

Chapter 26. Moral and Legal Control

FUNDAMENTALS

What's the meaning of life? What's the purpose of life? Every freshman trudges off to college hoping to find the evasive answer (in addition to an improved social life and the skills and/or diploma [union card] needed for that high-paying executive position).

But those students with enough intellectual and self-management skills to make it into their sophomore year find no answer to this question. And by the time they graduate from college, they have learned that a search for the meaning of life is appropriate only for the same greenhorn freshman they now send off in search of sky hooks, left-handed monkey wrenches, and snipes. The graduating senior knows life has no purpose, no meaning.

Well, the humble authors of this book never gave up the search for sky hooks, left-handed monkey wrenches, snipes, or the purpose of life. And now that we've recently discovered that purpose, we'll stop to share it with you, before going on with our search for the left-handed monkey wrench and other illusive goals of the naive.

GOAL-DIRECTED SYSTEMS DESIGN¹

At first, it might seem that the "purpose" of all life is the promotion of its own well-being. As Darwin pointed out, the environment selects the surviving forms of life; and as a result species evolve in ways that support their own continued survival. The losers don't evolve in surviving ways. So the survivors do survive, and the losers don't. And thus we have biological evolution. However, their well-being or even survival isn't the purpose of those surviving forms of life, any more than the

purpose of a wave is to lap against the shore. That's just the way it works.

But we human beings aren't just any life form. We aren't snails. We aren't paramecia. We aren't fungi (the plural of fungus). We're thoughtful, reasoning life forms - at least sometimes. So, though our lives may not have a purpose, they can have.

THE WELL-BEING OF LIFE FORMS (HUMAN, NONHUMAN, AND PLANT)

Regardless of how humanity got here, whether through divine decree or cosmic accident, we suggest that humanity should select as its purpose the well-being of life in the universe. We suggest this, even though a careful analysis shows that purpose doesn't logically follow from Darwin's analysis of the evolution of life forms. We believe human beings can act intelligently enough to select their purpose; and we nominate the well-being of life as the purpose we human beings should select.

Regardless of whether we are now atheists, agnostics, or born-again true believers, most of us have grown up in the context of one or another of the world's great religions. So most of us have acquired learned values (learned reinforcers and aversive conditions) that support the notion that we should work toward the betterment of life on earth.

¹ For an advanced treatment of goal-directed systems design, see Malott, R. W., & Garcia, M. E. (1987). A goal-directed model for the design of human performance systems. *Journal of Organizational Behavior Management*, 9, 125—159.

Definition: Concept

Value

? Learned and unlearned reinforcers
? and aversive conditions.

In other words, most of us find it reinforcing to know life will survive, especially animal life, more especially human-animal life.

(In fact, hidden deep in our value structure is usually a learned bias for the well-being of the human animal that has the same skin color as ours, the same religion, the same nationality, the same profession, and even the same special orientation within that profession. But nowadays, many of us struggle to rise above such a narrow bias, to embrace all humanity, or even all life.)

Some need to resort to enlightened self-interest to justify their concern for nonhuman and plant life. For example, they argue we must care about the survival of the varieties of species in the Amazon rain forest because those species may ultimately help the survival of humanity. Others argue we must care, even if their survival isn't in our self-interest. However, we've heard of few outside of India who argue for the survival of flies and mosquitoes.

So we're willing to admit some arbitrariness about the ultimate goal of the well-being of life in the universe. We're just saying we've been brought up to value that, and we bet you have, too. Here's what B. F. Skinner said on a related theme. He said pity the culture that doesn't convince its young that its survival is of great value, because that culture will be less likely to survive. We're just expanding the concept of culture a bit to include all life. If you find that too much of a strain and want to reduce it to the well-being of humanity, you wouldn't hurt our feelings.

RULES, RESOURCES, AND CONTINGENCIES

Suppose you agree that our ultimate value and goal should be something like the

well-being of life in the universe (perhaps with a special bias toward human life on earth). How do we achieve it? Just letting human nature (the direct-acting contingencies of reinforcement and punishment) take its course ends in wars and rumors of wars, threats of nuclear annihilation, starvation, pollution, destruction of our environment, crime, drugs, and on and on. Darwin's survival of the fittest through natural selection works. But the largest creature fit to survive the havoc we are creating may be the cockroach.

So, in self-defense, we may need to provide guidance to our human nature, as wonderful and as horrible as it is. We may need to design systems that guide humanity toward our ultimate goal - the survival and well-being of life, including our human descendants. We may need to use goal-directed systems design.

Goal-directed systems design assumes that to achieve a goal, you should state that goal and consciously design your systems to achieve that goal. Systems are organizations - the United Nations, the United States, Michigan, Western Michigan University, the Psychology Department, this course, this book, your family, you, your car. Yes, we think of you as an organization and a system; and you can be chair of your board of directors, if you like².

If a system is to do more than float aimlessly through life, it needs a goal, an ultimate value. For example, the goal of the United Nations might be the well-being of life in the universe. Systems need resources to achieve their goals. For example, the United

² **System:** 1. A group of interacting, interrelated, or interdependent elements forming a complex whole. 2. A social, economic, or political organizational form. *The American Heritage® Dictionary of the English Language (3rd ed.)*. Copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation.

Nations may need fruit, vegetables, grain, and agricultural technology to prevent people from starving in some Third World countries. Systems also need rules for the use of those resources. For example, the food must go to the starving but powerless masses. And they need contingencies to ensure that food distributors follow those rules. For example, the local distributors of those resources will lose their privilege of distribution if they don't distribute properly - if they put the food on the black market for the highest bidder.

The system must obtain each of those components - the resources, rules, and contingencies. So all systems, including the United Nations and you and your car, need subsystems. And those subsystems must in turn have clear goals, such as the production of food for the United Nations. And those subsystems also must in turn have resources, rules, and contingencies. On and on, unto to the lowest level: Like who buys the paper clips? Like whose turn is it to run over to the deli and pick up sandwiches for the office staff?

Definition: Concept

Goal-directed systems design

- ? First you select the ultimate goal of a system,
- ? then you select the various levels of intermediate goals needed to accomplish that ultimate goal,
- ? and finally, you select the initial goals needed to accomplish those intermediate goals

As we will see next, legal and moral control involves setting contingencies to get people to use the world's resources (everything from food and other people down to paper clips) so as to contribute to the well-being of life in the universe. In other words, we suggest that legal and moral control is, or at least should be, part of a goal-directed systems design aimed toward the well-being of life in the universe.

QUESTIONS

1. What do the authors suggest is the purpose of life?

- a. Why?
2. Give a few examples of systems.
3. Goal-directed systems design—define it and give a partial example.
 - a. Point out the role of resources, rules, and contingencies.

CONTINGENCIES FOR FOLLOWING THE RULES OF GOOD RESOURCE USE

1. Do you think religion is one of the most important aspects of people's lives?
 - a. yes
 - b. no
 - c. Why?
2. Do you think it's important to understand the role religion plays in people's lives?
 - a. yes
 - b. no
 - c. Why?
3. Do you think it's important to understand the role religion plays in people's lives in terms of the principles of behavior?
 - a. yes
 - b. no
 - c. Why?

Well, that's what we're going to try to do in part of this chapter. But it ain't easy. What we are trying to do is understand how religion works from a behavioral perspective; but, in no sense, do we mean to offend anyone—Christian, Jew, Muslim, Buddhist, Confuciusist, Taoist, agnostic, or atheist.

Concept

LEGAL-RULE CONTROL

Don't dump your toxic waste here, buddy.
Goal: healthy life forms.

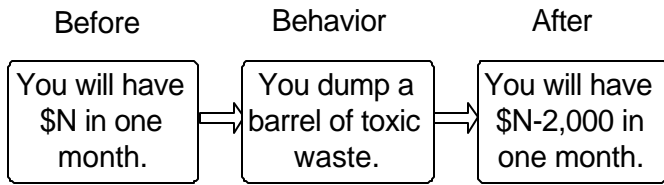
Resource: uncontaminated environment.

Legal rule: Don't contaminate, or you'll be fined.

Legal contingency: a fine — analog to a penalty contingency — punishment by the loss of a reinforcer (dollars).

EFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY:

ANALOG TO PENALTY



This is an example of legal-rule control - the use of added contingencies involving fines, jail, etc.

Definition: Concept

Legal Rule Control

- ? Control by rules specifying added analogs to behavioral contingencies
- ? and added direct-acting behavioral contingencies
- ? based on material outcomes.

Note that the legal contingencies are added to the ineffective natural contingencies. Most often the contingencies are analogs, though sometimes they're direct acting (for example, all curfew violators will be shot on sight is direct acting).

Concept

MORAL (ETHICAL) RULE CONTROL

Ah, there ain't nobody lookin'. So I'll just dump this hazardous waste over here and . . .

STOP!

What? Who's that? Who said that?

This is your conscience, brother. Even when the cops aren't around, I'm always here to keep you on the straight and narrow.

Well, hee-hee, I was just kidding. I wasn't really gonna' . . .

Definition: Concept

Moral (ethical) rule control

- ? Control by rules specifying added analogs to behavioral contingencies.
- ? Such rules specify social, religious, or supernatural outcomes.

This is moral-rule control—the use of added contingencies involving excommunication, heaven, hell, reincarnation into a lower caste, etc.

Note that the moral contingencies are added to the ineffective natural contingencies. Sometimes moral rules are supplemented with direct-acting physical outcomes (for example, the time your mother boxed your ears when she heard you use the Lord's name in vain).

Come on, conscience, it'll cost a fortune to move all these barrels over to an authorized hazardous-waste dump.

Brother, you dump it here and you'll be a polluter.

So?

Polluters are evil people who don't care about anything but the fast buck.

Well, for sure I don't want to be an evil person.

Brother, I knew you'd choose the moral path.

But still, I've only got a few barrels; and that won't hurt much.

NO!

Why not, conscience, just a few barrels?

Because God won't like you. There is no room in Heaven for polluters.

Are you sure, no room for just one or two?

No room for even the little toe of a single polluter. Never!

That's heavy.

ANALYSIS

Yes, when you sin, the outcomes are sizable and certain, even if they are delayed.

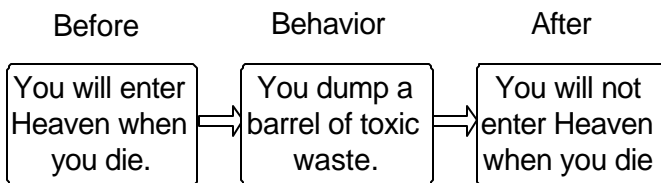
Goal: healthy life forms.

Resource: uncontaminated environment.

Moral rule: Don't contaminate or you'll experience God's wrath.

Moral contingency: an analogue to a penalty contingency—exclusion from Heaven or an analogue to a punishment contingency—time in hell.

EFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY: ANALOG TO PENALTY



This is another example of moral-rule control—the use of added contingencies involving excommunication, heaven, hell, etc.

We started out with this contrived example, but we'll end with some serious questions.

1. Do you think most of the world's religions (or at least yours) contain rules of conduct that are important for the proper functioning and even the survival of society?

- a. yes
- b. no
- c. Why?

2. Do you think those religions also contain some sort of contingencies to support the following of those rules?

- a. yes
- b. no
- c. Why?

3. Do you think our example of the polluter's struggle with her conscience is a good illustration of such a rule and such a contingency?

- a. yes
- b. no
- c. Why?

EXAMPLE OF MORAL-RULE CONTROL³

The hungry Yanomamo hunter goes into the Brazilian forest and bags a monkey. Does he skin it, cook it, and eat it on the spot? No, he takes it back to the village to share with others. Why? Because he believes that if he doesn't he will lose his hunting skills. In some hunting cultures, hunters even insist that everyone else get a piece of meat before they do, again to avoid losing their hunting skills.

This is an example of goals and their needed resources, rules, and contingencies. The goal is the nutritional support of the village. The resource is the scarce animal protein. The rule is share it. The contingency is punishment by the loss of hunting skills if you gobble it down all by yourself.

For another example, look at the Ten Commandments; for instance: Thou shalt not mess around with someone else's husband or wife. The goal is the rearing of

³ ³Based on Malott, R. W., & Kent, H. (1976). The development of moral control. In J. Krapfl (Ed.), *Behaviorism and ethics*. Kalamazoo, MI: Behaviordelia.

children. The resource is the family. The rule is don't endanger it with hanky-panky. The contingency is punishment by the wrath of God, sometimes supported by physical stoning by your friends and neighbors.

LEGAL VS. MORAL CONTROL

Usually legal control works well as long as someone is around to observe the behavior and impose the contingency. But often nobody's lookin' at midnight polluters, or at solitary hunters, or at married people with roving eyes. Moral or ethical control comes in handy in such cases. So social systems need to arrange for individuals to observe their own behavior and apply the punishment and avoidance contingencies (perhaps automatically). That way the social system (society) can get the individual to follow the rules for the proper use of the system's resources, even when no one's looking. Then we can work toward our ultimate goal (the well-being of universal life) during all our waking days; or at least we can avoid working against that ultimate goal.

As we've seen, sometimes moral control works when legal control fails. But the reverse also applies. Sometimes legal control works when moral control fails:

Fellow citizens, you have a moral obligation to your country to preserve our scarce resources during these times of crisis. Therefore, to preserve our oil supplies, I ask that you not exceed 55 mph.

Lots of luck.

Fellow citizens, we have a new law in this great land of ours. Anyone caught exceeding 55 mph will get a traffic ticket. Collect a few of those tickets, and you'll need to dust off your walking shoes, good buddy.

Fellow citizens, you have a moral obligation to your babies and toddlers under four to secure them in an infant or child restraint seat when driving.

Well, I meant to. Be reasonable. I drive carefully. Who are you to tell me what to do? I know what's best for my child, don't I?

Hear ye, hear ye, fellow citizens. It is now a law of the land that all children under the age of four must be buckled into an infant or child restraint seat.

If society can't observe the behavior or its outcomes, it doesn't have much choice but to use moral control. For example, impure thoughts are not illegal, just immoral. If society can observe the behavior and cares about the outcome, it uses legal control. For example, letting your parking meter expire won't cause you to go to confession, but it might cost you a buck or two. If sometimes society can observe the undesirable behavior and sometimes it can't, then society often uses both moral and legal control. For example, stealing may send you both to the confessional and to jail.

When Society Cares About the Outcome of a Behavior	
<i>And the behavior is</i>	<i>Society Uses</i>
Observable	Legal Control
Not observable	Moral Control

THE COSTS AND BENEFITS OF MORAL CONTROL

Moral Control Is Hard to Establish and Maintain.

For example, to establish and maintain something that even approximates moral control, the Jewish culture needs the Old Testament and the Christian culture needs both the Old and New Testaments. These cultures also need the continuous efforts of the rabbis with their synagogues and the priests and ministers with their churches.

Religion battles eternally with harmful direct-acting contingencies—those that lead to the misuse of resources (often human resources), direct-acting contingencies that will destroy the temple of our bodies—drugs of a rapidly increasing variety, from caffeine

and nicotine through alcohol and on to crack. Religion battles eternally to prevent the powerful from exploiting the powerless (except when a representative of religion has been bought by the powerful; then religion's function reverses).

Moral control is hard and costly to establish, hard and costly to maintain, and often fails. But when no one else is looking but you and your conscience or you and your God, moral control earns its keep. The world would be in an even greater mess if we didn't have these moral contingencies.

THE COSTS AND BENEFITS OF LEGAL CONTROL

For moral control to work, the social system must establish a special learned aversive condition—the thought of the wrath of God or the thought of the wrath of your parents. And those thoughts must be aversive, even when no one's looking. Such an effective aversive condition is hard to establish and hard to maintain.

Getting people to memorize the specific commandments or rules is easy. The hard part is putting teeth in the bite of those commandments. The hard part is arranging learned aversive outcomes for noncompliance with those rules. Don't be selfish. That's easy for people to memorize. If you are selfish, you will be no more likely to pass through Heaven's gates than would a camel to pass through the eye of a needle. Getting people to accept that rule is the hard part, especially when being selfish generates so many sizable, probable reinforcers.

Sometimes it's easier to establish legal control because it's fairly easy to establish the fear of legal outcomes as learned aversive conditions: Steal this, buster, and we're throwing your rear in jail. Children needn't go to Sunday school for 6 years to establish the possibility of jail as an aversive condition. And the parents needn't go to church the rest of their lives to maintain the possibility of jail as an aversive condition. As

long as jail is a highly probable outcome, rules involving it control behavior well. Of course, it all falls apart when jail is improbable.

However, there's a tradeoff. True, it takes most of the efforts of organized religion to establish and maintain our sensitivity to the reinforcing and aversive values of religious outcomes. But all it takes is God or our conscience to monitor compliance with those moral rules, once religion has established a conscience or a belief in God. And we needn't pay taxes to support God or our conscience (though we must financially support religion's efforts to maintain our sensitivity to the reinforcers and aversive conditions associated with religious moral rules).

But we do pay heavy taxes to support the police and the judges. Also it may not cost us much to establish the thought of jail as an aversive condition, but the jails and prisons themselves add a heavy tax burden. By contrast, we don't have to pay taxes for the maintenance of Heaven and hell; we just have to support religion's efforts to establish and maintain our belief in them.

	Drawbacks	Benefits
Moral Rule Control	Aversive control is hard to establish and maintain	Easy for God to monitor compliance with moral rules.
Legal Rule Control	Expensive to monitor compliance with rules Getting caught is often improbable	Easy to establish jail as an aversive condition.

RESPECT FOR OTHER PEOPLE'S VIEWS

We have three different but overlapping groups of readers for this book—believers, atheists or agnostics, and behaviorists; some behaviorists are believers and some are atheists or agnostics. We want to remain friends with all of them.

We have the greatest respect for and appreciation of religion. In no way are we criticizing organized religion. We are simply analyzing one of the crucial contributions of organized religion. We are trying to understand the contribution of religion to the material well-being of humanity; others have written more effectively than we could about the contribution of religion to the spiritual well-being of humanity. Some of our best students think we should not include an analysis of the behavioral processes underlying the material contributions of religion; other of our best students think this is the most important part of our book. It ain't easy; but we're doing our best to keep everyone happy without shirking our responsibilities to point out this important intersection between behavior analysis and religion⁴.

On the one hand, we are not challenging traditional views of Jesus, God, the devil, Heaven, and hell. On the other hand, we are not endorsing them. Challenging or endorsing these views is not the point of this chapter. We are simply looking at part of the profound impact these religious views have on humanity. And we are simply trying to understand the psychological (behavioral) processes through which these views have their impact.

Also, some behaviorists may be suspicious of our use of the mentalistic term conscience. We may seem to be losing touch with our behavioristic

⁴ We've asked some professors of religion about the appropriateness of this topic and they thought that the topic was interesting and important. One in particular thought that an important benefit to society of religion is moral control; and he believed, as we do, that moral control is primarily based on aversive control. He told us that our presentation of moral control can be applied to most religions without dismantling their belief systems.

base. No. We just mean self-observation, self-evaluation, and rule control. We're using poetic license only to keep things flowing. Just consider us to be scientists trying to get across complex concepts and analyses without putting our readers to sleep.

THE AVERSIVE BASIS OF MORAL AND LEGAL CONTROL⁵

THE MODEL OF RELIGIOUS CONTROL.

We should note that the contingencies described in this chapter are generalized forms of moral and legal control and that cultures vary in the specifics of moral control. The use of heaven and hell as a form of moral control comes from Judeo-Christian traditions. And we write within this context because most of the readers of this text are familiar with the concepts of Heaven and hell. However, in some cases, aspects of moral control may be more complex and subtle than we indicate here. Even agnostics and atheists are affected by the moral contingencies in their cultures. Although they may not believe their behavior has religious consequences, their morality is usually similar to that of their religious peers. Agnostics and atheists refrain from stealing, lying, killing, etc., just as the religious do.

⁵ We've asked some professors of religion about the appropriateness of this topic and they thought that the topic was interesting and important. One in particular thought that an important benefit to society of religion is moral control; and he believed, as we do, that moral control is primarily based on aversive control. He told us that our presentation of moral control can be applied to most religions without dismantling their belief systems.

WHY DO WE NEED HELL TO HAVE MORAL CONTROL?

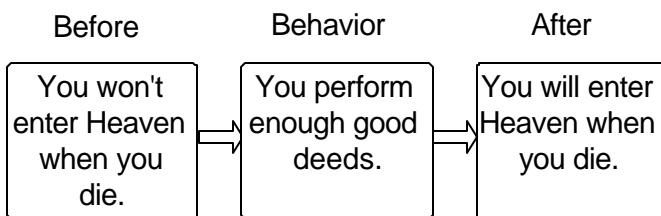
Why aren't the promises of Heaven enough to produce moral behavior from believers? Why do we need the threat of hell, as well? Why must aversive control play such a large role in our moral contingencies?

To be functional, it may help that religion invokes the threat of hell. Here's the problem with using rule-governed analogs to reinforcement based on the promise of rewards in an afterlife such as access to Heaven. Procrastination! We can always postpone that difficult walk on the razor's edge that leads to Heaven. We can always sin today and struggle up the straight, narrow, and steep road to Heaven tomorrow, or maybe the day after tomorrow. But rule-governed analogs to punishment and avoidance often control our behavior more reliably than rule-governed analogs to reinforcement. Why? Because they don't let us procrastinate our lives away in sin.

For example, this rule won't control our behavior very well: Perform many good deeds and you will spend eternity in Heaven. Why not? Because the statement of that rule does not make noncompliance a very aversive condition. It allows us to cop out and procrastinate. It allows us to say, I am too busy to perform any good deeds right now, but I will perform them when I get time. This is an ineffective rule-governed analog to reinforcement by the presentation of a reinforcer.

INEFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY:

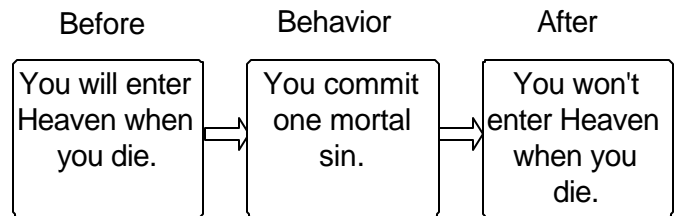
ANALOG TO REINFORCEMENT BY THE PRESENTATION OF A REINFORCER



But what about this rule? Commit a single mortal sin and you will definitely spend eternity in hell. The statement of that rule does make noncompliance a most aversive condition (for believers). This is an effective rule-governed analog to punishment.

EFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY:

ANALOG TO PUNISHMENT



WHAT IS THE ROLE OF HEAVEN IN MORAL CONTROL?

But, you might say, moral control isn't all that aversive. People think of Heaven as an afterlife rich with reinforcers. We would agree that Heaven, rich with reinforcers, is crucial to moral control, but not because Heaven is the end result of procrastination-tolerating reinforcement contingencies.

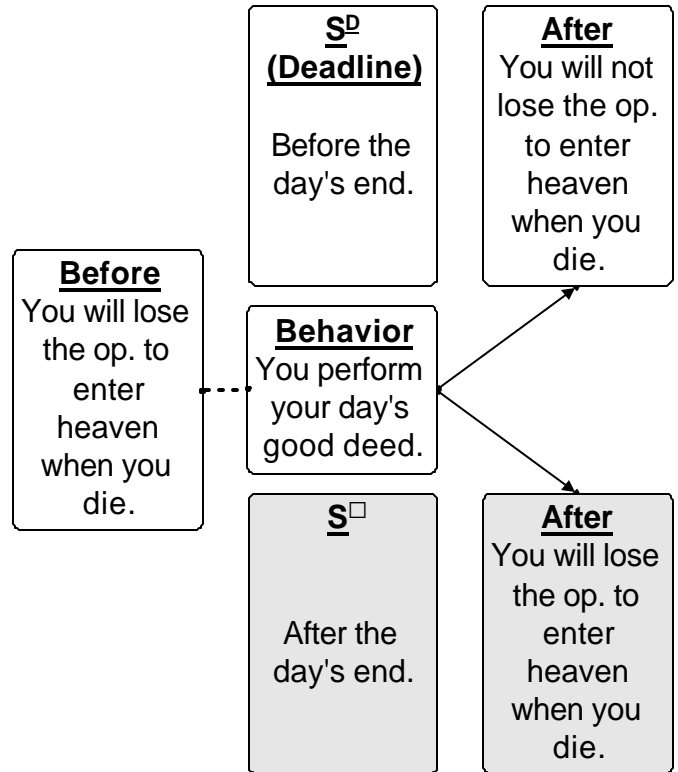
Then what role does Heaven play in supporting our moral behavior? **Heaven gives us something to lose!** If you do too many evil deeds (sins of commission), you will not get the reinforcers of Heaven (a rule-governed analog to punishment by the prevention of the presentation of reinforcers). And if you fail to do enough good deeds (sins of omission), you also will not get the reinforcers of Heaven (a rule-governed analog to avoidance of the loss of reinforcers). And with analogues to avoidance come the deadlines that battle procrastination.

For example, at one time, parents instructed their children to perform the following prayer: *If I should die before I wake, I pray the Lord my soul to take.* The parents said or implied to their children something like this: Say your prayers every night before you go to bed (deadline); so you will avoid harm to your soul, should you die before you wake.

A similar precautionary rule might be: *Always do good deeds every day (deadline) to ensure the salvation of your soul, because you never know when you may die.* But this is similar to the analogue to reinforcement contingency we discussed earlier; so why would this analogue to avoidance contingency control behavior when the simple instruction to perform many good deeds, analogue to reinforcement, wouldn't? Because the daily-deed rule contains a deadline.

EFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY:

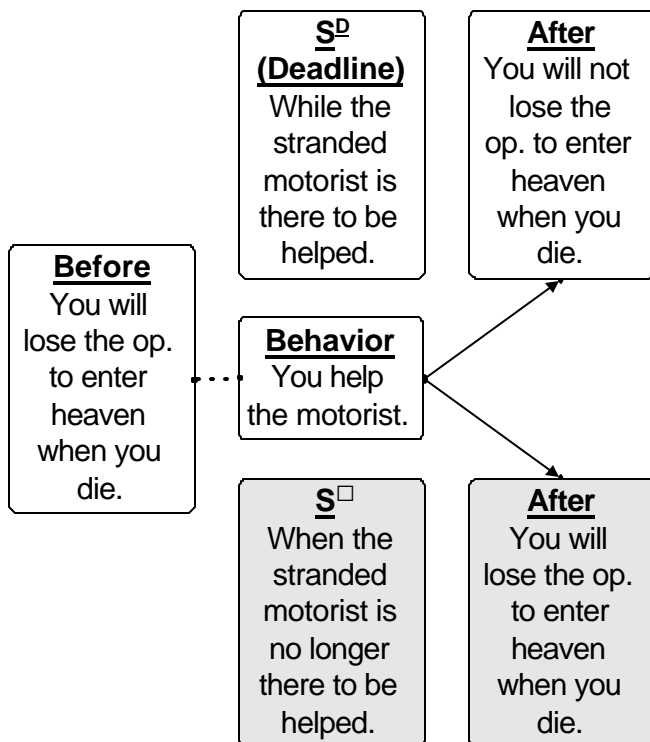
ANALOG TO AVOIDANCE OF THE LOSS OF THE OPPORTUNITY FOR A REINFORCER



Deadlines that fight procrastination may also be established in other ways. When an opportunity to do a good deed is presented to a person, it sets up a deadline for doing that good deed. For example, if you're driving along the highway at night and you see a stranded motorist, you have the opportunity to help that motorist and thus to avoid losing the opportunity to enter heaven when you die. But that opportunity has a deadline. You need to help the motorist now. If you come back next week to help the motorist, it will be too late - the motorist will be gone and you will have lost that opportunity to enter Heaven.

EFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY:

ANALOG TO AVOIDANCE OF THE LOSS OF A THE OPPORTUNITY FOR A REINFORCER



So moral rules control sins of commission (committing bad deeds), when they're stated as analogs to punishment. And they control sins of omission (omitting or failing to do good deeds), when they're stated as analogs to avoidance.

So, as near as we can tell, moral control that benefits the well-being of humanity is exclusively, or almost exclusively, aversive control. In the case of religion, that aversive control uses rule-governed analogs to punishment and avoidance. Hell (or something like it) is the aversive condition to be presented, and Heaven (or something like it) is the paradise to be lost.⁶

⁶ However, some argue that once you are saved, once you accept Jesus Christ into your heart, you will go to Heaven automatically. Perhaps, but surely, only if accepting Jesus Christ means that you stop sinning and dedicate yourself to a life of good deeds. In other words, how do we know a person has truly accepted Jesus? We

Now you may say these two previous examples are a little extreme; and you may be right. We have simplified the moral rules to make the underlying processes a clearer. Sure, most people don't really think they've lost their shot at heaven if they fail to do a good deed for just one day, or maybe for a whole week. But I'll bet there are many good people who do believe a rule almost this extreme, and I'll bet they knock off a lot more good deeds during their lifetime than do those with a more flexible morality.

Also, I'll bet you do feel a little guilty, every time you pass a stranded motorist or are too busy to help someone in need, even though you may not have heard the click of the latch on heaven's gate. Our moral control is a little more subtle than I've indicated in these examples but not much more subtle.

WHAT ABOUT SECULAR HUMANISM?

Sid's Seminar

Joe: I'm into secular humanism.

Tom: What's that?

know people not simply by their words but also by their deeds. *To accept Jesus Christ into your heart* means you walk the walk; you don't just talk the talk. If a person claims to accept Jesus but continues in extremely sinful ways, surely Heaven's gates would not open for that person. It seems as if Heaven is entered only by those who live a righteous life, not by those who merely say they have accepted Jesus Christ.

There is also the a more predestinationist Christian view that states that Jesus died to save us from our sins, that whether or not we sin, it has been preordained that we either will or won't go to heaven. However, if you sin, in spite of what Jesus has done for you, you are a disappointment, even though you may have been predestined to sin and be a disappointment. And it might be that this knowledge that you will be a disappointment also sets up analog avoidance and punishment contingencies that are part of the predestinatist system that prevents you from sinning. On the other hand, it may be that some predestinationist Christians would prefer not to consider that behavioral processes may be involved in the predestination of moral behavior.

Joe: Humanists care about the well-being of humanity. Secular means “not religious.” So we say secular humanism to make it clear that we don’t use the concepts of Heaven and hell. We believe in and care about only the well-being of human beings or maybe even the well-being of life in the universe, in the here and now.

Eve: Interesting.

Joe: Here’s one of the best features of secular humanism: We get away from aversive control. No threats of hell. No threats of the loss of Heaven.

Sid: As I understand it, secular humanism supports pretty much the same sorts of moral rules as do most formal religions.

Joe: Yes, sir. Except the rules don’t describe aversive contingencies. The rules describe analogs to contingencies of reinforcement.

Eve: How can that be? We were just reading that analogs to reinforcement don’t work too well with moral control.

Joe: Well, I’ve never really thought about it before.

Eve: What’s the reinforcer in your analogs to reinforcement?

Joe: The well-being of life in the universe, in the here and now.

Tom: For example?

Joe: If you send \$20 to Greenpeace, you’ll be helping to save the whales.

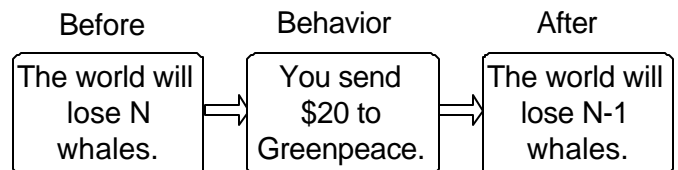
Tom: What happens if you don’t contribute?

Joe: The whales aren’t as well off.

Eve: Joe, that sounds like an analog to an avoidance contingency to me. Like sending the \$20 helps to avoid the aversive outcome of losing another whale to the whaling industry. The only problem with this contingency is that it may allow too much procrastination, because there’s no clear deadline; so the humanist may set aside the solicitation letter and envelope, meaning to send in a check tomorrow, only to find that a year later

the solicitation material still sits unanswered, buried under an accumulated stack of other procrastinated tasks.

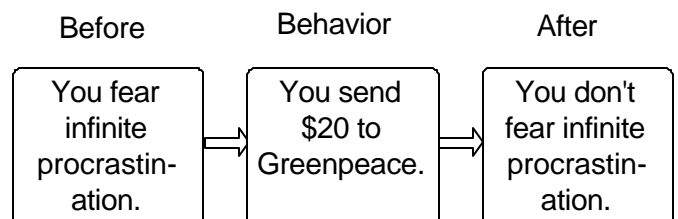
INEFFECTIVE PERFORMANCE-MANAGEMENT CONTINGENCY: ANALOG TO ESCAPE



Max: And that may be a problem with secular humanism. It doesn’t matter when you send in our \$20, because it will always save a whale, more or less. So you never get around to it.

Joe: Yes, it’s hard. You have to supply your own supplementary rule and deadline. You must say to yourself, if I don’t send in the check right now, I will probably forget to; so right now becomes an effective deadline. You must create your own theoretical, direct-acting escape contingency.

EFFECTIVE INFERRED, DIRECT-ACTING CONTINGENCY: ESCAPE



Max: And that may be a problem with this sort of secular voluntarism. It requires a very rare sort of behavioral history that will cause a person to generate and be controlled by such an anti-procrastination rule.

Joe: Yeah, and I've also got to be the sort of person who feels guilty for not doing my little bit to save the whales. Aversive control even here.

Tom: So you admit your secular humanism is as much involved with aversive control as is organized religion?

Joe: I'll admit it's beginning to look as if all moral control is based on aversive contingencies, regardless of whether the control is religious or secular.

WHAT ABOUT LEGAL CONTROL?

Sid's Seminar

Tom: I'm not sure about the value of Joe's secular humanism. What I am sure about is the value of law and order. Is that based on aversive control, too?

Joe: You've got to be kidding. Law and order bristles with aversive control.

Max: It sure does. That's why many behavior analysts have criticized traditional legal systems because they emphasize aversive control and downplay reinforcement by the presentation of reinforcers.

Tom: What else could they do?

Max: Instead of penalizing illegal behavior, they could reinforce legal behavior.

Tom: How?

Max: Instead of giving speeding tickets backed with fines, they could give safe-driving awards backed with cash prizes.

Tom: That's a great idea.

Joe: Except for a couple of problems: First, taxpayers are already revolting, and the budget of our overworked legal system is already straining. Can you imagine the state police agreeing to sell 10 patrol cars and lay off 20 traffic officers to finance cash prizes for safe driving?

Sue: And if you made reinforcement intermittent enough to be practical, it would be too intermittent to maintain safe driving.

Joe: That's related to my second point: It's not clear that would be a reinforcement procedure anyhow. It may be more like an analog to punishment by the prevention of the presentation of a reinforcer.

Tom: What do you mean?

Joe: Like speeding results in the prevention of a low probability event—the presentation of a cash prize. But the speeder can say, I probably won't get the award anyway, so I might as well speed because, for sure, speeding will get me home quicker.

Eve: So whenever you have laws to prevent behavior, like speeding or stealing, they're going to involve some sort of punishment contingency or its analog.

Tom: What about laws to encourage behavior—like laws to encourage citizens to pay their taxes on time? Couldn't you give a bonus to everyone who paid his or her taxes on time?

Joe: First, to pay for it you'd have to increase everyone's taxes; so that's sneaky from the start. And second, you've got a deadline—April 15. And deadlines mean aversive control. It's an analog to avoidance of the prevention of the presentation of a reinforcer.

Tom: Huh?

Joe: You'd beat the deadline to avoid preventing the tax man from presenting you with your bonus.

Sue: More aversive control.

Sid: Let me butt in with this summary, otherwise the transcript of this seminar will get too long.

SID'S SUMMARY

1. Immoral behavior and illegal behavior don't differ fundamentally. Both usually interfere with achieving our ultimate goal—the well-being of life in the universe. In one

way or another, both usually involve a failure to follow the rules for proper uses of resources needed for life's well-being.

2. Society must add both moral and legal contingencies to counteract the natural contingencies of reinforcement and punishment that support immoral and illegal behavior.

3. Both moral and legal contingencies are usually indirect-acting analog contingencies. So they control behavior only when they are expressed as moral and legal rules.

4. Though immoral and illegal behavior don't differ fundamentally, in practice it's harder to observe some behaviors than others.

5. Generally, society adds moral analog contingencies to control behavior that's harder to observe and legal analog contingencies to control behaviors that are easier to observe. So behavior we call immoral is usually harder to observe directly, and behavior we call illegal is usually easier to observe.

6. Sometimes we combine moral and legal contingencies, especially when we can sometimes observe and sometimes not observe the same class of behavior.

7. Moral analog contingencies usually have outcomes that don't materially affect the individual who is behaving. For moral analog contingencies based on religion, the outcomes are supernatural or spiritual, not material. For moral analog contingencies based on secular humanism, the outcomes for the behaving person are social—the well-being of others.

8. Legal analog contingencies usually have material outcomes (for example, penalties or imprisonment).

9. Moral and legal rules describe both behaviors that should occur and those that shouldn't.

10. Rules describing analogs to punishment and penalty contingencies suppress behaviors that shouldn't occur. Rules describing analogs to avoidance support behaviors that should occur.

11. In most cases it seems necessary that the moral and legal analog contingencies be based on aversive control.

QUESTIONS

Note the contingencies in this section are there only as an explanatory aid. You do not need to memorize them to do well on this quiz.

1. Legal-rule control - define it and give an example, including the contingency.
2. Moral (ethical) rule control - define it and give an example, including the contingency.
3. When do you need moral control? Give an example.
4. When do you need legal control? Give an example.
5. What is the function of Heaven and hell in supporting moral behavior?
 - a. What role does procrastination play? Give an example.
 - b. Some argue that promises of Heaven control moral behavior through analogs to reinforcement, with Heaven being the reinforcer. In terms of rule control, why is this an inadequate explanation? Give an example. Explain this in terms of establishing operations.
 - c. In terms of rule control, why do threats of hell work? What role do analogs to punishment play? Explain this in terms of establishing operations. Give an example.
 - d. What role do analogs to avoidance of hell play? Explain this in terms of establishing operations. Give an example.
6. According to the authors, what is the function of Heaven in terms of

- a. reducing sins of commission (committing bad deeds)?
 - b. reducing sins of omission (omitting or failing to do good deeds)?
7. What's the relative role of aversive control versus reinforcement by the presentation of reinforcers in secular humanism?
8. What's the relative role of aversive control versus reinforcement by the presentation of reinforcers in the legal system?
- a. Using examples, explain your answer for laws designed to decrease behavior.
 - b. Using examples, explain your answer for laws designed to increase behavior.

people who claim to be Christians than who consistently practice the teachings of Christ.)

Why Do Legal and Moral Control Fail?	
Moral Control	Penalty too small
Legal Control	Penalty too improbable

QUESTION

1. Give two reasons for why moral and legal control often fail, and give an example for each reason.

Example

APPLICATIONS OF ETHICAL (MORAL) AND LEGAL CONTROL

One way to evaluate the health of a culture is in terms of the well-being of its most wealthy and powerful. But, of course, the well-being of the wealthy and powerful is assured in all cultures except those breathing their last breath. Even the well-being of the average members or of the middle-class members may not reflect our most strict standards for the health of a culture. Perhaps our most strict standards are found in measures of the well-being of the poorest and most powerless in a culture - those not in position to demand good treatment.

Who are the poorest and most powerless in almost any culture? The children, the mentally handicapped, those labeled mentally ill, and the prisoners. These people are often not in a position to demand their share of society's resources. And they are not often in a position to demand that we reduce the aversive conditions of their lives. So the culture that helps the helpless may meet our strictest standards of health.

Now who are these infants whose deaths add to the mortality statistics? The children of the rich and powerful or of the middle-class? Of course not. These horrible statistics come

WHY DO MORAL AND LEGAL CONTROL FAIL?

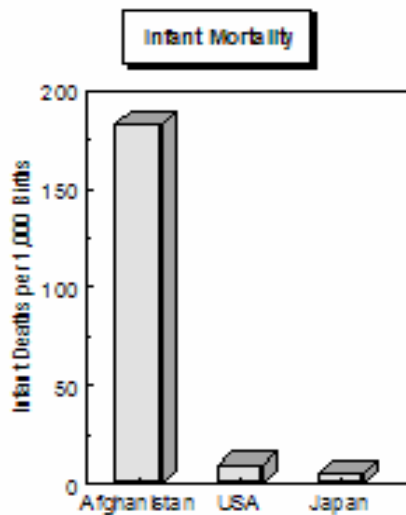
Our world would be in an even bigger mess than it is now, if we didn't have moral and legal control. But one reason we are now in such a mess is that moral and legal control often fail. Why? Why do moral and legal rules describing contingencies that are not direct acting sometimes fail to control our behavior? There are several reasons.

Often, for legal rules, the penalty for each act is too improbable (for example, you probably won't get caught speeding during the next minute). Often, with religious rules, the penalty for each act is too small. This could occur because the person rationalizes an exemption from the rule or doesn't believe it in the first place (for example, It says you're not supposed to kill, but God didn't mean in times of national emergency, or I'm not so sure a God exists anyway, so why shouldn't I steal a few dollars?).

(By failure of moral or religious control, we mean failure of moral rules, such as the Ten Commandments, to control our behavior. We don't mean failure to get people to profess a belief in religion. For example, there are many more

from the dying children of the poor and powerless. And, as we must care for the well-being of the children of the poor and powerless, so also must we care for the well-being of the mentally handicapped, those labeled mentally ill, and prisoners.

We're pleased to live in a society where so much good work is being done to protect and even improve the well-being of these poor and powerless. Such folks are much better off than they would have been in previous centuries. And they're much better off than they are in other countries. For example, in the United States the infant mortality rate is 10 per 1,000, as compared to 183 per 1,000 in Afghanistan. (Imagine what it must be like being a parent knowing your infant has only 1 chance in 6 of surviving.) But even in the United States, we still have room for improvement when compared to Japan, with its infant mortality rate of 5.2 per 1,000.



INTERVENTIONS

THE RIGHT TO EFFECTIVE INTERVENTION (TREATMENT)

In Chapter 4, we discussed the right to effective interventions. Most people agree that everyone has a right to help with his or her problems—at least as long as we talk in generalities. But many

people disagree when we get down to the nitty-gritty.

And the nitty-gritty has become especially nitty and gritty now that the powerless have not only a moral but also a legal right to effective interventions rather than just custodial maintenance. This is especially true now that for the first time in the history of human services, we have effective interventions that can at least help most of these unfortunate people, even if those interventions can't solve all their problems. And those interventions are generally behavioral interventions. Before behavior analysis, custodial care was often the best anyone could do. But that's not true anymore. Generally, a right to effective intervention now means a right to behavioral intervention, though many would argue the data are not all in on that one.

Goal: physically and behaviorally healthy life forms.

Resources: powerless people.

Legal rule: Provide the powerless with effective repertoire-improving interventions or suffer legal penalties.

NITTY-GRITTY #1: WHEN, IF EVER, SHOULD WE USE AVERSIVE CONTROL?

Perhaps the use of aversive control is the most debated moral and legal nitty-gritty in the field of behavior analysis. We have reviewed much of that debate earlier, in Chapters 4, 6, and 7. Chapter 20 also contains a section comparing and contrasting various ways to reduce undesirable behavior.

A glance at humanity's history may suggest why people often resist the use of aversive control. We can almost view the history of humanity as the history of the misuse of aversive control. It's the history of the powerful using aversive control to

redistribute the resources of the less powerful. And though the powerful may redistribute those resources in the name of the well-being of humanity, somehow a disproportionate share of those resources ends in the possession of the redistributors. In other words, it's easy to guess which portion of humanity has had its well-being improved. (If you don't think so, ask the original North Americans, or the indigenous peoples of the Brazilian Amazon, or the indigenous peoples of any currently developing country. They've all been ripped off and are continuing to be ripped off.)

So we shouldn't be surprised that many good people question the use of aversive control, especially in interventions with the most powerless - children, the mentally handicapped, those labeled mentally ill, and prisoners. Aversive control can be an effective technique, perhaps one that should even be demanded in the name of the right to effective intervention; but it is as subject to abuse in institutions for the powerless as it is on a national or international level.

This means that we need all sorts of moral and legal rules and enforcers of those rules to make sure that even people of goodwill use aversive behavioral interventions for the well-being of the client, and that they don't use aversive control for their convenience. Our use of aversive control must always truly be for effective intervention and the well-being of our clients..

NITTY-GRITTY #2: WHO GETS THE RESOURCES?

We never have enough resources; for example, we don't have enough behavior analysts. About half of us behavior analysts work with the developmentally disabled. But what about the undereducated poor folks? What about the high percentage of college dropouts? What about the thousands and thousands of people in the United States who are dying because of obesity-related problems?

NITTY-GRITTY #3: WHO SHOULD CHANGE, THE INDIVIDUAL OR SOCIETY?

Should Sid have helped Bobbie (the transgender student) change to meet society's standards, or should he have helped society change to meet Bobbie's standards (Chapter 1)? Should behavior analysts work to make prisons more effective in their efforts to help the prisoners become productive, useful, law-abiding citizens? Or should behavior analysts recognize that poverty is the major correlate of street crime; and should they work toward changing a society so it will do what it takes to eliminate poverty? Or suppose the behavior analyst has an adult who argues that he or she prefers the love of little children to adults and that this is normal and healthy for both parties. Does the behavior analyst work to change what society would call a child molester, or does the behavior analyst work toward changing what the accused would call a repressive society? How do you decide, other than in terms of your culturally programmed biases?

NITTY-GRITTY #4: WHO DECIDES?

Who decides the tricky issues - the behavior analyst, the client, the person paying the tab? How do we work for the well-being of the client or society rather than the well-being of those with their hands on the purse strings?

RESEARCH

Life is full of conflicting interests. In research, we have the interests of a society that can benefit from scientific knowledge, the scientists whose careers can benefit from their contributions to that knowledge, and

the participants who may benefit, be unaffected, or be harmed by this quest for knowledge.

And no one is above the need for moral and legal guidance. We scientists are no better than candidates for the President of the United States (both successful and unsuccessful). When it comes to conflict between our interests and the interests of others, we all have the morality of a used-car salesperson. When our rear ends are on the line, it's just too hard for us to make decisions that will consistently work toward the well-being of humanity.

Fortunately, in recent years, society has given us some help—human-subjects review boards and animal-welfare review boards. Such boards review human and animal research to ensure that the well-being of the participants is properly considered. Furthermore, most scientific groups look out for the well-being of society in that they monitor the accuracy of the data their members report. A scientist who commits the sin of cheating, of presenting false data, loses his or her credentials as a scientist and ends up selling used cars. This doesn't happen often; but when it does, the lightning bolts are unleashed.

QUESTIONS

1. Who are the poorest and most powerless in almost every culture?
2. What may suggest why people resist the use of aversive control?
 - a. Explain and illustrate.
3. List and illustrate four nitty-gritty concerns we must consider in pursuing the right to effective intervention.
4. Whose interests may be in conflict in scientific research?
 - a. What is done to protect the participants' interests?

INTERMEDIATE ENRICHMENT

Controversy

TRANSGENDERISM : A CASE STUDY OF MORAL AND LEGAL CONTROL⁷

As we mentioned at the end of Chapter 1, a few people were concerned about our treatment of transgenderism (previously called transexuality) in the second edition of this book. So, we decided to eliminate it from subsequent editions. But almost all of my students thought it was too important to eliminate, as did most of the faculty I checked with. So then I asked an old friend of mine I've known since I was three years old. He is gay. I asked him what I should do. He described the isolation, agony, and suicide tendencies of homosexual and gay men he had known and who had sought counseling from him - problems resulting from society's oppressiveness. Then he said these issues of sexuality are too important to ignore. He advised me to keep Bobbie's case in but to discuss its implications more fully and to face the issues directly. We're following his advice; this section consists of the fuller discussion of the issues and implications.

Regardless of your sexual orientation and your sophistication in these matters, you may find some parts of this particular

⁷ Thanks to Kent Johnson for his careful critique of our treatment of these issues in *EPB 4.0*. He helped make this overall analysis much clearer and hopefully less offensive, even though I argue against prenatal influence on the value of sources of sexual reinforcers and he argues for prenatal influence. Incidentally, Kent is founder and director of Morningside Academy, in Seattle, WA, and cofounder of HeadSprout. Morningside Academy is one of the world's best, if not the best K through 8 school based on behavior analysis (www.morningsideacademy.org); and HeadSprout is one of behavior analysis' most innovative new endeavors--web-based, behavior-analytic instruction to teach reading to preschoolers (www.headsprout.com).

behavioral interpretation challenging to your current views and perhaps upsetting. Our advise is to stay loose; don't get too defensive of your current, long-held, long-cherished views, or your recently acquired views. On the other hand, don't jump on this particular behavioral bandwagon, without considerable thought (not all behaviorists agree with all of our analysis). Keep thinking about it, and see what you conclude by the end of the book.

Although sexual orientation is an important issue in its own right, it is only one of many important issues, though among the most controversial we have considered. But sexual orientation is also important because it's sort of a model issue, and our analysis of sexual orientation is sort of a model analysis, one we might apply to many other complex issues, such as the nature of sex roles more generally, "intelligence," "personality," "mental illness," "autism," "criminality," poverty and society. In other words, an analysis of sexual orientation also gives us a chance to illustrate a behavioral word view, though not the only behavioral world view.

THE QUESTION

What's the basis of our sexual orientation? Is it learned or is it biologically determined? By biologically determined, I mean unlearned, innate, inherited, genetic, or prenatal. (I will often use innate in a general, colloquial sense to mean biologically, prenatally determined, without necessarily suggesting a genetic, inherited basis.)

So the question is, is our sexual orientation learned or innate? Is our sexual orientation a result of our behavioral history and the current behavioral contingencies, or is it biologically determined? To more precise, are the differences between people's sexual orient biologically determined or learned? It's important be clear that we're talking about the differences in the sexual orientation between different people, not our sexuality, itself; because, of course, biology underlies every breath we take, ever lever we

press. But whether one person presses the left lever and another presses the right lever may be exclusively a result of the differences in their past contingencies of reinforcement and reflect no differences in their underlying biology. Similarly, it is meaningful to ask whether the differences between your gender behavior and mine are learned or innate (biologically determined), even though biology underlies all of our behaviors. So the common reply that it is both learned and innate may just be an intellectual cop out that fails to distinguish between the question of whether there's a biological basis of all our behavior and whether there's a biological basis for individual differences of some sorts of behaviors, such as gender behavior.

Incidentally, when we suggest our sexual orientation may be learned, we don't mean to imply that someone intentionally taught it to us. Bobbie's parents did not intentionally teach him to be a transgender person; but, nonetheless, the accidental contingencies and accidental pairings may have.

AND NOW, LET'S BEGIN.

Usually people talk about being heterosexual, homosexual, gay, lesbian, transgender, transsexual, or bisexual; but that may be painting with too wide a brush. It may help if we analyze sexual orientation into four components:

- ☞ Sexual values (i.e., reinforcers & aversive conditions)
- ☞ Sexually reinforced behavior
- ☞ Sex-style (gender) behavior
- ☞ Source of sexual reinforcers

IS THE BEHAVIOR THAT PRODUCES SEXUAL

REINFORCERS LEARNED OR INNATE?

Generally, in behavior analysis, we find it most useful to consider the behavior that produces a reinforcer to be fairly arbitrary. The reinforcer, not the behavior, is what's inherently important. Here's one of the best examples of the arbitrariness of behavior - imprinting. As we saw in Chapter 11, in the typical environment, the chick gets the imprinted reinforcer (a bigger or better or clearer sight of Mom) by making the response of approaching Mom. But laboratory demonstrations show that any old response will do, as long as it produces a closer Mom (the reinforcer). The chick will peck a response key, if that peck will produce the reinforcer (a closer Mom). In one amazing experiment, using an especially contrived apparatus, the chick had to walk away from Mom in order to get nearer to her. And of course, the chick learned walking away, instead of the more typical learned response of walking toward Mom. But the chicks easily learned this counterintuitive response.

IS GENDER BEHAVIOR LEARNED OR INNATE?

Gender behavior is behavior or style typically associate with a particular gender or sex (e.g., style of walking, talking, paying, working, and dressing). I argue that gender behavior is arbitrary; and what gender behavior is learned depends on what behavior is reinforced. According to the actual, published case study our fictional story was based, Bobbie's mother wanted a little girl, but she got Bobby, a little boy, instead. Though we don't have the details of Bobby's history, in one case, during the crucial preschool years, the mother found it cute when the child dressed up in mommy's clothes and put block in his shoes, so he could have high-heeled shoes too, just like mommy. It seems plausible that Bobbie's mother not only tolerated but also accidentally reinforced his female gender behaviors. What you get is what you reinforce, ready or not. This interpretation is even more plausible, because we've seen that when Bobbie worked with Sid

and Dawn, he could learn to sit, walk, and even talk in a traditional male style rather than in the traditional female style he had previously learned.

In addition, many people who consider themselves gay or lesbian behave in a style typical of their biological gender. And many others switch between "female" and "male" gender behavior, depending on the contingencies of reinforcement and punishment operating at the moment. All of this suggests that gender behavior is arbitrary and learned, depending on the contingencies of reinforcement and punishment. Contrary to popular belief, I'm suggesting there is nothing inherent in being male or female that determines much of our gender behavior.

However, most of us would find it impossible to change our gender behavior from "female" to "male" or vice versa. Just as, for a long time, Bobbie found it impossible to perform typical male-gender behavior. And because of that difficulty, we assume our style is innate. But most of us would also find it impossible to speak Spanish without sounding like a gringo. And, yet, because of that difficulty, we would not assume our gringo accent is innate; instead, it was just learned so well while we were children that we can't get around it. The same goes for gender behavior.

IS THE REINFORCING VALUE OF SEXUAL STIMULATION LEARNED OR UNLEARNED (INNATE)?

What about direct physical stimulation of the erogenous zones? The physical stimulation itself is probably an unlearned reinforcer. No one has to pair M&Ms with erogenous stimulation for that stimulation to be reinforcing.

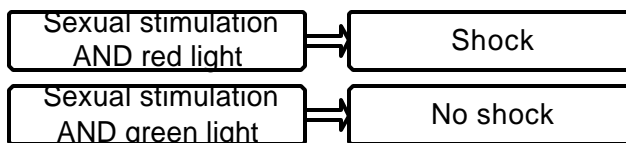
IS THE REINFORCING AND PUNISHING VALUE OF

DIFFERENT SOURCES OF SEXUAL STIMULATION LEARNED OR UNLEARNED (INNATE)?

But what about the source of that stimulation - whether it's a man, a woman, or an inanimate object? Well, in the dark, all cats look gray; if you don't know, it can't matter. However, in the light, when you do know, it's crucial. Sexual stimulation by the wrong person, a person of the wrong sex, or a disgusting object may have such a larger aversive component that it overwhelms the reinforcer component.

So what about this aversiveness of sexual stimuli when paired with certain visual stimuli (such as the wrong person, a person of the wrong sex, or a disgusting object)? Surely this conditional aversiveness is learned. Though we know of no such experiment, suppose every time you were sexually stimulated in the presence of a red light, you were also shocked; and suppose sexual stimulation in the presence of the green light had no shock paired with it.

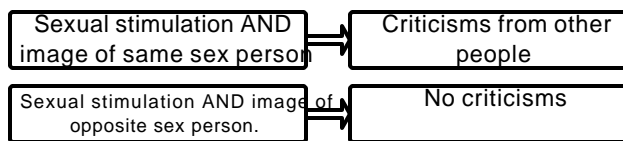
NEUTRAL STIMULUS AVERSIVE CONDITION



No doubt, the pairing of the conditional stimulus (sexual stimulation and the red light) with the aversive stimulus (shock) would cause that conditional stimulus to become aversive.

Now, for most of us, such conditional aversiveness may not be acquired through direct pairings of this sort. Instead, like so many of our values, it is probably acquired through a verbal analog to pairing, for example other people's comments about how inappropriate (immoral, disgusting) certain sources of sexual stimulation are.

NEUTRAL STIMULUS AVERSIVE CONDITION



While there is no experiment just like the one we described, there is some relevant experimental research. A group of male rats were raised from birth without contact with females. These rats acquired the sexually reinforced behavior of mounting their male companions. And, as adults, they would then mount males more frequently than females. Again, this is not to say most of the sexual values of human beings result from such direct pairing. It is to say that the conditional reinforcing value can result from our learning history rather than our biological inheritance.

OTHER DATA SUGGESTING OUR INNATE SEXUAL FLEXIBILITY

- ☞ The bonobos (pigmy chimps, of the equatorial forests of central and west Africa) are vigorously bisexual. They appear to be our closest relatives, sharing more than 98% of our genetic profile, making "it as close to a human as, say, a fox is to a dog."⁸
- ☞ Historically, homosexuality has commanded much interest and attention. Attitudes toward such preference have varied in different epochs and among diverse cultural and subcultural groups, ranging from acceptance (as among the ancient Greeks), to measured tolerance (in Roman times), to outright

⁸ de Waal, F. B. M. (1995, March). Bonobo sex and society. *Scientific American*, 82-88.

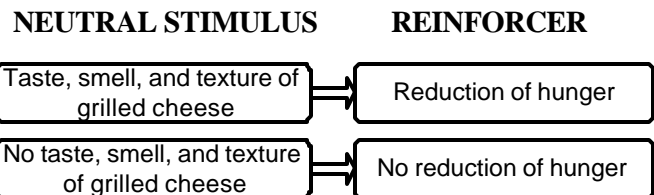
condemnation. During modern times ambivalent attitudes have prevailed.

- ☞ Of 76 societies studied by the American anthropologist Clellan Ford and the psychobiologist Frank A. Beach, two-thirds consider homosexual activities normal and socially acceptable.
- ☞ In some societies, such as the Arunta (Aranda) of central Australia, homosexuality is almost universal.
- ☞ Some nations, such as Great Britain and Germany, have legalized homosexual relations between consenting adults.
- ☞ One-third of the societies studied by Ford and Beach, including those of many industrialized countries, give little or no sanction to homosexuality, its practice often leading to long-term imprisonment. In many countries, it can at the very least result in job loss, housing discrimination, government blacklisting, and social ostracism.
- ☞ In recent years in the United States such organizations as the National Gay and Lesbian Task Force, the Human Rights Campaign Fund, the Legal Defense and Education Fund (LAMBDA), and numerous regional and church-related groups have worked to influence public opinion and legislation toward acceptance of gays and lesbians⁹.

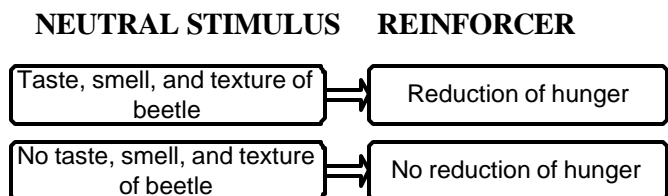
All of this suggests to me that we are born bisexual or even multisexual. It is only through our behavioral history that we become more focused in our sexual behavior and our preferences for specific sources of sexual stimulation.

To further explain how deeply ingrained some of our learned reinforcers are, it helps to look at other sources of learned reinforcers. It's hard for most of us to imagine eating insects, even harder

to imagine enjoying the taste and the experience. Food is an unlearned reinforcer, but the form of the food is a learned reinforcer. When Baby is hungry and Baby is given a grilled cheese sandwich (or Big Mac, or hot dog), the taste, smell, and texture of the grilled cheese sandwich are paired with the reduction of hunger and the grilled cheese sandwich becomes a learned reinforcer.



In a similar manner, insects become reinforcing to hungry children in other cultures, when they are given insects to eat. Now those of us who may not have acquired the learned reinforcing value of insects might think "ugh! Insects are disgusting and full of germs," but to those for whom the taste, smell and texture of insects have become learned reinforcers - those insects have become the equivalent to a grilled cheese sandwich.

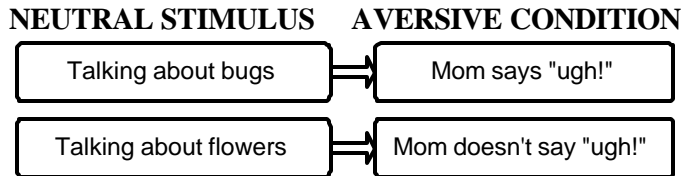


The European and American rejection of insects as food has little to do with insects as disease carriers or their association with dirt and filth. The reason we don't eat them is not that they are dirty and loathsome; rather, they seem dirty and loathsome because we don't eat them.

Why then, don't insects remain neutral stimuli when they don't become learned

⁹ Editors. (1994). Homosexuality. *Microsoft Encarta*. Redmond, WA: Microsoft Corporation.

reinforcers. Why do they become learned aversive conditions? Because there are many verbal analogues to the pairing procedure that change the previously neutral insect into aversive stimuli. The words (such as “ugh,” “gross,” and “ick”) that Mom says about insects are learned aversive conditions to Baby. Therefore, the bugs also become learned aversive conditions.



So not only are the stimuli produced from eating insects not established as learned reinforcers, but insects in general are learned aversive conditions.

There are many different foods around the world that become learned aversive conditions in some places but not in other places due to verbal analogues to pairing procedures. Horses, dogs, and cats are aversive to eat in America because of the verbal pairings that establishes these neutral stimuli as aversive to eat. No such verbal pairings exist in many Asian countries where these meats are enjoyed on a daily basis.

What’s the point? Just because something seems like a powerful reinforcer (for example, sexual stimulation from an opposite sex partner, or a grilled cheese sandwich), and something else seems like a powerful aversive condition (for example, sexual stimulation from a same sex partner or the taste and texture of bugs) doesn’t meant that the reinforcing or aversive properties of those things are unlearned.

But it’s hard to imagine that our sexual values are learned; instead they seem so natural to us, they seem like something we were born with. This is because we’re unaware of the subtle but ever-present social programming easing us into the sex roles we acquire, just as we’re unaware of the subtle pairings and reinforcement contingencies teaching us to love the good ol’ American grilled

cheese sandwich. And given that the large majority of us end up with heterosexual repertoires and values, it’s even harder to imagine how a minority end up with gay and lesbian repertoires and values, let alone transgender repertoires and values, just as it’s harder to imagine how a minority of Americans would seek out the gourmet taste of a deep-fried grasshopper. But few would argue that they inherited a craving for grasshoppers. And by the same logic, a behavioral world view suggests to us that we should not argue that our sexual values are inherited. If you grew up in classic China, you’d find snake to be a delicacy and products based on glandular secretions from cows (e.g., a Dairy Queen sundae) to be disgusting, but your American grandchildren would have the opposite values. Genes rarely change over three generations, but cultural programming sure can.

IF SEXUAL ORIENTATION IS NOT INNATE, IS IT CHOSEN?

Whether sexual orientation is learned or biologically determined (innate) is controversial and has political implications. Part of the problem is that people don’t understand the power of our behavioral histories. They think that either you inherit your sexual values or you must choose them as you would choose which hat to wear to school. When we say “learned” we do not mean chosen.

Suppose you’re heterosexual. Suppose you behave in a typical similar to others of your same biological sex. And suppose you sexual stimulation form those of the other sex to be reinforcing and sexual stimulation from people of the same sex to be aversive. Even if you learned your style and values, did you chose them? You would probably say, no. No choice. Instead your style and values resulted from your behavioral history.

People don't understand the concept I call preschool fatalism: Some of the behaviors and values we learn before certain ages (e.g., preschool) interact with existing contingencies of reinforcement and punishment in such a way as to make them almost impossible to change when we become adults (e.g., our gringo accent or autistic behavior and values).

EVIDENCE FOR BIOLOGICAL DETERMINISM

There has been some correlational research that points to the inheritance of male homosexuality. But others have been unable to get the same results. So it's hard to say what the case is. No doubt the search for a biological basis for "sexual orientation," will continue as it does for "criminal tendencies," "intelligence," and "mental illness." And no doubt the results will continue to be so ambiguous that people will be able to make whatever conclusion they wish, as in those other areas. And no doubt the research will continue to generate much heat and controversy.

One reason for the heat and controversy of the learned versus innate debate is the political implications. Some advocates of gay and lesbian rights argue that society will be more tolerant if it believes their gay and lesbian sexual behavior and values are innate and not their "fault," not "chosen." Other advocates think just the opposite. Again, this issue is based on the misconception that if we didn't inherit out sexual orientation, we must have chosen it.

On the other hand, just because Barlow was able to change Bobbie's sexual orientation using behavior-analysis training techniques does not prove that his sexual orientation was learned. Maybe he inherited his sexual orientation, but Barlow's behavior-analysis techniques were so powerful that they overcame Bobbie's innate sexual orientation.

Yes, maybe; but Bobbie's learning a new, heterosexual orientation does strongly suggest that he had also learned his transgender orientation.

Incidentally, people make a similar argument concerning the causes of "autism." Just because the only way to successfully replace autistic repertoires and values with more functional ones is to use behavior-analysis training techniques does not prove that autistic repertoires and values were learned. They might be innate, but behavior-analysis techniques are so powerful that they overcome this innate "autism."

Again, yes, maybe; but learning new, functional repertoires and values does strongly suggest that "autism" was also learned.

IS HOMOPHOBIA LEARNED OR INNATE?

A few years ago, President Bill Clinton was so brave, or so naive, as to suggest that the military should treat gay and lesbian military personnel as if they were normal human beings and not abnormal creatures of the night to be tarred and feathered and ridden out of military service on a rail. Now, what amazed me was the strong, negative reaction by the American citizens and their leaders. For example, Gen. Colin Powell, chairman of the Joint Chiefs of Staff, almost resigned in protest. And although he is an African American, he seemed unaffected by the fact that only a few years before, the American military services had resisted with equal strength and fury the requirement that they treat African Americans as if they, too, were normal human beings and not required to be segregated and restricted to menial tasks.

At first, I thought Powell and our political leaders were just cynically playing it for a few red-neck Neanderthals in the peanut gallery. But the more I checked it out, the more it seemed as if they were representing a genuine homophobia that permeates the very soul of our culture. Why?

Well, many who object to gay and lesbian citizens quote the Bible (and of course the

Bible can be quoted back at them). But what is the Bible? Whether or not it is the word of God, the Bible is an impressive, illustrated code of behavior the leaders of our culture, past and present, consider best for the well-being of our society.

But why would our leaders be concerned with sexual behavior? Because, in the biblical days on up to the recent past, the rate of infant mortality was high. And a large population was considered most viable, especially when competing with other warlike societies. So our leaders claimed as taboo and immoral any alternative sexual behavior that did not lead to procreation, whether it be:

- ☞ **Onanism** - masturbation and coitus interruptus (named after Onan, son of Judah [Genesis 38:9])
- ☞ **Sodomy** - anal intercourse or copulation with an animal (named after Sodom of Sodom and Gomorrah fame, the two cities destroyed by fire from Heaven because of their unnatural carnal wickedness, according to the Bible; and so great a sin was sodomy that, while fleeing Sodom's coming destruction, Lot's wife disobeyed God's orders, looked back at the city and was turned into a pillar of salt for that voyeuristic sin)
- ☞ **Homosexuality** - if a man also lie with mankind, as he lieth with a woman, both of them have committed an abomination: they shall surely be put to death; their blood shall be upon them (Hebrew Bible. Leviticus 20:13¹⁰); in European cultures, religious and secular laws against homosexuality began in the Middle Ages as prohibitions against any

kind of sexual activity not aimed a procreation¹¹

Strong language. Traditionally, our religious and secular leaders have been pretty serious about straying from the tried-and-true path. But notice they don't have much to say about self-injurious behavior, other than an occasional injunction about harming the temple thy body. Why not? Why aren't there major religious and legal laws against gouging out your own eyes or pounding your head on the floor until it bleeds? Surely those acts are just as harmful to the individual and to society as are sexual variations. Imagine a whole culture full of people emitting a high rate of self-injurious behavior. But that does strain the imagination. Our religious and legal leaders have not spent much time addressing self-injury because it is so rare, because the behavior of few people has come under the control of the reinforcement contingencies associated with self-injury.

But the behavior of quite a few people has come under the control of the reinforcement contingencies associated with nonprocreative sexual reinforcers. And, historically, our leaders have been concerned that these concurrent contingencies of alternate sources of sexual reinforcers are so powerful and so handy that they will seriously decrease the rate of procreative sexual behavior and thus the rate of procreation. There will not be enough true begetting and begatting.

MY POINT:

If we were biologically wired to find nonprocreative sex (including same-gender sexual stimulation) aversive rather than reinforcing, there would be no need for all these religious and legal sanctions. But

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¹¹ *The Concise Columbia Encyclopedia* is licensed from Columbia University Press. Copyright © 1995 by Columbia University Press. All rights reserved.

we're not. Instead, we're biologically wired to find essentially any source of sexual stimulation reinforcing. So, if our sexual behavior is to be restricted to procreative sex, stimulation from all nonprocreative sources must be made shameful, dirty, nasty, unnatural, learned, aversive stimuli. And this is done through direct pairing with aversive stimuli, such as physical punishment, and more often, through verbal analogs to such pairings, such as spoken and written social, religious, and legal sanctions. For example, the behavior of many, if not most, preschool children comes under the control of reinforcing stimulation arising from masturbation and will masturbate frequently and openly until their caretakers (parents, preschool teachers, etc.) effectively punish that behavior physically and/or socially. Freud called this the phallic stage, suggesting that young children naturally stop masturbating as they grow out of it. But perhaps they naturally stop masturbating only after that act has received enough punishment.

What amazes me is the effectiveness of these relatively subtle pairings and analogs to pairings. So effective that by the time we are adults, most people seem to believe we are biologically wired to find same-gender sexual stimulation horribly aversive, so aversive that they can't stand the idea of being in the same military services with people who do not find same-gender sexual stimulation aversive.

But sometimes those relatively subtle pairings and analogs to pairings weren't done quite that way. Instead, because of slight differences in behavioral histories, those pairings of same-gender sexual stimulation and aversive stimulation were too subtle, so that same-gender sexual stimulation maintained its strong reinforcing value. And in some of those cases, opposite-gender sexual stimulation was paired with aversive stimulation, either directly or through verbal analogs; and thus opposite-gender sexual stimulation became a learned aversive stimulus.

So, from my behavior-analytic perspective (but not the only behavior-analytic perspective), we inherit susceptibility for our behavior to be reinforced by sexual stimulation from almost any source, including same-gender and opposite-gender sources. It is only through aversive control that those sources are restricted. And our different behavioral histories cause sexual stimulation from different sources to become learned aversive stimuli, for some people, same-gender sources have become aversive, and for other people, opposite-gender sources have become aversive. And only with intense behavioral intervention, can those aversions be reversed, even with voluntary participation.

Before finishing our discussion of this issue, we should mention another political or social-systems concern: Cultural-materialistic reality has changed greatly since biblical times. Now we have more problems with overpopulation than with underpopulation. Yet society continues persecuting transgender, transsexual, bisexual, gay, and lesbian citizens (social values usually lag painfully behind materialistic reality). So who should change - the citizens who are being persecuted or the persecuting society? Some concerned with the development of a more tolerant society might argue for fighting rather than switching, arguing that people with nontraditional sexual orientations should not cave in to bigotry. We argue for doing whatever is possible to help the individuals (whether that be to help them acquire traditional sexual orientations or to resist the oppression of the traditional majority). But, at the same time, all involved can work for a more tolerant society compatible with the material and social realities of the 21st century.

Regardless of the political/social agenda, we can summarize our position by saying that people's biological inheritance has no more

to do with their preference for the source of their sexual stimulation than it does with their preference for the source of their auditory stimulation. There is no gene that determines whether we prefer same-gender or opposite-gender sexual stimulation, just as there is no gene that determines whether we prefer heavy metal, new wave, or polkas - well, maybe there is a polka gene.

SEXUALITY DEFINITIONS

Now that we have presented our behavior analysis of sexual orientation, we might summarize some features of that analysis with these behavioral definitions:

- ☞ A **heterosexual** is someone (either male or female) for whom sexual stimulation by a person of the other sex is reinforcing and sexual stimulation by a person of the same sex is aversive.
- ☞ A **homosexual** is someone (either male or female) for whom sexual stimulation by a person of the same sex is reinforcing and sexual stimulation by a person of the other sex is aversive.
- ☞ A **transsexual** or **transgender** person is someone (either male or female) for whom sexual stimulation by a heterosexual of the same biological sex is reinforcing and sexual stimulation by a person of the other biological sex or a homosexual of the same biological sex is aversive. A transsexual person is someone who has had sex-change surgery, while a transgender person has not.

TO INTERVENE OR NOT TO INTERVENE

There are three limitations of the Barlow study on which we base the Bobbie/Bobby story.

- ☞ Some of the data are subjective self-reports.
- ☞ Although we have follow up data for a year, we have no real long-term follow-up data.

- ☞ There have not been much by way of replications of this study. The lack of replications could be because of the technical difficulty of doing research of this sort and the considerable social pressure from both the left and the right on scientists doing sexual research, especially research on gender identity. So the Barlow intervention has not really been proven to be a reliable or effective intervention, though it has also not been disproven. As Barlow et al say, they don't know how typical Bobbie was of transsexual (transgender) people.

In fact, at this point, which is quite a few years after the original Barlow study, if a homosexual or a transgender person were to come to me for help, I would probably suggest that their best bet might be to find or move to a community that would be less aversive for them to participate in as a gay, lesbian, or transgender person, if their current community were as repressive as Bobbie's was. This seems to be what the gay, lesbian, bisexual, transsexual community would recommend, also.

Incidentally, this community and much of the professional psychological and psychiatric communities object to efforts to change or help change people's sexual orientation. I think this is for two reasons:

- ☞ } They think that sexual orientation is a biologically determined part of an individual's essence and thus not to be tampered with.
- ☞ } There is practically no scientific evidence that attempts to change sexual orientation have been successful; and in some or many cases, those attempts may have just created more problems for the client.

However none of this means I think a skilled behavior analyst couldn't or shouldn't replicate Barlow's intervention, if the client could find a behavior analyst with Barlow's skills and resources to do the intensive training the person would need. But, generally, it's so hard to make such an extensive change in some sorts of repertoire and values of adults that it is almost impossible. For example, even the world-famous Ivar Lovaas restricts his work to preschool autistic children; to my knowledge, no one has had the success with teenage autistic clients that many people have had with preschool autistic children.

THE BIG Deal

So why do we make such a big deal of the Barlow study in this book?

- ☞ Because it illustrates what I think is the least you would have to do, if you were to help someone make as complete a transformation as Bobby did. You can't solve big problems of this sort with once-a-week talk therapy.
- ☞ This study provides an excellent intro to the analysis of the complex issues involved in the nature-nurture debate--biological determinism vs. behavioral contingencies and behavioral history.

QUESTIONS

1. According to this book, sexual behavior is
 - a. learned
 - b. innate
2. According to this book, the reinforcing and punishing value of different sexual stimuli (for example, tactual [touch] stimuli) is
 - a. learned
 - b. innate
3. According to this book, the reinforcing and punishing value of the sources (not type) of different sexual stimuli (for example, a good-looking man or woman) is
 - a. learned
 - b. innate
4. According to this book, homophobia is
 - a. learned
 - b. innate
5. According to this book, if we were biologically wired to find nonprocreative sex (including same-gender sexual stimulation) aversive rather than reinforcing, there would be no need for the large number of religious and legal laws against nonprocreative sex.
 - a. true
 - b. false

ADVANCED ENRICHMENT¹²

Controversy:

FIVE PHILOSOPHICAL VIEWS OF PSYCHOLOGY

Before you leave this book and enter the world of heavy-duty intellectual conflict, here's an introduction to five alternative points of view you might encounter. These include the philosophies of:

spiritualistic mentalism

materialistic mentalism

cognitive behavior modification

methodological behaviorism

radical behaviorism—the EPB point of view (i.e., the correct view)

Each of these five philosophies accepts or rejects four basic concepts. These include:

- ☞ mentalism
- ☞ materialism
- ☞ all psychological events are behavioral
- ☞ private events

To get a better understanding of how these concepts are woven into the five different philosophies, we've put together a mythical conversation between the representative philosophers. To illustrate the philosophies, we have analyzed a single event, in terms of each view. And the event we will analyze is Todd's bowel movement.

Please imagine five wise philosopher-psychologists. They are the Board of Philosophical Censors sitting in a castle, high above the land (maybe in Heaven), discussing a

¹² Wowee, boy and girls, they've slipped another Advanced Enrichment section in on us. And we know what that means, don't we. It means it's time to hunker down and read this baby two or three times until we get it straight, or almost straight. Tough stuff, but important enough that many professors requested that we add it. So, grab that yellow highlighter and go for it.

controversial textbook. Each philosopher-psychologist represents a different view.

Point: And to help you navigate this dialogue we will recap the important points in a grayed background like this.

MENTALISM

The Materialistic Mentalist: Have you read this textbook we're in?

The Spiritualistic Mentalist: Yes, I have; and I'm really angry.

The Materialistic Mentalist: Me too. What's your beef?

The Spiritualistic Mentalist: That book ignores the most important concept in psychology—the mind.

The Materialistic Mentalist: I agree, mind is where it's at. I use it all the time.

Definition: Concepts

Mentalism

? the doctrine that the mind causes behavior to occur¹³

Mind

? an entity or collection of entities

? assumed to cause behavior

? It may be either material or nonmaterial

? but it is not the behavior itself

¹³ **Mentalism**: n, the doctrine that there is a distinct group of conscious or mental phenomena not reducible without reminder to physical phenomena. English, H.B & English, A.C. (1958) *A comprehensive dictionary of psychological and psychoanalytical terms*. New York: David McKay
The belief that some mental phenomena cannot be explained by physical laws. *The American Heritage® Dictionary of the English Language (3rd ed.)*. Copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation.

The Spiritualistic Mentalist: Yes, you remember Todd - the constipated boy? A good example of the limitations of behaviorism. Todd had closed his *mind* to the idea of bowel movements. Then he changed his *mind*; and his *mind* caused him to have bowel movements. His *mind* willed him to go to the bathroom or not. But Dawn completely ignored the poor little fellow's *mind*, when she instructed Todd's mother to give him a piece of bubblegum immediately after each bowel movement.

The Materialistic Mentalist: Our mind causes us to feel as we feel, to think as we think, to act as we act—in short, to be as we are. Ignore our mind and you ignore our most important structure. And that's my criticism of those behaviorists; they have no place for mind in their world view.

Point: Mentalists believe in mentalism; in other words, they believe the mind causes us to behave.

So we've got mentalists and we've got behaviorists. But we philosophical psychologists split hairs a little finer than that. Now let's look at the two kinds of mentalism.

SPIRITUALISTIC MENTALISM

The Spiritualistic Mentalist: That brings up the other thing that's bugging me. Todd's case study and the whole book too accurately reflect the materialistic nature of contemporary psychology and philosophy.

The Materialistic Mentalist: You think we're only in it for the money?

The Spiritualistic Mentalist: No, I mean materialistic in a different sense. I don't think you're mercenary money grubbers any more than I am. (The spiritualist smiled, showing she understood the ambiguity of her reply, yet still leaving it for her audience to decide whether they were all money grubbers or none were.) I mean you deal only with the material side of Todd; you

ignore his nonmaterial dimension, his spiritual dimension.

The Materialistic Mentalist: Just what is this nonmaterial, spiritual dimension you claim we ignore?

The Spiritualistic Mentalist: When you talk about the mind as a structure, you reveal that you think of the mind as a physical entity.

The Materialistic Mentalist: Of course. What else is there?

The Spiritualistic Mentalist: There's the nonmaterial side of life. Early human beings conceived of the nonmaterial spirit to help them understand the world (a thing's spirit caused it to act as it did). Then the concept of nonmaterial spirit shifted into the concept of nonmaterial soul to help later human beings understand the world (a thing's soul caused it to act as it did). And now the concept of nonmaterial soul has shifted into the concept of nonmaterial mind, still helping us understand our world (our mind's causes us to act as we do).

The Materialistic Mentalist: Your history fascinates me. You say that all three terms, spirit, soul, and mind, originally referred to more or less the same nonmaterial dimension. You claim we shifted from spirit to soul to mind. But I always think of mind as a physical, material entity.

The Spiritualistic Mentalist: Of course you do. And the rest of my history says why: The nonmaterial mind shifted into the material mind because of the materialistic, scientific world view so popular now. You've forgotten the nonmaterial ancestors of the mind—the soul and the spirit.

Definition: Concept

Materialism

? the doctrine that the physical (material) world

? is the only reality¹⁴

Spiritualism

? the doctrine that the world is divided into two parts, material and spiritual

The Materialistic Mentalist: Perhaps, but I don't even understand what it means for something to be spiritual, not to be physical or material or materialistic.

The Spiritualistic Mentalist: That's so sad. You scientific psychologists will never understand, because with science you can only study the material, not the nonmaterial, not the spiritual. You insist that ultimately everything is physical, that ultimately human beings consist of no more than a few cents worth of chemicals.

The Materialistic Mentalist: The price may have gone up a bit since the last time you checked with that old cliché. But don't you agree that "from dust thou art and to dust thou shall return"?

The Spiritualistic Mentalist: Our physical body, yes, but not our spirit, not our soul, not our mind. The spirit, the soul, the mind, whatever you want to call it, contains our essence, what we are. You can never bribe the human spirit with bubblegum, like Dawn tried with Todd.

Definition: Concept

Spiritualistic mentalism

? the doctrine that the mind is spiritual (nonphysical)¹⁵

¹⁴ **Materialism:** in philosophy, a widely held system of thought that explains the nature of the world as entirely dependant on matter, the final reality. Early Greek teaching, e.g., that of Democritus, Epicurus, and the proponents of Stoicism, conceived of reality as material in nature. The theory was renewed and developed beginning in the 17th cent., especially by Hobbes, and in the 18th cent. Locke's investigations were adapted to the materialist position. The system was developed further from the middle of the 19th cent., particularly in the form of dialectical materialism and in the formulations of logical positivism. *The Concrete Columbia Encyclopedia* is licensed from Columbia University Press. Copyright © 1995 by Columbia University Press. All rights reserved.

MATERIALISTIC MENTALISM

Definition: Concept

Materialistic mentalism

? the doctrine that the mind is physical, not spiritual.

The Materialistic Mentalist: Sorry, I just can't buy that. Dawn did a good job of getting Todd to have regular bowel movements, and she did this with bubble gum. The chance to get the materialistic bubble gum caused Todd to change his materialistic mind which decided to have a materialistic bowel movement. His changed mind caused his bowels to move.

The Spiritualistic Mentalist: You materialists really strain to deny the spiritual side of life.

The Materialistic Mentalist: You're right, most of us modern psychologists don't buy into your view of a nonmaterial world. We're material creatures in a material world. Nothing exists other than that handful of chemicals, those molecules, those electrons, those subatomic particles, whirling around.

The Spiritualistic Mentalist: I pity you and your barren, materialistic philosophy.

The Materialistic Mentalist: Please don't interrupt me with your condescending sympathy; I'm not done. What I wanted to say is that at least some of us contemporary psychologists still study the mind.

¹⁵ **Spiritual:** of, relating to, consisting of, or having the nature of spirit; not tangible or material, immaterial. Of, concerned with, or affecting the soul. Relating to or having the nature of spirits or a spirit; supernatural. *The American Heritage Dictionary*. [Note that we're not using *spiritualism* in the modern sense of *spiritualism*, the belief that the dead manifest their presence to people, usually through a clairvoyant or medium.] *Microsoft® Encarta® Encyclopedia 99*. © 1993 – 1998 Microsoft Corporation.

The Spiritualistic Mentalist: Yes, but a material mind, one that ultimately consists of only that handful of chemicals, not the immaterial mind. Not the true mind.

The Materialistic Mentalist: The universe contains material reality. Todd had material bowel movements. And his material mind caused him to do so.

Point: there are two kinds of mentalism, spiritual mentalism and materialistic mentalism. They both believe that the mind causes us to behave, but the materialistic mentalist thinks that the mind is physical (more or less synonymous with the brain), while the spiritualistic mentalist think that the mind is spiritual (like the soul).

The Cognitive Behavior Modifier: Can I squeeze into this conversation? That immaterial nonsense is so far out in left field it's immaterial to everything. But I'd like to hear more about Todd's material mind.

The Materialistic Mentalist: Todd had a bowel movement when his mind told him to. He had a bowel movement when his mind thought it was the right time. He had a bowel movement when his mind perceived that it would benefit him, when his mind sensed the need to do so, when his mind believed it was reasonable, when his mind had the desire to do so. Todd's material mind made the decisions about when and how he should act.

(Note that we could have filled in Todd's mind in the spiritual mentalistic view with much the same activities as in the materialist mentalistic view. The main difference between the two views is whether that mind is spiritual or physical.)

COGNITIVE BEHAVIOR MODIFICATION

Definition: Concepts

Cognitive structure

- ? an entity
- ? assumed to cause action;

- ? the way the organism sees the world,
- ? including the organism's beliefs and expectations.

? It is material, but not behavior

Cognitive behavior modification

? an approach that attempts to modify behavior

? by modifying the cognitive structure.

The Cognitive Behavior Modifier: I've got bad news for you materialistic mentalists. The mind you speak of is as much a fiction as the spiritualist's nonmaterial world—pure invention. Todd's mind doesn't tell Todd what to do. Todd tells himself what to do, based on his perceptions of reality—based on whether he attributes to himself or to others responsibility for control over his life, whether he expects the proper response will produce reinforcers, whether he believes he can effectively produce the desired response. He has hypotheses about what works; he has rules for effective action.

The Materialistic Mentalist: But those are all properties of Todd's mind.

The Cognitive Behavior Modifier: I think not. We no longer need the old-fashioned concept of mind. Instead we have the modern concept of cognitive structure, with its cognitions—perceptions, attributions, expectations, beliefs, sense of efficacy or effectiveness, hypotheses, rules. Todd controls his actions through his cognitions. He attributes to himself the ability to control his life: He expects a bowel movement will get him some bubble gum. And he believes he can effectively produce the bowel movement when he has a sensation of bowel pressure. We needn't invent a mind to explain Todd's actions.

Point: the Cognitive Behaviorist doesn't believe in the mind. Instead he believes in the cognitive structure

which he thinks is the cause of all behavior.

The Radical Behaviorist: Now let me get in on this. The behavior analyst's concept of rule control deals with most of these same issues. But, to make my point clearer, let's drop the bubble gum intervention and look at the dessert intervention Dawn and Todd's mother later used (Chapter 24). Remember, Todd's mother told him the following rule: If you have a bowel movement anytime before dinner, I'll give you a dessert after dinner. We could say Todd's behavior came under the control of that rule; it was rule governed.

The Cognitive Behavior Modifier: Perhaps, but rule-governed behavior is behavior. And I'm talking about more than behavior. You can't reinforce Todd's cognitions—his sensations, perceptions, attributions, expectations, beliefs, sense of efficacy, hypotheses, rules¹⁶. Instead, when Todd's bowel movements produce dessert, his perception of this helps him make a hypothesis that his bowel movements cause his mother to give him the desired gum. He then expects that gum from his mother will follow his bowel movements. He believes it. And he believes in his own efficacy, his effectiveness in getting the dessert. He attributes to himself the ability to get the dessert. All of this involves Todd's cognitive structure—his expectations, hypotheses, rules, and so on. However, his cognitive structure can also change the way he experiences what you behaviorists call reinforcement. I'm saying how he perceives the dessert's relation to his behavior can change the effects of the so-called reinforcement. In other words, the delivery of dessert following Todd's behavior influences his cognitions; but also his cognitions influence the way the dessert affects his behavior; if he doesn't perceive, believe, and attribute to himself that he can have a bowel movement and get dessert, your so-called reinforcement won't work.

¹⁶ Not all cognitive behavior modifiers would take this position; some do attempt to reinforce thoughts or at least to reinforce the behavior of thinking.

The Radical Behaviorist: I think cognitive behavior modification is simply a special type of materialistic mentalism. And your cognitive structure is just the mentalist's mind.

Point: the Radical Behaviorist thinks that the mind and cognitive structure are essentially the same thing, invented explanatory fictions, even if they have different names. Both cognitive behaviorist and mentalists think that nonbehavioral, nonenvironmental structures cause the person to behave.

RADICAL BEHAVIORISM¹⁷

The Radical Behaviorist: But we're talking about the same thing; you've just added a few unneeded concepts, that's all.

The Cognitive Behavior Modifier: Such as?

The Radical Behaviorist: All the cognitions—the perceptions, attributions, hypotheses. We don't need these terms as special cognitive structures. We can explain the success of Dawn's second intervention simply by saying that Todd performed the behavior of stating a rule. He said to himself, If I have a bowel movement today, I'll get dessert tonight. And that rule controlled his having a bowel movement.

Definition: Concept
Radical Behaviorism

¹⁷ There seem to be as many different varieties of behaviorism as behaviorists. (This is probably true of mentalism and cognitivism as well.) So we don't pretend to have defined *the* radical and methodological behaviorism views, rather just one variety of each. There's a good chance your professor will not find herself or himself fitting comfortably into either of our definitions and will want to provide a supplemental or even an alternate definition. That additional definition would be great, as no doubt it will point to important issues we have not addressed.

- ? an approach that addresses all psychology
- ? in terms of the principles of behavior

Radical behaviorists are willing to consider all the data of psychology, including the data of such nonbehavioral psychologists as Freud and Piaget. Radical behaviorists are willing to consider private events such as thinking, dreaming, and feeling. But in all cases they consider such data and events in terms of the principles of behavior. And they consider events such as thinking and dreaming to be behavior.

The Cognitive Behavior Modifier: Don't forget beliefs. Todd must believe in the rule.

The Radical Behaviorist: We don't need belief as a special cognition. We just appeal to Todd's behavioral history. The rule statement will govern his behavior if similar rules statements have proven accurate in the past. The simple concept of language-based, rule-governed behavior is all we need to deal with the complexities of your cognitions. And we need only the concept of rule-governed behavior when we're dealing with indirect-acting analogs to contingencies of reinforcement and punishment. (Of course, the analysis of how rule control works isn't simple.)

Point: Radical Behaviorists think that the behavior of stating a rule can control behavior, if rules have accurately described a consequences in the past.

The Cognitive Behavior Modifier: Is that so? Then what about the first procedure Dawn tried with Todd, in which his mother gave him a piece of bubble gum immediately after a bowel movement? Did that involve rule-governed behavior?

The Radical Behaviorist: Not necessarily. That might have been a simple, direct-acting, reinforcement contingency, not an indirect-acting analog to reinforcement. Todd needed no rules, because the reinforcer followed the response immediately; that means the reinforcer was able to reinforce the response—the contingency was able to directly act on the bowel movement behavior without the aid of rule statements. But with the dessert, the reinforcer was too delayed to

reinforce the bowel movement; so he needed a rule describing that contingency.

Point: Radical Behaviorists believe both rule statements and direct-acting contingencies control behavior in humans.

The Cognitive Behavior Modifier: Well, from our view, Todd had cognitive rules (not your language-based rules) even with the immediate bubble gum. And because of the bubble-gum contingency, Todd modifies his cognitive structure—his cognitive rules, hypotheses, and expectations. He now expects bubble gum after a bowel movement. But that's not because the bubble gum reinforces anything.

The Radical Behaviorist: I'm afraid I don't see the need for all this cognitive structure.

The Cognitive Behavior Modifier: Let me take it further. What about nonverbal animals? Do rules govern their behavior?

The Radical Behaviorist: Of course not. An animal can't state a rule if it can't talk.

The Cognitive Behavior Modifier: Right, but we cognitive behavior modifiers contend that animals have cognitions; they have beliefs, expectations, rules, and hypotheses. And it is these cognitions that determine their actions. So you see that when we talk about people's beliefs, expectations, rules, and hypotheses, we mean more than you do with your simple rule-governed behavior. That's why we're more than behavioral; we're also cognitive. We believe cognition controls behavior.

The Radical Behaviorist: And that's where I think you go too far. You don't need to invent all those complex cognitive concepts to account for the learned behavior of animals. The direct-acting contingencies of reinforcement and punishment are all you need there. Why add extra baggage?

Point: Radical behaviorists believe that direct acting contingencies

control the behavior of animals. And because animals do not have rule-governed behavior, indirect acting contingencies can not control their behavior. On the other hand, cognitivists believe that cognitions control the behavior of animals, as well as human beings.

METHODOLOGICAL BEHAVIORISM

The Methodological Behaviorist: I'm the only one who hasn't gotten into this debate, so I guess it's my turn. I'm afraid you, my radical-behaviorist friend, also have some extra baggage—all that rule-governed-behavior business. You don't really need the concepts of rule-governed behavior and indirect-acting analog contingencies.

The Radical Behaviorist: I agree with you part way; I agree we don't need these more complex concepts when we're dealing with nonverbal animals, like the rat in the Skinner box. And often we don't need them when we're dealing with direct-acting contingencies, as when Todd's mother gives him some gum immediately after a bowel movement. Take another look at the last diagram we showed—the one involving direct reinforcement with gum. Look closely and you'll see the label at the bottom of that one is General Behavioral View, not Radical Behavioral View.

The Methodological Behaviorist: So?

The Radical Behaviorist: My point is that you and I agree there. Then the diagram explains the view of both the radical and the methodological behaviorist. We agree in our analysis of the processes governing behavior, when only direct-acting contingencies of reinforcement and punishment are involved.

The Methodological Behaviorist: OK, but we sure don't agree in the case where Todd gets his dessert sometime after the bowel movement. I don't like the idea of your guessing about private events, such as what people think or say to themselves. Seems like mentalism to me.

The Radical Behaviorist: True, mentalists make inferences about unobserved events, and so do I. Yet there's a difference in the inference. Mentalists infer causes of a type they've never observed (mental, nonbehavioral causes, often nonmaterial causes). But radical behaviorists of the sort I represent infer behavioral processes (people covertly stating rules to themselves) just like those we can often observe (others publicly stating rules to people). It just happens that we can't observe people covertly stating rules to themselves; but we've no reason to think covertly stating rules differs from someone else's overtly stating rules to a person. So even in this difficult, covert case, probably we've got nothing more than behavior to which our standard principles of behavior apply.

The Methodological Behaviorist: It seems to me that one inference is as bad as another. It doesn't matter whether you're inferring covert behavioral process, or covert cognitive process, or covert materialistic mental process, or covert spiritualistic mental process. They're all bad news and have no place in a true science. As far as I'm concerned, your inferred covert rules are made of the same materialistic, mentalistic stuff as the cognitive behavior modifier's cognitive structures.

The Radical Behaviorist: I think the nature of the inference does matter. For example, you might ask me why the screen door is rattling. And I might infer that it's the wind, or I might infer that it's evil spirits trying to get into the house. The inference of wind fits more comfortably into an interpretation based on materialistic, natural science than does the inference of evil spirits.

The Methodological Behaviorist: Perhaps, but as an empirical scientist, I prefer to stay away from any kind of inferences. I prefer to include in our science only those events that

two or more independent observers can directly observe.

Point: Methodological behaviorists don't believe in inferred, private events, not even in rule-governed behavior.

Definition: Concept

Methodological Behaviorism

? an approach that restricts the science of psychology to

? only those independent and dependent variables

? that two independent people can directly observe.

Radical Behaviorist: That's clearly the safest road, but as Skinner said many years ago, if we're going to tell the whole story, our natural science of behavior must deal with private events.

Because our radical behaviorist got the last word, you can correctly assume that her philosophy represents that of the authors of *Principles of Behavior*.

Compare and Contrast:

FIVE VIEWS OF PSYCHOLOGY

Lets review the points:

Point: Mentalists believe in mentalism; in other words, they believe the mind causes us to behave.

Point: there are two varieties of mentalism; spiritual mentalism and materialistic mentalism. Both types of mentalists believe that the mind causes us to behave, but the materialistic mentalist thinks the mind is physical (more or less synonymous with the brain), while the spiritualistic mentalist thinks that the mind is spiritual (like the soul)

Point: the Cognitive Behaviorist doesn't believe in the mind. Instead, he believes in the cognitive structure which he thinks is the cause of all behavior. Point: the Radical Behaviorist thinks that the mind and the cognitive structure are the same thing, even if they have different names. This is because both cognitive behaviorist and mentalists think that some nonbehavioral, nonenvironmental structures cause the person to behave.

Point: Radical Behaviorist think that the behavior of stating a rule, can control behavior.

Point: Radical Behaviorists believe both rule control and direct acting contingencies control behavior in human beings.

Point: Radical behaviorists believe that only direct acting contingencies control the behavior of animals. Conitivist believe that cognitions control the behavior of animals.

Point: Methodological behaviorists don't believe in inferred, private events, not even in rule-governed behavior.

View	Mentalistic ¹⁸ (the mind causes behavior)	Materialistic (physical things cause us to behave)	All psychological events are behavioral	Infers private events
Spiritualistic mentalism	Y	N	N	Y
Cognitive behavior modification	Y ¹⁹	Y	N	Y
Radical behaviorism	N	Y	Y	Y
Methodological behaviorism	N	Y	Y	N
Materialistic mentalism	Y	Y	N	Y

How common are each of these five views?

Spiritualistic mentalism is the oldest, and it has played a large role in the field of philosophy, especially in previous centuries. Though spiritualistic mentalism may still have some popularity outside psychology, it isn't too common among professional psychologists. Materialistic mentalism is probably the most common view in psychology. It seems to us to describe the common approach called cognitive psychology, including cognitive behavior modification. We also would classify most psychoanalysis (for example Freudian psychoanalysis) as materialistic mentalism.

Methodological behaviorism is the most popular view among behaviorists. Though, methodological behaviorists often erroneously call themselves radical behaviorist as we will explain in the next section. By the way, these sections on the five philosophical views of

¹⁸ I think *mentalistic* and *behavioristic* are mutually exclusive and exhaustive. In other words, a psychological view is either mentalistic or behavioristic and it must be one or the other.

¹⁹ We argue that the cognitivist's and the cognitive behavior modifier's cognitive structure is just a modern version of the mind, and thus cognitive behavior modification is essentially mentalistic.

psychology are among the most difficult in our book. Serious students report that they need to read this advanced enrichment section at least 2 or 3 times to get a comfortable understanding of these views. If you double dip, you may find that the second reading goes much more smoothly.

THREE ERRORS

There are two basic philosophical errors that cognitive and methodological behaviorism contain, which radical behaviorism avoids.

Definition: Concepts

The simplistic cognitivist error

? Rats think

The simplistic behaviorist error

? People don't think

I believe the cognitivist error is fairly common. People often attribute the cause of behavior to a cognitive process. In other words, the rat presses the lever because he "knows" (a cognitive process) he will get water. When you get right down to it, **cognitivism is nothing more than the view of the everyday, person on the street dressed up in the intellectual's clothing**, with them big scientific, PhD-sounding words like cognitive structure.

The behaviorist error is restricted to methodological behaviorists; unfortunately, the majority of behaviorists seem to be methodological, even when they erroneously call themselves radical behaviorists.

When dealing with the philosophical basis of psychology, our enemy should be simplistic analyses, regardless of their sources. (By *simplistic analyses*, we mean analyses that are oversimplified, that ignore the complexities and subtleties of an issue.)

From my view methodological behaviorism is simplistic in that it makes simplistic extrapolations from the contingencies of the Skinner box to all the complex

contingencies controlling the lives of verbal human beings, thereby committing the behaviorist error of denying that people think.

And the cognitivism is simplistic in that it makes simplistic extrapolations from the thinking verbal human being to the nonverbal and therefore nonthinking rat in the Skinner box.

Cognitivism is also simplistic in that its concepts tend to be mere commonsense reifications of behavioral processes. (Remember reification? It's like: *Why does Helen lose her temper so easily? Because she has an angry cognitive structure. How do you know she has an angry cognitive structure? Because she loses her temper so easily.*)

Biological Determinism. Another major source of simplistic analyses is biological determinism—the theory that many of the important behavioral differences between people are genetic; just one set of many examples is sexual behavior and sexual values, as we discussed earlier.

Two common types of simplistic analysis flow from biological determinism: **The first type of simplistic analysis** is to assume that the same biological/behavioral processes directly underlying some form of complex human behavior are the same as those underlying some relatively simpler form of animal behavior, especially when the two behaviors serve similar functions.

One example of this sort of simplistic analysis would be to say a person's building a home is based on a nest-building instinct, in more than a poetic sense, with the implication that instinctive reinforcers similar to those controlling an animal's nest building, before mating season or before winter, also control the behavior of the owner of Big Bart's Construction Company, or the behavior of Sid and Dawn when they hired Big Bart to build their house. Another example is the biological determinists' argument that a woman's putting on lipstick is genetically programmed to attract a mate, just as is the

reddening of the rump of the receptive female baboon—no kidding!

The second type of simplistic analysis coming from biological determinism is the assumption that the genetic processes underlying some form of complex human behavior are the same as those that underlie the inheritance of our biochemical-chemical/anatomical functions and structures. So biological determinists argue that the difference between people in terms of their skills at complex matching to sample, skills at repeating long lists of numbers, and knowing who wrote Faust (such repertoires as are sampled on IQ tests) are innate in the same way as are the differences in height and eyecolor.

Incidentally, the people in power rely heavily on biological determinism to defend the status quo and to defend their staying in power. For example, women are genetically programmed to be mothers/housewives, while men are genetically programmed to be executives. (Honey, I wish you had that mathematics gene, but seeing as you don't, would you mind doing the dishes, mopping the floor, and ironing my shirts after you nurse baby, while I go off to my office in the Mega-Buck Bank Building? And oh, yes, I am genetically programmed to chase that cute little secretary.)

Similarly, wealthy whites are genetically programmed to rule the world, while poor people and people of color unfortunately lack those crucial high-IQ/get-up-and-go genes. (Honey, I wish you had them high-IQ/get-up-and-go genes, but seeing as you don't, would you mind doing the dishes, mopping the floor, and ironing my shirts after you nurse baby, while the missus and I go off to the Mega-Buck Bank Building Banquet? And when we get back, you can take a couple hours off to visit your son who was genetically programmed to end up in his new home, Big State Prison; such a pity.)

You think I'm kidding? Then check out *The Bell Curve*²⁰, a best-selling, scholarly book, written by a couple of guys with real high IQ/get-up-and-go genes.

Now the fact that the more powerful use biological determinism to justify their suppression of the less powerful doesn't necessarily mean biological determinism is wrong. But it might give a person pause to consider. The divine right of kings is alive and well in America today.

All of these examples of biological determinism illustrate what we call **the simplistic biological-determinist error**:

Definition: Concept

The simplistic biological-determinist error

- ? Analogous behaviors are
- ? homologous behaviors

By analogous behaviors we mean behaviors that serve the same function (e.g., building a nest and building a house). And by homologous behaviors, we mean behaviors that have the same directly underlying behavioral causes (e.g., genetically determined, instinctive reinforcers). So an example of the simplistic biological-determinist error is that a bird's nest building and a human's house building are both instinctive because they both serve the same function.

To stretch this new concept slightly, the simplistic biological-determinist error also is to make an analogy between performance on an IQ test and eye color or height and then to assume they are homologous in that differences between individuals on IQ performance tests have genetic involvement, just as do differences in eye color and height.

We consider many of the arguments based on biological determinism to be simplistic; but this criticism is not to deny that we are biological animals nor that the principles of biology apply to

us. It's just like another concern we have: we consider many of the extrapolations from Rudolph in the Skinner box to be simplistic; but this concern is not to deny that we are behavioral animals, that there is a little of the rodent in all of us (maybe quite a little); and this concern is not to deny that the basic principles of behavior underlie all our actions. It's just to say that we've got to be careful; be simple, not simplistic, whether we're talking about the application of biological principles or behavioral principles.

QUESTIONS

1. What are three related terms that originally all referred to the nonmaterial dimension?
2. What seems to be the dominant view in contemporary psychology about the reality of a nonmaterial world?
3. According to the mentalistic view, what causes a person to behave? Give an example.
4. According to the cognitive-behavior-modification view, what causes a person to behave? Give an example.
5. According to the radical behaviorist view, what role do cognitive structures play?
6. According to the radical behaviorist view, what causes a person to behave? Give an example.
7. How do cognitive behavior modifiers and radical behaviorists differ in their view of animal behavior?
8. How do radical behaviorists and methodological behaviorists differ in their view of complex human behavior involving delayed reinforcers?
9. Draw a table showing the position the five views of psychology take concerning mentalism, materialism, behaviorism, and inferences of private events.

²⁰ Herrnstein, R. J. & Murray, C. (1994). *The Bell Curve: Intelligence and Class Structure in American Life*. New York: Free Press.

10. Give an example of each of these three errors:
- a. the simplistic cognitivist error
 - b. the simplistic behaviorist error
 - c. the simplistic biological-determinist error
11. Define each of the following concepts (we normally recommend this question for graduate courses but not undergraduate courses):
- a. mentalism
 - b. mind
 - c. materialism
 - d. materialistic mentalism
 - e. spiritualistic mentalism
 - f. cognitive structure
 - g. cognitive behavior modification
 - h. radical behaviorism
 - i. methodological behaviorism
 - j. the simplistic cognitivist error
 - k. the simplistic behaviorist error
 - l. the simplistic biological-determinist error

Conceptual Question

1. What is your opinion of the merits of each of the five views of psychology? What do you see as the strengths and weaknesses of each?