

Latent Mean Analysis of the Perceiving and Living a Calling Scales

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Abstract

The perceiving a calling scale is composed of three constructs: transcendent sermon, meaningful and prosocial aspects. Based on the multiple group confirmatory factor analysis from the structural equation model, we confirmed the measurement invariance between Christians and non-Christians at the scale level. Furthermore, to investigate the mean difference between Christians and non-Christians, we performed latent mean analysis. The results showed that the three-factor structure is equivalent across Christians and non-Christians, and further confirmed metric invariance and scalar invariance. Thus, the perceived calling scale is applicable to both Christians and non-Christians without biases. We also examined mean differences between the two groups. Christians demonstrated significantly higher scores on the three factors but no difference on the living a calling. This study provided meaningful information in understanding calling, and we discussed limitations and future directions.

Keywords: *Perceiving a calling, Living a calling, Latent mean analysis*

1. INTRODUCTION

Why do people in modern society work? The answers to these fundamental questions will vary from person to person. For some, their work may be means to obtain capital above a certain level that is absolutely necessary in a capitalist society, or simply a means to pass a boring time. For some, their work may be used as a means of expressing their place or class in the society to which they belong. On the other hand, for others, their work is inseparable from their life, and it may be a very precious thing that accounts for most of their reason for living.

However, despite the above findings of Western studies, there have been continuous questions as to whether the concept of calling in Korean society can be understood apart from a specific religious culture (Christian culture) [1-2]. Before proceeding with more extensive research on the perceived calling, it is necessary to examine whether perceived calling is a concept that can be universally applied to anyone regardless of whether they have Christian faith. The historical term of calling (召命) in Western society began when the 16th century Puritan reformers such as Luther and Calvin insisted on God's call to all occupations [3]. He criticized the prevailing social consciousness in the Middle Ages, arguing that occupations should not be devalued for secular reasons because there is no high or low in all occupations in the world [4]. Starting with this, Christians began to believe that all occupations are equal from a religious point of view and that one must choose a profession through God's calling. As such, vocation is a strong religious word for calling from God in Christian culture [5].

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In order to understand the perceived calling in Korean society, if we look at the dictionary definition of calling (召命) in Korean, it is 'a job in which a person is called by God to do God's work' (National Institute of the Korean Language's Standard Korean Dictionary). Therefore, even if the concept of vocational consciousness can be generally used academically or realistically, apart from religious viewpoints, it is natural for Koreans to feel the Christian color when they come across the word calling. On the other hand, the English dictionary definition of 'calling' is 'a calling is a profession or career which someone is strongly attracted to, especially one which involves helping other people' (Collins Cobuild Advanced Learner's English Dictionary), pro-social rather than religious. It can be seen as meaning a job done with altruistic motives. Considering the semantic difference between the two languages for such a calling, caution will be needed when applying and interpreting the results of research on calling in English-speaking countries in Korea.

Also, as the basis for claiming that the perceived calling is closely related to religion in Korean society, it is particularly related to transcendent summons among the sub-factors constituting the calling scale. In the study of Shim and Yoo [2], who conducted the validation of the Korean version of the calling scale, they were concerned about the religious concept in relation to the sub-factors and detailed items of the calling scale. It mentions the necessity of research using multi-group analysis to directly confirm.

In Korea, some scholars defined a new sense of calling based on the limitation that Dik and Duffy's [3] definition of calling was limited in emphasizing religiosity due to cultural differences and being accepted as a universal concept. However, as they claim, there is a lack of objective data to support the claim that Dik and Duffy's definition of calling is related to a specific religion.

It is very difficult to answer an abstract concept with yes or no because each scholar has a different opinion as to whether or not it is limited to religion at the level of the concept of vocation. However, based on the definition of the sense of calling, it can be objectively verified whether the perceived calling is affected by religion or not by examining it at the scale level that measures the perceived calling. Therefore, in this study, based on Dik and Duffy's Calling Scale (CVQ), which is the most widely used in studies related to the current sense of calling and conducted validity and reliability studies in Koreans, it is possible to determine whether the response pattern changes depending on the presence or absence of Christian faith. If they are different, we want to find out whether people with faith have a higher sense of calling through a latent mean analysis through multi-group factor analysis.

2. RESEARCH METHOD

2.1 Participants and Procedure

This study conducted a questionnaire survey on college students and office workers, and analyzed the data collected from a total of 459 people. The gender of the participants who responded to the questionnaire was 208 males (45.3%), and the average age of the respondents was 28.71 years old (SD=9.22), and 49.7% of participants considered them as Christians.

2.2 Research Tools

2.2.1 Calling and Vocation Questionnaire

In this study, the Korean version of the Calling and Vocation Questionnaire (CVQ) developed by Dik, Eldridge, and Steger [6] was used to measure the sense of calling. The Korean version of the CVQ consists of three sub-factors: transcendental calling, purpose/meaning, and pro-social orientation. As suggested in the original scale, the questionnaire was constructed on a 4-point Likert scale of 1 (strongly disagree) and 4 (strongly

agree). The internal consistency coefficient (Cronbach's α) of the calling scale shown in this study was .75.

2.2.2 Living a Calling

In order to emphasize that it is important to be conscious and aware of the calling, but also to put it into action, the living a calling scale devised by Duffy, Bott, Allan, Torrey, and Dik was used [7]. The living a calling scale was developed for the purpose of measuring whether people with a calling are living according to the calling they perceive. This scale consists of a total of 6 items and a single factor. As suggested in the original scale, the questionnaire consisted of a Likert 7-point scale of 1 (not at all) and 7 (strongly agree). The higher the vocation execution score, the better the vocation that one perceives. The internal consistency coefficient (Cronbach's α) of the calling execution scale shown in the study of Jeong and Choi conducted with office workers was .94 and .95 [8].

2.3 Statistical Analysis

Many researchers have used t-test, ANOVA (analysis of variance), and MANOVA (multivariate analysis of variance) as statistical methods to test the difference between two or more groups. There is no doubt that it is a representative method with many advantages as it has been used for a long time. However, it can be said that these methods have major weaknesses in terms of sophistication because those methods that do not consider measurement errors. As a method to compensate for this critical weakness, many scholars have proposed latent mean analysis [9-12].

In this study, participants were divided into two groups based on the presence or absence of Christian faith, and a latent average analysis was performed to find out the difference between the two groups in the perceiving a calling and living a calling. In latent mean analysis, it is impossible to directly calculate the mean of a factor, so a reference group (reference group) is selected, the latent mean is fixed at 0, and the other groups estimate the relative difference.

3. RESULTS

In this study, the non-Christian group was set as the reference group, and the potential average of the Christian group (measured group) was measured assuming that the potential average of the group was 0. Table 1 below presents the results of the analysis of the three sub-factors of the perceiving a calling and the results of the latent mean analysis of the two groups for living a calling.

Table 1. Perceiving and Living a Calling Latent Mean Analysis

Factors	Non-Christians	Christians	Effect Size(<i>d</i>)
transcendent sermon	0.00	.851	1.224
Perceiving a Calling			
purposeful work	0.00	.351	0.941
prosocial orientation	0.00	.432	1.286
Living a Calling	0.00	.492	0.298

To interpret the results of the latent mean analysis, Cohen's effect size (d) was calculated. As mentioned above, if the effect size (d) is less than .2, it can be interpreted as a small level, if it is less than .5, as a medium level, and if it is more than .8, it can be interpreted as a large level [13]. When referring to Cohen's effect size, it can be confirmed that Christians show a very high degree compared to non-Christians in all three sub-factors of perceiving a calling. And in the case of living a calling, it was found that the two groups were not significantly different.

4. DISCUSSION

This study examines whether the perceiving and living a calling scales can be used in common regardless of the presence or absence of Christian faith, and explores the difference in the degree of perceiving and living calling according to the presence or absence of Christian faith. To this end, a survey was conducted using the Korean version of the calling scale [2] and the living a calling scale [7]. A multi-group confirmatory factor analysis was used to analyze the latent mean. According to the results of the study, Christians tend to have a higher level of perceiving a calling than non-Christian participants, but no significant difference on the level of living a calling between the two groups. The discussion of the analysis results is as follows.

First, it was confirmed that configural invariance, metric invariance, and scalar invariance were established. This means that there is no difference in the way respondents perceive response patterns and scales regardless of whether they have Christian faith or not. In other words, regardless of the presence or absence of a specific religion, it means that the scale for measuring the perceiving a calling and the living a calling can be used in common and the results can be interpreted.

Second, as a result of comparing the degree of perceiving and living a calling of Christians and non-Christians, Christians showed significantly higher level of perceiving a calling than non-Christians. First, if we look at the sub-factors of the perceiving a calling, Christians strongly believe that their calling is a calling from God, and they have a clearer purpose in life than non-Christians and have the conviction that their occupation is obedience to the calling. Also, in the pro-social orientation, the last sub-factor of the perceiving a calling, Christians showed higher than non-Christians, which means that Christians have a high desire to positively contribute to society through their work.

Third, if we compare the effect sizes of perceiving and living a calling with Christians and non-Christians. This shows that Christians have a very high awareness that they should contribute to society through their vocation. However, in reality, it can be seen that they are not able to carry out their calling compared to non-Christians as much as they recognize in the professional scene.

The academic significance of this study is as follows. First, it solved the question that suggested that the vocational consciousness scale can be influenced by a person's specific religious beliefs in several Korean studies that have studied the perceiving a calling. It was confirmed that the Korean version of the Calling Scale (K-CVQ) can be used in the study regardless of Christian faith and there is no problem in interpretation. Therefore, as mentioned in several previous studies, it can be said once again that the concept of calling can be used as a comprehensive concept in research in various fields, not as a concept that stays in a specific religious point of view.

Second, as a result of the latent mean analysis of the two groups divided by the three sub-factors of the vocational consciousness and the presence or absence of Christian faith in the vocation execution scale, it was confirmed that Christians report higher levels than non-Christians in all factors. This means that for each item at the scale level, there is a mean difference in the actual potential factors even though the two groups perceive the same level. In other words, it means that there is a difference between the two groups even after considering the error in measurement through the scale. Based on this, it is necessary to explain the role of the sense of

calling and the positive effect it has in the counseling or education scene not only for Christian students but also especially for non-Christian students, and to emphasize the need for a sense of calling for work.

The limitations of this study and suggestions for follow-up studies are as follows. First, this study divided groups and analyzed them based on the presence or absence of Christian faith based on previous studies that mentioned that there may be an influence on the sense of calling. However, rather than a dichotomous approach limited to specific religions such as Christians and non-Christians, a comparative study from multiple angles is needed. In addition, we propose a study that analyzes in-depth how the difference in the sense of calling caused by religious differences in the sense of calling affects outcome variables such as performance ability, job satisfaction, and life satisfaction through a structural equation model.

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