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## Behavior Principles in Christian Education (Chapter 8 from The Human Reflex)

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## 8. Behavior Principles in Christian Education

IN A number of ways, behavioral principles have been utilized in Christian education for many years, although they may not have been conceptualized as such. Thus much of this chapter involves describing current practices in terms of a different theoretical formulation. The value of this is not to be underestimated, however, as a new conceptual framework may do much to enhance effective implementation of desired practices. The second focus of this chapter will be to suggest some innovative approaches to Christian education, which grow out of the systematic application of behavioral principles in ways that may not currently be practiced.

The idea of applying behavioral principles to Christian education and the ministry of the church is not entirely new. B. F. Skinner, in an article published in 1969, suggested the possibility of such applications (it is possible that Skinner's suggestion was made with a substantial degree of tongue-in-cheek). In any event, Skinner quotes Benjamin Franklin's account of how the chaplain aboard a Navy vessel improved the sailors' attendance at worship services by arranging that all who attended be served a round of rum following the service.<sup>1</sup> Skinner implies that this might be a desirable approach to the problem of participation in church worship and other activities. While we might take exception to the ethics of using rum as a reinforcement, the idea of reinforcing attendance at religious services is not novel.<sup>2</sup>

### **REINFORCEMENT AND BIBLICAL TEACHINGS**

Many individuals within the religious community react negatively to any suggestion of using reinforcement to strengthen religious or moral behaviors. They suggest that people *ought* to do this

or that; they should do it because they *want* to; virtue has its own reward; and so on. Such arguments are especially common when it comes to dealing with problems they experience with their children. Interestingly, these arguments do not extend to the degree of precluding the use of punishment when the children fail to measure up to parental expectations. Punishment for failure to exhibit the desired responses is quite common among persons with such views. In Chapter 4 it was noted that, for both theoretical and empirical reasons, punishment is not a desirable approach to establishing or strengthening responses. Yet establishing or strengthening such behaviors as attendance at Sunday School and church, Bible reading, and so on are the major goals in this context. This section will examine some of the biblical teachings that support the use of reinforcement in developing and maintaining religious activities and behaviors.

Harold Cohen, Director of the Institute for Behavioral Research, suggests that there is basically nothing new in the application of behavior principles. "They are just grandma's rules. It's like gravity. We are just trying to use them systematically. . . . God was the first behaviorist with his 'thou shalt and thou shalt nots' . . . we are just trying to make it science."<sup>3</sup> Cohen may have been more than a little flippant when he made these remarks, yet there is good biblical support for such a view.

The biblical account of the Fall reports that one of the consequences of this event was the establishment of a general principle that one must work to eat: "By the sweat of your brow you will eat your food until you return to the ground. . . ."<sup>4</sup> This principle is repeated in the New Testament: "We gave you this rule: 'If a man will not work, he shall not eat.'"<sup>5</sup> In this context, food and eating should not be taken too literally. A general principle is being advanced that we are expected to work to earn those things that meet our needs and provide for our livelihoods. Since food, shelter, and warmth are some of the basic reinforcers identified by behavior theorists, we can interpret this to mean that God has established a system in which reinforcement principles are an intrinsic part of the created order and of his plans for its operation.

One of the principles given as part of the Old Testament law was the instruction, "Do not muzzle an ox while it is treading out the grain."<sup>6</sup> Elaborating on the significance of this teaching, in the

New Testament we learn of several additional implications: (1) the plowman plows and the reaper reaps in hope of sharing in the harvest; (2) the priest who works at the altar shares in the offerings as his food; (3) those who preach the gospel should receive their living for doing so; and (4) most generally, the laborer is worthy of (deserves) his hire.<sup>7</sup> These teachings provide support for the thesis that biblical principles are compatible with reinforcement theory.

Along with the giving of the Law in the Old Testament, God promised that there would be consequences for obeying or failing to obey his Words. These consequences are most summarily presented as the blessings and cursings. Essentially, if the Israelites obeyed God, he would bless (or reinforce) them; conversely, if they disobeyed, he would curse (or punish) them. The blessings included abundance of rain and bountiful production of their crops, increase in cattle and flocks, many children, victory over their enemies, and health and long life in the land God was about to give them. The cursings included drought, crop failures, disease and death among the cattle and flocks, defeat at the hands of their enemies, disease, famine, plague, personal suffering, early death, and expulsion from the land God was about to give them.<sup>8</sup> Thus the notion of God as a reinforcer may seem a bit strange to many of us; but it certainly is not inconsistent with the biblical picture to view God in this way.

In the Authorized Version, the words "reward," "rewarded," "rewarder," and "rewardeth" occur eighty times—forty-two in the Old Testament and thirty-eight in the New Testament.<sup>9</sup> In the Old Testament, "The concept of (reward and punishment), once expounded [is] the core and center of the view of history, as may be seen with particular clarity in Judges. The whole course of [Israel's] history is schematically understood in terms of national sin and divine punishment, national conversion and divine aid."<sup>10</sup> This basic theme is presented in the book of Job, considered by many to be the oldest book of the Bible: God rewards the righteous and punishes the wicked.<sup>11</sup> However, even in Job we see this thesis in tension with a second thesis, that of God's sovereignty and freedom to accomplish his own purposes.<sup>12</sup> Thus, while it was commonly believed (and indeed may be generally true) that God rewards righteousness and punishes sin, there are clear teachings in the Old Testament that this is not a universal principle.

The principal word that has been translated as "reward" in the New Testament derives from a Greek word (*μισθος*) that connotes pay for services, good or bad; it occurs thirty times in the New Testament and is variously translated "hire" (three times) "wages" (three times), and "reward" (twenty-four times).<sup>13</sup> The bulk of the New Testament references to rewards deal with the blessings that God will provide to those who love and serve him, or with the judgment that he will pronounce on those who refuse his call and commands.<sup>14</sup>

Another basic teaching of the New Testament Scripture is that it is God's purpose to give "abundant life." This does not necessarily mean two cars in every garage, or a chicken in every pot. Rather, God's purpose is to provide those qualities that are uniquely associated with the presence of his Spirit abiding in a person: love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, and self-control.<sup>15</sup> However, this need not be viewed as a negation of behavior theory. Many of these qualities may be seen as personal values (e.g., joy, peace) or social values (e.g., kindness, self-control), and thus as acquired reinforcers. Indeed, some of these reinforcers may be more important than primary reinforcers for persons whose basic needs may have been met. Further, God is concerned about and promises to provide for physical needs of food, clothing, and shelter.<sup>16</sup>

In summarizing the biblical teachings on this issue of reward and punishment, several general principles emerge. First, *in general, God rewards good and punishes evil here and now*. Second, *God is sovereign*, and does everything according to his purpose and will.<sup>17</sup> Because God is in control of all things, at times it may better suit his ultimate purpose to delay the consequences of good or evil; God may do this out of mercy, or for other specific objectives.<sup>18</sup> Third, *God will ultimately reward each person according to his or her deeds*: those who accept God's provision of salvation in Jesus Christ will be held blameless for sin and rewarded for service; those who refuse salvation will be judged according to their deeds and reap their just rewards of everlasting punishment.<sup>19</sup> Fourth, *the biblical teachings regarding reward and punishment have a dual significance, including both immediate rewards and punishment and ultimate rewards and punishment*.<sup>20</sup>

We see a clear convergence between scientific and biblical evidence at this point. Study of human and animal behavior reveals

that we are responsive to the reinforcing and punishing events which follow our behavior. Examination of Scripture reveals that God reinforces and punishes behavior in keeping with his own plans and purposes. According to the thesis stated earlier, God made a world in which obedience to his will is reinforced, and failure to obey is punished, in the normal course of events, through the unfolding of the natural processes of the created order.

### **THE ROLE OF THE HOLY SPIRIT**

When the application of behavioral principles in a Christian context is suggested, one of the first questions that arises is that of how the Holy Spirit fits into the picture. Isn't Christian growth a result of the ministry of the Holy Spirit? When we use behavioral approaches, aren't we adopting human methods instead? The answer is yes . . . and no. In Chapter 3 we saw that most processes and events in the course of our daily experience involve God at work by means of natural processes. These same principles are fundamental in Christian education and in pastoring and evangelism.

Most of us recognize that God works through means when we advocate a consistent "quiet time" as a part of our daily relationship to God and as a means of Christian growth. We know that a basic task of the Holy Spirit is to teach us all things and to help us remember God's commandments,<sup>21</sup> but we are also instructed to study, and to meditate on God's word day and night.<sup>22</sup> Similarly, we know that God's word is quick and powerful, and accomplishes his purposes,<sup>23</sup> that we are to cultivate our own salvation with fear and trembling, and that it is God's work in us (by the Holy Spirit) that gives us both the desire and the capacity to please him.<sup>24</sup>

We are coworkers together with God;<sup>25</sup> our ability to work is God-given, as are the tools of the work, including the behavioral approaches we have been discussing. God expects us to use the various resources he has provided to accomplish the tasks he has given. As we do our part, God is active, sustaining the universe and all its natural processes; God is also active through the ministry of the Holy Spirit and the power of prayer. Thus Paul says, "I have planted, Apollos watered, but God gave the increase."<sup>26</sup> Thus the application of behavioral principles in Christian education is not

an alternative to God's working through the ministry of the Holy Spirit; rather, they may be two aspects of the same process.

For example, there are several elements involved in growing in the wisdom and knowledge of God, including, reading, studying, memorizing, and meditating on God's word. Behavioral principles may be used as we seek to do our part in these processes, but at the same time, God is at work. A problem develops whenever we seek to use behavioral principles apart from a saving relationship with God and a commitment to serve and obey him. The Bible is very clear that God's standard involves our inner commitment to him, not the outward behaviors we manifest.<sup>27</sup> Two people may exhibit the same behavior, one out of an effort to earn God's favor by works righteousness, and one as an expression of love and gratitude to God for his free gift. The former is condemned already,<sup>28</sup> while the latter is granted God's favor. In the application of behavioral principles in the Christian education context, we must not forget this reality.

## **PRACTICAL APPLICATIONS IN CHRISTIAN EDUCATION**

### **PERSONALIZED INSTRUCTION**

A basic principle of the behavioral approach is the notion that learning requires active participation: learning is doing. One example of the application of behavioral technology to education is the development of the "Keller Plan" or the "Personalized System of Instruction," often referred to as PSI. This plan includes replacing the lecture with a more individualized approach that involves the following elements: (1) stress on presentation of material in written rather than lecture form; (2) permitting students to progress through the material at their own pace, rather than at a pace and time set by the instructor; (3) emphasis on mastery of the material rather than giving a grade based on degree of learning; (4) use of lectures and demonstrations as reinforcement for progress through the curriculum, with attendance optional; and (5) use of proctors to facilitate repeated testing and immediate reporting of test results.<sup>29</sup> The PSI approach has enjoyed widespread adoption and application in a variety of disciplines, and experimental study shows it to be superior to more traditional methods in a number of

ways.<sup>30</sup> A journal publishes experimental studies and new applications of PSI, and several national conferences on PSI have been held.<sup>31</sup>

While I am not aware that they have been entirely adopted in any Christian education programs, some features of PSI have been incorporated in several programs.\* For example, in the Reach Out program, class sessions are structured in such a fashion that attendance at the lecture session (whether live or by tape recording) is noncontingent, but participation in the discussion sessions that follow the lecture requires having completed a homework assignment. Essentially, participation in discussion is used as a reinforcer contingent on preparatory study.

Although adoption of PSI principles in Christian education is currently limited, further development along these lines holds a great potential for enhancing the effectiveness of the church's educational programs. It is interesting to note that the use of proctors in PSI parallels the biblical idea of teaching biblical principles to those who will in turn become teachers of others.<sup>32</sup> There is some data to suggest that teaching others may enhance learning on the proctor's part as well.<sup>33</sup>

A common problem in Christian education is dealing with students who come from different backgrounds and who have significantly different levels of biblical knowledge. Since most Sunday Schools are organized by age groups, this is especially a problem with older children, and to some degree with adults as well. When two twelve-year-olds—one of whom has been actively involved in Sunday School for several years and the other of whom has just begun to attend—are placed in the same class, a serious problem is presented for the teacher in providing material at a suitable level for both children. Some of the elements of PSI or similar individualized instruction procedures could profitably be employed in making the Sunday School curriculum most beneficial for children or adults with widely differing levels of biblical knowledge.

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\* The traditional Sunday School approach, in which most individuals come with no specific preparation to listen rather passively to a lecture, can be greatly enhanced in effectiveness if some of these principles are utilized.



#### SETTING OF THE OCCASION

One way in which the probability of responses may be altered is through the use of setting of the occasion. One example of the application of the principle is the inductive Bible studies that are conducted as Friendship Bible Coffees by such groups as the Christian Business Women.<sup>34</sup> Typically, these are neighborhood home Bible studies. The invitation to attend is personal, thus there are implied social consequences for being present. Attendance is further ensured by making refreshments available. These events serve primarily to reinforce being *present*, not Bible study as such. However, once present, with several other persons also present for the explicit purpose of Bible study, actual study is much more likely to occur than without these elements. Personal involvement in Bible study is accomplished by structuring the study sessions in such a manner that a significant portion of the time is devoted to actual reading of Scripture by the attenders. This is followed by a structured, and sometimes open, discussion of the material that has been read.

#### REINFORCEMENT FOR STUDY

If study outside of the setting in which formal meetings are held is desired, some procedure other than setting the occasion is required. One approach that has been adopted by Reach Out ministries provides explicit reinforcement for study behavior that somewhat parallels the PSI procedure described above. In the Reach Out method, attendance at a lecture is open to all. Following the lecture, a discussion session is held; a completed homework assignment serves as a ticket to participate in the discussion.<sup>35</sup> In this procedure, the discussion serves as a contingent reinforcement for completing the study assignment; of course, those individuals for whom participation in the discussion is not an effective reinforcer will not do homework.

#### SELF-CONTROL PROCEDURES IN BIBLE STUDY

One of the traditional problems with personal Bible study is that of motivation. Although one's intentions may be good, it is another matter to consistently apply oneself to reading and study of Scrip-

ture. One person I know has found a way to improve his Bible study activity by using what has been termed a "self-control" procedure.<sup>36\*</sup> This individual ensures consistent Bible study by taking duties as a Sunday School teacher. Here a differential reinforcement/punishment contingency applies. Coming to class unprepared on Sunday is punished by embarrassment, while being adequately prepared is reinforced by the social responses of those in the class. In this manner, he is encouraged to maintain a consistent practice of Bible reading and study.

A second approach, which is similar to this except in scope, involves two individuals agreeing together to do a specified amount of Bible study, then to meet together to discuss the content of the material. Here the commitment is mutual and individual, but the same principles apply. The social responses of the partner are the major consequence that maintains the study activity or differentially punishes failure to study.

#### REINFORCING BIBLE MEMORY

One method of using reinforcement procedures to promote Bible memory is that of the Bible Memory Association. In this procedure, the individual signs up to take a Bible memory course and pays a small fee. During a specified time period, the person memorizes a given number of Bible verses focused around a particular theme each week for twelve to fifteen weeks. Prizes are awarded to the person following completion of each three weeks of memorization. In addition, children who complete an entire book earn the privilege of attending summer camp at a reduced rate. Recital of verses accurately and completely is required before entry into camp, thus serving as an occasion for review and providing contingent reinforcement for the performance.

One family I know has adopted another variation of this approach. In this family, dessert with the evening meal has been

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\* Although the notion of self-control is inconsistent with behavior theory (it is analogous to the concept of a perpetual-motion machine in physics), the widespread use of the term "self-control" makes it convenient to continue talking about it here. Theoretically, however, the responses involved are viewed as part of an operant response chain, which ultimately has explicit environmental consequences that play a vital role in maintaining the entire chain of behavior.

made contingent on recital of Bible verses. A family dinner together provides the occasion, but dessert is given upon accurate recitation. The family works on this project together. In this example, several of the principles that we have been discussing are illustrated. The evening meal sets the occasion, dessert provides a contingent reinforcement, and other family members serve as models and social reinforcers for the behavior of learning and reciting Bible verses.

#### USING NATURAL REINFORCEMENT

Psychologist C. B. Ferster has distinguished between "arbitrary" and "natural" reinforcers. Natural reinforcers are those which normally occur in a given situation, while arbitrary reinforcers are specially arranged for the situation. For example, being warm outside on a cold day is a natural reinforcer for wearing a coat, hat, and gloves. Being given a candy bar by mother for putting on these garments before going out is an arbitrary reinforcer.<sup>37</sup> One of the concerns that must be faced in establishing reinforcement procedures for Bible reading, study, and memorization is the degree to which the reinforcers that are used in maintaining these behaviors are natural rather than artificial. The danger to be avoided is the problem associated with the expression "rice Christians."

In the examples we have just discussed, the response of a Sunday School class to the preparation of the teacher is a natural reinforcer. Similarly, permitting discussion of the material only if preparation is completed is a relatively natural reinforcer. To some extent, dessert for Bible memory is less natural, though it is still a regular feature of the home environment. In setting the occasion, food is used to reinforce attendance, while social contingencies maintain Bible study. Both of these are relatively natural contingencies since they are common features of the social environment. The Bible Memory Association procedure of providing books and rewards for memorization is less natural, since BMA is virtually the only organization that reinforces Bible memory in this way, and it is further limited to twelve to fifteen weeks per year. Perhaps the most useful way to approach this issue is to make it a goal to develop applications of behavioral methods to Christian education that more closely approximate natural reinforcers in prefer-

ence to more arbitrary reinforcers. A second helpful strategy is to use relatively arbitrary reinforcers to develop new responses, which can then be maintained by more natural reinforcers.

#### PREFERRED ACTIVITIES AS REINFORCERS

The Premack Principle, which was discussed in Chapter 7, can also be usefully employed in the Christian education context. An example of the application of this principle would be to tell the children in an elementary Sunday School class that, "When you have all finished in your workbook, we will play a game." In applications with youth and adults, this principle suggests that refreshments be served *following* Bible study; this method would minimize the problem sometimes encountered with teenagers who come for the food and then vanish before Bible study begins.

Another application of this approach, which is employed by the Christian Service Brigade program, is to make special outings contingent upon completion of achievement. In Brigade, achievement involves physical fitness, learning about nature and camping, and Bible study. Thus Bible study and other elements of the achievement program are reinforced by the opportunity to participate in a highly enjoyable—and hence reinforcing—activity.

A third application of the principle of using preferred activities as reinforcers is demonstrated in a procedure for ending class sessions with a minimum of uproar. Most children are eager for classes to end and to be allowed to go to recess, lunch, or other forms of play activities. Being released to begin these activities, then, may be used as a reinforcer for desired behaviors in the classroom setting. The most common way in which this contingency operates is for permission to leave the classroom to be given contingent upon the entire class being seated quietly. In this way the tendency for the class to gradually become louder and more disorderly just before release is differentially weakened, and quiet, orderly behavior is reinforced.

A final observation about the use of preferred activities as reinforcers is that it generally involves relatively natural reinforcers rather than arbitrary reinforcers, since the activity used as a reinforcer is often a naturally occurring event in the educational setting.

#### LEARNING RELIGIOUS CONCEPTS

One of the basic difficulties in Christian education, especially for younger children, is related to the complexity of religious concepts. Is it possible for a two-year-old to grasp the concepts of God, salvation, sin, and so on? What about a child of five? If these concepts are beyond the child's comprehension, what can be taught? In approaching the answers to these questions, some understanding of the nature of concepts and the processes by which they are learned may inform and guide us.

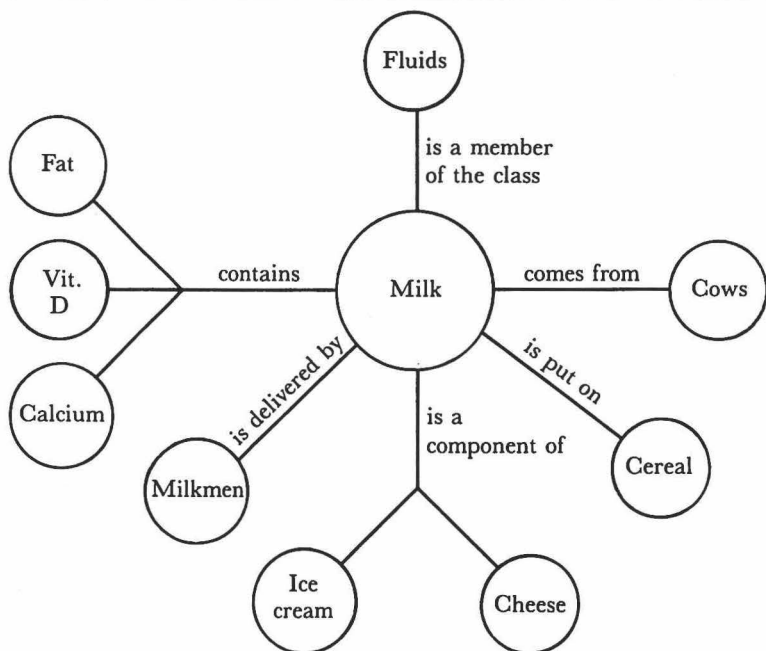
#### *Definition of a Concept*

Concepts are not just simple discriminative stimuli. With discriminative stimuli, the presence or absence of the stimulus is all that matters. With concepts, the controlling relationships are more complex. Conceptual behavior, or abstraction, is a more complex form of discrimination in which behavior comes under control of critical dimensions of a stimulus (e.g., hue, light intensity), complex relationships among various components of the stimulus complex (e.g., triangularity), or joint control of two or more stimulus elements (e.g., shape, orientation). Other classes of conceptual behavior involve a number of diverse stimuli coming to control a given response (e.g., saying "six" when exposed to 6, VI, and so on).<sup>39</sup>

#### *Example of a Concept*

One example of a concept is "milk." Acquisition of the concept "milk" is a gradual process that we undergo over a period of time during the developing years. As children, we learn to say "milk" when hungry or thirsty. Later, we learn that milk is one of several fluids that may be drunk, and learn to recognize and distinguish it by its taste and its white color. Still later, we learn that milk comes from the supermarket in a carton or bottle, that milk comes from cows, and so on. Still later, we learn that cheese, ice cream, butter, cottage cheese, and other dairy products come from milk. At this point, we could be said to have a fairly complete concept of milk. For persons who grow up on dairy farms, or who work in processing milk, however, the concept of milk is further developed through learning the specific butterfat content of various milk and dairy

Figure 8-1. A Schematic Representation of the Concept "Milk"



SOURCE: J. R. Millenson, *Principles of Behavioral Analysis*, copyright © 1967, 1979, J. R. Millenson, p. 314.

products, the techniques for processing and handling milk and so on.<sup>40</sup>

### ***Application of Concept Learning in Christian Education***

It should be clear from what we have said so far that much of Christian education involves the learning of concepts: God, sin, love, Satan, salvation, miracle, and so on. *Concept development is a process* that takes place over time, and is enhanced by exposure to a wide range of experiences with examples and counterexamples of the concept. *Concept acquisition*, or abstraction, is largely a verbal process; however, it is important that connections be established between verbal and nonverbal experiences, especially with younger children.<sup>41</sup>

The process of concept acquisition begins at a very early age,

probably before the child has much spoken language. Just as the concept of milk is gradually developed over a period of years, so spiritual concepts can be developed gradually over a period of time. This implies that we can, indeed should, begin religious training very early. In early aspects of the development of religious and spiritual concepts, effort should be made to focus on the most immediate and general concepts, the ones that are most meaningfully connected to the child's daily life. Moreover, the instruction should be a natural part of the child's daily activities, intimately tied to his or her ongoing experiences.<sup>42</sup> One example of a place to begin is with the existence of God, and the idea that God loves us. We must recognize that development of concepts is a continuing process, and should expect errors in use of the concept for a fairly long period of time. Connections between words and daily experiences must be made in a number of ways. For example, in teaching about God's love:

Mommy loves you. That's why she	gives you food plays with you, etc.
Daddy loves you too. That's why he	takes you for a walk helps you get dressed, etc.
God loves you too. That's why he	made Mommy and Daddy to take care of you made the sunshine and rain, etc.
Who loves you?	"Mommy loves me"
Who else loves you?	"Daddy loves me"
Who else?	"God loves me"

This is just the beginning, but in this process the child is beginning to learn about God and about love. Naturally, there is much more to be learned in each of the concepts; this must follow in later parts of the curriculum for Christian education. But the principles of relating what children are learning to what they know and experience must be followed throughout, and the view that learning a concept is a cumulative process must be kept in mind. There are several implications of the notion of concept acquisition in Christian education. First, it suggests that we begin the process of learning basic concepts at an early age. This includes the memorization of some basic Scripture passages. A second is that we must recognize that, while children may have memorized John 3:16, they may

not understand it; they may not know much about who God is, what it means for God to love the "world," what a begotten son is, and so on. If they do not understand these concepts, they will need to learn them later on. But you must start somewhere. The challenge, then, is to start at points where it is possible to make connections most quickly and readily to experiences children have already had. Third, the process of concept development needs to go on continuously and may never be complete. Fourth, the Christian education curriculum must be designed in ways that systematically foster the elaboration and development of elementary concepts into more complete concepts as children develop intellectually and spiritually.

A problem is posed for Christian education by the fact that cognitive and spiritual maturity need not go on at the same pace; this is particularly true for persons who enter the Christian education program after intellectual development is well begun. This means that Christian education materials must be suited not only to the person's level of intellectual development, but also to his or her level of spiritual development.

#### PLANNING INSTRUCTIONAL GOALS

A behavioral approach to instruction may also be helpful in developing clear educational objectives. Such objectives, from a behavioral perspective, focus on the behavior of the student rather than on what the teacher does. Thus, "The student is able to explain the nature of the relationship between God the Father, Jesus Christ, and the Holy Spirit" is an example of a behavioral objective, while "presenting the doctrine of the trinity" is a teacher behavior. This distinction becomes important when we realize that it is possible for the teacher to present the doctrine of the trinity without the student being able to explain the essential relationships. Different approaches to teaching may be required, depending on which of these goals is adopted. If our Christian education is to be effective, it seems, we must begin to focus on the students and what they are able to do, rather than on the teacher or the material that is presented.<sup>43</sup>

#### SOCIAL INFLUENCE PROCESSES

It is sometimes said that "as much is caught as taught." This principle needs to be recognized clearly in the Christian education



process. The question of social influence has been studied most extensively by psychologist Albert Bandura, from whose work emerge several principles regarding the ways in which social influences operate. First, Bandura suggests that observing the behavior of a model can have three effects: (1) acquisition of new responses; (2) strengthening or weakening of inhibitory responses; and (3) facilitation of previously learned responses. A number of factors affect the degree to which the behavior of a particular model will affect the observer. These include reinforcing and punishing consequences to the model; reinforcing and punishing consequences to the observer; social power, ethnic background and intellectual and vocational status; and presence of more than one model.<sup>44</sup>

One of the more interesting findings to emerge from the study of modeling and "vicarious processes," as Bandura terms them, is the discovery that fears can be eliminated if the fearful person is able to observe others deal with feared situations in a matter-of-fact way.<sup>45</sup> One example of the practical application of this principle in the Christian education context lies in teaching the principle of putting trust in God rather than worrying.<sup>46</sup> One of the best ways to teach this principle to others is for them to observe upsetting situations in the lives of fellow Christians, and see them deal with these situations in a biblical manner. This may be an example of the practical significance of the biblical teaching that believers are to make a practice of meeting together in fellowship.<sup>47</sup>

Perhaps one of the most basic areas of application of the principles that Bandura has discovered is in the teaching of biblical principles in the home. The Bible clearly teaches that training children to serve God is a responsibility of parents, especially the fathers.<sup>48</sup> We see a caricature of this teaching in the practices of the Jews of Jeremiah's day: "The children gather wood, the fathers kindle the fire, and the mothers knead dough to make cakes for the queen of heaven."<sup>49</sup> Thus one of the most basic implications of research on modeling processes is to suggest that the way parents live has an immense impact on their children, even though they may try to teach their children to live differently. Parents must examine their own behavior to discover whether they, too, are involved in gathering sticks, building fires, and baking cakes to the idols of humanism, mammon, personal prestige, and so on. If they are doing so, they may be certain that their children are learning these practices,

whether they intend them to or not. On the other hand, if children observe their parents truly worshipping and serving God, they will be learning these attitudes and actions.

Bandura and his colleagues, along with Skinner and other behavioral psychologists, suggest that social reinforcement plays a major role in human behavior. Although there seems to be little in the Bible that speaks directly of social reinforcement, we do see instruction to focus our attention on what is good, true, excellent, and praiseworthy.<sup>50</sup> We also see a number of examples of praise in the introductory parts of the Pauline Epistles.<sup>51</sup>

The idea of social influence more generally is seen throughout the Bible. The Jewish people are warned not to intermarry with the inhabitants of Canaan, so that they will not adopt their corrupt religious and social practices.<sup>52</sup> We are warned not to associate with the wicked, sinful, or scornful.<sup>53</sup> We are cautioned that associating with those given to displays of anger is likely to result in learning their ways.<sup>54</sup> On the other hand, we are encouraged to associate with other believers.<sup>55</sup> While the Bible does not explain the significance of these instructions, it is possible that the social influence processes, including social reinforcement, are key elements in the negative or positive effects that such associations with others may have.<sup>56</sup>

One other observation is that, during his earthly ministry, Jesus appointed the twelve disciples "that they might be with him" and be sent out to preach and minister.<sup>57</sup> One way of viewing this action on Jesus' part is as an application of the social influence principles that we have been discussing.

#### DISCIPLINE

There may, on occasion, be the need to use punishment or one of the alternative procedures in dealing with problem behaviors in the Christian education context. One approach to discipline problems merits emphasis. Earlier, it was noted that one way to avoid problem behaviors is to strengthen an incompatible alternative. In the educational setting, evidence suggests that one of the most effective ways of avoiding discipline problems is to make the interest and reinforcement for participation in the educational programs great enough so that learning activities are strong enough to prevent problem behaviors.<sup>58</sup>

### ETHICAL IMPLICATIONS

In evaluating the ethical implications of using behavioral procedures to strengthen attendance and participation in religious activities, it may be helpful to consider the picture of religious ceremony given in the Bible. A study of the Old Testament Jewish worship practices reveals that worship was often associated with feasting, celebration, festivity, and vacation.<sup>59</sup> The Jews, apart from the priests, were virtually all farmers. As such, their regular duties must have included a daily routine of long and arduous work in caring for flocks and cattle, raising crops, and providing for personal and family needs in an agrarian economy. In this context, the worship of Jehovah was associated with rest from their daily labor, assembly with groups of friends and relatives (many perhaps not seen since the previous religious festival), and feasting and celebration. The focus of all this was to be the worship of God; yet a great good time was apparently had by all. Even the poor participated in this merriment through the sharing of the bounty of those whom God had prospered.<sup>60</sup>

The early New Testament church shared some of these same features in the common breaking of bread and sharing of fellowship.<sup>61</sup> Thus the picture that emerges from a study of the Bible is that the mingling of worship, celebration, feasting, and fellowship seems to be a normal part of the life of the church.

Taking these observations together with our previous discussion of reinforcement and Bible teachings, it would appear that *the use of reinforcement procedures as a method of increasing involvement in Bible reading, Bible study, and Christian education is consistent with biblical teachings* both in terms of the means as well as the goals of the process.

### GOD AND BEHAVIOR PRINCIPLES: A WORD OF CAUTION

This chapter has discussed a variety of ways in which behavioral approaches can be used to enhance the effectiveness of approaches to Christian education. It should be understood that the examples presented are illustrative and not exhaustive. Moreover, this is an area in which much fruitful theorizing and research still needs to be conducted. Several precautionary comments should be made at

this point, however, in order to put the application of behavior principles into proper perspective.

First, merely exhibiting certain behaviors is not an adequate indication of a proper relationship with God. The Bible places emphasis on a "heart" that is right with God. At the same time, however, we need to remember that the holistic approach to human nature—which seems to be a biblical emphasis—suggests that there is an intimate connection between behavior and attitude. This is confirmed by teachings about the relationship between faith and works in James and 1 John.<sup>62</sup> It should be kept in mind that the desire to behave in ways that please and honor God grows out of a personal commitment and relationship with God. Behavior principles may then be employed as a means toward "work[ing] out your salvation with fear and trembling."<sup>63</sup> The picture, then, is not of behavioral principles producing Godliness, but of a person with a commitment to God employing behavioral principles as a God-given tool that facilitates loving service.

Second, when ethical issues are involved in the application of behavioral principles, it is important to remember that we must be concerned with the ethics or morality of both *means* and *ends*. For the Christian, the Bible is the standard by which both must be scrutinized, and the court of appeal for evaluation.<sup>64</sup>

Third, it should be remembered that God is not impressed with empty words of commitment and devotion to him. Jesus told a parable of two sons whose father asked them to work in his vineyard. One said "no" and stomped off; later he repented and went to work. The second said "yes," but then disappeared and did no work. Jesus indicates clearly that the former approach is more pleasing to God than the latter.<sup>65</sup>

A fourth issue is that manifestation of the fruit of the Holy Spirit necessarily requires the presence of God at work in a person. Otherwise, we have at best fraudulent (plastic) fruit. Again, it must be concluded that no amount of application of behavioral principles will produce true fruit in the absence of God's spirit.<sup>66</sup> We are told that love comes from God; that anyone who loves (*agape*) comes from God and is born of God.<sup>67</sup>

In conclusion, then, the picture is one of *both/and*; both a heart relationship with God and a commitment to Godly behavior, deeds, and actions are to be expected as the outgrowth of a relationship

with God. "For it is God who is at work in you both to will and to work for his good pleasure."<sup>68</sup> It is only in the context of this principle that we can meaningfully talk of the application of behavior principles in Christian education.

## NOTES

1. B. F. Skinner, "Operant Reinforcement of Prayer," *Journal of Applied Behavior Analysis* 2 (1969) 247.
2. For a discussion of ethical issues involved in the application of behavioral techniques, see Craig W. Ellison, ed., *Modifying Man: Implications and Ethics* (Washington, D.C.: University Press of America, 1978), pp. 187 ff.
3. Cited in P. Hiltz, "Mastering Yourself," *Potomac* (April 29, 1973), p. 18; "The Behaviorists," *Ibid.*, pp. 21 ff.
4. Gen. 3:19, NIV.
5. 2 Thess. 3:10, NIV.
6. Deut. 25:4, NIV.
7. See 1 Cor. 9:7-14; 1 Tim. 5:18.
8. See Deut. 28:1-28 for a more complete account of the blessings and cursings.
9. James Strong, *Strong's Exhaustive Concordance* (New York, Nashville: Abingdon Press, 1890).
10. Gerhard Kittel, ed., *Theological Dictionary of the New Testament*, vol. 4 (Grand Rapids, Mich.: Wm. B. Eerdmans, 1967), p. 710. For further discussion of this thesis, see Larry Richards, *Edge of Judgment* (Elgin, Ill.: David C. Cook Publishing Company, 1977), pp. 103 ff.
11. For a discussion of the thesis, "Suffering is caused by sin; Job is suffering; Job has sinned," see Richards, *Edge of Judgment* pp. 101 ff.
12. *Ibid.*, p. 105.
13. Strong, *Concordance*, p. 844; see also #3408 in *Greek Dictionary of the New Testament*, p. 48.
14. See, for example, Matt. 6: 1-6, 16-18; Mark 9:41-43; Luke 6:23-25, 10:8-14, 23:40-41; 1 Cor. 3:7-9; Rev. 22:12.
15. See Gal. 5:22-23 and 2 Peter 1:5-8.
16. Matt. 6:24-34.
17. See Ephesians 1:11.
18. Contrast Gen. 15:16 with Exod. 34:11 ff.; see also Eccles. 8:11-13 and Job 1:6-12, 2:1-6 ff.
19. Compare Matt. 16:27 and Rev. 22:12 with 2 Thess. 1:5-10.
20. For a more complete discussion of the issues involved in God's rewards and punishments, see Kittel, *Theological Dictionary*, pp. 695-728.
21. John 14:26.
22. 2 Tim. 2:15; Psalm 1:1; Deut. 6:4-9; Josh. 1:7-8.
23. Heb. 4:12; Isa. 55:11.
24. Phil. 2:12-13.
25. 1 Cor. 3:9.
26. 1 Cor. 3:6, NIV.
27. 1 Sam. 16:7; Matt. 23:25-33.
28. John 3:17-18; 1 John 5:11-13.

29. Fred S. Keller and James G. Sherman, *The Keller Plan Handbook* (Menlo Park, Cal.: W. A. Benjamin, 1974.).
30. See S. M. Austin and K. W. Gilbert, "Student Performance in a Keller-Plan Course in Introductory Electricity and Magnetism," *American Journal of Physics* 41 (1973): 12-18; D. G. Born, S. M. Gledhill, and M. L. Davis, "Examination Performance in Lecture-Discussion and Personalized Instruction Courses," *Journal of Applied Behavior Analysis* 5, (1972): 33-34; J. S. McMichael and J. R. Corey, "Contingency Management in an Introductory Course Produces Better Learning," *Journal of Applied Behavior Analysis* 2 (1969) 79-83.
31. The *Journal of Personalized Instruction* was started in 1976; national conferences on personalized instruction began in 1973. See James M. Johnston, ed., *Behavior Research and Technology in Higher Education* (Springfield, Ill.: Charles C. Thomas, 1975).
32. 2 Tim 2:2.
33. Sarah D. Drass and Reginald L. Jones, "Learning Disabled Children as Behavior Modifiers," in *Special Education in Transition*, ed. Reginald L. Jones and Donald D. MacMillan (Boston: Allyn and Bacon, 1974), pp. 324-334.
34. See, for example, Lucille F. Sollenberger, *Christ in Genesis*, vol. 1 (Kansas City, Miss.: Stonecroft, 1974).
35. Kay Arthur, *The Gospel of John: Precept upon Precept* (Chattanooga, Tenn.: Reach Out, Inc., 1977).
36. See David C. Rimm and John C. Masters, *Behavior Therapy: Techniques and Empirical Findings* (New York: Academic Press, 1974), pp. 275-312; or David L. Watson and Roland G. Tharp, *Self-Directed Behavior; Self-Modification for Personal Adjustment* (Monterey, Cal.: Brooks-Cole, 1972).
37. Arbitrary and natural reinforcement in clinical application are discussed in C. B. Ferster, "Clinical Reinforcement," *Seminars in Psychiatry* 4 (1972): 101-111.
38. See Lloyd Homme, *How to use Contingency Contracting in the Classroom* (Champaign, Ill.: Research Press, 1969), especially see the introduction.
39. Sidney W. Bijou, *Child Development: The Basic Stage of Early Childhood* (Englewood Cliffs, N.J.: Prentice-Hall, 1976), pp. 61-66.
40. J. R. Millenson, *Principles of Behavioral Analysis* (New York: MacMillan, 1967), pp. 287-330.
41. For a further discussion of concept acquisition, see R. Glaser, "Concept Learning and Concept Teaching," in *Learning and School Subjects*, ed. R. M. Gagne and W. J. Gephart (Itasca, Ill.: F. E. Peacock Publishers, 1968), pp. 1-36; Arthur W. Staats, *Child Learning, Intelligence and Personality: Principles of a Behavioral Interaction Approach* (New York: Harper & Row, 1971), pp. 207-222; Wesley C. Becker, "Teaching Concepts and Operations, or How to Make Kids Smart," in *An Empirical Basis for Change in Education*, ed. Wesley C. Becker (Chicago: Science Research Associates, 1971), pp. 401-423.
42. Deut. 6:1-9.
43. Robert F. Mager, *Preparing Instructional Objectives* (Belmont, Cal.: Fearon Publishers, 1962).
44. Albert Bandura, *Principles of Behavior Modification* (New York: Holt, Rinehart, and Winston, 1969), pp. 118-203.
45. Ibid., pp. 175-192.
46. Eph. 4:7-8.
47. Heb. 10:25.
48. Eph. 6:4; Deut. 6:4-9.

49. Jer. 7:18, NASV.
50. Phil. 4:8.
51. For example, see: Phil. 1:3-8; Col. 1:3-8; 1 Thess. 1:2-10.
52. See Exod. 32:10-16, Judg. 3:1-6.
53. Ps. 1:1-3.
54. Prov. 22:24-25.
55. Heb. 10:25.
56. For further discussion of some of these issues, see Rodger K. Bufford, "God and Behavior Mod: Some Thoughts Concerning the Relationships Between Biblical Principles and Behavior Modification." *Journal of Psychology and Theology* 5 (1975): 13-22.
57. Mark 3:14, NIV.
58. Wesley C. Becker, Don R. Thomas, and Douglas Carnine, "Reducing Behavior Problems: An Operant Conditioning Guide for Teachers," in Becker, *An Empirical Basis*, pp. 129-165; see especially pp. 148-151. Some of these issues are also discussed in Don Bushell, Jr., *Classroom Behavior* (Englewood Cliffs, N.J.: Prentice-Hall, 1973), see especially pp. 69-100.
59. See Exod., chapters 12, 13 and 23; Lev., chapter 23; Deut., chapter 16.
60. Deut. 16:9-17; Neh. 8:10-12. For a discussion of the religious feasts of the Jewish people, see Merrill C. Tenney, ed., *The Zondervan Pictorial Encyclopedia of the Bible*, vol. 2 (Grand Rapids, Mich.: Zondervan Publishing House, 1975), pp. 521-526.
61. Acts 2:42.
62. James 2:14-26; 1 John 3:7-10 ff.
63. Phil. 2:12.
64. Rodger K. Bufford, "Ethics for the Mass Application of Behavior Control," in Ellison, *Modifying Man*, pp. 209-214.
65. Matt. 21:28-32.
66. See Gal. 5:22-23; John 15:1-8.
67. 1 John 4:7-8.
68. Phil. 2:13.