

CALLING, GOALS, AND LIFE SATISFACTION: A MODERATED MEDIATION MODEL

By

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The present study examined the role of goals in the relation between calling and life satisfaction in a diverse, adult sample. Building off the self-concordance model of goal progress, the current study explored if career goal self-efficacy mediated the relation between calling and life satisfaction and if this mediation was moderated by intrinsic, extrinsic, self-transcendence, or physical-self goal aspirations. I found career goal self-efficacy to fully mediate the relation between calling and life satisfaction. Additionally, only self-transcendence goals moderated this mediation such that, for people high in calling, the mediation only existed for those with high self-transcendence goals. These results suggest that people with callings may need to have self-transcendence goals in order to feel confident in their ability to achieve career goals and increase their well-being. Limitations and implications for future research are discussed.

CHAPTER 1 INTRODUCTION

Recent scholarship in vocational psychology has begun to focus on what it means to have a calling (Dik & Duffy, 2009). Although definitions can vary throughout the literature, Dik and Duffy (2009) proposed an integrated conceptualization of calling as a personally meaningful career that works towards the greater good and originates from a source external to the self (Dik & Duffy, 2009). People who view their careers as callings consistently display higher well-being outcomes (e.g. Peterson et al., 2009; Wrzesniewski et al., 1997), often represented by increased life meaning or satisfaction within specific life domains (Duffy, Allan, & Dik, 2011; Duffy, & Sedlacek, 2010; Steger et al, 2010). One untapped area of research concerns how callings interact with personal goals, which have also consistently been shown to play an important role in cultivating well-being (Sheldon & Elliot, 1999). Building off the self-concordance model of goal progress (Sheldon & Elliot, 1999), the current study explores the role of goals in the link between calling and well-being among a diverse sample of adults.

Theoretical Framework

The self-concordance model of goal progress offers a useful framework to understand why calling may be linked to well-being outcomes (Sheldon & Elliot, 1999). Broadly, this theory describes how goal selection and attainment lead to enhanced well-being. Following from self-determination theory (Deci & Ryan, 1985), the model explains how goals are selected along a continuum from externally motivated to intrinsically motivated. Intrinsic or identified goals are *self-concordant* because they are derived from one's true interests and values. Self-concordant goals are pursued more readily and receive greater sustained effort over time, leading to a greater likelihood of goal attainment (Sheldon & Kasser, 1998). Some research suggests that self-efficacy beliefs may also facilitate this process. Previous research has linked self-efficacy beliefs

to sustained effort towards goals (Sheldon & Elliot, 1999), goal progress (Koestner et al., 2006), and goal commitment (Weiber et al. 2010), all variables that would lead to greater goal attainment. Theoretically, when self-concordant goals are achieved, they meet the basic human needs of competence, autonomy, and relatedness. Meeting these psychological needs feels good and leads to increases in well-being (Sheldon & Elliot, 1999). Therefore, in this model, only goals that are self-concordant lead to well-being.

The self-concordance model was developed based on self-determination theory, which focuses on the continuum of extrinsic and intrinsic motivation. Grouzet and colleagues (2005) extended this model to include another dimension of goal aspirations. The authors conducted a survey of goal content across 15 cultures with 2000 participants and grouped items into 11 goals, which were not only shared cross-culturally but organized in a similar way. Specifically, the authors found the goals to fall on a two-dimensional, orthogonal circumplex, with intrinsic goals and extrinsic goals comprising one dimension and physical-self goals and self-transcendence goals comprising the other. While extrinsic goals (e.g. popularity) are pursued to gain external rewards from others, intrinsic goals (e.g. self-acceptance) are pursuits that self-actualize the individual (Kasser & Ryan, 1996; Ryan & Deci, 2000; Sheldon & Elliot, 1999). On the other dimension, physical-self goals (e.g. hedonism) are concerned with survival and pleasure, whereas self-transcendence goals (e.g. community feeling) reflect a desire to have spiritual understanding and a sense of community. Therefore, Grouzet and his colleagues' results suggest that the self-concordance model of goal progress could be extended to a new dimension of goal aspiration: self-transcendence and physical-self goals.

Goal Aspirations and Well-Being

A great deal of research has focused on the effects of intrinsic versus extrinsic goals on individuals' well-being, with the majority of studies linking intrinsic goals to positive well-being

and extrinsic goals to negative well-being (e.g. Kasser & Ryan, 1993; Niemec, Ryan, & Deci, 2009; Sebire, Standage, & Vansteenkiste, 2009). Although no studies have directly linked the self-transcendence goals and physical-self goals to life satisfaction, research has connected constructs related to these variables to various aspects of well-being. For example, community goals are related to higher self-esteem and secure attachment (Park et al., 2010), and spiritual goals have specific links to self-transcendence strivings, satisfaction with life, meaning in life, psychological well-being, other-oriented values, self-actualization, and successful interpersonal relationships (Emmons, Cheung, & Tehrani, 1998; Fiorito & Ryan, 2007; Leak, DeNeve, & Greteman, 2007). Moreover, altruistic concerns have been related to other-oriented goals and increased relatedness whereas egoistic concerns have been related to decreased relatedness and increased negative affect (Park, et al., 2010). Similarly, self-oriented goals have been found to be unrelated to life satisfaction and negatively related to intimacy and self-actualization (Leak, DeNeve, & Greteman, 2007). This research suggests that individuals who adopt intrinsic goals and self-transcendence goals are better able to reap the well-being benefits of goal attainment.

Calling, Goal Self-Efficacy, and Well-Being

This foundation of research on the self-concordance model, goal aspirations, and their links to well-being offers an intriguing framework to explore if and how calling plays a role in this process. Specifically, calling could create the impetus for self-concordant goals that, when attained through self-efficacy beliefs, lead to well-being. In the calling literature, findings have linked calling to goal self-efficacy, goal self-efficacy to well-being, and calling to well-being. For example, calling has been linked to career self-efficacy strivings (Dik, Sargent, & Steger, 2008), which are beliefs about one's capability to achieve career goals (i.e. career goal self-efficacy), and to career decision self-efficacy (Dik & Steger, 2008). Moreover, studies have linked goal self-efficacy to lower levels of depression and anxiety (Karoly et al., 2008; Offerman

et al., 2006; Pomaki et al., 2006), greater personal growth and positive coping strategies (Kraaij et al., 2008), increased quality of life (Boersma et al., 2006), and greater career and life satisfaction (Verbruggen & Sels, 2010). Calling has also been linked to a number of well-being indicators, such as life satisfaction (Duffy, Allan, & Bott, in press), academic satisfaction (Duffy, Allan, & Dik, 2011), and job satisfaction (Duffy, Dik, & Steger, 2010). Finally, more complex models indicate that self-efficacy beliefs can mediate the relation between calling and well-being. Specifically, Duffy, Allan, and Dik (2011) found that career decision self-efficacy mediated the relation between calling and academic satisfaction for college students. These findings lend support to a model whereby calling may relate to increased well-being via career self-efficacy.

The Present Study

In light of this previous research on both goal aspirations and calling, the present study sought to investigate if 1) Career goal self-efficacy (CGSE) mediated the relation between calling and life satisfaction and 2) if this mediation was moderated by different types of goal aspirations (i.e. intrinsic, extrinsic, physical-self, and self-transcendence goals). Given that life satisfaction was the dependent variable, I explored potential covariates to include in my analyses. In a review by Diener and colleagues (1999), the authors concluded that marital status, age, and sex do not reliably predict life satisfaction. However, they and several other researchers agree that level of education and income show small but consistent relations to life satisfaction (Fernandez-Ballesteros, Zammarron, and Ruiz, 2001; Kahneman & Deaton, 2010). In addition, research has consistently found both neuroticism and extraversion to be important predictors of life satisfaction, with neuroticism representing negative affectivity and extraversion representing positive affectivity (Costa & McCrae, 1980; Diener et al., 1999; Joshanloo & Afshari, 2011;

Watson & Clark, 1997). Therefore, I decided to include income, education, extraversion, and neuroticism as covariates in the following analyses.

For Step 1, based on previous research (e.g. Duffy, Allan, & Dik, 2011), we hypothesized that the link between calling and life satisfaction would be mediated by CDSE. For Step 2, as discussed above, intrinsic and self-transcendence goals have been linked to well-being and extrinsic goals and physical-self goals have not. Calling has also been differentially linked to different types of goals. For example, striving for a calling is related to intrinsic motivation and not related to extrinsic motivation or materialism (Dik, Sargent, & Steger, 2008). Having a calling may also be related to self-transcendence goals, which focus on striving for a sense of community, conforming to societal norms, and attaining spiritual understanding and growth. By definition, callings are rooted in “other-oriented” values and have a transcendent, spiritual component (Dik & Duffy, 2009). Furthermore, pursuing goals related to one’s calling is associated with pursuing spiritual goals (Dik, Sargent, & Steger, 2008), and colloquial definitions of calling include references to altruistic motives (Hunter, Dik, & Banning, 2010) and meaningful contributions to one’s community (Coulson, Oades, & Stoyles, in press). Given this background, I hypothesized that the link of calling to CGSE will be more pronounced for adults with intrinsic and self-transcendence goals.

CHAPTER 2 METHOD

Participants

A total of 230 participants aged 18 to 66 completed the survey ($M = 30.59$, $SD = 10.17$). Of this group, 45.7% were male ($N = 105$) and 54.3% were female ($N = 125$); 53.9% identified as White ($N = 124$), 34.8% as Asian ($N = 80$), 3.9% as Hispanic ($N = 9$), 3.0% as Multiracial ($N = 7$), 3.0% as African American ($N = 7$), 1.3% as Other ($N = 3$), 0.9% as Middle Eastern ($N = 2$), 0.4% as Native American ($N = 1$), 0.4% as Pacific Islander ($N = 1$), and 0.4% were missing ($N = 1$). Of the participants, 45.2% were American ($N = 104$), 30% Indian ($N = 69$), 13% Canadian ($N = 30$), 6.4% European ($N = 15$), 1.3% Other Asian ($N = 3$), 1.3% Australian ($N = 3$), 1.3% South American ($N = 3$), 0.9% South African ($N = 2$), and 0.4% Mexican ($N = 1$). In terms of level of education, 38.3% ($N = 88$) had a graduate or professional degree, 36.1% ($N = 83$) had a college degree, 16.5% ($N = 38$) had some college, 0.9% ($N = 2$) had vocational school, 4.3% ($N = 10$) had a high school diploma, 3.5% ($N = 8$) had some high school, 0.4% ($N = 1$) had completed grade school. In terms of income per year, 36.5% ($N = 84$) made less than \$25,000, 28.3% ($N = 65$) made between \$25,000-\$50,000, 15.7% ($N = 36$) made between \$51,000-\$75,000, 10% ($N = 23$) made between \$76,000-\$100,000, 3.5% ($N = 8$) made between \$101,000-\$125,000, 3.0% ($N = 7$) made between \$126,000-\$150,000, 0.9% ($N = 2$) made between \$151,000-\$175,000, 0% ($N = 0$) made between \$176,000-\$200,000, 1.7% ($N = 4$) made over \$200,000, and 0.4% ($N = 1$) were missing.

Instruments

Demographic Covariates

As covariates, I evaluated income and level of education. Income was assessed with the question, "On average, what is the combined yearly income of your household?" Participants

responded on a 9-point scale (1 = *less than \$25,000 per year* to 9 = *\$200,000+ per year*). Level of education was assessed with the question, “What is the highest level of education you achieved?” Participants answered on a 7-point scale (1 = *grade school* to 7 = *graduate school*).

Personality

I measured extraversion and neuroticism with subscales of the Mini-International Personality Item Pool (Donnellan, et al., 2006). The subscales consisted of 4 items each rated on a 5-point scale (1 = *very inaccurate* to 5 = *very accurate*). Sample items include “Am the life of the party” and “Get upset easily”. Donnellan and colleagues reported acceptable internal consistency for the extraversion ($\alpha = .77$) and neuroticism ($\alpha = .68$) subscales. Both extraversion ($r = .88$) and neuroticism ($r = .82$) had excellent six to nine month test-retest reliability. In the study, extraversion positively correlated with self-esteem and the Behavioral Activation System (BAS) whereas neuroticism negatively correlated with self-esteem and positively correlated with the Behavioral Inhibition System (BIS). Extraversion also negatively correlated with anxiety and depression whereas neuroticism positively correlated with these variables. The internal consistency of the subscales in the present study was $\alpha = .79$ for extraversion and $\alpha = .70$ for neuroticism.

Calling

To measure calling, I used the 12-item presence subscale from the Calling and Vocation Questionnaire (CVQ; Dik, Eldridge, Steger, & Duffy, in press). Items on this subscale were answered on a 4-point scale (1 = *not at all true of me* to 4 = *absolutely true of me*). Sample items include, “My career is an important part of my life’s meaning”, “My work contributes to the common good”, and “I was drawn by something beyond myself to pursue my current line of work”. Dik, Eldridge, Steger, and Duffy found the CVQ presence subscale to correlate positively with work hope, prosocial work orientation, meaning in life, life satisfaction, and other

measures of calling. The authors also reported an internal consistency of $\alpha = .89$ and a test-retest reliability of $r = .75$. The internal consistency in the present study was $\alpha = .87$.

Career Goal Self-Efficacy

Career goal self-efficacy was measured with a scale developed for this study, which was based on Dik, Sargent, & Steger's (2008) career development strivings. Participants were asked to list five long-term or short-term career goals they were currently working towards. They then responded on a 5-point scale asking how confident they were in their ability to achieve each goal (1 = *not at all confident* to 5 = *completely confident*). Answers were summed to create CGSE total scores. Principal axis factoring revealed all 5 items to load on a single factor, which explained 36.98% of the variance. This factor had an eigenvalue of 1.85, and all items loaded at .50 or above. The internal consistency in the present study was $\alpha = .74$.

Life Satisfaction

Life satisfaction was measured with The Satisfaction with Life Scale (SWLS), which consists of 5-items on 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*) (Diener, Emmons, Larsen, & Griffin, 1985). Sample items include, "I am satisfied with my life" and "The conditions of my life are excellent". Diener and colleagues (1985) found good internal consistency ($\alpha = .87$) and test-retest reliability ($r = .82$). The scale correlated expectedly with other measures of well-being, including positive and negative affect. Other researchers have found the SWLS to correlate in the expected directions with measures of self-esteem, neuroticism, dysphoria, and euphoria (Arrindell, Heesink, & Feij, 1999). The internal consistency of this scale in the present study was $\alpha = .88$.

Goal Content

I measured goal aspirations with the Aspiration Index (Grouzet et al., 2005). In this measure, participants rate the personal importance of 47 goals on 9-point scale (1 = *not at all*

important to 9 = *extremely important*). Sample goals include, “I will be admired by many people” and “The things I do will make other people's lives better”. Goals are summed into 11 different goal domains, which are further grouped into two dimensions on a circumplex. The intrinsic cluster (i.e. community feeling, affiliation, self-acceptance, physical health, and safety goals) is set in contrast to the extrinsic cluster (i.e. conformity, image, popularity, and financial success goals), and the self-transcendence cluster (i.e. community feeling, spirituality, and conformity goals) is set in contrast to the physical-self cluster (i.e. financial success, hedonism, safety, and physical health goals). The internal consistency ratings of the four clusters in this study were: intrinsic ($\alpha = .91$), extrinsic ($\alpha = .93$), transcendent ($\alpha = .89$), and physical-self ($\alpha = .89$).

Procedure

In order to collect data from a diverse, adult sample I recruited participants in two ways. First, a link to the survey was posted on social networking and online classified websites, specifically recruiting employed adults. In this case, people volunteered to complete the survey. Other individuals participated in this study through the online data collection service Mechanical Turk (MTurk), where again employed adults were recruited. This service allows people from across the globe to be compensated for completing surveys online. Buhrmester, Kwang, and Gosling (2011) reviewed this form of data collection and concluded that samples from MTurk were more diverse than other internet survey methods but were equally valid and reliable. Participants who completed the survey this way received \$0.40 for completing the survey. Participants were provided with informed consent and were able to drop out of the study at any time without penalty. In total, 51.58% (N = 163) of the participants joined from the first method, and 48.42% (N = 153) of the participants joined from MTurk.

CHAPTER 3 RESULTS

Preliminary Analyses

To ensure the quality and reliability of the data, I conducted several preliminary analyses. First, I assessed the data for outliers. Upon inspection of the box plots for each variable, both the intrinsic and physical-self goal types appeared to have several outliers. I removed scores that exceeded 3.5 standard deviations above or below the means for these variables. I removed three cases in total. Next, I assessed each variable for normality. Neither the skew nor the kurtosis for any variable approached one, and the visually inspected histograms appeared normally distributed. Therefore, I assumed my variables to be normally distributed. I also tested for group differences between participants recruited from social networking/online classifieds websites and participants recruited from MTurk. These groups differed on calling, CGSE, extrinsic goals, self-transcendence goals, physical-self goals, income, and gender. However, I ran all the main analyses with the source of data as a covariate, and the pattern of results did not change. Therefore, I left this covariate out of the final analyses. As stated above, I included education, income, neuroticism, and extroversion as covariates. Correlations between the covariates and seven study variables are presented in Table 3-1. My analysis plan included two steps. In Step 1, I examined correlations and whether or not CGSE mediated the calling and life satisfaction relation. In Step 2, I tested if the mediation found in Step 1 was moderated by the four goal aspiration types: intrinsic, extrinsic self-transcendence, and physical-self.

Step 1: Correlations and Mediation

Correlations among study variables are displayed in Table 3-2. As expected, calling, career goal self-efficacy, and life satisfaction moderately correlated with one another. Calling correlated most highly with self-transcendence goals (.56) and extrinsic goals (.27) but did not

significantly correlate with intrinsic or physical-self goals. All goal types moderately correlated with life satisfaction.

Next, I proceeded to test if CGSE mediated the relation between calling and life satisfaction. Using the SPSS mediation macro developed by Preacher and Hayes (2008), I performed a mediation analyses based on 1000 bootstrapped samples using bias-corrected and accelerated 95% confidence intervals. Bias-correcting and accelerating adjusts for bias and skewness of the bootstrap distribution. This analysis allowed us to calculate the direct paths between the variables, in the form of regression weights, and the significance of the indirect path, which is the reduction of the relation between calling and life satisfaction when CGSE is included in the model. The indirect path is significant when the 95% confidence interval does not include 0. While controlling for income ($b = .38, SE = .27, n.s.$), education ($b = .37, SE = .34, n.s.$), extraversion ($b = .28, SE = .12, p < .05$), and neuroticism ($b = -.67, SE = .13, p < .001$), calling had significant, direct paths to CGSE ($b = .14, SE = .03, p < .001$) and life satisfaction ($b = .15, SE = .06, p < .01$). CGSE also had a significant direct path to life satisfaction ($b = .52, SE = .12, p < .001$). When CGSE was included in the model, calling ceased to have a relation with life satisfaction ($b = .08, SE = .06, n.s.$), and the reduction in this relation was significant ($SE = .03, CI = .03-.13$). Therefore, CGSE fully mediated calling and life satisfaction. The total model was significant ($F(6, 196) = 13.28, p < .001$) and explained 29% of the variance in life satisfaction.

Step 2: Testing the Moderated, Mediator Model

The next step in my analysis was to test if goal types moderated the mediation found in Step 1. To test moderated mediation, I used the MODMED macro developed by Preacher, Rucker, and Hayes (2007). This macro allows us to assess whether a particular mediation effect is contingent upon the level of a moderating variable by providing coefficients for both the

mediator and the dependent variable models and allowing us to probe whether or not the mediation exists at specified levels of the moderator. Calling and all goal variables were centered to control for multicollinearity. I did not find significant moderation for intrinsic, extrinsic, and physical-self goals, as evidenced by non-significant interactions in the moderated mediation models. However, as depicted in Figure 3-1, self-transcendence goals did moderate the mediation.

Table 3-3 shows the relevant parts of the MODMED output. First, there are two multiple regression models: the mediator variable model predicting CGSE and the dependent variable model predicting life satisfaction. The interaction between calling and self-transcendence goals in the mediator model was significant. This interaction is depicted in Figure 3-2 where the lines represent the mean and one standard deviation above and below the mean. As shown, calling has a stronger relationship to career goal self-efficacy for those higher in self-transcendence goals. The significant interaction gives us precedent to probe the indirect effect at different levels of the moderator. The default output of MODMED provides normal theory tests of the conditional indirect effects at \pm one standard deviation from the mean. As Table 3-3 shows, the mediation is significant at one standard deviation above the mean, but not at the mean or one standard deviation below it. Preacher and colleagues (2007) recommend verifying these results with bootstrapped standard errors used to create 95% confidence intervals. Therefore, I probed the conditional indirect effects at the mean and one standard deviation above and below it using 95% bias accelerated and corrected confidence intervals with 5000 bootstrapped samples. The confidence intervals at one standard deviation below the mean $\{-.05, .06\}$, at the mean $\{0, .08\}$, and one standard deviation above the mean $\{.02, .13\}$ corroborated the results from the normal theory tests. Table 3-3 also displays a range of indirect effects at different self-transcendence

goal values with significance tests calculated using the Johnson-Neyman technique. This range of values allows us to identify the specific value of self-transcendence goals where the indirect effect becomes significant. As shown in Table 3-3, this value is 80.26.

Table 3-1. Correlations between covariates and study variables.

	CVQ	CGSE	SWLS	AI_T	AI_PS	AI_I	AI_E
Income	-.10	.03	.10	-.10	-.01	-.01	-.15*
Level of Education	.15*	-.08	.10	.10	.01	.09	-.02
Extraversion	.17*	.08	.16*	.17*	.20**	.19*	.23**
Neuroticism	.01	-.20**	-.38**	-.13	-.19*	-.14	-.16*

* = $p < .05$; ** = $p < .01$

Note: CVQ = Calling and Vocation Questionnaire; CGSE = Career Goal Self-Efficacy; SWLS = Satisfaction with Life Scale; AI_T = Aspiration Index: Transcendent Goals Subscale; AI_PS = Aspiration Index: Physical Self Goals Subscale; AI_I = Aspiration Index: Intrinsic Goals Subscale; AI_E = Aspiration Index: Extrinsic Goals Subscale.

Table 3-2. Descriptive statistics and correlations of calling, career goal self-efficacy, life satisfaction, and goal aspirations.

	1	2	3	4	5	6	7
1. Calling	-						
2. Career goal self-efficacy	.30**	-					
3. Life satisfaction	.23**	.36**	-				
4. Self-transcendence goals	.56**	.34**	.32**	-			
5. Physical self goals	.05	.24**	.34**	.41**	-		
6. Intrinsic goals	.14	.16*	.23**	.38**	.80**	-	
7. Extrinsic goals	.27**	.34**	.38**	.70**	.70**	.37**	-
Mean	30.80	18.19	23.30	70.06	98.14	165.92	86.13
Standard Deviation	8.04	3.83	7.06	19.72	19.36	24.06	25.99

Note: * $p < .05$, ** $p < .01$

Table 3-3. Moderated mediation analysis for self-transcendence goals moderating CGSE's mediation of calling and life satisfaction.

Model				
Mediator Variable Model				
Predictor	B	SE	t	p
Calling	.08	.04	1.88	.06
Self-transcendence goals	.05	.02	3.10	.002**
Calling X transcendence goals	.004	.002	2.21	.03*
Education	-.31	.23	1.37	.17
Income	.01	.19	.05	.96
Extroversion	.02	.08	.31	.76
Neuroticism	-.19	.08	-2.31	.02*
Dependent Variable Model				
Predictor	B	SE	t	p
CGSE	.38	.12	3.16	.001**
Education	.54	.36	1.51	.13
Income	.33	.29	1.14	.25
Extroversion	.26	.12	2.11	.04*
Neuroticism	-.76	.13	-5.79	.00**
Conditional Effects at Self-Transcendence \pm 1 SD				
Self-transcendence score	$(a_1+a_3W)b_1$	SE	z	p
-19.70	.002	.02	.11	.91
0.02	.03	.02	1.56	.12
19.74	.06	.03	2.09	.04*
Conditional Effects at Range of Values of Self-Transcendence				
Self-transcendence score	$(a_1+a_3W)b_1$	SE	z	p
64.50	0.02	0.02	1.19	0.23
68.75	0.03	0.02	1.48	0.14
73.00	0.03	0.02	1.71	0.09
77.25	0.04	0.02	1.88	0.06
80.26	0.04	0.02	1.96	0.05*
81.50	0.05	0.02	1.99	0.05*
85.75	0.05	0.03	2.05	0.04*
90.00	0.06	0.03	2.09	0.04*
94.25	0.06	0.03	2.11	0.04*

Note: * $p < .05$, ** $p < .01$; The conditional indirect effect is calculated $(a_1+a_3W)b_1$ where a_1 is the path from calling to CGSE, a_3 is path from the interaction of calling and transcendent goals to CGSE, W is transcendent goals, and b_1 is the path from CGSE to life satisfaction.

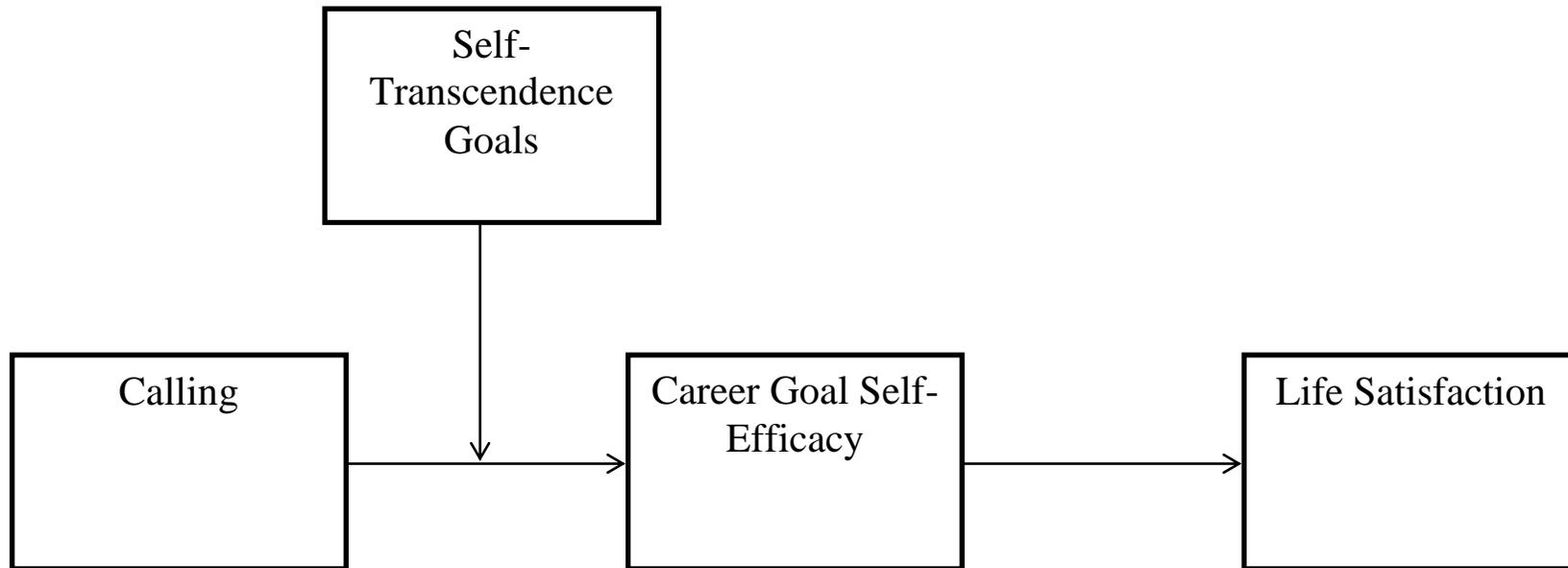


Figure 3-1. Moderated mediation model examining the moderating effect of self-transcendence goals on the mediation of calling and life satisfaction by career goal self-efficacy.

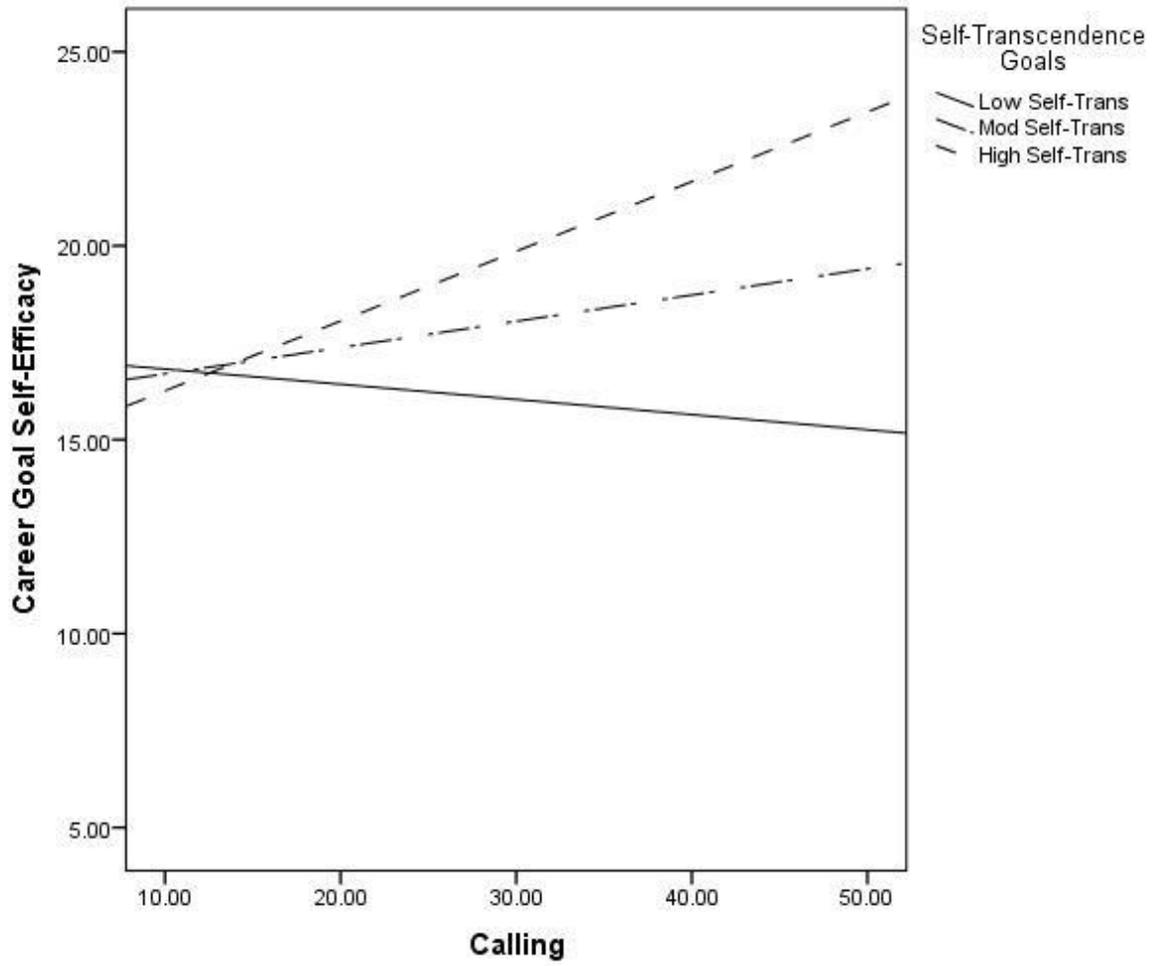


Figure 3-2. Self-transcendence goals as a moderator of calling and career goal self-efficacy.

CHAPTER 4 DISCUSSION

The primary goal of this study was to explore the links between calling, goal aspirations, and well-being. Specifically, I investigated if career goal self-efficacy mediated the relation between calling and life satisfaction and if goal aspirations moderated this mediation. While controlling for several predictors of life satisfaction (i.e. education, income, neuroticism, and extroversion), I found career-goal self-efficacy to fully mediate the relation between calling and life satisfaction. Furthermore, I found that this mediation was moderated by self-transcendence goals such that calling was only connected to well-being through CGSE for those high in self-transcendence goals.

Correlations among study variables revealed that calling was most related to self-transcendence goals and not related to physical-self goals. This finding confirmed my suspicions and is in line with previous research linking spiritual and community goals to calling and well-being (Dik, Sargent, & Steger, 2008; Emmons, Cheung, & Tehrani, 1998; Park et al., 2010). Conversely, calling was related to extrinsic goals but not to intrinsic goals, which disconfirmed my hypotheses and conflicted with previous research linking calling to intrinsic motivation (Dik, Sargent, & Steger, 2008). There may be several reasons for this finding. First, intrinsic goals focus on self-actualization, self-acceptance, and the acceptance of others. These goals could conflict with callings, which are “other-oriented”, originate from an external source, and are not pursued for personal ends. However, surprisingly, people in my sample who endorsed other-oriented goals also tended to endorse goals related to money, popularity, and public image. Perhaps people oriented towards the community through their callings may be more aware of popularity or image needs. Regardless, this intriguing finding should be expanded and explored in future research.

The finding that CGSE mediated the relation between calling and life satisfaction supported my initial hypothesis. This suggests that calling may be related to life satisfaction because having a calling increases career goal self-efficacy, which in turn increases well-being. In Step 2, my analysis revealed that only self-transcendence goals moderated this mediation. In other words, CGSE mediated the relation between calling and life satisfaction only for those high in self-transcendence goals. However, the mediation was not affected by participants' levels of intrinsic, extrinsic, or physical-self goals. This may mean that in order for people with callings to feel confident about their abilities to accomplish their career goals and reap well-being benefits, having high self-transcendence goals is important. As previously discussed, callings are careers with other-oriented values that often have a component of spirituality (Dik & Duffy, 2009). Clearly, callings fit well self-transcendence and would provide a means to accomplish self-transcendence goals. When people with callings are low in self-transcendence goals, there is a discordance between their careers aimed towards prosocial, spiritual gains and their goals that do not share this end. This discordance may cause people to have a lack of confidence in their abilities to achieve their career goals. People who lack confidence in their ability to accomplish career goals may not attain their goals as effectively, which would lead to well-being.

Another possible interpretation is offered by self-concordance theory. Self-concordance theory states that only accomplishing intrinsic goals, which meet basic psychological needs, lead to well-being (Sheldon & Elliot, 1999). However, this assertion is based on a one dimensional construction of goals: an intrinsic-extrinsic dimension. If we consider Grouzet and his colleagues' (2005) two dimensional model, which includes the self-transcendence-physical-self dimension, a new possibility emerges. Perhaps people with callings present a special case within the work domain where the attainment of self-transcendence goals is analogous to attaining self-

concordant goals, which increases well-being. My data suggests that this may occur by influencing self-efficacy beliefs, which affect goal attainment and subsequent well-being. Though this interpretation is tentative given the results, it opens up new avenues for future research.

This study had several limitations that suggest areas for future research. For example, the cross-sectional nature of this study created several problems. First, causal relationships could not be determined from my data, so the conclusions drawn in the study should be considered tentative. Second, this study did not allow us to test longitudinal variables important to my theoretical argument, such as goal progress and goal attainment. Future studies should address this by testing the implications of this study. Specifically, my interpretation implies that calling should predict higher goal attainment and goal progress, which would lead to higher well-being. Furthermore, the model suggests that for people with callings this should only occur for those who are not low in self-transcendence goals, regardless of their levels of intrinsic, extrinsic, and physical-self goals. In addition, career goal self-efficacy should mediate these relations, especially between self-concordant goal formation and goal progress and attainment. Though this study did not take into account the specific content of the career goals rated for self-efficacy, future studies should improve on this by assessing self-efficacy of goals in specific aspiration domains, such as intrinsic goal self-efficacy.

In addition, this study did not include a number of other goal variables that may play an important role in calling's relation to well-being. Examples include mastery versus performance goals, approach versus avoidance goals, and constitutive versus instrumental goals. Calling may be particularly related to constitutive goals that, contrary to instrumental goals, are pursued for their own sake, rather than for a specific end (Fowers, Mollica, & Procacci, 2010). However,

this possibly suggests that calling may relate more to eudaimonic well-being than measures of hedonic well-being, such as life satisfaction. Therefore, future studies should address the cross-sectional limitation of this study with longitudinal designs and expand on this study by exploring different goal variables and measures of well-being.

Finally, although I accounted for group differences between my methods of recruitment, obtaining samples from the internet presents several challenges. For example, the MTurk sample included participants from many different countries, including a large number from India. This makes my sample unrepresentative of the American or global population. Future studies should replicate study findings with more controlled samples in order to determine generalizability.

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BIOGRAPHICAL SKETCH

Born and raised in Perth, Ontario, Canada, Blake now lives in Gainesville, Florida where he is pursuing his PhD in counseling psychology. After receiving his Honors Specialization in Psychology from the University of Western Ontario in 2007, he moved to Vancouver, British Columbia, where he worked as a research coordinator for the University of British Columbia in the Mental Health Unit of the BC Children's Hospital. As a coordinator, he was responsible for running studies examining multiple aspects of mental health, from epilepsy and ADHD to video game addiction. While living in Vancouver, Blake developed an interest in psychotherapy and furthered his education in counseling psychology at UBC. In addition, he began working as a sexual health educator at Options for Sexual Health where he also conducted research. To further his counseling skills, Blake helped design and run a local support group for people experiencing stress due to the recession and worked with at risk children and adolescents as an integration support worker.

In fall 2010, Blake entered the counseling psychology program at the University of Florida. He has completed his Master of Science degree and is now pursuing his doctorate. In addition to working as a therapist and academic adviser within the university, he conducts research on the intersection of positive, counseling, and vocational psychology. In particular, he researches how having meaningful work relates to well-being and work-related outcomes.