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God control among doctoral psychology students : a compressed longitudinal design

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God Control Among Doctoral Psychology Students:
A Compressed Longitudinal Design

by

Laura K. Heyne

Presented to the Faculty of the
Graduate Department of Clinical Psychology
George Fox University
in partial fulfillment
of the requirements for the degree of
Doctor of Psychology
in Clinical Psychology

Newberg, Oregon

November, 2011

God Control Among Doctoral Psychology Students:
A Compressed Longitudinal Design

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has been approved

at the

Graduate School of Clinical Psychology

George Fox University

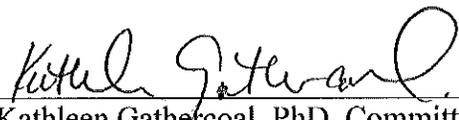
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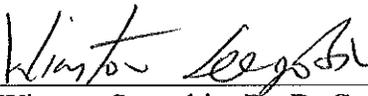
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God Control Among Doctoral Psychology Students:
A Compressed Longitudinal Design

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Abstract

Locus of control (LOC) is a robust construct that has received a great deal of attention in scientific and professional psychology over the past four decades. LOC can be defined by a person's attributions that life circumstances are dependent on either his or her own actions (internal) or the actions of external factors. God control or "Surrender" has emerged as an additional spiritual dimension in determining an individual's outcome of life circumstances. Throughout the process of graduate school, LOC may shift as the students develop professionally. The following study examined LOC among 157 graduate students in 5 Christian-based professional psychology programs, including their perceived beliefs of God being in control. Results indicate an increase in internal LOC between second- and third-year, but with the majority of changes occurring between the first and second year, including a decrease in surrender. The shift during the first year of graduate school leads to various possible

explanations, including eroding faith, enhancing self-efficacy, rearranging of faith, or overall fatigue. Indications for Christian-based programs are considered.

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Chapter 1

Introduction

Locus of control (LOC) is a robust construct that has received a great deal of attention in scientific and professional psychology over the past four decades (Myers, 2005; Rotter, 1966; Shapiro, Schwartz, & Astin, 1996; Wallston et al., 1999). What determines the circumstances and outcomes of our life? How much control do we have in the tasks that we complete and the accomplishments we make?

Locus of Control, Attribution, and Well-being

LOC is defined by a person's attributions that life circumstances are dependent on either his or her own actions or the actions of external factors. The construct dates back to Rotter (1966) who studied the determining factors of how much the outcomes of life are due to either a person's own control (internal) as oppose to outcomes of life are shaped by the outside effects (external). An external locus of control suggests that chance or outside forces determine one's fate (Myers, 2005) whereas an internal locus of control assumes one has a good deal of control over his or her destiny. LOC has been studied intensely since the late 1960s (Shapiro et al., 1996; Wallston et al., 1999) and has become important in research related to coping (Masters & Wallston, 2005), recovery from alcohol (Murray, Malcarne, & Goggin, 2003), health outcomes (Ai, Peterson, Rodgers, & Tice, 2005; Masters & Wallston, 2005; Shapiro et al., 1996), and determining academic success within students (Nordstrom & Segrist, 2009).

Attribution theory has also been widely researched within psychology and overlaps with LOC. Attribution theory is defined as how people explain or attribute the cause of success and failure of experiences in their lives (Furnham, 2009). There are three fundamental dimensions within classic attribution theory. These are internal-external (similar to LOC beliefs), stable-unstable (how changeable a cause is perceived to be; e.g. an example is luck is considered unstable), and global-specific (how pervasive the effect of a cause is; Furnham, 2009). The major difference between LOC and Attribution theory is that LOC research is focused mainly with the expectation of future events, while attribution theory is focused on the causes of past events (Furnham, 2009). The theories intersect insofar as LOC beliefs determine or shape attributional style, and vice versa. Weiner (1974) applied two attributional dimensions to LOC, resulting in the 2 x 2 grid shown in Table 1.

Table 1

Internal-External and Stable-Unstable Attributions

	Locus of Control	
Stability	Internal	External
Stable	Ability	Task Difficulty
Unstable	Effort	Luck

In general, internal LOC and internal attributional styles are associated with the greatest wellbeing and health in the presence of good outcomes, but not when faced with bad outcomes.

Internal LOC beliefs are more likely to increase through positive or successful life experiences. These successful experiences are obtained because the individual gains greater confidence, initiative, and motivation. External LOC beliefs may increase if an individual experiences negative or unsuccessful life experiences. The person may feel helpless toward some or all situations experience (Furnham, 2009). Therefore, internal LOC has been strongly associated with more positive attributes and actions. Lefcourt(1991) found that individuals who hold a more internal LOC display healthier and more adaptive behaviors at school, work, and play. Individuals with higher internal LOC are believed to be happier and have a greater appreciation for freedom (Verme, 2009). However, Furnham (2009) also noted that people with internal LOC also experience lower self-esteem when faced with failures since they will more likely taken responsibility for their actions. Individuals who are faced with random negative life events may believe that they have control over those life events by having perceived control (Kimhi&Zysberg, 2009). Perceived control can be defined as a psychological construct with the belief that one can act to obtain desired outcomes and avoid outcomes that are undesirable (Alloy & Clements, 1992).

Understanding a person's LOC is more complex than meets the eye (Furnham, 2009) and applies to various areas of an individual's life. People may hold person-specific as well as situation-specific LOC beliefs. For example, a person may hold internal LOC beliefs about oneself but external LOC beliefs about their families or vice versa. LOC is also complicated by social support factors related to stress and coping. Arslan, Dilmac, and Hamarta (2009) found that people with internal LOC of control may be expected to avoid stressful situations, but also seek out social support less than people with higher external LOC. Another complexity is how

individuals interpret sudden or unexplainable events. Kimhi and Zysberg (2009) found preliminary evidence that the more external the LOC, the less likely people are to perceived rare life events as random.

LOC and God Control

Although LOC has been researched in various areas of life, it has received relatively less attention in research on religion and spirituality. Preliminary research suggests that among religious individuals, specifically those with a theistic worldview, additional dimensions of control ought to be considered. Many theists hold the belief that God is important in determining their life outcomes. The understanding of control switches from an individual's own power to God becoming an ultimate decision maker in his or her life. It was previously believed that an individual who held God as a determiner of the outcomes within their life would have a higher level of external LOC (Benson & Spilka, 1973), presuming that placing one's fate in God's hands is essentially submitting to an external power. But later research suggested that an individual's internal LOC is higher when they believed God is more in control of life events (Furnham, 1982). Similarly, Shrauger and Silverman (1971) found that people who are more involved in religious activities perceived themselves as having more control over the events in their lives.

Whereas the earliest research suggested that attributing control to God is associated with external LOC, and then researchers began seeing associations between internal LOC and the belief that God is in control, it now appears that neither of these interpretations is correct. Recent research has found that God's power over an individual's life is relatively independent from internal or external LOC. Welton, Adkins, Ingle, and Dixon (1996) have identified what they have determined as an additional dimension of LOC known as God control. God control is the

belief that life events are controlled by God (Kopplin, 1976; as cited in Wong-McDonald & Gorsuch, 2004). However, researchers have faced difficulty assessing the God control construct because LOC scales do not measure or use language pertaining to God as determiner of an individual's life (Furnham, 1982; Watson, Milliron, Morris, & Hood 1995).

Wong-McDonald and Gorsuch (2004) propelled the God control construct forward when they developed a short scale to assess an attribution style they called "Surrender." Surrender can also be referred to as God control. Wong-McDonald and Gorsuch (2000, 2004) found that people who cope with life issues using the surrender style tended to place their LOC in God rather than in powerful others or in luck. Even in the presence of a negative outcome, religious individuals still have a greater likelihood of attributing uncontrollable negative outcomes to God's will or purpose (Kunst, Bjorck, & Tan, 2000). Religious individuals often believe there is a divine purpose for negative outcomes, and the purpose is not necessarily related to the punishment of God or God's anger, as some may believe.

Considering the various connections found between LOC and health, God control has also been studied in relation to health and coping. Reliance on God is found to have positive effects on beliefs that God empowers free will to make choices, and to increase trust that outcomes are still controlled by God (Holt, Clark, Kreuter, & Rubio, 2003). Bjorck, Lee, and Cohen (1997) discovered that God control has been found to be associated with lower depression in Caucasians. The researchers also noted individuals with a religious foundation are more likely to attribute the outcomes of the events to God when it is a personal occurrence more than a global occurrence. Ai et al. (2005) compared surrendering personal control to God and internal health LOC on religious individuals who were awaiting surgery for a heart condition. The

participants who had a lower internal health LOC were also shown to have a greater trust in God and to surrender personal control in the outcome of their surgery.

Stress has also been studied in relation to God control. Kay, Moscovitch, and Laurin (2010) found that belief in God may be functional in defense against distress, whether the distress is due to trauma or not. Pargament (1997) found that individuals who believe that God is working with them were more likely to take greater initial steps in dealing with a specific stressor. Individuals high on God control are also suggested to more likely use religious coping mechanisms in dealing with the stress (Masters & Wallston, 2005), and those with higher levels of spiritual beliefs and behaviors deal with their life experiences better than others (Walker & Dixon, 2002; Zern, 1989). Krause (2005) found that individuals with a strong sense of God-mediated control were shown to have greater life satisfaction, self-esteem and optimism. Lastly, Kunst et al. (2000) found participants who had a strong sense of God control tended to have greater feelings of self-worth than those who had a less sense of God control.

LOC Among Doctoral Trainees in Professional Psychology

Very little is known about how LOC evolves during graduate education in professional psychology. A few studies have addressed graduate education in general. For example, an internal LOC is associated with dissertation completion, while external LOC is associated with individuals who do not complete doctoral training (McDermott, 2002; Harsch, 2008).

Some studies have focused on psychology students specifically, though they have approached LOC as a static trait rather than an evolving area of professional development. For example, Nordstrom and Segrist (2009) found that doctoral students in psychology who have an internal locus of control see a connection between their efforts and outcomes they achieve. These

were the students in the study who believed they made things happen by “managing their time effectively, getting involved in faculty research, working independently on class projects, theses and dissertations, and establishing mentors, practica/internship sites, etc” (p.203). Other research has shown students with internal LOC are most likely to achieve academic success through their own LOC studies (Arslan et al., 2009).

Despite a few published studies on LOC in graduate psychology education, little is known about how LOC may develop over time. Psychologists are expected to gain professional confidence through their training years, which presumably should have some impact on LOC. It seems reasonable to assert that many psychologists may change their LOC beliefs during their doctoral training program as they are developing a professional identity while facing the challenge of balancing multiple tasks including academic work, research and clients (Kuther, 2008). As graduate students move through the psychology-based program and become faced with the high demands of graduate school, priorities and feelings of control may shift from when they first entered. Thus, one purpose of the current study is to look developmentally at LOC among students of different levels of graduate training.

In recent years, some professional psychology training programs have emerged within explicitly Christian institutions (Johnson & McMinn, 2003). Christian students in professional psychology may incorporate God control as a factor in the outcomes and success in both educational and professional experiences. Just as theistic psychologists may attribute God control as a factor when addressing and reflecting on day-to-day challenges, or when working with difficult clients, presumably God control may be important for performance and coping among students in Christian programs. Little is known about this, though some studies have addressed

LOC and faith among undergraduate students (Lee, Puig & Clark, 2007; Spilka & Schmidt, 1983). Spilka and Schmidt (1983) found religious-based students reported stronger attributions toward God when the occurrence of the event was personal to them as opposed to the event happening to others.

Some previous studies have looked at the experiences of theistic graduate students in psychology, most focused on Christian students. Researchers have explored graduate students' consistency in both their image of God and personal relationship with God throughout their training (Mullis 2008; Sorenson, 1994). Sorenson (1994) reported that students' concepts of God might change due to the experiences within graduate school. The research found these experiences had a greater impact on the students' beliefs than their previous experiences before entering the program. Pearce (1996) also found during the course of graduate school, many students had moved toward a more relational, intimate, interactive relationship with God, which was reported to be deeply satisfying to the student. Hofer (2004) did a nine-year follow-up on Pearce's study finding the participants presently had a deeper, stronger, and more important relationship with God than when in the program. Mullis (2008) found that graduate students' faith and their belief in the presence of God increased in their program. However, Mullis (2008) projected that seminary students in his study may have unconscious reasons for overreporting increase in God image scores, and may actually experience some cognitive dissonance. Edwards (2006) found other contradicting evidence within clinical psychology graduate students at a Christian University. He found a linear decline over the course of three years within the five-year program.

We know that beliefs change through graduate school, but it is not entirely clear how these beliefs change. The nature of changing beliefs would be good to know, both for the purposes of providing informed consent to potential students and to better understand the impact of graduate training on religious beliefs and behaviors. Legako and Sorenson (2000) found that graduate students who were warned of the potential stress on their marriages were more prepared to prevent possible negative changes. Shanks (2002) followed up with another study to determine if forewarning students about the potential shift in their God concept would decrease that amount of change. Although Shanks (2002) did not find a significant result, many students did report a stronger relationship with God at the end of her study and those with a negative change wanted the right to be informed of the probable change in beliefs before entering the program.

Considering the prevalence of change in graduate school and the ambiguity of the cause, one possible theory for the change is a student's shift in LOC. Previous studies have found a positive correlation between a belief in an individual's personal strength and academic success. Recognizing the potential change in beliefs, Christian graduate students may attribute more outcomes to internal LOC and less to God's sovereignty as their ability to juggle multiple demands and personal successes increase. Knowledge of a shift in LOC may then help students reflect on their own personal attributions of outcomes, as well providing insight to Christian institutes in fostering Christian growth.

The current study was designed to examine LOC among graduate students in Christian-based professional psychology doctoral programs, including their perceived beliefs of God being in control. It was hypothesized as graduate students progress within their program settings, their internal attributions of control will increase and their God control beliefs will decrease.

Chapter 2

Methods

Participants

The participants were graduate students drawn from doctoral of psychology programs of seven Christian institutions. Of the seven schools invited to participate, five schools chose to be a part of the study. The five schools who participated in the overall study were George Fox University, Rosemead School of Psychology (Biola University), Wheaton College, Azusa Pacific University, and Regent University. A collaborator from four of the five schools was contacted to distribute the surveys manually to each of the willing participants. The collaborators were given an instructional letter regarding the distribution and retrieval of surveys. After completing an informed consent form, participants were asked to complete pretest measures and demographic information at the beginning of the 2010-2011 academic year. Participants were then asked to complete a posttest at the end of the academic school year. All surveys from the pretest and posttest were returned within the academic year the study was conducted.

Of the students invited to participate in the study, 218 students completed the pretest at the beginning of the academic year and 157 students who completed the pretest also completed the posttest. Of these, 55 (35%) were male and 102 (65%) were female. The mean age was 27 (SD = 5.95), with a minimum of 20 and maximum age of 55. There were 51 first year students (32.5%), 49 second year students (31.2%), 36 third year students (22.9%), 16 fourth year students (10.2%), and 5 fifth year students (3.2%). The majority, 108 respondents, reported their

ethnicity to be European-American (68.8%), followed by 12 Hispanic/Latino (7.6%), 12 Asian-American/Pacific Islander (7.6%), 11 African-American (7.0%), 1 Native American (0.6%), and 11 reported themselves as Other (7%).

Of the 157 participants, 40.1% reported their highest degree to be a bachelors degree and 44.5% reported having a masters degree. The years the degrees were obtained range from 1993 to 2010. Of the 155 religious dominations reported, the majority of participants identified themselves as Protestants (77.1%), followed by Catholic (4.5%), Orthodox (0.6%), None (3.2%) and Other (13.4%). Participants were asked how often they attend church services. Of the 155 who responded, 31 indicated “More than once a week” (19.7%), 76 indicated “Once a week” (48.4%), 20 reported “A few times a month” (12.7%), 20 reported “A few times a year” (12.7%), 5 reported “Once a year or less” (3.2%) and 3 reported “Never” (1.9%).

Measures

Locus of control. LOC was measured with Levenson’s (1974) Multidimensional Locus of Control Scale, a 3-factor 20-item self-report scale, which asks participants to choose the determinants of their life reinforcements (Appendix A). The three factors include “Powerful Others Control,” “Internal Control,” and “Chance Control.” The reliability for the scale is moderately high (Coefficient alpha; P scale = .77, I scale = .64, C scale = .78). The items were rated on a 5-point Likert-type Scale (1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, 5 = *Strongly Agree*). As used in the Wong-McDonald and Gorsuch’s (2000) research, eight items assessing God Control were added to the measure.

Surrender Scale. Wong-McDonald and Gorsuch’s (2000) Surrender Scale is a 12-item scale which measures the participants level of surrendering their personal control to God

(Appendix B). Items are based on a 5-point Likert-type scale (1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, 5 = *Strongly Agree*). The Surrender Scale was derived from 30-items originally written based on the biblical concept of surrender (Matthew 10:39; John 10:10). The internal consistency of the 30 items is high (Cronbach's alpha = .96.) The 12 items selected had a high correlation with the 30 items and retained high internal consistency (Cronbach's alpha of .94).

Religious commitment. Participants were asked how important religion is to them (Appendix C). A 5-point Likert-type scale was used to measure importance (1 – *Not at all, I have no religion*, 2 = *Not very important*, 3 = *Somewhat important*, 4 = *Quite Important*, 5 = *Extremely Important, It is the center of my life*).

Spiritual Assessment Inventory. Hall and Edwards's (2002) Spiritual Assessment Inventory is a five factor, 47-item scale measuring to assess two dimensions of spiritual development based on relationship towards God (Appendix D). The two dimensions are Awareness of God and Quality of Relationship with God. The internal consistency of the 47-items is high (Cronbach's alpha: Awareness = .95, Disappointment = .90, Realistic Acceptance = .83, Grandiosity = .73, Instability = .84). The items were rated on a 5-point Likert-type scale (1 = Not True At All, 2 = Slightly True, 3 = Moderately True, 4 = Substantially True, 5 = Very True)

Religious Problem-Solving Scale. Pargament, Kennell, Hathaway, Grevengoed, Newman, and Jones's (1988) Religious Problem-Solving Scale is a 36-item scale which measures participants distinguish the different degrees of responsibility assigned to self or God in solving problems and level of initiative taken in problem solving (Appendix E). The measure provides three different subscales of Self-Directing, Collaborative, and Deferring. Items are

based on a 5-point Likert-type scale (1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*). The internal consistency of the 36 items is high (Cronbach's alpha: Self-Directing = .91, Collaborative = .93, Deferring = .89).

Demographics. Participants were asked at the end of the surveys to record their demographic information (Appendix F). The information included is sex, year in the program, age, highest degree completed, racial/ethnic identity, religious denomination, and frequency of attendance to church services. Question related to frequency of church attendance was taken from Koenig, Parkerson, and Meador's (1997) Duke University Religion Index (DUREL).

Procedure

Participants were handed the informed consent (Appendix G) and measures in one of their institution's classrooms. At pretest participants were asked to provide a code consisting of the last four digits of their social security number. The four-digit code allowed pretest data to be matched with posttest data in a way that ensured confidentiality. Participants filled out the four pretest measures, additional items and the demographic information in class. The posttests were administered in a similar procedure. Participants who participated during the pretest were contacted by contacted at the end of the academic year and asked to complete a similar set of measures. Participants were given the option to provide an email address if would like to be contacted with the results. A compensation of \$2 was given to each participant at the posttest.

Chapter 3

Results

Descriptive statistics were computed for each subscale within the four measures. These are reported in Table 2. In order to determine the changes among graduate students, a series of mixed model repeated measures analyses of variance (ANOVAs) were computed—one for each of the various scales used as dependent variables. Each of these ANOVAs had a repeated measures factor (the scores at the beginning and ending of the academic year) and a between-groups factor (the students' year in the program).

Hypothesis 1

The first hypothesis is that as graduate students progress within their program settings, their internal attributions of control will increase. A significant difference was found for the Internal Control Scale across time, $F(1,152) = 4.69, p = .032$, and between years, $F(4,152) = 4.21, p = .003$. Students reported an increase of internal control between the beginning of the academic year and end of the school year. Post-hoc comparisons using the Least Squared Difference (LSD) test revealed that the mean score for Internal Control increased between the second and third year. No differences were noted for the External or Powerful Other scale.

Hypothesis 2

The second hypothesis as graduate students progress within their program settings, their God control beliefs will decrease. Surprisingly, significant differences were not found over time or between years on the God Control or Surrender Scales. Visual inspection of the data suggested

that the greatest changes may occur between the first and second years in a doctoral program, but that these differences may be masked by the relative lack of change that occurs after the second year. To increase power, a new binary variable was created to indicate if a student was in the first year of his or her doctoral program or a subsequent year. This new binary variable was used as the between groups factor in subsequent analyses. A significant difference was found for the God Control Scale between first years and subsequent years, $F(1,154) = 7.07, p = .009$. The binary variable also indicated significant difference on the Surrender Scale between first years and subsequent years, $F(1,154) = 4.79, p = .030$. In both cases first year students entered with a greater sense of God Control and Surrender than reported by students later in the program.

Pearson correlation coefficients revealed a significant pre-post relationship on each of the locus of control constructs. Additionally, internal locus of control was modestly, but significantly, related to God control in an inverse direction. These results are reported in Table 3.

Additional Analyses

In addition to the analyses related to the two hypotheses, several ad hoc ANOVAs were done to look at religious commitment, scores on the Spiritual Assessment Inventory, and scores on the Religious Problem Solving Scale. On the Religious Commitment item, a significant difference was found between pretest and posttest $F(1,135) = 5.27, p = .023$. Students reported being more committed at the beginning of the academic year in comparison to end of the school year. Cohort differences were observed when using the binary variable as the between group variable, with first year students reporting greater religious commitment than those in subsequent years, $F(1,138) = 5.84, p = .017$.

Table 2

Means (and Standard Deviations) for Pretest and Posttest Subscales

Subscale	Year 1 (N = 51)		Year 2 (N = 49)		Year 3 (N = 36)		Year 4 (N = 16)		Year 5 (N = 5)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
God Control	4.03(.58)	3.91(.57)	3.79(.64)	3.76(.66)	3.77(.49)	3.59(.57)	3.73(.51)	3.71(.65)	3.67(.23)	3.62(.55)
Surrender	3.94(.50)	3.91(.49)	3.62(.71)	3.65(.75)	3.78(.62)	3.77(.59)	3.73(.52)	3.78(.44)	3.95(.45)	3.77(.23)
Rel Com	4.61(.57)	4.49(.62)	4.29(1.01)	4.12(1.02)	4.28(.81)	4.19(.93)	4.27(1.03)	3.93(1.16)	4.60(.55)	4.40(.55)
I/E										
Powerful Others	2.47(.40)	2.58(.49)	2.48(.39)	2.51(.52)	2.39 (.50)	2.44(.48)	2.58(.47)	2.50(.27)	3.07(.69)	2.78(.51)
Internal	3.43(.51)	3.50(.43)	3.53(.50)	3.56(.47)	3.73(.37)	3.80(.42)	3.79(.35)	3.88(.34)	3.55(.34)	3.70(.26)
Chance	2.20(.47)	2.35(.38)	2.26(.43)	2.30(.44)	2.14(.45)	2.25(.52)	2.27(.43)	2.37(.39)	2.57(.62)	2.40(.49)
SAI										
Awareness	3.78(.63)	3.44(.70)	3.28(.87)	3.18(.92)	3.21(.79)	3.23(.90)	3.41(.58)	3.22(.62)	3.62(.90)	3.46(.99)
Realistic Accept	4.27(.79)	4.15(.83)	3.85(.88)	3.86(.75)	3.93(1.02)	3.81(.93)	3.94(.78)	3.83(.77)	4.03(.89)	3.90(.90)
Disappointment	2.42(.88)	2.66(.92)	2.55(.99)	2.47(.94)	2.69(1.10)	2.53(.96)	2.37(.69)	2.29(.71)	3.68(1.31)	3.65(1.61)
Grandiosity	1.63(.54)	1.44(.45)	1.43(.49)	1.34(.42)	1.50(.50)	1.44(.53)	1.29(.37)	1.15(.17)	1.40(.25)	1.40(.23)
Instability	1.94(.57)	1.87(.58)	1.89(.61)	1.83(.50)	1.85(.63)	1.79(.69)	1.76(.67)	1.76(.54)	1.96(.54)	1.94(.62)
Impression Management	2.59(.81)	2.20(.79)	2.15(.73)	1.98(.75)	1.97(.70)	1.92(.73)	2.32(.73)	2.29(.84)	2.04(.80)	1.80(.72)
RPS										
Collaborative	43.72(7.59)	40.49(9.59)	38.69(8.58)	37.39(9.97)	38.50(8.65)	38.44(10.1)	40.50(6.46)	38.87(6.61)	44.00(7.86)	44.00(6.59)
Self-Directing	27.82(7.33)	29.80(8.87)	33.30(9.54)	32.98(10.87)	33.55(8.80)	32.55(8.68)	30.19(8.06)	32.56(7.66)	36.00(7.65)	32.20(7.92)
Deferring	30.69(7.01)	27.52(7.56)	27.75(7.65)	27.49(8.25)	25.05(5.72)	25.19(6.71)	25.31(6.84)	25.25(8.30)	26.20(8.53)	24.60(7.63)

Notes. Scores are reported as Means (Standard Deviations).

Table 3

Correlation Between Measures (Internal LOC, Surrender, and God Control) for Pretest and Posttest Subscales

Measure		IE Internal		God Control		Surrender	
		Pre	Post	Pre	Post	Pre	Post
IE Internal	Pre	1	.742*	-.225*	-.212*	-.053	-.054
	Post		1.000	-.269*	-.218*	-.046	-.033
God Control	Pre			1	.753*	.537*	.534*
	Post				1.000	.463*	.605*
Surrender	Pre					1.000	.761*
	Post						1.000

Notes. Significance is indicated * = $p < .01$, two-tailed.

On Hall and Edward’s (2002) Spiritual Assessment Inventory, a significant difference was found on the Awareness scale across time when comparing means of the pretest and posttest, $F(1,152) = 7.31, p = .008$. The Awareness scale was designed to measure the individual’s ability to recognize God’s communication to self and through self (Hall & Edwards, 1996). Students indicated a greater awareness of God at the beginning of the school year in comparison to the end of the school year. Although significance was not found between individual years, the binary variable revealed a significant decrease between first years and subsequent years, $F(1,155) = 7.64, p = .006$. The Impression Management Scale within the Spiritual Awareness Inventory (SAI) also indicated a significant difference in comparison of means between pretest and posttest, $F(1,152) = 9.49, p = .002$, and between the program years $F(4, 152) = 2.62, p = .037$.

The Impression Management scale is designed to assess test-taking attitude with higher scores representing socially desirable answers (Hall & Edwards, 2002). Students' responses decreased between beginning of the school year and end of the school year. An LSD Post-Hoc comparison revealed Impression Management decreased between first and second years in the program. Disappointment scale, Realistic Acceptance scale, Grandiosity scale and Instability scale indicated no significant differences across time or between cohort years. However, significance was found for scales using the binary cohort variable. Realistic Acceptance decreased significantly between first years and subsequent years, $F(1, 146) = 5.69, p = .018$. There was also a significant decrease between first years and subsequent years on the Grandiosity scale, $F(1, 155) = 3.98, p = .048$.

On the Religious Problems Solving Scale (Pargament et al, 1988), the Self-Directing scale indicated no significant difference over time. Using the binary cohort variable, a significant increase was noted between the first years and subsequent years, $F(1, 155) = 8.024, p = .005$. On the Collaborative scale a significant difference was found between program years, $F(4, 152) = 2.51, p = .044$. Post-hoc comparisons using the LSD test revealed that the mean score for the Collaborative scale decreased between the first and the second years. The Deferring scale from the Religious Program Solving Scale (Pargament, et al, 1988), also displayed significance between program years, $F(4, 152) = 2.83, p = .027$. A LSD Post-hoc comparison indicated decrease between first and fourth years. No differences were noted on time for the Collaborative and Deferring scale.

Chapter 4

Discussion

This study was designed to examine LOC among graduate students in Christian based profession psychology doctoral programs, specifically their perceived beliefs of God being in control. The hypotheses were that graduate students' progression in the program would (a) increase their internal attributions of control, and (b) decrease their belief of God Control. Both hypotheses were supported. With regard to God Control, most of the changes appear to occur early in training—sometime between the first and second year. With internal attributions of control, the most sizeable changes occurred between the second and third year.

The other variable that increased over training was the Self-Directing scale on the Religious Problem Solving scale. The Self-Directing scale is designed to measure the responsibility for problem solving on the individual as opposed to God (Pargament et al., 1988). Various faith-related constructs appear to decrease throughout training. These include God control, Surrender, Deferring and Collaborative problem solving of the RPS, and Awareness and Realistic Acceptance on the SAI. All decreases appeared to occur sometime between the first and second year.

Possible Explanations of Findings

Eroding of Faith. As the training is specifically centered on professional growth in psychology, worldview assumptions common in the field may contribute to some eroding of faith. According to Slife and Reber (2009), psychology tends to have a naturalist worldview

assumption that may actually compete with a Christian supernatural worldview. These two worldviews are believed to disagree on viewing the importance of God. Students may experience incongruence in their own belief system as exposed to more natural processes of psychology's worldview. Perhaps even integrative doctoral programs unintentionally foster an internal clash of worldviews for students, and students resolve this by becoming more naturalistic in their assumptions and attributions.

Relatedly, students encounter pain and struggles in their clients that may end up affecting their worldviews. As students progress in the program, their contact with clients increases and therefore awareness of negative and naturalistic life circumstances may increase as well. Kunst et al. (2000) found that religious individuals continue to have a greater likelihood of attributing uncontrollable negative outcomes to God's will or purpose. Difficult questions may be raised in the students' minds as they wrestle with trauma and evil in the world.

Enhanced self-efficacy. Another possible explanation of these findings is that students may gain increasing confidence in their own abilities during the second and following years. There is a greater sense of mastery and ability to manage outside of the assistance of God. Student's ability to self-direct also becomes apparent as they feel they can they can problem solve and handle situations. Students may feel a lesser need for God as a result. Weiner (1974) notes that internal LOC is gained with positive or successful life experience resulting in greater confidence, initiative, and motivation. If students gain self-efficacy, it may or may not detract from their experience of God being in control. As with Wong-McDonald and Gorsuch (2000), the present study revealed no meaningful correlation between surrender and internal control. But a cross-sectional look at surrender and internal control does not tell the whole story. It appears

that internal locus of control increases and surrender decreases during critical periods of training. The uncertain relationship of these two constructs warrants further investigation.

Rearranging Faith. Another possible explanation of the results may be a rearranging of faith. The need for spiritual impression management diminishes after the first year. Students reported more socially acceptable answers in the beginning of the school year than at the end. As students become less concerned about impression management, this may allow for greater transparency regarding their true relationship with God. Mullis' (2008) suggested students may overreport in the God image scores, and may experience some cognitive dissonance as a result. Given the Christian-based foundation of the graduate programs studied, students may feel internal pressure to appear more spiritual than they actually believe themselves to be. Changes in spiritual beliefs may not actually occur internally; instead more accurate self-reports are given over time. The decrease on the Grandiosity scale is consistent with the assumption students lessen the need to appear spiritual after their first year. Hall and Edwards (1996) designed the scale to measure a narcissistic persona of their relationship with God. As a more mature relationship develops between the students and faith in God, faith becomes less about performance and more about the internal growth of the individual.

Arguing against this rearranging of faith view is the finding that Realistic Acceptance on the SAI decreased over time. Hall and Edwards (1996) designed the scale to measure the individual's ability to resolve conflict, both interpersonally and intrapersonally, and maintain the developed relationships over time. When students are faced with difficult or challenging experiences during their academic year, it appears some students are unable to maintain a secure relationship with God, which indicates potential distrust in security of God's sovereignty.

Fatigue. A fourth possible explanation of the overall results relates to limited spiritual stamina and overall self-care of students. It is possible students become fatigued in the five-year program. Graduate school may just wear down people's experience, and it may or may not rebound later. It is intriguing to note that students express less religious commitment at the end of the academic year than at the beginning, regardless of which year they are in. Perhaps this reflects the fatigue of a rigorous academic schedule, with some level of renewal occurring in summer months.

Inconsistent with the fatigue explanation, Pearce (1996) found many students had moved toward a more relational, intimate, and interactive relationship with God during graduate school. Hofer's (2004) nine-year follow-up on Pearce's study found participants had an even deeper, stronger, and more important relationship with God after the program. Although different results were found during the present study, Hofer's study provides hope of an increase in personal relationship after graduate school.

Program requirements may consume the time students have to fellowship and serve within religious organizations. Edwards' (2006) God Image Inventory (GII) had consistent results indicating a decrease in church attendance as well. The ability to balance both spiritual and academic life may be a struggle for graduate students. Therefore, time may be one factor, as well as the increased stress and pressure that may ultimately exhaust students' ability to grow spiritually.

In summary, participants showed a clear increase in self-efficacy throughout graduate training. Their reduction of religious commitment may be due to erosion or rearranging of faith, or may be a result of fatigue. When entering the program, students have a greater awareness of

God than when they leave the program. According to Hall and Edwards (1996), Awareness is a dimension of our human relationship with God and needs to be developed and maintained. This appears to be difficult for graduate students in Christian psychology doctoral programs.

Future Studies

The shift in spiritual attributions between first and second year indicates one or more potential factors precipitating the change. Future research might help elucidate the mechanism of change in order to consider what changes, if any, are needed in training programs. Conversely, enhanced self-efficacy is a positive attribute within graduate students and should be promoted. Future studies may help define the mechanisms equipping students with the internal shift following their second year.

In determining if the concept of rearrangement of faith is true, researchers may choose to examine more closely the freedom students' feel to report less socially acceptable answers. Spiritual impression management may mirror other pressures in doctoral training where students also feel a need to impress. The discoveries regarding impression management in the current study may lead future researchers to determine the schemas developed in impressing professors, supervisors or cohort members. A qualitative study might be helpful in exploring first and second year students' transition to graduate school, as well as exploring the spiritual experience students have during their first year.

Because fatigue may also be a contributor to the shift in beliefs, researchers may choose to explore the barriers for spiritual investment during graduate school. Considering the demands to meet various competencies, practicum commitments, dissertation, as well as investing in ongoing personal and relational commitments, it may be difficult for some students to find

spiritual balance in life. Future researchers may want to explore more closely the potential risk and protective factors in managing students' fatigue. Relatedly, studying spiritual well-being during graduate school may lead to studying spirituality beyond graduate school. Do students show signs of spiritual rebound after graduating?

Training Implications

If students are rearranging their faith early in graduate school, this could reflect healthy growth toward maturing in a personal relationship with God. Yet, the counterargument is also possible—that students experience eroding faith or so much fatigue that their faith is masked or lost. In the latter case, students' relationship with God may need to be reevaluated by faculty members in order to foster ways of encouragement toward spiritual maturity. Students may also need to be aware of potential shifts in beliefs in order to become more aware of their spirituality during the program.

The potential conclusions of this study may alert the attention of training programs, supervisors, professors and students. The drastic shift in spiritual attunement between first and second year should be considered in spiritually integrated programs. However, good the intentions of faculty and administrators in integrative doctoral programs, the sheer volume of psychological information may overwhelm spiritually integrated classes and mentoring support. As programs foster internal LOC through competencies and coursework, the message for students to engage in spiritual growth and relationship with God may not be equally reinforced. As Christian-based programs progress, the structure of spiritual support students received during the first year may deserve additional attention.

After the first year, students report more authenticity in their spiritual beliefs. Faculty and other students may need to recognize the desire for greater impression management during the first year and be prepared to respond appropriately in various situations. Highlighting a stronger emphasis for spiritual acceptance and transparency may be encouraged as students wrestle with their own personal relationship with God.

Recognizing the spiritual fatigue among students may be no surprise to some training chairs and faculty members. The demands of graduate school can require sacrificing in other areas of life in order to manage responsibilities. Many students have families, part-time jobs, and other demands outside of the program. Initiating one's own spiritual support during the four years may be a challenge for some students. Shanks (2002) informed readers that graduate students wanted the right to be informed of their possible shift in relationship with God. It may be suggested for Christian-based psychology programs to openly acknowledge the potential shifts in relationship, as well as continuing to find protective measures in fostering spiritual growth in students.

Limitations

Various limitations may have affected the accuracy of the present study. The study was conducted as a compressed-longitudinal design, as opposed to an actual longitudinal study. That is, the relationship of a specific participant was tracked over a single academic year, as opposed to following the student over the four years. The variance of student's spiritual attunement and locus of control may not adequately represent a change of the four years. Another limitation is that all measures were self-reports. Students' reports of their beliefs may or may not accurately reflect their actual beliefs and behaviors. Also, the study was optional and only some chose to

participate. Thus, some sort of response bias is possible. Attrition may also have compromised the accuracy of the data as 28% of students who participated in the pretest chose not to participate in posttest.

Conclusions

The overall study was designed to assess LOC and surrendering to God among graduate students in a five-year integrative doctoral program. Multiple changes can occur during a student's time in graduate school, including beliefs and attributions. Students reported a greater level of internal control as the development of mastery and knowledge unfolds during the program but this comes alongside a decrease in spiritual awareness and surrendering to God. This raises questions deserving of additional research and the attention of those training Christian doctoral students in professional psychology.

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Appendix A

Multidimensional Locus of Control Scale

Multidimensional Locus of Control Scale

1. Whether or not I get to be a leader depends mostly on my ability.
2. To a great extent my life is controlled by accidental happenings.
3. I feel like what happens in my life is mostly determined by powerful people.
4. Whether or not I get into a car accident depends mostly on how good a driver I am.
5. When I make plans, I am almost certain to make them work.
6. Often there is no chance of protecting my personal interest from bad luck happenings.
7. When I get what I want, it's usually because I'm lucky.
8. Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.
9. How many friends I have depends on how nice a person I am.
10. I have often found that what is going to happen will happen.
11. My life is chiefly controlled by powerful others.
12. Whether or not I get into a car accident is mostly a matter of luck.
13. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.
14. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.
15. Getting what I want requires pleasing those people above me.
16. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.
17. If important people were to decide they didn't like me, I probably wouldn't make many friends.
18. I can pretty much determine what will happen in my life.
19. I am usually able to protect my personal interests.

20. Whether or not I get into a car accident depends mostly on the other driver.
21. When I get what I want, it's usually because I worked hard for it.
22. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.
23. My life is determined by my own actions.
24. It's chiefly a matter of fate whether or not I have a few friends of many friends.

Additional God Control Items added from Wong-McDonald & Gorsuch (2000)

1. God is able to sway things so that I will get the result I desire.
2. The result I want is conditional upon the actions of God.
3. God is not able to influence my getting the result I desire.
4. Success at getting the result I desire depends on God.
5. God must do something if I am to obtain the result I desire.
6. God has little effect on whether or not I get the result I desire.
7. There is nothing God can do to affect that I will get the result I desire.
8. God controls whether or not I will get the result I desire.

Appendix B

Surrender Scale (Wong-McDonald & Gorsuch, 2000)

Surrender Scale (Wong-McDonald & Gorsuch, 2000)

1. When I first try to make sense of a problem, I put God's understanding above my own.
2. When my understanding of a problem conflicts with God's revelation, I will submit to God's definitions.
3. When my solutions to problems are in conflict with God's alternatives, I will submit to God's way.
4. Although certain options to problems may seem more desirable, I will give them up if God directs me to do so.
5. I will follow God's solution to a problem regardless of what that action may bring.
6. I will select God's solution to a problem even if it requires self-sacrifice from me.
7. Although I may not see results from my labor, I will continue to implement God's plans as long as God directs me to do so.
8. Even though I may not fully understand God's solution to a problem, I will carry out God's solution as God directs me to.
9. When I think about the troubles I've had, I can give thanks for God's using them for God's purposes.
10. I seek meaning in my difficulties by surrendering to God's guidance.
11. I choose to be strong in the Lord, even when it means giving up being strong in myself.
12. When I am in distress, my hope is renewed when I act in accordance to God's directions.

Appendix C

Religious Commitment

Religious Commitment

How important is your religion to you?

1. Not at all. I have no religion.
2. Not very important
3. Somewhat important
4. Quite important
5. Extremely important. It is a center of my life.

Appendix D

Spiritual Assessment Inventory (Hall & Edwards, 2002)

Spiritual Assessment Inventory (Hall & Edwards, 2002)

1. I have a sense of how God is working in my life.
2. a. There are times when I feel disappointed with God.
b. When this happens, I still want our relationship to continue.
3. God's presence feels very real to me.
4. I am afraid that God will give up on me.
5. I seem to have a unique ability to influence God through my prayers.
6. Listening to God is an essential part of my life.
7. I am always in a worshipful mood when I go to church.
8. a. There are times when I feel frustrated with God.
b. When I feel this way, I still desire to put effort into our relationship.
9. I am aware of God prompting me to do things.
10. My emotional connection with God is unstable.
11. My experiences of God's responses to me impact me greatly.
12. a. There are times when I feel irritated at God.
b. When I feel this way, I am able to come to some sense of resolution in our relationship.
13. God recognizes that I am more spiritual than most people.
14. I always seek God's guidance for every decision I make.
15. I am aware of God's presence in my interactions with other people.
16. There are times when I feel that God is punishing me.
17. I am aware of God responding to me in a variety of ways.
18. a. There are times when I feel angry at God.

- b. When this happens, I still have the sense that God will always be with me.
19. I am aware of God attending to me in times of need.
 20. God understands that my needs are more important than most people's.
 21. I am aware of God telling me to do something.
 22. I worry that I will be left out of God's plans.
 23. My experiences of God's presence impact me greatly.
 24. I am always as kind at home as I am at church.
 25. I have a sense of the direction in which God is guiding me.
 26. My relationship with God is an extraordinary one that most people would not understand.
 27. a. There are times when I feel betrayed by God.
 - b. When I feel this way, I put effort into restoring our relationship.
 28. I am aware of God communicating to me in a variety of ways.
 29. Manipulating God seems to be the best way to get what I want.
 30. I am aware of God's presence in times of need.
 31. From day to day, I sense God being with me.
 32. I pray for all my friends and relatives every day.
 33. a. There are times when I feel frustrated by God for not responding to my prayers.
 - b. When I feel this way, I am able to talk it through with God.
 34. I have a sense of God communicating guidance to me.
 35. When I sin, I tend to withdraw from God.
 36. I experience an awareness of God speaking to me personally.
 37. I find my prayers to God are more effective than other people's.

38. I am always in the mood to pray.
39. I feel I have to please God or he might reject me.
40. I have a strong impression of God's presence.
41. There are times when I feel that God is angry at me.
42. I am aware of God being very near to me.
43. When I sin, I am afraid of what God will do to me.
44. When I consult God about decisions in my life, I am aware to my prayers of his direction and help.
45. I seem to be more gifted than most people in discerning God's will.
46. When I feel God is not protecting me, I tend to feel worthless.
47. a. There are times when I feel like God has let me down.
 - b. When this happens, my trust in God is not completely broken.

Appendix E

Religious Problem-Solving Scale (Pargament et al., 1988)

Religious Problem-Solving Scale (Pargament et al., 1988)

1. When I have a problem, I talk to God about it and together we decide what it means. Rather than trying to come up with the right solution to a problem myself, I let God decide how to deal with it.
3. When faced with trouble, I deal with my feelings without God's help.
4. When a situation makes me anxious, I wait for God to take those feelings away.
5. Together, God and I put my plans into action.
6. When it comes to deciding how to solve a problem, God and I work together as partners.
7. I act to solve my problems without God's help.
8. When I have difficulty, I decide what it means by myself without help from God.
9. I don't spend much time thinking about troubles I've had; God makes sense of them for me.
10. When considering a difficult situation, God and I work together to think of possible solutions.
11. When a troublesome issue arises, I leave it up to God to decide what it means for me.
12. When thinking about a difficulty, I try to come up with possible solutions without God's help.
13. After solving a problem, I work with God to make sense of it.
14. When deciding on a solution, I make a choice independent of God's input.
15. In carrying out the solutions to my problems, I wait for God to take control and know somehow He'll work it out.
16. I do not think about different solutions to my problems because God provides them for me.
17. After I've gone through a rough time, I try to make sense of it without relying on God.
18. When I feel nervous or anxious about a problem, I work together with God to find a way to relieve my worries.
19. When I'm upset, I try to soothe myself, and also share the unpleasantness with God so He can comfort me.
20. When faced with a decision, I make the best choice I can without God's involvement.

21. God solves problems for me without my doing anything.
22. When I have a problem, I try not to think about it and wait for God to tell me what it means.
23. In carrying out solutions, I work hard at them knowing God is working right along with me.
24. When a difficult period is over, I make sense of what happened on my own without involvement from God.
25. When faced with a question, I work together with God to figure it out.
26. When I feel nervous or anxious, I calm myself without relying on God.
27. God doesn't put solutions to my problems into action; I carry them out myself.
28. I don't worry too much about learning from difficult situations, since God will make me grow in the right direction.
29. When I am trying to come up with different solutions to troubles I am facing. I do not get them from God but think of them myself.
30. When a hard time has passed, God works with me to help me learn from it.
31. God and I talk together and decide upon the best answer to my question.
32. When faced with a decision, I wait for God to make the best choice for me.
33. I do not become upset or nervous because God solves my problems for me.
34. When I run into trouble, I simply trust in God knowing that he will show me the possible solutions.
35. When I run into a difficult situation, I make sense out of it on my own without divine assistance.
36. The Lord works with me to help me see a number of different ways that a problem can be solved.

Appendix F
Demographics

Demographics

1. Sex:
 - a. Male
 - b. Female

2. Age:

3. Year in PsyD Program
 - a. First
 - b. Second
 - c. Third
 - d. Fourth
 - e. Fifth

4. Ethnicity:
 - a. African American
 - b. Hispanic/Latino(a)
 - c. Asian American/Pacific Islanders
 - d. Native American/Alaskan Natives
 - e. European American
 - f. Other

5. Highest Degree _____
Year Obtained _____

6. Religious Affiliation:
 - a. Protestant
 - b. Catholic
 - c. Orthodox
 - d. Messianic Judaism
 - e. None
 - f. Other

7. How often do you attend church or other religious meetings?
 - a. More than once a week
 - b. Once a week
 - c. A few times a month
 - d. A few times a year
 - e. Once a year or less
 - f. Never

Appendix G

Informed Consent

Informed Consent

Thank you for your participation in this study. This study is an overall assessment of personal beliefs in outcomes while in graduate school. You are asked to answer questions about your beliefs toward outcomes in life and your personal relationship with God. The questionnaire will take approximately 15 minutes to complete. You are asked to participate due to your current enrollment in a professional psychology doctoral program. Your identity will be kept confidential. There are no anticipated discomforts or risks participating in this study.

By signing the informed consent form you will be consenting to participate in the study. At any time, you have the freedom to withdrawal or not respond, but for the purposes of the adequate data collection, the researchers ask for you full participation. There will be follow-up study at the end of the 2010/2011 academic school year. The last four digits of your social security number will be required but only for the purpose of matching data for the posttest. All information will be erased once the data has been collected. Participants who complete this study have an opportunity to receive a summary of the results after the study is completed. If interested, email Laura Heyne at lheyne08@georgefox.edu.

The collection of results from this research may be used for scientific or educational purposes. It may be presented at scientific meetings and/or published in professional journals or books. The results of the study, if presented at a professional forum or if published, will have no identifying information that would connect you to the specific results.

Please print name

Please sign name

Date

Appendix H
Curriculum Vitae

Laura Heyne

709 Foothills Dr.
Newberg, OR 97132
(503)812-7226
Email: lheyne08@georgefox.edu

Education

2008 – Present	George Fox University	Newberg, OR
	Graduate Department of Clinical Psychology (APA Accredited)	
	<ul style="list-style-type: none">• GPA 3.915 on a 4.0 scale• Masters Conferred May 2010• Doctorate expected 2013	
2004 – 2008	BIOLA University	La Mirada, CA
	<ul style="list-style-type: none">• Bachelor of Art in Psychology• GPA 3.782 on a 4.0 scale• Graduated Magna Cum Laude May 2008	

Supervised Clinical Experience

May 2010 – Present	Providence Newberg Medical Center	Newberg, OR
	<i>Consultation Team Behavioral Health Intern</i>	
	<ul style="list-style-type: none">• Provide 24 hour on-call physician consultation and patient assessment services in Emergency, Department, Medical Surgical Unit and Intensive Care Unit• Conduct risk assessments to determine patient safety, risk of self-harm and need for possible psychiatric hospitalization.• Supervisors: Drs. Mary Peterson, Ph.D., William Buhrow, PhD., and Joel Gregor, Psy.D	
May 2010 – Present	Providence Sherwood Medical Clinic	Sherwood, OR
	<i>Behavioral Health Consultant</i>	
	<ul style="list-style-type: none">• Provide individual therapy and behavioral health consultation to patients within an integrated primary care setting.• Consult with physicians regarding diagnosis, treatment planning, and therapeutic strategies.• Conduct comprehensive evaluations and assessments• Co-lead one group focused on recognition and reduction of anxiety. The group met once a week for four week. There were four members attending.• Supervisor: Dr. Mary Peterson, Ph.D.	

November 2010 – Present Providence Wilsonville Medical Clinic Wilsonville, OR
Behavioral Health Consultant

- Assisted in program development of BHC at Providence Clinic
- Provide individual therapy and behavioral health consultation to patients within an integrated primary care setting.
- Consult with physicians regarding diagnosis, treatment planning, and therapeutic strategies.
- Conduct comprehensive evaluations and assessments
- Supervisor: Dr. Mary Peterson, Ph.D.

September 2009 – May 2010 Sunrise Middle School Milwaukie, OR
School Counselor

- Provide weekly individual and group therapy for middle school students struggling with academic, emotional or social disturbances.
- Provided intake interviews, individual treatment planning, group sessions, assessments, report writing and consultation.
- Participated in multidisciplinary meetings to design Individualized Education Plans, 504 Plans, Functional Behavioral Assessments and Behavioral Support Plans.
- Provide assessments to determine students' levels of functioning and their eligibility for special education.
- Sessions with students were reviewed in individual and group supervision.
- Supervisors: Dr. FiorellaKassab, Ph.D, and Stacy Rager, M.A.

January 2010 – May 2010 Adult Transition Program Milwaukie, OR
School Counselor

- Provided weekly group therapy for students within the North Clackamas School District Adult Transition Program.
- Co-lead two groups over an academic semester, once a week for 30 minutes. The groups were focused on social skills. There were approximately 8 members per group.
- Provided eligibility assessments for students.
- Supervisor: Dr. FiorellaKassab, Ph.D.

January 2009 – May 2009 George Fox University Newberg, OR
Pre-Practicum II

- Provided outpatient individual psychotherapy services for volunteer undergraduate students.
- Services included intake interviews, treatment planning, and diagnosis.
- Tasks included report writing, case presentations, consultations with supervision and clinical team members.
 - All sessions were taped and reviewed during individual and group supervision.
- Supervisors: Dr. Clark Campbell, Ph.D., and Ryan Thompson, M.A.

September 2008 – December 2008 George Fox University Newberg, OR

Pre-Practicum I

- Learned basic Rogerian counseling skills with clinical team members
- Tasks included intake interviews and treatment planning
- All sessions were taped and reviewed during individual supervision.
- Supervisors: Clark Campbell, Ph.D., and Ryan Thompson, M.A.

Research Experience

Doctoral Dissertation

Heyne L.K. (In Progress). God control among doctoral psychology students: A compressed longitudinal design. George Fox University, Newberg, Oregon.
 Dissertation Chair: Mark McMinn, Ph.D.
 Committee Members: Kathleen Gathercoal, Ph.D., and Winston Seegobin, Psy.D.
 *Awarded Richter Grant, Jan 2011 for funding of study.
 *Received Student Paper Award, Second Place: CAPS

Poster Presentations

Heyne, L.K. & Wiarda, N. (In Progress). *Early and Established PCP's Appraisal of Integrated Behavioral Health: A Program Evaluation*. Poster session accepted at the annual meeting of American Psychological Association, Orlando, FL.

Heyne, L. K. & Peterson, M., PhD. (2011, August). *Do Behavioral Health Consultations services provided by trainees reduce office visits?* Poster session presented at the annual meeting of American Psychological Association, Washington D.C.

Anderson, M., Heyne, L. K., & Turgenson, J. (2011, August). *Behavioral Health Consultation in Primary Care: Overcoming barriers by facilitating relationships with providers*. Poster session presented at the annual meeting of American Psychological Association, Washington D.C.

Sordahl, J. & Heyne, L., K. (2011, August). *Processing speed; Input vs. output measures*. Poster session presented at the annual meeting of American Psychological Association, Washington D.C.

Peterson, M., Gathercoal, K., Jurecska, D., & Heyne, L. (2011, August). *When the student knows more than the supervisor*. Poster session presented at the annual meeting of American Psychological Association, Washington D.C.

McMinn, M. R., Barse, J., Heyne, L. K., Smithberger, A., & Erb, A. L., (2010, August). *Technology and independent practice: Survey results and implications*. Poster session presented at the annual meeting of American Psychological Association, San Diego, CA.

Paper Presentation

McMinn, M. R., Vogel, M. J., & Heyne, L. K. (2010, April). *A place for the church within professional psychology*. Paper presented at the annual meeting of Christian Association for Psychological Studies, Kansas City, MO.

Article Publication

McMinn, M. R., Bearse, J. L., Heyne, L. K., Staley, R. C. (2011). Satisfaction with clinical training in Christian psychology doctoral programs: Survey findings and implications. *Journal of Psychology and Christianity, 30*, 156-162.

McMinn, M. R., Bearse, J., Heyne, L. K., Smithberger, A., & Erb, A. L. (2011). Technology and independent practice: Survey results and implications. *Professional Psychology: Research and Practice, 42*, 176-184.

McMinn, M. R., Vogel, M. J., & Heyne, L. K. (2010). A place for the church within professional psychology. *Journal of Psychology and Theology, 38*, 267-274.

Additional Educational Experiences

September 2010 – May 2011 University of Massachusetts Medical School

Certificate Program: Primary Care Behavioral Health

- A training program through the University of Massachusetts Medical School designed to train behavioral health professionals to work in primary care settings, utilizing the Patient Centered Medical Home model.
- 36 hours of didactic and interactive training delivered in 6 full-day workshops through an interactive web-portal.
- Coursework includes: *Primary Care Culture and Needs; Evidence-based Therapies and Substance Abuse in Primary Care; Child Development and Collaborative Pediatric Practice; Behavioral Health Care for Chronic Illnesses, Care Management and An Overview of Psychotropic Medication in Primary Care; Behavioral Medicine Techniques; Families and Culture in Primary Care*

Relevant Teaching & Academic Appointments

Fall Semester 2011 – Present George Fox University Newberg, OR

Teaching Assistant – Clinical Foundations

- Provide individual instructions for four first-year graduate students in the development of clinical skills
- Review videotapes of simulated psychotherapy sessions
- Discuss clinical skills, therapeutic responses and role-play in both small group and individual settings.
- Guest lectured on response styles from a client-centered approach.

January 2011-April 2011

Adjunct Professor

George Fox University

Newberg, OR

- Instructor for undergraduate class: Psychosocial Intervention and Referral for Athletic Trainers.
- Instructed weekly on diagnostic criteria and intervention for Athletic Trainers.
- Engaged students through lecture, various assignments, exams and guest speakers.

January 2011

Gladstone High School

Gladstone, OR

Presenter – Celebrating Families Conference

- Title: Stress Management for Families
- Instructed attendees on recognizing symptoms of stress and anxiety and proper coping skills in managing symptoms.

Professional Affiliations

- 2009 – Present American Psychological Association (Student Affiliate)
- 2009 – Present Christian Association for Psychological Studies (Student Affiliate)
- 2009 – Present George Fox University Graduate Department of Clinical Psychology, Peer Mentor
- 2005 – Present Psi Chi National Honor Society

Professional Training and Workshops

- | | |
|---------------|---|
| October 2011 | Grand Rounds: Motivational Interviewing & “A Work in Progress”
Speaker: Michael Fulop, PsyD
Site: George Fox University |
| October 2010 | Grand Rounds: Primary Care Behavioral Health: Where Body, Mind (& Spirit) Meet.
Speaker: Neftali Serrano, PhD
Site: George Fox University |
| October 2010 | Clinical Colloquium: Best Practices in Multi-Cultural Assessment
Speaker: Eleanor Gil-Kashiwabara, PhD
Site: George Fox University |
| March 2010 | Grand Rounds: Working with Gay/Lesbian/Bisexual Clients
Speaker: Dr. Carol Carver
Site: George Fox University |
| November 2009 | Grand Rounds: Consultation and Collaboration with the ED
Speaker: Dr. John Mitchell
Site: George Fox University |

- September 2009 Clinical Colloquium: Multi-cultural Identity Development
 Speaker: Carlos Taloyo, PhD
 Site: George Fox University
- November 2008 Grand Rounds: Primary Care Psychology/Virginia Garcia Center
 Speaker: Julie Oyemaja, PsyD
 Site: George Fox University

Seminars Attended

- | | | |
|---|-----------------------|-------------|
| June 2011 | George Fox University | Newberg, OR |
| <ul style="list-style-type: none"> • Annual Northwest Assessment Conference: <i>Assessment of ADHD in Children and Adults.</i> | | |
| June 2010 | George Fox University | Newberg, OR |
| <ul style="list-style-type: none"> • Annual Northwest Assessment Conference: <i>Outcomes Measures, Reimbursement, and the Future of Psychotherapy.</i> | | |
| May 2009 | George Fox University | Newberg, OR |
| <ul style="list-style-type: none"> • Annual Northwest Assessment Conference: <i>MMPI-II-RF</i> | | |

University Involvement

- | | | |
|--|-----------------------|-------------|
| January 2010 – May 2011 | George Fox University | Newberg, OR |
| <i>GDCP Monthly Chapel</i> <ul style="list-style-type: none"> • Assisted with food prep and organization during monthly chapels for all students within the Graduate Department of Clinical Psychology. | | |
| August 2010 | George Fox University | Newberg, OR |
| <i>Orientation for Incoming Cohort</i> <ul style="list-style-type: none"> • Participated as a “stand-in” peer mentor for new students. Also, participated in questions and answers time and speaker during orientation chapel. | | |
| March 2010 | George Fox University | Newberg, OR |
| <i>Interviewed Prospective Students</i> <ul style="list-style-type: none"> • Selected to assist in the interviews of prospective George Fox University Graduate Department of Clinical Psychology doctoral candidates. Along with a faculty member, interviewed prospective student, rated quality of student responses, and shared opinion with faculty. | | |
| 2009-2010 | George Fox University | Newberg, OR |
| <i>Peer Mentor</i> <ul style="list-style-type: none"> • Mentored a first-year doctoral student in the Graduate Department of Clinical Psychology. Provided guidance and assistance in order to help with the transition into graduate school. | | |

Test Administration, Scoring, and Report Writing Experience

Adult Measures

- 16PF – Fifth Edition
- Millon Clinical Multiaxial Inventory – III (MCMI-III)
- Minnesota Multiphasic Personality Inventory – II (MMPI-II)
- Outcomes Questionnaire (OQ-45)
- Personality Assessment Inventory (PAI)
- Wechsler’s Adult Intelligence Scale – Fourth Edition (WAIS-IV)
- Wechsler’s Abbreviated Scale of Intelligence – (WASI)
- Wechsler’s Individual Achievement Test – Second Edition (WIAT-II)
- Wechsler’s Individual Achievement Test- Third Edition (WIAT-III)
- Wide Range Intelligence Test (WRIT)
- Wide Range Achievement Test – Fourth Edition (WRAT4)
- Wide Range Assessment of Memory and Learning – Second Edition (WRAML-2)
- Brown’s ADD Screener
- Reitan-Klove Sensory Perceptual Evaluation
- Halstead-Reitan Trails A and B
- Tactual Performance Test
- DKEFS
- Wisconsin Card Sorting Test
- Controlled Oral Word Association
- California Verbal Learning Test-2
- Boston Naming Test
- Test Of Memory Malingering
- RBANS

Child and Adolescent Measures

- Connors ADHD Screener
- House, Tree, Person
- Achenbach Child Behaviour Checklist
- Behavioral Assessment System for Children, Second Edition (BASC-II)
- Brown’s ADD Screener – Adolescent Edition
- Denver II
- Wechsler’s Individual Achievement Test – Third Edition (WIAT-III)
- Wechsler’s Intelligence Scale for Children – Fourth Edition (WISC-IV)