-ministry high school	Public, private, & homeschool high school
Leatherman	Pre-ministry Undergraduates	Confessional & non-confessional liberal arts
Kintner	Pre-ministry seminarians	Seminaries
Bumanglag	Southeast Asian seminarians	Seminaries

Stuckert’s population consisted exclusively of men. He focused on students enrolled in theological seminaries accredited by The Association of Theological Schools (ATS) and earned a Master of Divinity degree. Those completing other seminary degree programs were delimited from his study population. Further, Stuckert’s population of 30 study participants was delimited to male participants 30 years of age or younger. The mean MID score for Stuckert’s population was 3.25.⁷³

Kintner’s population consisted exclusively of female students. They were enrolled in theological seminaries that were ATS accredited, enrolled in a Master of Divinity degree program, and had completed a minimum of 75 percent of their studies.

⁷³ Stuckert, “Epistemological Development among Evangelical Seminarians,” 74-75.

Kintner also allowed students from Dallas Theological Seminary (DTS) as participants in the study. A review of the DTS website revealed the institution does not actually offer a standalone Master of Divinity degree. Instead, all of their would-be Master of Divinity students receive a fourth year of schooling free or charge and instead receive the Master of Theology degree. Kintner's EdD supervisor—John David Trentham—approved of the inclusion of those students in her study.⁷⁴ The mean MID score for Kintner's population was 3.31.⁷⁵

Bumanglag population consisted of Southeast Asian seminarians. These students who held an F-1 student visa from Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam attending ATS accredited American evangelical seminaries enrolled in Master of Arts or Master of Divinity programs.⁷⁶ Bumanglag was unable to delimit her study population to MDiv students due to the limited number of Southeast Asian seminarians in the United States in general at the time of her study.⁷⁷ Further, these 30 students must have completed at least one semester of study in their respective programs.⁷⁸ In terms of gender, Bumanglag's study population was identical to my own original study in terms of the gender breakdown consisting of 22 men and 8 women.⁷⁹ The mean MID score for Bumanglag's population was 3.379.

⁷⁴ Jennifer Jeannean Kintner, "Assessing Epistemological Development among Women in Evangelical Seminaries" (EdD thesis, The Southern Baptist Theological Seminary, 2018), 17-18.

⁷⁵ Kintner, "Epistemological Development among Women," 123.

⁷⁶ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 20.

⁷⁷ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 87.

⁷⁸ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 21.

⁷⁹ Bumanglag, "Epistemological Development in Southeast Asian Graduate Students," 136.

My follow-up study participants had a mean MID score of 4.17. This is considerably higher than results reported by Stuckert, Kintner, and Bumanglag. Men in my follow-up study had a mean MID score of 4.08 which is 0.83—16 percent—higher than Stuckert’s population. Women in my follow-up study had a mean MID score of 4.25 which is 0.94—18.8 percent—higher than Kintner’s population. Table 8 illustrates these scores and differences.

Table 8. Comparison of mean MID scores with Sanchez follow-up study

<i>Researcher</i>	<i>Population Type</i>	<i>Mean MID</i>	<i>% Difference</i>
Stuckert	Male seminarians	3.250	18.4%
Kintner	Female seminarians	3.310	17.2%
Bumanglag	Southeast Asian seminarians	3.379	15.8%
Sanchez	Follow up—post seminary	4.170	

It is important to point out the age of all of my follow-up study participants being under the age of 30—the oldest among them being 29 years of age. Recall Kintner tested the age hypothesis by excluding study participants over age 30 in her results and yet did not see a statistical difference between that test and Stuckert’s findings. Bumanglag did note a statistical difference in her study population when she compared the difference in MID scores between the 14 members of her population aged 30 and under versus the 16 members of her population aged 31-52 years. The former had a mean MID score of 3.28 while the latter had a mean MID score of 3.458.

The follow-up study population consisted of 8 individuals—4 men and 4 women—with 7 completing a graduate degree. The students that completed a non-seminary degree all did so at institutions other than a seminary. These four students had a mean MID score in 2015 of 3.42 and a mean MID score in 2022 of 4.25, a 16.7 percent improvement. The three students that completed the MDiv all did so at The Southern

Baptist Theological Seminary and had mean MID score of 3.11 in 2015 and 4.22 in 2022, a 22.2 percent improvement. The remaining student that did not complete graduate school had a MID score of 2.33 in 2015 and 3.33 in 2022, a 20 percent improvement.

Overall, the follow-up study population had a mean MID score of 3.17 in 2015 and 4.17 in 2022, a 20 percent improvement. With all study participants under age 30, that would not appear to be a relevant variable. Half of study participants are not serving in vocation ministry while half were doing so at the time of the follow-up study yet two of those serving in vocation ministry were seminary graduates and two were not. Those follow-up participants not in vocation ministry had a mean MID score of 3.165 in 2015 and 4.0 in 2022, an improvement of 16.7 percent. Those participants serving in vocational ministry at the time of the follow-up study had a mean MID score in 2015 of 3.17 and 4.33 in 2022, an improvement of 23.3 percent.

Recurring Themes

Each of the study participants mentioned the continuing importance of relationships. Several reported that people they got to know from seminary or graduate school remain an important part of their lives. Amanda stated:

All throughout college I was discipled by a woman, who she and her husband had been missionaries in Amsterdam with the IMB, so she was really supportive of me doing summer missions and continued to foster that in me. So I would say missions experience and then that ultimately shaped my degree program. I studied cultural anthropology in college. When I was doing missions, I really saw the need for cultural understanding in missions—understanding the culture you’re going to and contextualization—so that’s what led me to study anthropology and ultimately to seminary. I am still friends with that couple and we still speak often about all of the important things going on in my life.

Also speaking about an ongoing relationship with mentors in her and her husband’s lives since college, Chloe enthusiastically said, “So there is an older couple in the church we attended in college are still mentoring us. They were international missionaries like us and so they continue to invest in us even now and we are grateful for them.”

All of the follow-up study participants expressed a value of having mentors in their lives with six of the eight stating they currently have mentors in their lives and plan to continue to do so. The two that do not both expressed regret for that lacking relationship. One, a pastor of a small church in Georgia is still grieving the death of his mentor in 2020.

Students that completed their work at a Christian institution other than seminary had varying views. Hannah, a student that began her studies at The Southern Baptist Theological Seminary and later transferred had this to say about her experience with both schools:

I changed schools in the middle of grad school so let me start with seminary and then switch to where I graduated. So, at Southern, my professors were distant and not very involved and my not being a man definitely hindered a lot more than it should have. I get there is an “appropriate scale” but there is also the fact that I am paying for something that I am not getting. Whereas University of the Cumberlands was entirely online and I got a lot more interaction and support from professors than I ever did at Southern.

Charles had planned on attending seminary with the ultimate goal of earning a doctoral degree after earning a master’s degree in seminary. He thought his future was as a college or seminary professor. Though he received a letter of acceptance from a Southeastern Baptist Theological Seminary, he opted instead to matriculate at Houston Baptist University where he would complete a Master of Arts degree in Philosophy. Of the experience with professors in his graduate degree program and challenges to his beliefs, Charles said:

We always approached Christianity and explored various views and many of them did not comport with my own. You know, we would talk about a doctrine and I would get what they were saying but just couldn’t find what they were saying in the Bible. So professors were very open and would say it’s okay to write about a given topic in a way that doesn’t affirm it in the way it was being taught. They understood we were all coming from various backgrounds that may not align with their own and it was okay. It was always respectful.

Speaking of his actual relationships with seminary professors was generally positive. Joseph said of one professor in particular in response to the question what were his actual relationships with professors like once he got to seminary:

Much deeper than the relationships I had with college professors. One professor I had specifically was my pastor; I went to his church. So, we met for coffee and I would talk to him about I dunno, hey I'm struggling with this thing in my life. So, it went deeper I think than the classroom material at this point it was more they were, essentially, they would shepherd the student as a pastor would. So, I would reach out to them for more than just classroom stuff. I would reach out to them for life stuff.

Hannah, speaking about one of her professors and how he treated women in his classes stated:

I remember, one professor in particular who was so kind. There are many women I know personally that would have dropped out were it not for him. He actually acknowledged the women in the class specifically and wanted us to know he wanted to be a mentor and resource which stood out in my seminary experience. He didn't single out women but rather included us in the class as opposed to class feeling very much like a boy's club.

Follow-up study participants largely held the same view of the purpose of seminary compared with their view in the original study. The exception to this is Thomas who dropped out of seminary after completing two classes online. Thomas graduated from college with a general education degree. When asked what he would change about his college experience if he could, Thomas replied, "I wouldn't go! If I had it to do over again, I wouldn't do it at all. I wouldn't go unless there was something I knew I was going to specialize in. So many programs are not specialized enough and too many people graduate without any real skills to help them get a job in the real world."

Thomas left college feeling like his time there had been wasted and would have been better spent in a trade school. He expressed frustration that his supervisor has considerably less education than he does. He also shared that the online seminary experience was not for him as it requires a certain level of discipline to be successful that he does not currently possess.

Evaluation of the Original Research Design

This study was conducted using a fully qualitative design and explored the epistemological development of pre-ministry undergraduates at secular universities. Study participants were located utilizing purposeful sampling and interviewed using a slightly expanded Trentham Interview Protocol.

Strengths

There were several strengths of this research design that are noteworthy. First is the nature of the qualitative method, which allowed a richness of data collection not otherwise possible. The use of semi-structured interviews allowed a natural conversation to occur with study participants that permitted me to ask follow-up questions as needed to probe previous responses.

A second strength of this research design is the diverse institutional background of the study participants. With a population of 30, there were 18 schools in 9 states representing three geographic regions of the country. This population also represented 24 different academic degree programs.

A third strength of this research design is use of telephone conversations to collect interview data. This method limited the collection cost of the data while providing high-quality audio recordings for later transcription. This method also allowed students to participate in the setting of their choice where they would be most comfortable and able to respond more openly.

A fourth strength of this research design is the thorough nature of the independent content analysis. This analysis included Trentham's structured framework of Taxonomy of Virtues for Christian Knowing as well as analyzing recurring themes and the impact of the campus culture, including my own line of questioning about the impact of attendance of event sponsored by Student Services/Student Affairs departments.

Weaknesses

There were three weaknesses of the research design observed. The first was the selection methodology. My original intent was to contact a variety of evangelical seminaries and request a list of incoming students who would begin studies in Fall 2015 that I could select potential study participants from. I was successful in speaking with 16 of 20 I contacted but was informed by all of those I spoke with that they were unable to share the information I was seeking for unspecified legal reasons. I presume this was because of the possible violation of the Family Educational Rights and Privacy Act (FERPA).⁸⁰

My second avenue to locate study participants was to contact BCM campus ministers at secular university campuses from across the country. My success rate with this method was low. I contacted 108 campus ministers and received responses from only 15 yielding 12 study participants from only 4 schools. The remaining 18 study participants were located using Internet social media platforms.

The second weakness I observed is “the ambiguity of the emerging nature of Trentham’s Taxonomy of Virtues for Christian Knowing.” This research is part of a larger research project that may establish a new taxonomy for epistemological development from an evangelical perspective.⁸¹ Being new to grounded theory, this ambiguity necessarily leads to the attribution of some respondent statements to be somewhat tentative. As the taxonomy develops more fully, this weakness will dissipate and may eventually disappear entirely.

Evaluation of the Follow-Up Research Design

The follow-up study was conducted using the same fully qualitative design and explored the epistemological development of pre-ministry undergraduates after

⁸⁰ United States Department of Education, “FERPA for Students,” 2011, <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/students.html>.

⁸¹ John David Trentham, email message to author, September 9, 2015.

graduating from secular universities and completing the graduate education. Original study participants were contacted and asked to participate in a second interview. All eight participants received an \$25 Amazon gift card for their participation.

Strengths

There were several strengths of this research design that are noteworthy. First is the nature of the qualitative method, which allowed a richness of data collection not otherwise possible. The use of semi-structured interviews allowed a natural conversation to occur with study participants that permitted me to ask follow-up questions as needed to probe previous responses.

A second strength of this research design is that it gathered longitudinal data which was recommended by a number of other researchers conducting similar studies with a variety of study populations. Results of this study will provide future researchers with useful data that can be compared to other studies that will be conducted at a later time.

A third strength of this research design is use of video conversations to collect interview data which seemed to be a natural evolution when considering the proliferation of available video conferencing technology and its broad use resulting from the Covid-19 pandemic. Like the telephone method, this method limited the collection cost of the data while providing high-quality video recordings for later transcription. This method also allowed students to participate in the setting of their choice where they would be most comfortable and able to respond more openly.

Weaknesses

There were two weaknesses of the research design observed. The first was the limited number of participants that agreed to another interview. The original study population of 30 was already a small sample. Though the follow-up study consisted of

26.7 percent of the original population, arriving at meaningful conclusions based on interviews with 8 people is challenging.

The second weakness of this research design is the possibility of bias on the part of the interviewer. I had thought that familiarity with the study participants yet also the belief that a critical distance had been maintained may both be issues.

CHAPTER 5

CONCLUSIONS

Building on the earlier work of John David Trentham, whose research explored “the nature, extent, and distinctive processes of epistemological development in pre-ministry undergraduates according to attendance and immersion in differing collegiate environments,”¹ this study focused specifically on seniors and recent graduates from the secular university environment. I began by reviewing the precedent literature as it related to the biblical view of human development followed by the theoretical basis underlying the Perry Scheme. My review of the literature also included a brief review of the history of American higher education and secularism on American university campuses. Next, I conducted a qualitative study, which entailed identifying and interviewing seniors and recent graduates of secular universities about their experiences in college. A person trained in Perry Scheme rating at the Center then independently evaluated the resulting interview transcripts at the Study of Intellectual Development (CSID). I also completed an independent content analysis of these transcripts as indicated in chapter 4. The resulting conclusions drawn from that analysis are presented below, including research implications, applications, and limitations along with suggestions for further research.

Research Purpose and Question

The goal of this study was to examine the relationship between pre-ministry undergraduates’ attendance at a secular college and their epistemological and ethical development. The following research question guided my research: What is the

¹ John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (PhD diss., The Southern Baptist Theological Seminary, 2012), 204.

relationship between pre-ministry undergraduates' attendance at a secular college or university and progression through Perry's positions of intellectual and ethical maturity?

Research Implications

Guided by the research question, this section lists the implications taken from my analysis of the finding of the study:

1. Pre-ministry undergraduates are drawn from a broad variety of degree programs with no dominant degree program apparent.
2. Involvement in the ministries of a local church is an important facet in the life of pre-ministry undergraduates in secular colleges and universities.
3. The commitment to entering vocational ministry usually occurs during the pre-ministry undergraduate's time in college.
4. Pre-ministry undergraduates from secular universities progress through the positions of intellectual maturity according to the Perry Scheme in a similar fashion as typical college students.
5. A relationship likely exists between epistemological positioning according to the Perry Scheme and higher levels of critical thinking.
6. Secular university undergraduates committed to vocational ministry place a high value on having at least one mentor in their lives during their college years.
7. Secular university pre-ministry undergraduates consider personal maturity to be the primary purpose of college.
8. Pre-ministry undergraduates from secular universities consider seminary necessary for the knowledge and skills that are to be gained there, in preparation for vocational ministry.
9. Challenges to personal beliefs and values are an important aspect in helping to develop and solidify the Christian faith of pre-ministry undergraduates in secular universities. This continues for this study population after college and into seminary and/or graduate school.
10. Pre-ministry undergraduates in secular universities with higher Perry Scheme positioning may be more likely to voluntarily participate in activities sponsored by Student Services/Student Affairs.
11. Pre-ministry undergraduates committed to continuing their education would appear to have a bias toward keeping this commitment though not necessarily at a seminary as planned during college.

Implications Drawn from Form Data

Pre-ministry undergraduates are drawn from a broad variety of degree programs with no dominant degree program apparent. The participants in this study prepare to enter seminary with a broad undergraduate educational background. Over 20 undergraduate majors were represented in this study from sciences such as anthropology, biology, and computer science to vocational programs such as elementary education, broadcast journalism, and general business. Only 3 study participants earned a bachelor's degree with a major in religion or religious studies with 2 others that earned their degree with a minor in religious studies. Those degree programs (and minors) approached Christianity in the context of world religions from a secular perspective. This is consistent with Trentham's finding that pre-ministry students attending secular universities are much more likely to earn undergraduate degrees in disciplines other than Christian or religion-based studies.² Seminaries should expect a broad diversity in the educational background of incoming students with from secular universities, taking note that they either arrive without the benefit of any previous formal theological education or any training they have received at the undergraduate level is in the context of a secular worldview. The diversity of educational backgrounds should be considered a strength of the seminary community.

Involvement in the ministries of a local church is an important facet in the life of pre-ministry undergraduates in secular colleges and universities. All 30 participants in this study were members of a local church during their time in college in spite of the fact that such membership was not required for admission to the undergraduate program of their choosing at the secular universities they attended. Additionally, all of the study participants were actively involved serving in at least one area of ministry in their local church and half were involved in more than one area of ministry. The area of worship

² Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 207.

ministry interested most with 20 study participants serving there. Other areas of ministry included serving with various age groups of children, youth, young adult, and college. This preference for inward-focused ministry service may support the importance of challenges to personal beliefs and values experiences by study participants in developing and solidifying their Christian faith. All participants in the follow-up study continued to maintain membership in a local church and remained actively involved in various ministries of the church.

The commitment to entering vocational ministry usually occurs during the pre-ministry undergraduate's time in college. There were 3 study participants who entered college having already made the commitment to pursue vocational ministry. The remaining 27 students made this commitment during their college careers. Only 7 study participants made this same commitment early in their college careers with the remaining 20 committing to pursue vocational ministry during the middle or late periods of their time in college. This is consistent with Trentham's findings among students in his study from a secular university context.³ Seminaries should anticipate that pre-ministry undergraduates may still be very new to the Christian faith and be prepared to take additional steps to support their growth and development upon joining the seminary community.

Preparation for vocational ministry does not necessarily mean completing a graduate program in a theological seminary. Half of follow-up study participants serving in vocation ministry did not complete their graduate degree at a seminary. However, the need to complete those studies in a Christian institution of higher education remained and was considered an important part of ministry preparation.

³ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 207.

Implications Drawn from the Research Question

Pre-ministry undergraduates from secular universities progress through the positions of intellectual maturity according to the Perry Scheme in a similar fashion as typical college students. According to Moore, typical traditional college students complete their college career scoring between position 3 and position 4 in the Perry Scheme.⁴ In this study, the mean numerical score was 3.10, slightly above position 3. This is similar with the participants in Trentham's study who scored 3.125.⁵ While this finding is on the low end of the scale, it is within the position 3-4 transition.

A relationship likely exists between epistemological positioning according to the Perry Scheme and higher levels of critical thinking. Seventeen students were rated below the typical expected Perry Scheme scoring (position 3 or below) in this study. These study participants verbalized an average of 0.53 instances of critical thinking. The 6 students who scored within the typical range (between positions 3 and 4) verbalized an average of 2.33 instances of critical thinking. The remaining 7 participants who scored above average (position 4 or above) verbalized an average of 3.14 instances of critical thinking. These results are consistent with Trentham's findings that preferences for higher-level forms of thinking according to Bloom's taxonomy generally correlate with higher epistemological positioning according to the Perry Scheme.⁶

Implications Drawn from Trentham's Categories and Themes

Secular university undergraduates committed to vocational ministry place a high value on having at least one mentor in their lives during their college years. All participants in this study spoke at length about the mentor or mentors in their lives and

⁴ William S. Moore, *Interpreting MID Ratings* (Olympia, WA: Center for the Study of Intellectual Development, 2004), 3.

⁵ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 208.

⁶ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 212.

the importance of those relationships. Pastors or other local church ministers filled this role for 18 respondents with another 5 stating that mentoring relationship was with a campus ministry leader. Only 3 students said this relationship was with a teacher. An older friend who was outside their immediate university context mentored the remaining 5 study participants. People who work with college students, especially ministers in the local church and in campus ministries, should be sensitive to the possibility of a college student seeking out a mentoring relationship. Students may not articulate this desire well so it is important for people working with college students to be aware of the importance college students place on being mentored.

Secular university pre-ministry undergraduates consider personal maturity to be the primary purpose of college. Trentham noted that among his secular university study participants, 70 percent expressed that the primary purpose of college is “to ‘grow up’ or mature in personal (self-identity) and practical (self-responsibility) ways; to increasingly exhibit a sense of personal responsibility regarding education and life.”⁷ The current study found an even greater percentage of study participants expressing such views with 83.3 percent (25 of 30 study participants). Additionally, 9 students responded that their secondary purpose was preparation for vocational ministry. It is unclear when students developed this view or entered college with this presumption. People who work with college students in secular universities would benefit from being aware of this perception on the part of students, who expect to become more mature over time while in college.

Pre-ministry undergraduates from secular universities consider seminary necessary for the knowledge and skills that are to be gained there, in preparation for vocational ministry. With a single exception, the population studied held the idealistic view concerning attending seminary, the view that “seminary is primarily necessary or

⁷ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 188.

beneficial for the knowledge and skills that are to be gained there, in preparation for vocational ministry.”⁸ This is similar to Trentham’s finding in which all of the participants in his study from a secular university context maintained this perspective. Pre-ministry college students may not need to be persuaded to attend seminary but will likely need guidance in selecting the school which best meets their ministerial calling. People working with college students, especially ministers and others who attended seminary themselves, can best help students determine which seminary is right for them by helping them discern their calling and then matching that with the school that will prepare them for said calling.

Challenges to personal beliefs and values are an important aspect in helping to develop and solidify the Christian faith of pre-ministry undergraduates in secular universities. The study population, with a single exception, expressed the view that the challenges to their personal beliefs and values were an integral part of their college experience. These 29 students felt this aspect of the culture was both a healthy part of their college career as well as being valuable for encouraging them to think more deeply about their beliefs, clarifying those beliefs when necessary. All students from a secular university context that participated in Trentham’s original study expressed that their personal beliefs and values had been challenged as well.⁹ People working with pre-ministry college students should expect them to be willing to enter into robust discussions about their personal beliefs and values and those of others around them with the expectation that others will see the benefit of those discussions in much the same way as they do.

Pre-ministry undergraduates in secular universities who with higher Perry Scheme positioning may be more likely to voluntarily participate in activities sponsored

⁸ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 193.

⁹ Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 196-97.

by Student Services/Student Affairs. Half of participants in the current study participated in activities sponsored by Student Services/Student Affairs. Of those that participated in such activities, 3 did so as required for to complete coursework and 9 did so voluntarily. Another 3 students did so both voluntarily and as part of their coursework.

There were 17 students that received below average scores with only 5 of those attending events sponsored by Student Services/Student Affairs. In the group of 6 students who received average scores, 5 participated in events sponsored by Student Services/Student Affairs. Among the 7 students who received above average scores, 5 participated in events sponsored by Student Services/Student Affairs. Combined, the average and above average groups had a participation rate such events of 77 percent with 3 doing so as a requirement. A correlation may exist between higher epistemological positioning and student initiative in pursuing activities beyond coursework that enhance the college experience. People working with pre-ministry college students may notice the more mature students seeking out activities outside of their coursework and should consider encouraging the pursuit of activities that are appropriate for college students.

Implications Drawn from the Follow-Up Study

Pre-ministry undergraduates committed to continuing their education would appear to have a bias toward keeping this commitment though not necessarily at a seminary as planned during college. All follow-up study participants continued to place a high value on graduate education, including the individual that dropped out of seminary after completing two classes. The other participants all completed a graduate degree though only three completed their studies at a theological seminary.

Research Applications

Through this study, I inquired into the epistemological development of pre-ministry undergraduates attending secular universities. Following the research design, I

gathered and analyzed data and interpreted the findings using the Perry Scheme as a theoretical lens. I also analyzed the data using Trentham's Taxonomy of Virtues for Christian Knowing as well as additional themes found to be common in Trentham's original research. In light of the findings and research implications above, there are five discernable applications.

First, this research applies to pre-ministry college students or future students considering pursuing vocational ministry. The experiences of those students specifically in a secular institution are unique to the environment these students find themselves in. Rather than being surrounded by others who share a common worldview, the secular campus provides a broad diversity of worldviews, some sectarian, and others secular in nature. This diversity of worldviews can be beneficial for the student who is wisely seeking exposure to this diversity in the context of developing their own Christian understanding and biblical presuppositions. The majority of students in secular institutions that make a commitment to vocational ministry will do so after beginning their college career. This research can provide such students with first-hand accounts of the similar experiences of others that may serve as a guide.

Second, this research applies to those who mentor college students in a secular university context, especially upon learning of a commitment to pursue vocational ministry. Most often, students in secular universities that make a commitment to vocational ministry do so during their time in college and do so most frequently in the middle to late period of time of their college careers. Further, 60 percent of the time the person mentoring these students is a pastor or other minister in a local church setting. This person, or possibly more than one person, may need to provide more guidance than perhaps would otherwise be sought by a similar college student that is not pursuing vocational ministry. This research can assist such mentors with understanding how

Third, this research applies to BCM and similar campus ministries that serve secular colleges and universities. The ministers serving these ministries are uniquely

positioned to have a positive influence on students attending secular universities when they make a commitment to pursue vocational ministry after their college careers. Campus ministers may serve as primary or secondary mentors to these students and assist in guiding them towards doctrinally sound views as they develop a more rounded theology. Campus ministers may also influence seminary decisions through sharing their own experiences with selecting a seminary in which to enroll. This research may provide a guide informing their overall counsel.

Fourth, this research applies to seminary admissions personnel, administrators, and faculty that receive new seminarians with a secular university undergraduate background. This study provides specific insights into the epistemic positions of inbound students from a secular university undergraduate background. Many of these students arrive on campus having received no formal theological education prior to beginning their seminary career. Existing assimilation practices may be revised in light of the conclusions drawn from this research.

Fifth, this research applies to Christian academics and professors serving in secular institutions of higher learning. These individuals are in a position to assist students as they seek to navigate the secular campus as Christians, often as newer believers who may be uncertain how their faith should inform this aspect of their lives. Christian academics and professors may also more often enter into a mentoring relationship knowing that Christian students are often seeking these types of relationships on campus.

Research Limitations

In addition to the limits of generalization discussed previously in chapter 3, the findings and conclusions expressed in this research study should be viewed in light of these limitations:

1. Due to the small sample size of 30 participants utilized in the 2015 study and 8 participants in the follow-up study, the epistemological development among study

participants may not be indicative of all pre-ministry undergraduates in secular colleges and universities.

2. Though this study recruited participants from 18 different secular institutions and three geographic regions, the findings may not necessarily be indicative of pre-ministry undergraduates in all secular institutions given the large number and diversity of these institutions.
3. Women comprised less than 27 percent of study participants. Therefore, this study offers no conclusive judgment is made with regard to differences in epistemological development according to gender.¹⁰
4. Half of students in this study participated in events sponsored by Student Services/Student Affairs departments in their particular institution with 9 choosing to do so without any coursework required attendance. Though 7 of these 9 students received an above average epistemological positioning, the number of students is too small to offer any conclusive judgments of the epistemological maturity of pre-ministry undergraduates in secular universities who choose to participate in such activities.
5. The conclusions reported in this research study were derived primarily from the content analysis performed by William S. Moore, John David Trentham, and myself. The biases and subjectivity of each of person should be considered when viewing the findings and conclusions reported. If it existed, additional research may bring such bias and subjectivity to light.
6. A lack of critical distance between the researcher and the study population cannot be ruled out. There were no precautions taken to prevent any bias that may arise given the earlier relationship with study participants though there was no effort to maintain those relationships at the conclusion of the 2015 study.

Further Research

This study followed a similar design and method as that first used by John David Trentham who studied the variance of epistemological development among pre-ministry undergraduates in several institutional contexts. A specific population among pre-ministry undergraduates, those attending or recently graduated from secular universities, was the focus of this research study. While another study focused on similar students in Bible colleges, this is the first known evangelical scholarship to focus exclusively on pre-ministry undergraduates in secular universities. As a result of this study and Trentham's earlier study, a number of recommendations for further research

¹⁰ A study of women attending seminaries concluded that men and women follow a similar developmental pattern. See Jennifer Jeannean Kintner, "Assessing Epistemological Development among Women in Evangelical Seminaries" (EdD thesis, The Southern Baptist Theological Seminary, 2018), 211.

into pre-ministry undergraduates in secular universities have surfaced. Several of these recommendations have been modified from those originally proposed by Trentham¹¹ and Long¹² to reflect specifically a population of pre-ministry undergraduates in a secular university context.

1. A similar study may be undertaken to explore the epistemological development specifically on female pre-ministry undergraduates in secular universities.¹³
2. A similar study may be undertaken to explore the epistemological development specifically on pre-ministry undergraduates in historically black colleges and universities
3. Using a similar design and method as that undertaken in this research, a study may be performed in which interviews are conducted with current vocational ministers who graduated from secular institutions, in which they reflect on the impact of their college experience as it relates to their preparation and effectiveness in undertaking the ministerial vocation. This study may be designed to distinguish sample groupings within institutional contexts according to longevity of ministry experience (e.g., less than five years, 6-10 years, 11-20 years, more than twenty years).¹⁴
4. Pre-ministry undergraduates in a secular university context most often choose to pursue vocational ministry during the middle to late periods of the college careers. A study may be designed to evaluate the influence of mentors in the decision-making process of pre-ministry undergraduates committing to pursue vocational ministry.
5. A study may be designed to evaluate the influence of para-church ministries in the decision-making process of pre-ministry undergraduates committing to pursue vocational ministry.
6. Most pre-ministry undergraduates in this study whose epistemological positional rating was above average voluntarily chose to participate in activities sponsored by the Student Services/Student Affairs departments on their campuses. A study may be designed to explore the relationship between epistemological positioning and pre-ministry undergraduates choosing to attend extracurricular activities and how this may enhance their college experience.

¹¹ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 221-23.

¹² Gregory Brock Long, "Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges According to the Perry Scheme" (EdD thesis, The Southern Baptist Theological Seminary, 2014), 136-37. In her research "Epistemological Development among Women," Kintner studied women already attending evangelical seminaries. A study specifically of pre-ministry undergraduate women would be beneficial.

¹³ Long, "Epistemological Development of Pre-Ministry Undergraduates," 136. The study undertaken by Kintner focused on female seminarians that had completed at least 75 percent of their degree program. See Kintner, "Epistemological Development among Women," 17.

¹⁴ Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 221. The follow-up portion of this study indicates this would be quite helpful.

7. A study may be designed to assess the impact of participation in local church ministries on pre-ministry undergraduates' epistemological maturity.
8. A study focused specifically on participants of previous studies may be designed to explore the outcomes of seminary on the various segments of pre-ministry undergraduate populations examined.
9. Pre-ministry undergraduates that begin studies at a theological seminary appear to retain their commitment to graduate study but some do not complete their studies in the seminary environment. A study may be designed to explore the reasons seminarians transfer from seminary after matriculation to other institutions to complete graduate degree programs.
10. Using a similar design and method as that undertaken in this research, a study may be performed in which interviews are conducted with participants of earlier Perry-related studies using a different interviewer to determine if bias may be a factor in the resulting MID scoring.
11. Using a similar design and method as that undertaken in this research, a second follow study may be performed 5-10 years after participants in a previous follow-up study that gathers additional longitudinal data that may be helpful to better understand ongoing epistemological development.

APPENDIX 1

THESIS STUDY PARTICIPATION FORM

Instructions

In Section 1, read the “Agreement to Participate” statement and confirm your willingness to participate in this study by checking the appropriate box and entering the requested information.

In Section 2, provide responses to each of the prompts and questions by entering your information in the shaded boxes. Please enter responses for every box, even if “not applicable” is most appropriate. [Note: Since most participants have already graduated from college, most of the prompts and questions below are in past tense. If you have not yet graduated, simply consider the prompts and questions in present (or, in some cases, future) tense.]

[Section 1]

Agreement to Participate

The research in which you are about to participate is designed to explore the impact of the college experience at different types of schools on the personal development of pre-ministry undergraduates. This research is being conducted by Bruce Cannon for purposes of thesis research. In this research, you will complete the form below and participate in a personal interview by telephone. Any information you provide will be held strictly confidential, and at no time will your name be reported, or your name identified with your responses. Participation in this study is voluntary and you are free to withdraw from the study at any time.

By your completion of this form and the subsequent personal interview, and by checking the appropriate box below and entering the requested information, you are giving informed consent for the use of your responses in this research.

I agree to participate

I do not agree to participate

Name: _____ Date: _____

[Section 2]

Preferred name: _____ Gender: _____

E-mail: _____ Year of birth: _____

Name and location of the college from which you graduated: _____

Did you attend another college or university other than the school you graduated from?

If so, please give the name the school(s) and the year(s) attended: _____

Month/year of graduation: _____

Degree(s) awarded (e.g., BA/BS, major(s), minor(s)): _____

Do you plan to attend seminary (even if not immediately after graduation)? _____

At which church did you maintain active membership or involvement during college

(name and location)? _____

What are some particular areas of ministry or service in which you were personally

involved at your home church during college (e.g., youth ministry, social ministries,

etc.)? _____

What other church, para-church or humanitarian ministries (if any) were you involved in

during college (e.g., BCM, Campus Crusade, Habitat for Humanity, etc.)? _____

When did you decide to pursue vocational ministry? (Before or during college? During

which year of college?) _____

APPENDIX 2

DISSERTATION STUDY PARTICIPATION FORM

Instructions

In Section 1, read the “Agreement to Participate” statement and confirm your willingness to participate in this study by checking the appropriate box and entering the requested information.

In Section 2, provide responses to each of the prompts and questions by entering your information in the shaded boxes. Please enter responses for every box, even if “not applicable” is most appropriate. [Note: Since most participants have already graduated from college, most of the prompts and questions below are in past tense. If you have not yet graduated, simply consider the prompts and questions in present (or, in some cases, future) tense.]

[Section 1]

Agreement to Participate

The research in which you are about to participate is designed to explore the impact of the college experience at different types of schools on the personal development of pre-ministry undergraduates. This research is being conducted by Bruce Cannon for purposes of thesis research. In this research, you will complete the form below and participate in a personal interview by telephone. Any information you provide will be held strictly confidential, and at no time will your name be reported, or your name identified with your responses. Participation in this study is voluntary and you are free to withdraw from the study at any time.

By your completion of this form and the subsequent personal interview, and by checking the appropriate box below and entering the requested information, you are giving informed consent for the use of your responses in this research.

I agree to participate

I do not agree to participate

Name: _____ Date: _____

[Section 2]

Preferred name: _____ Gender: _____

E-mail: _____ Year of birth: _____

Name and location of the seminary from which you graduated: _____

Did you attend another seminary other than the seminary you graduated from?

If so, please give the name the school(s) and the year(s) attended: _____

Month/year of graduation: _____

Degree(s) awarded and concentration if applicable (e.g., MDiv, MACE): _____

Do you plan to pursue additional education (e.g. doctoral studies)? _____

Did you enter vocational ministry as planned after seminary? _____

Are you still serving in vocation ministry? If so, in what capacity? (e.g., pastor, youth ministry, social ministries, etc.)? _____

Would you recommend the institution you graduated from to others seeking similar training? Why/why not? _____

When you consider your decision to answer the call to ministry, would you make the same decision today in light of your experience? _____

APPENDIX 3

STANDARDIZED PERRY INTERVIEW PROTOCOL

1. What is your view of an ideal college education? How, if at all, should a student change as a result of that educational experience?
2. Have you encountered any significant differences in beliefs and values in your peers in college or other people you've met in your experiences here? What is your reaction to this diversity; how do you account for these differences? How do you go about evaluating the conflicting views or beliefs you encounter? How, if at all, do you interact with people who have views different from your own?

[Note: The focus here is on the process of evaluating and/or interacting, not on specific beliefs or reactions per se.]

3. Facing an uncertain situation in which you don't have as much information as you'd like and/or the information is not clear cut, how do you go about making a decision about what you believe? Is your decision in that situation the right decision? Why or why not? If so, how do you know?

[Note: Try to get the student to describe the process of coming to a judgment in that kind of situation, which in many cases will involve generating a concrete example of some personal relevance but not too emotionally-charged-preferably an academic-related context, related if possible to their major field.]

4. How would you define "knowledge"? How is knowledge related to what we discussed earlier in terms of a college education? What is the relationship between knowledge and your idea of truth? What are the standards you use for evaluating the truth of your beliefs or values? Do your personal beliefs/values apply to other people- in other words, are you willing to apply your standards to their behavior? Why or why not?

Possible follow-up probes in each area:

1. How have you arrived at this particular view of these issues? Can you remember when you didn't think this way and recall how your view changed over time?
2. To what extent do you think the view you have expressed is a logical and coherent perspective you've defined for yourself? What alternative perspective have you considered?
3. How likely is it that your view will change in the future? If you think it's likely to change, what kind of experiences or situations might produce such change?

APPENDIX 4

ALTERNATE PERRY INTERVIEW PROTOCOL

(This protocol is particularly useful for probing for post-position 5 reasoning.)

1. Looking Backward (College Learning Experience)

We're interested in learning how you view your overall educational experience in college. Later I'll ask you some specific questions, but for now, I'd just like you to tell me what seems important to you as you think about it--what stands out to you as you think about your experience here?

Alternatives: What about your college experience has influenced you the most--what stands out in your mind that has really made an impression on you and influenced you? or What overall sense do you make of your educational experience in college?

Probes (request examples, tie together threads of narrative, relate to earlier experiences):

Who has been important to you in your learning? (peers, faculty/administrators, family, others) How have you changed in the way you approach learning since you've been in college?

How would you describe yourself-in general, and specifically as a learner?

Are there any ways in which you are different than before as a result of your experience in college? [Possible follow up: If you could have your way, what kinds of changes in yourself would you have hoped to see as a result of your educational experience in college?]

2. Clarifying Convictions

Does it seem to you that usually there is only one opinion, idea or answer that is really right or true, or do you think there can usually be more than one? Explain.

Follow-up Probes (variable, depending on what seems appropriate with student):

What makes an opinion right? Are all opinions right? Can you say some opinions are better than others? How do you know? In terms of what makes an opinion "right," what role do you think experts and authorities need to play?

Is it important to obtain support for your opinions? What kind of support?

Do you think your outlook on this diversity of opinions has changed in recent years?

What/who led to this change?

It seems that with all the various ways of looking at things and all of the different opinions that exist, there's a very confusing variety of choices to make. Do you have any

strong convictions to help guide you in these choices? Could you describe an example? [If necessary, define "conviction" as a point of view that one develops about an issue or subject over time, not an unexamined belief one has grown up with or inherited from one's parents or upbringing]

Follow-up Probes:

How did you come to hold this point of view? Can you describe how your thinking developed? What alternatives did you consider in this process, and why did you discard them?

Do you feel or have you ever felt that you would like to convince others of your ideas?

What do you think when others have strong convictions and try to convince you?

If someone attacks your belief [about opinions], how do you defend yourself?

Optional questions:

React to each of these statements, describing how and to what extent they apply to you:

"I never take anything someone says for granted. I just tend to see the contrary. I like to play the devil's advocate, arguing the opposite of what someone is saying, thinking of exceptions, or thinking of a different train of logic."

"When I have an idea about something, and it differs from the way another person is thinking about it, I'll usually try to look at it from that person's point of view, see how they could say that, why they think that they are right, why it makes sense to them."

3. Looking Forward (Goals for future and career)

What are your educational or career goals at this point? How have your educational or career goals changed since you started--for instance, do you have any goals now that you didn't have before, or do some you started with seem less worthwhile or realistic?

In what ways has the college specifically contributed to the achievement of your goals up to this point?

How do you think your experiences or accomplishments in college will connect or relate to what you do after college?

*In each question set, explore for:

Synthesis/integration-pulling threads of narrative together

Connection-making-between ideas, between discipline and personal experience, etc.

Self-reflection-e.g., understanding of self-as-learner, as person considering career choices, etc. Meta-thinking-analysis of own thinking over time (i.e., how it's changed/evolved)

APPENDIX 5

TRENTHAM INTERVIEW PROTOCOL

Questions regarding overall development through the college experience (RQs 1, 2)

Thinking back through your college experience overall (to this point), what would you say most stands out to you?

How would you compare yourself as a college freshman with yourself now? (Probes: ...with regard to knowledge? learning? convictions? personal maturity? personal faith? relationships?, etc. Also: Do you feel like you've "grown up" as a result of being in college? How so?)

In what ways, if any, has your college experience prepared you for life after college? (Probes: How has your specific major prepared you for the future?)

Have you had someone who has been a personal mentor to you during college (e.g., a teacher, advisor, older adult, or minister)? (If yes...) What was the impact or benefit of that relationship for you? (Probe: Do you think those types of relationships are important for college students?)

Questions regarding perspectives on knowledge and learning (RQ2)

What is your view of an ideal college education? How, if at all, should a student change through the college experience?

What is your idea of a great college course? (Probes: What do you gain from it? What is the role of the teacher? What is the role of the students? What type of assignments are most beneficial?)

- Related (if necessary): What do you most value about the education you received in college? (Probes: What do you least value? What would you change if you could?)
- Related (if necessary): Did you get to know many of your professors through college? How would you describe your relationship with the teacher(s) you got to know best? (Probe: What would you say are the top attributes of the best college teachers? What sort of relationship would you most like to have with your professors in seminary?)

Why do you feel it's necessary for you to go to seminary? (Probes: How did/will you choose the school? What's your purpose in obtaining a seminary degree? What do you hope to gain?)

Questions regarding the impact of encounters with diversity (RQ3)

Through college (in your classes, especially), did you encounter ideas which challenged your (Christian) beliefs and values? How did you (and how do you now) react to that sort of challenge? Is this something you value, looking back? Why? (Probes: Do you feel these types of challenging encounters are important? How so? How do you go about evaluating diverse and conflicting views when you encounter them?)

Through college, did you commonly interact with people who held different faiths or worldviews than your own? Did this sort of interaction occur in your classes? What impact did these types of interactions have on you, personally?

In your coursework, were you exposed to multiple disciplines of study (sciences, social sciences, humanities, etc.)? Do you feel this was a benefit to you, personally, and also in preparation for the future? How so?

Through college, did you participate in extracurricular activities sponsored by Student Services/Student Affairs? What types of activities were they? Did these activities coincide with coursework or were they completely separate? Do you feel these types of activities enhanced your personal college experience? How so?¹

Questions regarding personal commitment (RQs 1, 2)

When you face a situation where you have to make a decision about an uncertain or difficult issue, and you don't have as much information as you'd like or the information is not clear cut, how do you go about making a decision about what to believe or choose?

- Related (if necessary): How do you go about arriving at your own positions on core issues and secondary issues, especially when it's hard or impossible to find definitive answers? (Probe: How do you decide on important-but-debatable issues when there are multiple opinions that seem equally valid (e.g., in matters of theology, practices in the church, etc.?)
- Probe here about the relation of "proof" to personal knowledge/beliefs/faith.

Thinking about your Christian faith...were there times through college that you felt like you needed to "examine what you believe"? (Probes: Even core beliefs? What prompted that? Was this ultimately a positive or negative experience for you?)

Tell me about your "calling to ministry." (Probes: How did you make the decision to commit to vocational ministry? Did you ever consider a different career path? Were there times through college when you questioned or doubted your decision or your ministerial calling in general? How did you deal with that? Do you think about your commitment to ministry differently now than you did at first?)

¹ These questions modify Trentham's interview protocol and are intended to identify different activities designed by or simply sponsored by Student Services that add to the college experience of undergraduate students.

Final question

To wrap this up, I've asked you questions about several different experiences and issues...but is there anything I haven't asked you about that you would say has been really significant or life changing through your time as a college student?

APPENDIX 6

WILLIAM S. MOORE AND THE CENTER FOR THE STUDY OF INTELLECTUAL DEVELOPMENT

Dr. William S. Moore

Areas of Expertise: [SEP]

- Teaching/learning issues [SEP]
- Assessment of student learning [SEP]
- Intellectual development [SEP]
- Educational reform/policy issues
- Faculty/professional development
- Institutional effectiveness

Recent Work History: [SEP]

- Policy Associate, Assessment, Teaching and Learning, *Washington State Board for Community and Technical Colleges*, Olympia, WA, 1990-present. [SEP]
- Coordinator, Center for the Study of Intellectual Development, Olympia, WA, 1982- present. [SEP]
- Visiting Professor, *University of Georgia*, Athens, GA, 1988-1989. [SEP]
- Student Development Educator, *Longwood College*, Farmville, VA, 1983-1988.
- Coordinator, Career Planning Course, Career Development Center, *University of Maryland*, College Park, MD, 1981-1983.

Education: [SEP]

- Ph.D. (December 1987) in College Student Personnel Administration

(Emphasis: student development)

-University of Maryland

-Major Advisor: Dr. L. Lee Knefelkamp [SEP]

-Topic: “The Learning Environment Preferences: Establishing Preliminary Reliability and Validity for an Objective Measure of the Perry Scheme.”

- M.A. (August 1976) in Counseling Psychology [SEP]

-University of Texas at Austin [SEP]

-Master’s Report Topic: “Effects of Career Counseling on Locus of Control and Vocational Maturity”

- B.A., Special Honors (May 1973) [SEP]

-Plan II Honors program (concentrations in English and psychology)

Research/Publications [SEP]

- (2006). “The Washington Transition Mathematics Project: Building Consensus and Capacity by Supporting Standards & Teachers.” *Curriculum in Context*, journal of the Washington State Association for Supervision and Curriculum Development.

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Center for the Study of Intellectual Development

The Center for Applications of Developmental Instruction (CADI) was established by L. Lee Knefelkamp and William S. Moore in 1982 at the University of Maryland as an informal organization for education, research, and services related to the Perry Scheme of Intellectual and Ethical Development.¹ In June, 1988, the Center merged with the Perry Network, previously operated by the Institute for the Study of Education in Mathematics (ISEM) in St. Paul, Minnesota, and was renamed the Center for the Study of Intellectual Development (CSID) to reflect more accurately its broad mission in facilitating quality research on the Perry scheme.

The Center's primary focus has been on the assessment of the Perry Scheme. Assessment approaches available from the Center cover a range of existing formats in developmental instrumentation: a structured interview, a recognition-style preference task-the Learning Environment Preferences (LEP), and a production-style essay-the Measure of Intellectual Development (MID). Each approach has particular uses and its own strengths and weaknesses, depending on the nature of the research/assessment being

¹ John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (PhD diss., The Southern Baptist Theological Seminary, 2012), 233.

conducted. The instruments are complementary and can thus be used simultaneously if appropriate for a given project. MID essays have been used extensively in assessing student learning and evaluating educational experiences at a wide variety of institutions--community colleges to research universities--all over the country, and to a limited extent internationally (primarily England and Australia). The MID has proven to be a particularly useful general indicator of the learning goals reflected in collaborative learning environments, and has been used widely in evaluating learning communities nationally.

The CSID has facilitated many research projects using all three forms of instrumentation. Recent major projects utilizing structured interviews have been undertaken with the following institutions: Pennsylvania State University, Colorado School of Mines, Western Washington University, The Evergreen State College, University of the Pacific, and Cerritos College.

APPENDIX 7

CSID INTERVIEW SCORING PROCEDURE AND REPORTING EXPLANATION¹

Interpreting MID Ratings

The **MID**² is scored by raters who have trained extensively in the general Perry scheme and the specific rating process developed over the years by Knefelkamp (1978) and CSID (Knefelkamp et al, 1982). Because the instrument is designed to assess the part of the Perry scheme that we believe to be primarily cognitive/intellectual in focus, **MID** ratings range along a theoretical continuum from position one through position five. In practice, position one perspectives are not found (it was a hypothetical and conceptual extension of the model even in the original study), and thus the actual **MID** ratings will range from positions two through five.

The Rating System

Individual ratings on the **MID** are represented by a 3-digit number which reflects the dominant and (if necessary) the subdominant position/s rated in the essay. This system extends the Perry scheme continuum from 4 steps--that is, positions 2, 3, 4, and 5--to 10 steps: 222, 223, 233, 333, 334, 344, 444, 445, 455, & 555. Solid ratings (like 333) reflect a "stable position" perspective; the two steps between each stable position indicate transitional essays. As examples, 223 represents "dominant position 2 opening to position 3," while 233 indicates "dominant position 3 with trailing position 2." The ratings thus reflect an assessment of the cognitive complexity displayed by the essay with respect to classroom learning along a linear, simple stage model continuum (see Rest, 1979, Judging Moral Issues, for a thorough discussion of simple vs. complex cognitive stage model assumptions).

Data Reporting

¹ William S. Moore, *Interpreting MID Ratings* (Olympia, WA: Center for the Study of Intellectual Development, 2004), 1-4. See also John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (PhD diss., The Southern Baptist Theological Seminary, 2012), 234.

² MID refers to the Measure of Intellectual Development, a research instrument that obtains data from participants using essay prompts. The CSID's scoring procedure and method of classifying participants' epistemological positions according to the Perry Scheme is essentially identical for data collected using the Perry interview protocol and data collected using the MID. The information presented here includes relevant portions of a document that was provided to the researcher by the CSID.

For reporting purposes, the MID ratings can be treated in either (or both) of two ways, as categorical data or as continuous data. Some statistical purists--often found on doctoral dissertation committees--insist that a measurement scale like the MID can only be treated as categorical data. Other experts, however, including respected psychometricians like Jum Nunnally (Psychometric Theory, McGraw-Hill, 1967), argue that such a strict interpretation is too rigid and not meaningful in practical terms for psychological scales. (For a more in-depth discussion of this topic, see the MID instrument manual.) Depending on the purpose and the audience of the research, the scores can be effectively used either way, and often are reported both ways for comparison purposes.

1) Grouping categories:

222 & 222(3) = Position 2	444 & 444(5) = Position 4
223 & 233 = Transition 2/3	445 & 455 = Transition 4/5
333 & 333(4) = Position 3	555 = Position 5
334 & 344 = Transition 3/4	

Report the frequencies and percentages of students in each of the categories. These figures can then be converted to a histogram if desired, and in a longitudinal project, "profile shifts" to the right on this kind of chart indicates upward movement. For a good example of this kind of analysis, see Kirk Thompson's 1990 paper, available from the Perry Network, on Evergreen State College data.

2) Continuous data:

Convert the rating scores to numbers as follows:

222 & 222(3) = 2.0	344 = 3.67
223 = 2.33	444 & 444(5) = 4.0
233 = 2.67	445 = 4.33
333 & 333(4) = 3.0	455 = 4.67
334 = 3.33	555 = 5.0

Once the ratings are converted to these numerical scores, they can then be manipulated statistically however you choose (mean, standard deviation, etc.)

*"Glimpse" ratings (e.g., 333(4); see the rating notes on the following page for more details) can be treated numerically as a separate sub-stage. In the case of 333(4), for instance, it could be scored as a "3.17" (half of 1/3 a position, in effect). Conceptually, I would argue that these essays are different from 333 essays and the latter approach is preferable; practically, unless your sample has a lot of these ratings, it probably doesn't make much difference.

*In general, traditionally-aged students enter college in the position 2-position 3 transition and exit college 4 (or so!) years later in the position 3-position 4 transition. There is a modest but statistically significant effect by classification and by age, with the former seeming to be a stronger factor (with a great deal depending on the nature of the curricular interventions and learning experiences occurring in those intervening years). There seems to be no consistent difference by gender. Demographic data on ethnicity has

been collected inconsistently over the years, and has become increasingly problematic in terms of data quality and interpretation, so at the present no comparative data are provided for that dimension.

Rating Summary Sheet Notes

Below is a general overview of the kinds of "rater shorthand" notes and comments you might see on the summary sheet of your data.

- * **BP:** "Ball Park" rating; there is insufficient data, or insufficiently clear data, for us to provide a full research rating with confidence--but enough for us to approximate, or "ballpark," a rating. People use such ratings in different ways; with formal research (and an adequate sample!), you might want to exclude them from the analysis. For most informal research purposes, however, it is reasonable to include BP ratings. In converting these ratings to continuous data, treat them as a half-stage; a "BP 2/3," for example, would convert to a "2.5" score.

- * **Glimpse:** rater's notation that accompanies ratings like 333(4). Such a rating indicates that while the essay is seen as reflecting stable position 3, there is a hint, or "glimpse," of the next position (in this example, position 4) that is noted but not given sufficient weight to warrant a +1/3 position increment. We believe these essays are distinct from 334 or 333 essays, but you may prefer to simply consider them as 333 essays. You may also see 222(3) or 444(5), but these are less common.

- * **Unr:** Unrateable; we do not think the data sample is adequate to provide any kind of rating. The reasons vary; sometimes students don't write the essay, sometimes they are simply too brief, and sometimes they either don't take the task seriously or they tangent in ways which make rating impossible. The percentage of Unrateables in samples is usually only 1-5% at most.

- * **Flooded:** there seems to be a strong emotional tone taken in the essay--usually in glowing positive terms (a professor, most often, who obviously had a powerful personal influence on the person), but sometimes harsh and negative as well. Such emotional "flooding" tends to obscure the cognitive rating, so we note its occurrence as a possible caution in reviewing the rating. Flooding does not make the data automatically unrateable, but it can make the essay rate as less complex than it might otherwise be.

- * **Early:** essentially the same notion as "Glimpse," but on the "other side" of the position; that is, a 333 (Early) means that the essay is seen as borderline between a 233 rating and a full 333 rating. As with the "glimpse" notation, this reference is mainly useful for our rating and criteria research, and we do believe this is a distinct set of essays—but it's probably preferable to include them as 333 essays rather than a separate category.

- * **2/4 or 3/5 :** indicates that one or both of the raters noted this essay is an example of a rating split problem--a problematic essay that can be interpreted, for example, in the case of a "2/4" split, as being on either the position 2 or position 4 side of position 3.

Conceptually, these splits result from the fact that there are close parallels between positions 2 and 4 and between positions 3 and 5 in the Perry scheme; practically, they give raters headaches! These essays are noted to allow us to go back to do closer analyses on these essays to help refine our rating criteria and decisions.

* **Q** : simply means that we think the essay in question is quotable, unusual, or for some other reason worth noting. You can use these signs to pull out the best essays for writing a section on the richness of the essay data or for presenting quotes to faculty; we use them primarily for rater training efforts and our ongoing rating criteria refinements.

* **+ or -** : found beside individual ratings (as opposed to the final reconciled ratings), these signs are simply a rater's indication that s/he sees an argument for more than one rating: the one noted and the next 1/3 position step above (+) or below (-) it. These notes help facilitate the reconciliation process, but should be ignored when computing inter-rater agreement percentages.

APPENDIX 8

MEASURE OF INTELLECTUAL DEVELOPMENT
SAMPLE SUMMARY PRIMARY CUES CITED

SOURCE: Christopher Sanchez

DATE COLLECTED: Early 2022

Form: Interviews

SAMPLE OVERVIEW: longitudinal follow-up of seminary students

<p>CUES FOR POSITION 2</p> <p><input type="checkbox"/> focus on facts/content—What to learn</p> <p><input type="checkbox"/> learning as information exchange</p> <p><input type="checkbox"/> "Teacher (Authority) is all" (T-centered)</p> <p><input type="checkbox"/> emphasis on 1-to-1 relationship with teacher</p> <p><input type="checkbox"/> peers noted primarily as "friends in class," "fun"</p> <p><input type="checkbox"/> rule structures</p> <p><input type="checkbox"/> focus on teacher providing structure/clarity for learning</p> <p><input type="checkbox"/> simple comfort in classroom/physical environment</p> <p><input type="checkbox"/> emphasis on clearcut/straightforward grading ("no tricks")</p> <p><input checked="" type="checkbox"/> use of absolutes and/or dichotomies in language</p> <p><input type="checkbox"/> simplistic; focus on "fun," little on learning</p> <p><input type="checkbox"/> Other cues and/or Quotes:</p>	<p>CUES FOR POSITION 3</p> <p><input type="checkbox"/> concern w/ process/methods—How to learn</p> <p><input checked="" type="checkbox"/> opening to multiplicity (multiple perspectives)</p> <p><input checked="" type="checkbox"/> focus on practicality/relevance</p> <p><input checked="" type="checkbox"/> learning a function of teacher/student relationships</p> <p><input checked="" type="checkbox"/> student responsibility = working hard and/or learning skills</p> <p><input checked="" type="checkbox"/> discussion endorsed (peers provide diversity of opinions)</p> <p><input type="checkbox"/> "safe" and/or relaxed atmosphere</p> <p><input type="checkbox"/> quantity/qualifiers; lots of details</p> <p><input type="checkbox"/> focus on challenge/ hard work = good grades</p> <p><input type="checkbox"/> emphasis on evaluation issues (especially fairness)</p> <p><input type="checkbox"/> listing (simple, unelaborated); multiples w/little connection</p> <p><input type="checkbox"/> Other cues and/or Quotes:</p>
<p>CUES FOR POSITION 4</p> <p><input checked="" type="checkbox"/> focus on ways of thinking—How to think</p> <p><input checked="" type="checkbox"/> concern w/ independent thinking, freedom of expression</p> <p><input type="checkbox"/> "anything goes" perspective ("Do Your Own Thing")</p> <p><input checked="" type="checkbox"/> "New Truth" rules (absolutes within multiplicity)</p> <p><input checked="" type="checkbox"/> teacher a facilitator/guide (source of way/s to think)</p> <p><input type="checkbox"/> peers noted as sources of learning (but unelaborated)</p> <p><input checked="" type="checkbox"/> student more active, taking more responsibility for learning</p> <p><input checked="" type="checkbox"/> increased self-processing, ownership of ideas</p> <p><input type="checkbox"/> endorses loosely-structured format</p> <p><input checked="" type="checkbox"/> rejects grading and/or memorizing ("regurgitation")</p> <p><input checked="" type="checkbox"/> comfort w/ multiplicity, connections across disciplines</p> <p><input type="checkbox"/> Other cues and/or Quotes:</p>	<p>CUES FOR POSITION 5</p> <p><input type="checkbox"/> focus on qualitative evidence—How to judge in context</p> <p><input checked="" type="checkbox"/> reflection on own thinking ("meta-thought")</p> <p><input checked="" type="checkbox"/> understanding of different frames of reference</p> <p><input checked="" type="checkbox"/> greater tentativeness, openness in language</p> <p><input type="checkbox"/> teacher as learning partner, source of expertise</p> <p><input type="checkbox"/> peers seen as full partners in learning process</p> <p><input checked="" type="checkbox"/> strong sense of self-as-agent in own learning</p> <p><input checked="" type="checkbox"/> emphasis on synthesis of ideas and themes</p> <p><input checked="" type="checkbox"/> endorses seminar, argument, discussion of ideas</p> <p><input type="checkbox"/> acknowledges role of critique/evaluation in learning</p> <p><input checked="" type="checkbox"/> appreciation for other perspectives (empathy)</p> <p><input type="checkbox"/> Other cues and/or Quotes:</p>

GENERAL COMMENTS:

“3/4” indicates a passage that reflect transition, with elements of both positions 3 and position 4

“2/4 split” indicates a passage that could be interpreted as being on the 2 or 4 side of position 3, depending on the overall context

“Retreat” suggests indication of encountering, then actively rejecting notion of multiple perspectives

NOTE: Some interviews include some passages coded to positions 6 and 7, indicating a sense that respondents are grappling in substantive ways with making and managing Commitment/s in a contextually relativistic (post-position 5) world. These positions are much less common and difficult to assess so they aren't included in this overall cue analysis breakdown. The interview protocol has a couple of question areas that could potentially elicit richer and potentially more precise data on these positions but generally would require more targeted probing for clarifications to the responses than is available here, so rating in those areas is necessarily more tentative.

APPENDIX 9

SCORED POSITIONS AND RATER NOTES

Table A1. Scored positions and rating notes from original study

<i>First Name</i>	<i>MID Score</i>	<i>Categories</i>	<i>Numerical</i>	<i>Rater Notes</i>
Aiden	223	Dominant 2 opening to 3	2.33	
James	223	Dominant 2 opening to 3	2.33	
Thomas	223	Dominant 2 opening to 3	2.33	Retreat?
Aubrey	233	Dominant 3 Trailing 2	2.67	
Chloe	233	Dominant 3 Trailing 2	2.67	
Brian	233	Dominant 3 Trailing 2	2.67	
Noah	233	Dominant 3 Trailing 2	2.67	
Benjamin	233	Dominant 3 Trailing 2	2.67	2/4 split
Lucas	233	Dominant 3 Trailing 2	2.67	
Owen	233	Dominant 3 Trailing 2	2.67	
Henry	233	Dominant 3 Trailing 2	2.67	
Nathan	233	Dominant 3 Trailing 2	2.67	
Andrew	233	Dominant 3 Trailing 2	2.67	
Connor	233	Dominant 3 Trailing 2	2.67	
Hannah	333	Stable 3	3.00	early
Olivia	333	Stable 3	3.00	early
Eli	333 (4)	Stable 3	3.00	glimpse 4
Natalie	334	Dominant 3 opening to 4	3.33	2/4 split
Lucy	334	Dominant 3 opening to 4	3.33	
Emily	334	Dominant 3 opening to 4	3.33	2/4 split
Gabriel	334	Dominant 3 opening to 4	3.33	2/4 split
Evan	334	Dominant 3 opening to 4	3.33	
Levi	334	Dominant 3 opening to 4	3.33	2/4 split
Amanda	344	Dominant 4 trailing 3	3.67	
Micah	344	Dominant 4 trailing 3	3.67	Retreat/New Truth~
Sean	344	Dominant 4 trailing 3	3.67	
Michael	344	Dominant 4 trailing 3	3.67	
Richard	344	Dominant 4 trailing 3	3.67	
Charles	455	Dominant 5 trailing 4	4.67	3/5 split
Jason	455	Dominant 5 trailing 4	4.67	3/5 split

APPENDIX 10

CATEGORIES OF TAXONOMY OF VIRTUES FOR
CHRISTIAN KNOWING ADDRESSED

Table A2. Taxonomy of Virtues for Christian Knowing addressed according to participant in original study

<i>First Name</i>	<i>Categories Addressed</i>	<i>Age</i>	<i>Perry Position Rating</i>
Aiden		23	223
James	1a	22	223
Thomas	1a	22	223
Aubrey	1a	21	233
Chloe	1a, 2d	23	233
Brian	2a, 2d, 3c	22	233
Noah	1a, 2a	23	233
Benjamin	1a, 2a	23	233
Lucas	1a, 3a	22	233
Owen	1a	23	233
Henry	1a, 2a	23	233
Nathan	1a, 3c	22	233
Andrew	2a, 3c, 3d	22	233
Connor	2a	24	233
Hannah	2a, 3b, 3c	24	333
Olivia	2b, 2d, 3c	21	333
Eli	2a, 2d	21	333 (4)
Natalie	2a, 3b	23	334
Lucy	2a, 2b, 2d, 3c	21	334
Emily	2a, 3a, 3c	23	334
Gabriel	2a, 2d, 3a, 3b	22	334
Evan	1a, 2a, 2b, 2d, 3a, 3c	22	334
Levi	2a, 2d, 3b, 3c	22	334
Amanda	1a, 1b, 2a, 2b, 2d, 3b, 3c	23	344
Micah	1b, 2a, 2d, 3a, 3b, 3c	22	344
Sean	2a, 2b	22	344
Michael	1a, 2a, 2b, 2c, 3a, 3b, 3c	25	344
Richard	1b, 2a, 2b, 2d, 3c	22	344
Charles	1a, 2a, 2c, 2d, 3a, 3c, 3d	21	455
Jason	2a, 2d, 3b, 3c	22	455

APPENDIX 11

TRENTHAM'S VIRTUOUS CHRISTIAN
KNOWING AND LEARNING

What follows is a John David Trentham's "Virtuous Christian Knowing and Learning."¹

¹ Supplied by the John David Trentham via email. Used with permission.

Virtuous Christian Knowing and Learning
[+ A Taxonomy of Pedagogical Virtues]
 John David Trentham

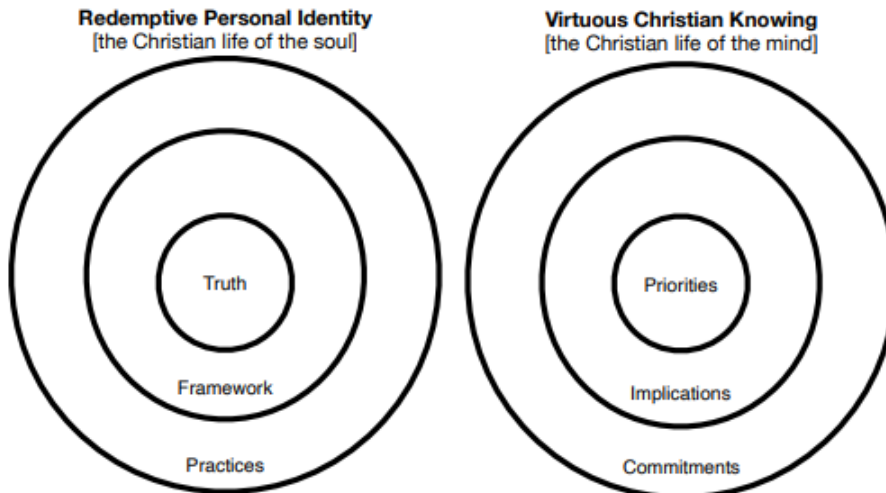
A. Thesis on Virtuous Christian Knowing:

1. Learning requires "knowing" in the fullest sense. [Ref. Eph. 4:13]
2. Ultimate "reality" (i.e., God) is fixed. "Knowing," as an aspect of sanctification, is dynamic and progressive. [Ref. Phil. 3:10; 1 Cor. 13:12]
3. Knowing that is "virtuous" is (1) honest, (2) humble, and (3) lived.
4. All knowing requires a worshipful personal commitment (a "faith seeking...") to Truth.
5. Secularist knowing assumes a (merely) temporal foundation for Truth; religious knowing assumes a (generally) supernatural foundation; Christian knowing assumes a (holistically) biblical foundation.
6. Knowing is not mere *belief* and conviction ("heart"), but requires it.
7. Knowing is not mere *discernment* and reflection ("head"), but requires it.
8. Knowing is not mere *engagement* and application ("hands"), but requires it.
9. *Virtuous Christian Knowing* is an ideal schema for the "life of the confessional (gospel-shaped) mind" that entails a personal pursuit of Truth in which one (a) recognizes biblical priorities; (b) seeks biblical implications; and (c) engages in biblical commitments and practices.

*Pedagogical implication: Virtuous Christian teaching may be defined as that which prompts Virtuous Christian Knowing.

- *The role of the teacher* is to facilitate virtuous knowing through virtuous habits of teaching.
- *The role of the learner* is thus to pursue virtuous knowing through virtuous habits of learning (see taxonomy below).

B. The categories for virtuous Christian knowing correspond to the categories for redemptive personal identity—as comprised by gospel, imagination/worldview, and discipleship—in which (a) *gospel* (Rom 1:16) is one's life-defining Truth, (b) *imagination/worldview* (Eph 1:18) is one's life-informing framework, and (c) *discipleship* (John 15:8) is one's live-living practices.



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C. Virtuous Christian Knowing may thus be characterized as “**tri-perspectival**” [*Ref. John Frame]

Priority (gospel)	Implication (worldview)	Commitment (discipleship)
Normative*	Situational*	Existential*
Life-defining truth	Life-informing framework	Life-living practices
Knowledge (belief)	Understanding (insight)	Wisdom (faithfulness)
Comprehension	Reflection	Experience
Pressuposition	Critical Judgment	Responsibility
Metaphysics	Epistemology	Axiology
I believe...	so that I may understand	so that I may do good works

D. **Applied to Christian teaching** and learning contexts, Virtuous Christian Knowing may be recognized by a series of corresponding categories, each with identifiable priorities and competencies.

- Virtuous Christian *Learning* is an educational manifestation of Virtuous Christian Knowing. [i.e., virtuous learning happens when the learning community is devoted to virtuous knowing.]
- *Remember teachers:* Virtuous Christian teaching prompts Virtuous Christian Knowing.

A Taxonomy of Virtues for Christian (Teaching and) Learning		
<i>Learning entails...</i>	<i>Learning entails...</i>	<i>Learning entails...</i>
Category A: Priorities Biblically-founded presuppositions for learning and development	Category B: Implications Metacognition, critical reflection, and contextualistic orientation for learning and development	Category C: Commitments Personal responsibility for learning and maturing—within community
A recognition of the God of the Bible as metaphysically ultimate, and of revelation as the source and most basic component for knowledge and development	A preference for higher-level forms of insight and reflection	An active pursuit of personal development that results from mutual interdependence and reciprocity in one’s relationships with authority figures and peers
	A prioritization of wisdom-oriented modes of learning and living	
A clear articulation of the relationship between faith and rationality	A reflective criteria of assessing one’s own beliefs and values, as well as divergent beliefs and values	A sense of personal responsibility for gaining, maintaining, and progressing in ways of knowing
	A recognition of social-environmental influences on one’s learning and maturation	A pursuit of active involvement/engagement in the teaching and learning process
		A convictional commitment to one’s own worldview—maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews—through testing and discernment, <i>by constant practice</i>

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ABSTRACT

EPISTEMOLOGICAL DEVELOPMENT IN PRE-MINISTRY UNDERGRADUATES ATTENDING SECULAR UNIVERSITIES

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The Southern Baptist Theological Seminary, 2022
Chair: Dr. John David Trentham

This qualitative study sought to replicate the previous study conducted by John David Trentham in 2012. Trentham's study was cross-institutional in nature with a population from bible colleges, confessional Christian liberal arts colleges and universities, and secular universities. This study focuses on a population consisting of pre-ministry undergraduate students from secular universities. The Perry Scheme is the basis for the evaluation, and previous research conducted by Trentham is used to study how attendance at secular universities affects the progression of pre-ministry undergraduate students through positions established by Perry in his epistemological development scheme.

The qualitative research design consisted of six steps: (1) customizing the Trentham Interview Protocol; (2) recruiting study participants; (3) conducting a pilot study; (4) conducting and transcribing interviews and submitting them to the Center for the Study of Intellectual Development (CSID) for scoring; (5) performing an independent content analysis utilizing Trentham's Taxonomy of Virtues for Christian Knowing; and (6) evaluating the scoring provided by the CSID and the content analysis, determining research findings, and drawing conclusions based on the data obtained.

The findings of the 2015 research were consistent with those of Trentham's earlier research. This study also suggests a possible correlation between epistemological

positioning and voluntary attendance at extracurricular events sponsored by Student Services/Student Affairs. However, due to the small population size, further research is necessary.

The findings of the follow-up study conducted in 2022 differed from earlier research conducted by Stuckert, Kintner, and Bumanglag, whose study populations were similar. Follow-up study participants possessed significantly higher Perry Scheme scoring, especially compared to respondents of other studies of similar age. Possible reasons for this difference include familiarity with the study methodology and familiarity with the interviewer. Due to the small population size, further research is necessary.

KEYWORDS: Bethel Anne Agtani Bumanglag, biblical worldview, Bruce Richard Cannon, Center for the Study of Intellectual Development (CSID), Christian formation, cognitive development, critical thinking, decentering, diversity, dualism, epistemological development, faith and rationality, Gregory Brock Long, higher education, *imago Dei*, inclusion, inverse consistency, Jennifer Jeannean Kintner, John David Trentham, Jonathan Derek Stuckert, Justin Robert Mullins, Measure of Intellectual Development (MID), multiplicity, Perry Scheme, pre-ministry undergraduates, secularism, student services, student affairs, Taxonomy of Virtues Christian Knowing, vocational ministry, Warren Dale Leatherman, William Perry

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