The Implication of Bandura’s Vicarious Reinforcement in Observational Learning for Christian Education

Jongmin Lee (Assistant Professor, Chongshin University)
joyezra@chongshin.ac.kr

Abstract

This study reviews Bandura’s vicarious reinforcement in observational learning process and implies this concept into Christian education in terms of spiritual role modeling. The first part of this study answers three questions: “what is vicarious reinforcement?” “how does vicarious reinforcement take place in observational learning?” and “how does vicarious reinforcement affect observer’s behavior change?” Bandura conceptualizes the learning process with observational learning and imitative or non-imitative performance. Based on this concept, Bandura defines the roles of vicarious reinforcement in the four steps of observational learning process: attention, retention, motor reproduction, and motivational process. Also, the three effects of vicarious reinforcements are explained in the following categories: the observational learning effect, inhibitory or disinhibitory effects, and eliciting effect. Adapting the structure of observational learning theory in terms of the effect of vicarious reinforcement and the function of role models, the second part of this study examines the biblical concept of imitation of Christ and the modeling strategy of discipleship. Especially Paul’s spiritual role model serves as positive vicarious reinforcement for the Christian believers to perform the desired behaviors. Also, Paul’s condemnation serves as explicit negative vicarious reinforcement. Then, the last part of this study covers the implication of these findings from observational learning and empirical studies in terms of spiritual role mod-
eling to Christian education.

《Keywords》
Bandura, Vicarious reinforcement, Observational learning, Christian education, Spiritual role modeling, Imitation of Christ

I. Introduction

Education has been one of the main topics in human history. Under this title many people have asked the questions: how can human beings learn and grow? What prevents human beings from learning and growing? What is the scope and sequence of human development? What is the ultimate purpose of human development? Learning theories are addressing how people learn best as a distinct topic in psychology. They emerged in the late nineteenth and the first decades of the twentieth century. There are three main streams in this field.

The first approach is operant learning theory which derives directly from the behavioral orientation. The main idea is that learning could be progressively shaped through a scheduled program of operant conditioning. Behavioral learning theorists put emphasis on the educational contexts in which learners can develop their behaviors through reinforcement. One of the limitations of these theories is that the formulation of reinforcement cannot completely explain change in human behavior.

The second approach is cognitive learning theory which comes from cognitive developmental psychology. Cognitive
approaches regard “the learner as one who is active in selection, reducing, elaborating, transforming, storing, recovering, and using the stimuli or data of experience that come from the environment” (Dykstra, 1990, 369). Cognitive learning theorists analyze the information processing so that they can make learners have a better and more coherent understanding of themselves and the world. Cognitive learning theorist develop “problem-solving or discovery learning” as a strategy to create the new knowledge. One of the limitations of these theories is that they put too much emphasis on internal cognitive structures and schema rather than external stimuli (Park, 2009, 361).

The third approach is social learning theory which is regarded as a bridge between behavioral learning theory and cognitive learning theory. Social learning theory deals with human behavior that occurs as a result of social interaction. This theory also puts emphasis on personality development. People do not live isolated in a private world. Indeed, if human beings develop appropriate behaviors through personally experienced consequences, most people would not survive the hazards of early development. As social beings, people acquire desirable responses from the conduct of others, and develop their appropriate behaviors through observing the occasions on which modeled behaviors are rewarded, ignored, or punished. The question arises as to how observational learning occurs?

In 1950, John Dollard and Neal Miller published their classic work, Personality and Psychotherapy. They first translated the concepts of Hull and Freud into the language of learning, employing the term social learning. They con-
structured the learning theory with social-personality events. Their analysis of psychic warfare and understanding of human behaviors influenced personality developmental theory and personality assessment and structure. In broad understanding of social learning theory, L. Vygotsky and P. Freire analyzed the relationship between the learner and social structure. They note that cognitive and behavioral processes can be explained by cultural influences and social relationships, including language acquisition (Oh, 2014, 118).

Meanwhile, Julian Rotter established the modern conceptual basis of the social learning theory in her book, Social Learning and Clinical Psychology (1954). The major feature of her theory is the employment of both behavioral (reinforcement) and cognitive (expectancy) variables. She assumed that the tendency for behavior to occur in any given situation is a function of the individual's expectation of reinforcement in that situation and of the value of the reinforcement. She addressed four concepts to predict an individual's behavior—behavior potential, expectancy, reinforcement, and psychological situation. She also emphasized the six needs to determine behaviors. Albert Bandura completed the social learning theory of Rotter. He pointed out that "social learning theory emphasizes the prominent roles played by vicarious, symbolic, and self-regulatory processes in psychological functioning" (Bandura, 1977). He wrote Social Foundation of Thought and Action (1986) and asserted that merely observing another person might be sufficient to lead to a learned response.

Therefore, this paper will be to define what vicarious reinforcement is, how vicarious reinforcement takes place in
observational learning, and how vicarious reinforcement affects observer's behavior change. Then, the second part of this paper will research empirical studies in terms of spiritual role modeling. The last part of this paper will examine the biblical concept of imitation of Christ and the modeling strategy of discipleship and cover the implication of these findings from observational learning and empirical studies to Christian education.

II. Bandura’s Vicarious Reinforcement

While many behaviorists have devoted themselves to study the effect of direct reinforcements on human behavioral changes, some theorists started to research the effect of vicarious reinforcement in imitation or observational learning. Vicarious reinforcement refers to the social cognitive mechanism in observational learning. Bandura disputed Skinnerian reinforcement that all behavior change occurred because of direct reinforcement. Bandura assumed that learning occurs simply by observing the reinforcement and punishment for the models' behavior. It is vicarious reinforcement that causes observational learning. The observer watches a model behave, observes how the model is reinforced and punished for that behavior, and learns an appropriate response from how the models are affected. Bandura(1986), however, distinguishes vicarious outcome from implicit outcome as follows:

In the vicarious form, people observe the outcomes accruing to others without themselves engaging in similar activities at
the time. In the implicit form, all people perform similar behavior concurrently, but some are rewarded while others are not.

Based on this understanding, Bandura develops vicarious reinforcement theory in four aspects: process of observational learning, the roles, variables, and effects of vicarious reinforcement in observational learning.

1. The process of observational learning

Bandura and his colleagues (1963) theorized vicarious or imitative learning with two assumptions as follows:

[It is a common assumption that the] mode of response acquisition is based essentially on a process of covert instrumental conditioning in which the observer acquires response imitatively by performing covertly the behavior exhibited by a model. It is further assumed that the occurrence of vicarious learning phenomena is contingent on the administration to the performing model reinforcing stimuli which the observer presumably experiences as vicarious reinforcement (601).

With these assumptions, Bandura developed the extent to which the observer matches the model's behavior. He structured the process of observational learning characterized by the learning-performance dichotomy. In his four steps of observational learning, the first two steps relate to how the observer gains and deals with observational knowledge; the last two steps relate to how the observer recalls it and motivates himself/herself to make overt responses. In the mod-
eling processes the anticipation of positive or negative vicarious reinforcement may augment or reduce the probability of the occurrence of the observing response. Response consequences either to the model or the observer may be important influences on the performance of imitatively learned responses (Bandura, 1963, 606-7). Bandura’s conceptualization of learning process can be explained with the following figure.

![Figure 1] Bandura’s conceptualization of the learning-performancedichotomy

In another words, Yates and Yates (1978) depicted the essential features of Bandura’s observational learning as follows:

Modeling is subject to two kinds of variables: learning variables and performance variables. A modeling stimulus is conceived of as a possible source of behavioral influence and certain variables determine the extent to which an observer learns through exposure to this stimulus. The extent to which this learning actually results in a change in observers’
functioning depends, however, on motivational factors referred to as performance variables. Even the most simple instance of imitation is held to be subject to analysis through the two-stage paradigm(161).

Therefore, it can be said that learning takes place through perception and encoding observational knowledge in the observer’s cognitive domain, and a desirable behavior appears in the behavioral domain of the observer through representation of knowledge and motivation.

2. The roles of vicarious reinforcement in the process of observational learning

Vicarious reinforcement is applied to change in behavior of the observer that results from what they have seen regarding whether the model’s actions are rewarded, punished or ignored. The first step of observational learning is attention process that the model gains the attention of an observer. Observational learning takes place when the observer pays attention to the model’s behaviors and events that are modeled(Bandura, 1977, 24). In attention process, acquisition of the rewarded task and suppression of the punished responses are facilitated by the informative function of vicarious reinforcement. Rewarded modeling is generally more attractive to the learner than modeling alone. Response consequences experienced by other people convey information to observers about the type of behavior that is likely to meet with approval or disapproval(Bandura, 1971, 49). Observer’s attentiveness increases when people see models praised for good conduct rather than when models
receive no recognition for their action.

Sechrest (1963) researched the effect of vicarious reinforcement on two groups of fifteen pairs of children. One group of children was exposed to either positive or negative reinforcements. The other control group of children was run without reinforcement. As a result of examination there was no difference between explicit and implicit reinforcement. It was found that positive reinforcement facilitated and negative reinforcement hindered performance (197). His finding was a catalyst of empirical research about the effects of vicarious reinforcements in observational learning.

The second step of observational learning is retention process. If the observer does not remember modeled behavior, he or she cannot be much influenced by observation of it. When the modeled behaviors and events have been attended to, it must then be encoded in memory through either an imaginary or a verbal representational system. Bandura (1977) points out the symbolic encoding as follows:

In order for observers to profit from the behavior of models when they are no longer present to provide direction, the response patterns must be represented in memory in symbolic form. Through the medium of symbols, transitory modeling experiences can be maintained in permanent memory. It is the advanced capacity for symbolization that enables humans to learn much of their behavior by observation (25).

Carrying a great deal of information in an easily stored form, this encoding permits the observers to mentally rehearse the behavior. Mental rehearsal increases proficiency and retention as an important memory aid. Therefore, the learner can highly achieve observational learning by encod-
ing the modeled behaviors symbolically, rehearsing them mentally, and enacting them overtly.

The third step of observational learning is the motor reproduction process. Symbolic representation now must be converted into appropriate action similar to the originally modeled behavior. The observer actually practices the behaviors on their own. The observer selects and organizes the response elements which have been encoded in memory, performs the behavior, and refines his or her performance on the basis of feedback. Bandura(1977) analyzed the motor reproduction process as follows:

In the initial phase of behavioral enactment, responses are selected and organized at the cognitive level. The amount of observational learning that will be exhibited behaviorally partly depends on the availability of component skills. [Meanwhile] ideas are rarely transformed into correct actions without error on first attempt. Accurate matches are usually achieved by corrective adjustments of preliminary efforts. Discrepancies between the symbolic representation and execution serve as cues for corrective action. [Lastly] people usually achieve a close approximation of the new behavior by modeling, and they refine it through self-corrective adjustments on the basis of informative feedback form performance and from focused demonstration of segments that have been only partially learned(27-8).

Mithaug and Burgess(1969) investigated the relative importance of individual feedback under the condition of group vicarious reinforcement. They administrated the experiments with 5 to 10 years old children in the following conditions: group reinforcement with individual feedback,
individual reinforcement with feedback, and group and individual reinforcement with individual feedback. It was found that when the conditioned vicarious reinforcements were visible to the subjects (or observers) for group response, but not for individual feedback, group and individual reinforcement with individual feedback was effective in strengthening and maintaining the group response above the base rate (108).

The fourth step of observational learning is the motivational process. There must be sufficient incentive to motivate the actual performance of modeled behaviors. Bandura (1977) explained motivation to perform matching responses as follows:

A model who repeatedly demonstrates desired responses, instructs others to reproduce the behavior, prompts them physically when they fail, and then rewards them when they succeed, may eventually produce matching responses in most people (29).

Bandura explained how the observer is motivated to perform new desired responses. In the imitative performance, vicarious reinforcement has incentive motivational effects. Vicarious reinforcement is that the observer sees models being reinforced for model’s behaviors. It allows the observer to learn from the modeled behaviors and to be motivated to the learner’s response. For instance, an observer watches a model behave and further observes how the model is reinforced and punished for that behavior. If the model is reinforced, the observer tends to imitate the behavior. If the model is punished, the observer tends to avoid the behavior.
Therefore, seeing others reinforced with valued incentive functions as a motivator by arousing the observer's expectations that the observer will be similarly rewarded for imitative behavior (Bandura, 1971, 50).

3. The variables of vicarious reinforcements

In everyday life observational behavior is often performed. The questions about variables of vicarious reinforcement arise in terms of the characteristics of models and observers to evoke imitative performance. The first category of variables to influence imitative performance is the characteristics of the model. In general speaking, children are to imitate models perceived as competent, successful, attractive, nurturant, and powerful (Bandura, 1969). For instance, a model's nurturance can motivate the observer to imitate model's acts. Perceived similarity can be a powerful cue indicating a model's suitability. However, imitative performance can be discouraged if the model is seen as overly successful or socially distant. For example, the poorly achieving children and adolescents are discouraged by being exposed to the peer student who achieved highly in their writing skills.

The second group of variables to influence imitative performance is the characteristics of the observer. These characteristics of the observer determine the observer's behaviors interplaying with those of the model. The observer's personality, anxiety, arousal, self-esteem, competence, prior experiences, motives, and expectations influence imitative performance tendencies (Akamatsu & Thelen, 1974).

In later research, however, subject generalization variables
do not appear to be significant means toward the end of understanding vicarious reinforcement phenomena. For example, Cook(1986) investigated how subject generalization factors—gender, ethnicity, achievement level, and age—related to vicarious learning effects, adapting Ollendick et al.’s findings related to the effects of vicarious reinforcement. The studies investigated 114 normal first and fourth grade children who were predominately Hispanic to examine the effects on the subsequent behavior of non-directly reinforced children of direct social reinforcement to target children. Students were paired and assigned to the experimental group or the control group. Within the experimental group students were assigned as not-targets to the vicarious reinforcement condition or as targets to the direct reinforcement, while students in the control group received direct reinforcement or any explicit vicarious reinforcement. Through four different studies according to social reinforcement factors, Cook found that vicarious reinforced improvement in problem solving behavior are not produced depending on ethnicity, gender, age, or achievement level. Therefore, the effects of vicarious learning can take place depending on ability for the learner to motivate and regulate their execution of desired responses, rather than the mere characteristics of models and observers.

4. The three effects of vicarious reinforcement

On the premise of the above findings the effect of vicarious reinforcement varies according to the conditions under which it is administrated. Khan and Cangemi(2001) summar-
ized that Bandura's three effects of vicarious reinforcements influence the following areas:

1) The observer may acquire new responses that did not exist in his behavioral repertoire; 2) exposure to models also may strengthen or weaken inhibitory response in the observers; 3) the behavior of models may elicit previously learned responses that match perfectly or bear some similarity to those exhibited by the model(43).

Therefore, the three effects of vicarious reinforcements can be explained in the following categories. The first one is the observational learning effect. It is demonstrated most clearly when models exhibit novel responses which observers have not yet learned to make and which they later reproduce in substantially identical form(Bandura, 1971, 6). It involves the acquisition of a new response or a set of new responses as a result of observing a model emit a particular response or a set of responses(Khan & Cangemi, 2001, 45). It can be said that imitation may produce on the basis of a child directly reproducing a specific aspect of the model's performance in a manner. For example, Children imitate the pattern of the parents' behavior consciously or unconsciously, even though they actually behave in quite different activities.

The second effect of vicarious observational learning is inhibitory or disinhibitory effects. These effects are to strengthen or to weaken inhibition of previously learned response. Inhibitory or disinhibitory effects of vicarious observational learning are called as “counter-imitation” in which the observer learns to inhibit a given act. The effects
that modeled behaviors have on behavioral restraints are largely determined by observing the consequence of the modeled behavior (Bandura, 1971, 6). Inhibitory effect indicates that the observer does not imitate something because the observer sees punishing consequence accompanying the modeled actions. Seeing others experience aversive outcomes tends to decrease observer's inclinations to behave in similar or related ways (Bandura, 1986, 287). Meanwhile disinhibitory effect indicates that the observer increases performance of formerly inhibited behavior because a model does without being punished. For example, disinhibitory effect can be seen in therapeutic situations. A patient who was suffering from feared activities observed the model performing feared activities without any harmful effects. And then the patient weakened defensive behavior, reduced fears, and created favorable changes in attitudes (Bandura, 1977, 49).

There is one more effect of modeling related to situational antecedents of behavior. It is eliciting effect which is called as "response facilitation" (Bandura, 1977, 49). When the behavior is socially acceptable and unencumbered by restraints, the observers perform the behavior that they normally would not do because of lack of sufficient motivation. Response facilitation can be a good modeled behavior to elicit matching responses of the observers. For instance, a man might be a good model of a Christian if he/she participates in Bible study group regularly, prays for others passionately, and works hard for neighbors in community.
III. Implication of Observational Learning for Christian Education

Vicarious reinforcement and imitation through modeling can be interchangeably defined in order to systematically understand the relationships between the learners and the model in observational learning. Especially the term of “imitation” or “modeling” is used to define matching phenomena between the model’s behavior and the observer’s, distinguishing “identification,” “internalization,” “introjection,” “incorporation,” “copying,” “social facilitation,” “contagion,” and “role taking.” Bandura explained the reason to choose the term “modeling.”

Modeling influence have much broader psychological effects than the simple response mimicry implied by the term “imitation,” and the distinguishing properties of “identification” are too diffuse, arbitrary, and empirically questionable either to clarify issues or to aid scientific inquiry (Bandura, 1971).

However, the Biblical terms “imitation” and “example” are slightly different from the psychological meaning of modeling. These terms are used in exhortation for Christian faith and discipleship (1Cor. 4:16, 11:1; Eph. 5:1; Phil. 3:17; 1Thess. 1:6, 2:14; 2Thess. 3:7, 9), as well as the development of Christian leadership (Heb 4:11, 6:12, 13:17; 3John 1:11; 2Pet. 2:6; James 5:10; Jude 1:7). Martin (1999) defines the imitation/example terminology in Paul’s day as follows:

[It] was normally used in reference to a learner’s serous and genuine attempt to understand and follow the teachings of a mentor or emulate the virtuous behavior of some great fig-
ure of the past. Serious philosophers were expected to teach both with their logos [word or teaching] and with their ethos [normal or customary behavior]. The ethos demonstrated the value and validity of the logos. The ethos also clarified the logos, demonstrating in life the wisdom presented in world(41).

Therefore, imitation through modeling can be used to refer to the “sociobehavioristic approach” that observational learning takes place through observing the modeled behaviors-consequences in Christian life(Kim, 2011, 143-4).

From the deeper analysis of the biblical references, a similar concept of vicarious learning can be found in the Pauline corpus. Paul uses the language of imitation(*mietes or *mimeomai*) in 1Cor. 4:16 11:1, Phil. 3:17, 1Thess. 1:6, 2:14, and 2Thess. 3:6, 9. In these passages Paul exhorted Christian believers to become imitators of him(Ko & Heo, 2018). When Paul urged the Christian believers to imitate him, the notion of imitation to Paul indicated several meanings. The first meaning of imitation to him refers to the mirror image of the original as a spiritual role model. Paul tried to exhort Christian believers to incorporate certain specific aspects of his life into their own life. In 1Cor. 4:16 in order to point out Jesus Christ as the original model of Christian believers, he listed his weakness in 1Cor. 4:9-13: hunger, thirst, being poorly clothed, being beaten, and homeless. This listing of his afflictions served as vicarious reinforcement so that his reader could observe that the true power of the Cross was revealed in his weakness. Paul’s call of imitation in 1Cor. 11:1 was based on the attitude of the other-centered Christian lifestyle(1Cor. 10:31-33) as same as
Jesus Christ did. His attitude to others resembled Jesus’ attitude in order to build up the church through seeking the advantage of others. Therefore, Paul’s spiritual role model serves as positive vicarious reinforcement for the Christian believers to perform the desired behaviors.

In 2Thess. 3:6-7 Paul condemned the believers who lived idle lives in the Thessalonian Church in terms of misunderstanding of the Parousia. Paul used the idle believers as negative observed models punished for their disorder. Observing the disordered activities condemned by Paul motivated the Christian believers to inhibit the disordered behavior and imitate the example of Paul. Therefore, Paul’s condemnation serves as explicit negative vicarious reinforcement.

In conclusion, Christian educators can adapt the structure of observational learning theory in terms of the effect of vicarious reinforcement and the function of role models. The socio-psychological mechanisms of observational learning enable Christian educators to understand how people learn and grow through vicarious observation. However, Christian educators should create learning environments in which Biblical contents and standards can be delivered effectively through modeled behavior and contingence.

1. Christian educators as a spiritual role model

The significant others’ impact can change the learners’ behavior. People can adapt model’s values or goals through negative and positive vicarious reinforcements. Therefore, Christian educators should be a spiritual role model to show the appropriate standards of the Christian life. For example,
exposing superior models to poorly achieving observers is not likely to encourage achievement strivings in the poorer observers if the differences in achievement are emphasized. As a spiritual role model, Paul exhorted the Christian believers to imitate his example as he imitated Christ’s (1Cor. 4:16, 11:1; 1Thess. 1:6, 2:14). The first two verses serve as positive vicarious reinforcements. Paul was viewed as a particularly appropriate model who followed Jesus Christ’s example in teaching and doing and was rewarded for his imitation of Christian life. Other Christians observed Paul’s example and its contingence to acquire information of Jesus Christ and adapt Christian lifestyles and values. Paul also exhorted the Christian believers with negative vicarious reinforcements. He showed the cost of being a Christian to live an example of Christlikeness, such as sufferings and hardship. Therefore, being a spiritual role model is to be godly examples for other Christians to imitate Jesus Christ, no matter of what circumstances they are facing.

For example, Silberman (2003) illustrates the traditional centrality of spiritual role modeling in the context of Judaism, adapting Oman and Thoresen’s claim that Bandura’s social learning theory contributes to the systematic illumination of spiritual modeling and to the development of successful spiritual interventions that aim at promoting mental and physical health. Through examining the emulation of both God and sages, he found the similar formulations between Bandura’s observational learning process and the process of spiritual role modeling within the Chassidus movement. He asserted the possibility of the social learning of meaning system as follows:
People can learn the basic components of meaning systems such as contingencies in the forms of expectancies for future outcomes [rewards or punishment] and self-efficacy expectations regarding one's ability to conduct a certain behavior, as well as the utility or value that a certain behavior has for the individual goals (185).

He suggested future research directions to explore the effectiveness of spiritual or religious role modeling: discrepancies of the followers of spiritual role model, effectiveness in aspiring or demoralizing people, a function of spiritual role modeling outcomes, and unique processes of spiritual role modeling.

2. Development of learning environment

Social learning theorists and the reinforcement theorists have been responsible for the effective of external reinforcement upon observational learning. However, Christian educators should establish an appropriate environment in which observational learning can be activated by vicarious reinforcements related extrinsic and intrinsic stimulus. In order to create learning environments Christian educators should answer the following questions. The first questionnaire will have to assess the intrinsic motivational factors: what motivates the learner to participate in observational learning? How does their self-understanding affect the learning process? How does their inner expectation affect the reproduction of new behaviors? The second questionnaire will have to assess the learning environment as extrinsic motivational factors: how much the conditions of a learning envi-
vironment motivate the learner to participate in observational learning related to the extrinsic motivational factors. This question covers the issues of classroom settings, time, contents management and instructional styles. The third questionnaire will have to assess the inner group relationship as extrinsic motivational factors: how much do the interpersonal relationships motivate the learner to grow? Through investigating these questions, Christian educators can create an appropriate environment in which vicarious observational learning serve people to expand their knowledge and cognitive competencies.

DeNike and Tiber(1968) agreed that the emotional effects of vicarious reinforcement in the explanation of identification are as follows:

Identification is a process in which a person believes himself to be like another person in some respects, experiences the other's success and defeats as his own, and consciously or unconsciously models his behavior after him. . . . The fact that there is emotional involvement with the other person distinguishes identification form mere imitation(355).

Adapting their concept of vicarious learning, Richards postulated that modeling is one of methods of the socialization process. Although socialization takes place through direct instructions, observation of others does have a powerful impact on behavior. From Jesus’ example and the nature of the disciples’ community he extracted the educational strategy of modeling to be adapted by Christian education. Modeling is the primary mechanism through which socialization takes palace. Modeling is fastened on as
the most significant source of likeness communication from model to observer (Richards, 1975, 83). It is a motivated attempt for Christian educators to create an appropriate environment in which vicarious observational learning serve people to resemble a specific person.

V. Conclusion

The first part of this paper covers how vicarious reinforcement takes place in observational learning, and how vicarious reinforcement affects the observer's behavior change. The second part of this paper covers integration between the genera notion of the spiritual role model and the interpretation of Paul's calling to imitation of him. The last part of this paper shows the implication of the theory of vicarious observational learning to the modeling strategy for discipleship. People imitate the significant others with whom they live. They observe the significant others' manner in sharing, their spirit in reproving, and their attitude toward their neighbors. People can feel their love for the Lord and their passion for other people. Observing the significant others helps people to acquire information about new behavior and motivates them to perform the desired behavior. The implication for Christian education is that Christian educators should be a spiritual role model so that the learner can pay attention to their deed and word, acquire appropriate behavior and perform the desired response. Christian educators also should be a spiritual model who can create appropriate learning environment in which vicarious
learning takes place (Han, 2011, 146-8).

The limitation of this paper will be not to cover the issues in terms of human mental mechanisms: processing information and the mental representation when observational learning and imitative performance occur.
Bibliography


관찰학습에서의 반두라 대리강화에 대한 기독교교육적 함의

이종민(충신대학교/조교수)

이 논문은 관찰학습에서 나타나고 있는 반두라의 대리강화에 대한 이론과 효과들을 살펴보고, 그 개념을 기독교교육에서 행해지고 있는 영적 롤 모델링 전략에 적용한 연구이다. 이를 위해 먼저 반두라가 소개하고 있는 대리강화란 무엇이며, 관찰학습에서 대리강화가 어떻게 발생하는가 그리고 대리강화가 관찰자의 행동 변화에 어떠한 영향을 미치는가에 대하여 살펴보았다. 특별히 반두라는 관찰학습과 모방 혹은 반모방 행동 안에서 일어나는 학습과정에 대하여 개념화하였다. 이를 바탕으로 하여 반두라는 관찰학습에서 일어나는 대리강화의 과정을 4단계(잡종, 기억, 행동제생, 그리고 동기화)로 분류하여 설명한다. 그뿐만이 아니라, 대리강화의 효과에 대해 3가지(관찰학습효과, 역제-탈억제효과, 유발효과)를 제시하였다. 이러한 반두라의 대리강화 이론과 그 효과를 바탕으로 하여 기독교교육에서 논의되고 있는 예수님 닮아가기 혹은 제자훈련 안에서의 영적 롤 모델링 전략을 재평가하였다. 특별히 성경에서 사용하고 있는 모방에 대한 개념을 반두라의 대리강화 이론과 비교하면서 재해석하였고, 사도 바울이 제시하고 있는 영적 롤 모델의 역할을 대리강화의 효과라는 차원에서 재정의했다. 그 결과 2가지 차원에서의 영적 롤 모델 전략을 발견하였다. 즉 바울의 영적 롤 모델 역할은 긍정적인 차원에서 대리강화로써 신자로 하여금 기대되는 행동을 실행할 수 있도록 도와주는 하나의 본보기가 된다. 반면에 바울의 명령은 신자들에게 명확한 탈억제 효과를 불러일으키는 부정적인 차원에서의 대리강화로 사용되고 있음을 발견하였다. 그리고 마지막으로 관찰학습에 대한 연구들과 성경적 영적 롤 모델링 전략을 서로 연관시킴으로써 반두라의 대리강화가 기독교교육에 미칠 가능성을 함의하였다.
《 주제어 》
반두라, 대리강화, 관찰학습, 기독교교육, 영적 롤 모델, 예수님 닮기

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