

The Reinforcer

FUNDAMENTALS

Example
Behavioral Clinical Psychology
**I'M A WOMAN TRAPPED IN A MAN'S
BODY—PART I**

"I want sex-change surgery. I want a woman's body. I'm a woman trapped in a man's body. I want the right body. I want a woman's body," the young man continued in a high-pitched, almost falsetto voice.

"Is that possible?" Sidney Fields asked, looking at this strange young man who was about five six and appeared to weigh less than 100 pounds.

"Yes, if you've got the money, and if you can find a surgeon who will do it, and if you're 21. But I don't have the \$70,000 or whatever it is. I don't know the right doctor. I'm only 18. I've got 3 more years of hell to live through. Even then, I won't have the money."

"Why is it hell?"

"You can't understand. No one can. Mr. Fields, suppose you woke one morning and discovered your body had changed into a woman's body."

Sidney Fields flinched.

"You'd give anything to have your man's body back. Well, that's the way it is with me. Oh, I know; it sounds like a dirty joke. But it isn't a joke. It depresses me so. That's why I came to you, Mr. Fields. I'm in your intro psych class, and I thought maybe you could help me. No one else can."

Sid put his left elbow on the arm of his desk chair, closed his eyes, and then rubbed his left eye with his index finger. He couldn't come to grips with the reality of this extremely effeminate young man and his plight. He wasn't like a woman; he was more like a caricature of a woman.

"Mr. Fields, you've got to help me. If you don't help me, I'm afraid I'll commit suicide. I tried suicide once. I overdosed on antihistamines, but it didn't work."

The young man went on to explain that when he first started high school he ran away from home and tried to commit suicide. Everyone had made fun of him in high school and it was just too aversive; so he dropped out. When he returned to high school, he had fainting spells. A psychiatrist had seen him. His parents put him in a hospital. The psychiatrists gave him antidepressants and phenothiazines for 9 months. Nothing helped.

Sid was not a clinical psychologist; he was a psychology teacher; so he felt awkward in this role into which the young man had cast him. "I'm afraid I haven't learned all my students' names after just one class, so . . ."

"Sorry, Mr. Fields, *Bobbie--Bobbie* with an *ie*, not a *y*. That was my mother's idea. She wanted a girl. *Bobbie Brown* is my name."

"Tell me more about yourself, Bobbie. When did you discover you were gay?"

"I'm not *gay*; Mr. Fields; I'm not attracted to gay men, not at all. I a transgender person; I'm only attracted to straight heterosexual guys; I'm a woman in a man's body."

"Thanks for the clarification, Bobbie. So when did you discover you were a woman and not a man?"

"Mr. Fields, suppose I asked you, 'When did you discover you were a man and not a woman?' Oh, I don't mean to be sarcastic. It's just that no one understands. I was born a female. I started out as a little girl in a little boy's body. As long as I can remember, I always preferred girls' clothes. But they wouldn't let me wear my girls' clothes in school. I more or less stopped wearing them, even at home, when I was about 13. People were giving me too much grief. When I was in grade school, I read the encyclopedia so I

Comment: 16 out of 16 students in one section voted in favor of this section and found it not morally bad etc.

¹In these contexts, we use the term *behavioral clinical psychology* to facilitate a quick understanding of what we're talking about. But we generally prefer to use simply *behavior analysis*, because the procedures are straightforward, learning-based behavior analysis and have essentially nothing to do with medical-model-based clinical psychology. The problems are, however, those that traditional clinical psychology has grappled with in vain for nearly a century. A controversial point, no doubt.

²Like all cases in this book, Bobbie's is based on actual research. In this instance, David Barlow and his colleagues at the medical school of the University of Mississippi did this research. The work of these behavior analysts with a transgender client represents one of the most dramatic cases of behavior modification in the history of psychology. We will follow the progress of this case (and others introduced in this chapter) throughout the rest of the book. See: Barlow, D. H., Hayes, S. C., Nelson, R. O., Steele, D. L., Meeler, M. E., & Mills, J. R. (1979). Sex role motor behavior: A behavioral check list. *Behavioral Assessment, 1*, 119-138; and Barlow, D. H., Reynolds, E. H., & Agras, W. S. (1973). Gender identity change in transsexuals. *Archives of General Psychiatry, 28*, 569-579.

could learn how to cook and knit and crochet and embroider. I did the prettiest things. I've always hated the things my brother enjoys, like basketball and hunting."

Bobbie also said he had started having sexual fantasies when he was 12. He always imagined himself as a female having intercourse with a male. He masturbated to these fantasies but had never had an orgasm or ejaculated.

"Bobbie, I can see you're hurting, but I'm not sure what you want me to do. I'm not a surgeon," Sid said, as he tried to find his way back to his more comfortable role as the college teacher.

"I know, Mr. Fields; please don't joke with me. You *are* a psychologist, and I sure need your help."

"What do you want?"

"I want to stop hurting. I want to feel good about myself. My dad hates me. My brother teases me and makes fun of me because I'm majoring in secretarial sciences. People beat on me. No one likes me but my mother. I don't fit in anywhere. I'm always on the outside looking in. There's no place in this world for a woman in a man's body."

The more Bobbie talked, the more Sid sympathized with him and the more Bobbie's plight moved Sid. Though Bobbie was different from Sid, in fact different from anyone Sid had ever known, Sid also could see that Bobbie had the same feelings, fears, and concerns as everyone else Sid knew, including Sid.

"Do you want to be a man in a man's body?"

"No! I'm not a man. I'm a woman. Besides, my psychiatrist said they've never ever been able to take a transgender person like me and change her into a man. That's what I am, you know—a transgender person. He says the treatment of choice is sex-reassignment surgery. But even if I had the money, I'm not 21; and even if I were 21, I have no idea where I could get the money. I don't know what to do."

"What are your options?"

"I saw a movie about one transgender person who became a prostitute. Oh, gross! I don't want to do that. And I don't want to be a female impersonator on the stage. I am not an impersonator; I *am* a female. I just want to marry a nice man and have children and lead a normal life, just like any other woman."

"What are your odds?"

"Terrible. That's why I'm so upset."

"If you were a woman in a woman's body, there'd be a place for you and you'd be OK."

"Of course!"

"If you were a man in a man's body, there'd be a place for you and you'd be OK."

"It wouldn't be OK!"

"Maybe not. But, like I said, I'm not a surgeon; I can't give you a woman's body. Also, I don't think I can help you become happy as a woman in a man's body, at least not in our society; and I'm afraid we aren't going to change society fast enough to be of much comfort to you. But I do have some ideas about how we might help you become a man in a man's body. Also, I have some ideas about how we might help you like it that way. Dr. David Barlow and his colleagues dealt with a problem like yours when he was at the University of Mississippi Medical Center."

"My psychiatrist said no one has ever done it."

"No one had done it before Dave Barlow. And I don't think anyone has done much since then. It's hard, stressful work, and the outcome is not certain."

"I'm used to hard work, and I'm used to stress. But I don't want to be a man any more than you want to be a woman."

"I know, Bobbie. I feel bad that I can't solve your problem any other way. I can't change your body. I can't change society, at least not fast enough. I'm afraid I can't do more. If it doesn't work out, you could still pursue the sex-reassignment surgery later."

"I'm not sure, Mr. Fields; I'm going to have to think about that."

Intervention **A MAN'S MOVES**

Bobbie did think about it. He thought about it for the next week. He had to make a big decision. We often don't make big decisions unless our life is so aversive we can't bear it. Bobbie's life was so aversive that he decided to escape from that aversiveness with the help of Sid Fields. He didn't want to solve his problem this way, but he had no better way; it beat suicide, and he appreciated that.

Bobbie and Sid started on a program that would consume much of their lives for the remainder of Bobbie's freshman year at Big State University. But they didn't start this program alone. Dawn, Sid's wife, was a licensed psychologist, and she also worked on this project with them.³ It was an experimental program that might never help or that might make Bobbie's life even worse. Desperation's solution. Sid hoped only that he could repeat the heroic work that Barlow and his colleagues had done.

Sid didn't want this job. He didn't have the time. And he was happiest teaching his courses and reading journal articles about how others solved psychological problems; he'd rather read about Barlow's work than actually do it. But Bobbie's suffering had

³We point out at this point that a fictional, licensed PhD psychologist (Dawn) was involved in this fictional project because a few readers of earlier editions of this book were concerned about the ethical and legal implications of having an unlicensed fictional psychologist (Sid) take on such a serious problem. Unfortunately, the training that normally leads to becoming a licensed psychologist (e.g., a traditional clinical psychologist) in no way prepares the psychologist to help Bobbie solve his problems. We should also mention that to reduce any problems of conflict of interest between Sid's role as Bobbie's teacher and his and Dawn's role as Bobbie's behavior analysts, they did not charge him for their help.

moved Sid so much that he had promised to help. It was too late to back out now. Nothing to do but go for it—go for it with more intensity than is the custom in clinical psychology—go for it 30 minutes a day, 5 days a week.

They started with the problem that caused Bobbie the most misery—the scorn and ridicule from his peers for his effeminate behavior. To change from a woman to a man, Bobbie would have to act like a man. He would have to sit like a man, walk like a man, and stand like a man.

“I don’t want to be John Wayne,” Bobbie said.

“I agree. I don’t either,” Sid said, “but there is a middle ground, the behavior style of the typical male. It’s fundamentally no better nor worse than your style. But using the typical male style will greatly reduce the amount of hassles you have.”

“Am I really that different?”

“I’ve noticed in class and I’ve noticed in our meetings that almost 100% of the time you handle your body more like a typical woman than a typical man.”

“What do you mean?”

“For instance, the way you’re sitting. You’ve crossed your legs with one knee on top of the other, like a woman.”

“Isn’t that the way everyone sits?”

“I’m not.” Sid was sitting with his legs crossed, but the ankle of his left leg was on top of the knee of his right leg. “This is a more masculine way of sitting. Try it.”

Bobbie slowly moved the calf of his left leg to the knee of his right leg, glanced at Sid, and then kept moving until his left ankle almost touched his right knee.

“That looks great, at least if you want a more traditional masculine image,” Sid said.

“Perhaps, but it feels terrible,” Bobbie replied.

“We’ll keep working on it until you naturally sit in the traditional masculine way and feel comfortable doing so. I’ll show you how to sit. Then you try it and I’ll tell you how you’re doing. We’ll use what we call a reinforcement procedure.”

“I’m willing to keep trying, but I’m sure I’ve seen many guys sitting with their legs crossed the way I had them before, with one knee above the other,” Bobbie said.

“Yeah,” Sid said, “you’re right, but at this point you need all the masculinity you can get, so go with this slightly exaggerated style awhile.”

Sid started with a **task analysis**. He started with the seemingly simple and natural act of sitting. He divided sitting into four components, including leg crossing. Each day he and Bobbie went through a series of practice trials, component by component. Sid modeled a component of masculine sitting, and Bobbie tried to imitate him. Sid then gave Bobbie feedback and praised his suc-

cesses. At the beginning of each day’s session they also reviewed a videotape of Bobbie’s performance from the end of the day before.

After five sessions, Bobbie comfortably, naturally, and reliably sat in the John Wayne way. Then they worked on walking and finally on standing, succeeding with each class of responses. Walking and standing also took five sessions each. It was slow, hard work for Bobbie. He often said he wanted to quit. Sid often thought he too wanted to quit. Instead they plotted Bobbie’s progress on a chart at the end of each session. These signs of progress, small though they were, encouraged the behavior analyst and the client⁴ to hang in.

After several weeks, Sid said, “Bobbie, you’ve done it. You’ve now got the moves of a man. Congratulations!”

“Thanks for the compliment, Mr. Fields. And thanks for your help. It feels good. People are treating me better now, not like some sideshow freak. You know, I feel like I’m an actor and you’re my director, like you’re teaching me to play a role—the role of a normal, red-blooded, all-American male. Yet I also feel like we’re tricking them, because that’s not the real me there on that stage.”

“Did you ever hear of method acting?” Sid asked. Not waiting for Bobbie to reply, he went on. “That’s a technique people like Marlon Brando have used. Sometimes the actors almost become the characters they’re playing.”

“You think I’ll become your all-American male? You think I’ll stop feeling like a woman in a man’s body?”

“I know, Bobbie. It’s hard. We’re not there yet. But we’re getting there. Tomorrow we’ll start on the next leg of the journey.”

Will Sid repeat Barlow’s success? Will he succeed in changing a personality more completely than almost anyone in the history of psychology? Will Bobbie become a man? And if he does, will he be happy? Dear readers, only future chapters will tell.

Analysis

The major key to the success Sid and Bobbie had on the first leg of their journey was probably Sid’s use of praise as a **reinforcer**. He praised Bobbie, each time Bobbie made the right moves. That praise probably **reinforced** (strengthened) those moves, making the male moves occur more and more frequently until they occurred as often as with any other male.

⁴Various terms have been used to designate the recipient of the services of the psychologist and, more generally, the behavior analyst. In the classroom, the term *student* has done the trick and continues to do so. But in other settings, the appropriate designation has proven more evasive: Originally, the term *patient* dominated, but that term implies a medical cause when the problem may have been the learning of dysfunctional behavior or the failure to learn functional behavior; so *client* seemed more appropriately neutral. Now, however, *consumer* is in the ascendency; so in preparing the fourth edition of this book, I did a search-and-replace, replacing *client* with *consumer*. But it started getting too weird; so I checked with users of this book and other professionals and students, and almost everyone said to stick with *client* or some such term and to bag *consumer*. So I did a reverse search-and-replace and am pretty much hanging in with *client*, at least for a while longer.

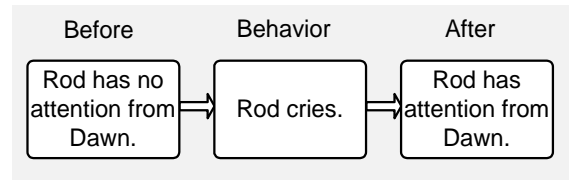
Another key to their success was the detailed **task analysis** Sid borrowed from Barlow and the University of Mississippi crew. The task analysis allows for an interesting approach to life. Behavior analysts look at life as a set of tasks. They ask: “Are you having trouble with life? What part of your life?” Then they say, “Well, that part of life is just a task—just a job to be done. Yet the task may be too large and too complex to cope with. So let’s break it down into its components. And let’s make sure you can do each component. Then you’ll be able to do the big task, and you will have solved your problem!” For instance, if you’re having trouble acting like a man instead of a woman, let’s break down the task into its components and go from there. Let’s break acting like a man into such small components as sitting, standing, and walking. Then let’s break those components into even smaller components, like putting your ankle over on your knee when you’re sitting. That’s a revolutionary way of looking at life. And it seems to work!

In doing a task analysis, you must **be concrete**. That brings us to a fundamental general rule.

<p><i>D</i>General Rule</p> <p>Be concrete</p> <ul style="list-style-type: none"> ○ Always pinpoint specific behaviors ○ when you deal with a behavioral (psychological) problem.
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Specify exactly what behavior you want to change. Sid couldn’t just say Bobbie was too effeminate. He couldn’t just say Bobbie acts too much like a woman. He had to specify exactly what behavior he would and wouldn’t reinforce. He would reinforce Bobbie’s crossing his legs with the ankle of one leg resting on the knee of the other. He wouldn’t reinforce the knee of one leg resting above the knee of the other. You’ve got to play it that way, even if it seems ridiculous. If you don’t, you won’t reinforce any one behavior with enough consistency to increase its frequency. It’s even more crucial to pinpoint the specific behavior if you want someone else to do some of the reinforcing. What that person thinks is effeminate may not be what you think is effeminate.

Here’s another thing Sid did: When he started the reinforcement program, he also gave Bobbie specific **feedback**. After each of



Bobbie’s responses, Sid told him what he had done right and what he had done wrong. For sure, he was concrete. He got so concrete he’d say, “Put your ankle closer to your knee.” He didn’t just say, “Be more masculine and less effeminate.” That would help about as much as giving the feedback in Greek. He also showed Bobbie the videotapes of his responses.

As we will see, to change behavior, you must analyze tasks, specify concrete behavior, reinforce, and give feedback. (By the

way, we’ll sometimes use technical terms, like *reinforcement* and *feedback*, in our analyses before we define them. Don’t worry; we’re just breaking you in. Their meaning should be clear from the context, and they will become familiar friends by the time we formally introduce and define them.)

Well, you’ve met Sid at the university. Now let’s follow him home.

Example of Reinforcer
Behavioral Child and Family Counseling
FAMILY LIFE—PART I⁵

The baby’s scream sounded like someone’s fingernails scraping over a chalkboard. Sid Fields pounded his fists on the battered computer, jumped up from his desk, and ran into the nursery.

Fortunately, Dawn had gotten there before him. She picked up their crying baby, hugged him, rocked him, cooed, and then said to her husband, “Sid, calm down. Rod will be asleep in a minute.”

“That kid’s driving me crazy,” Sid said. “I’m having enough trouble getting my dissertation written without having to put up with Rod’s constant crying.”

“Sid, he’s just a baby,” Dawn said.

“He’s going to be a baby with an unemployed father if I don’t get this dissertation written. You know the chair of our department said he couldn’t rehire me if I don’t finish my dissertation and get my doctoral degree by the end of this year.”

“You’ll get your doctoral dissertation written, Sid. I know you will.” Dawn put her right arm around Sid’s waist, while she continued to cradle Rod in her left arm.

“Shhh, Rod’s asleep now,” Dawn said as she placed the baby back in his crib.

Dawn took Sid’s hand and both smiled as they looked down on their sleeping son. Then they started to leave the room as quietly as they could. But before they’d reached the door, Rod started whimpering. So they sat on the floor of the nursery, waiting for their son to fall asleep again. Their smiles had disappeared.

Concept
REINFORCER

As Sid Fields and Dawn Baker sat on the floor of their son’s nursery, they began talking in low voices. “You know, Dawn, I think you increase Rod’s crying each time you pay attention and cuddle him when he cries. I think your paying attention reinforces his crying.

Comment: ○Just like my praise is a reinforcer for Bobbie that makes it more likely he’ll sit correctly on his next practice trial.

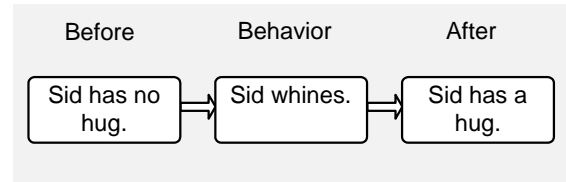
I think even our entering Rod’s room is a reinforcer that reinforces his whimpering.”

⁵Based on Williams, C. D. (1959). The elimination of tantrum behavior by extinction procedures. *Journal of Abnormal and Social Psychology*, 269.

DConcept**Reinforcer (positive reinforcer)**

- Any stimulus, event, or condition
- whose **presentation** immediately follows a response
- and **increases** the frequency⁶ of that response.

“What about my giving you a hug when you were so upset about your dissertation? Was that a reinforcer that reinforced your complaining?” Dawn smiled and took Sid’s hand.



“I wasn’t complaining about my dissertation; I was stating a fact.”

Dawn thought, even if the shoe fits, Sid refuses to wear it. She said, “I have a Ph.D. in behavior analysis, and you soon will have. . .”

“Let’s hope!”

“I earn my living using behavior analysis to help other people,” Dawn continued. “And yet, why can’t I use behavior analysis to help my own family? Surely we can figure out how to use behavior analysis to help Rod stop crying and causing such a fuss. Surely we can figure out how to help him stop making life so hard for all three of us.”

“What about a little help on my dissertation too?”

“OK, we’ve also got to figure out how to help you get over your writer’s block and finish your dissertation so you can keep your job in the Psych Department.”

Two hours later Rod was sleeping soundly enough that his parents could finally slip out of his nursery without his starting to cry again.

You may have sensed that Sid and Dawn use the word *reinforcer* in a technical manner. You’re right. Here’s what they mean by *reinforcer*.

For example, Dawn and Sid’s attention and comfort immediately followed Rod’s crying and increased the frequency of his crying. So attention and comfort are a reinforcer for Rod’s behavior.⁷ And Sid’s praise immediately followed Bobbie’s manly moves and increased the frequency of those moves. So Sid’s praise is a reinforcer for Bobbie’s behavior.

Here’s another example: It might be a big reinforcer for you to see the crucial concepts in this book highlighted in yellow. If so, now’s the time for you to pick up that yellow highlighter and go for it.

In chapter 13, we will see that this increased frequency occurs in situations similar to those in which the response had previously produced that reinforcer.

QUESTION

⁶(Warning to beginning students of behavior analysis: This technical footnote makes use of several concepts you will meet formally only in later chapters.) Starting with Skinner, behavior analysts have traditionally used the expression probability of response or rate of response rather than frequency of response, the term we will generally use. The problem with probability is that it applies only to discrete-trial responding, where there is an opportunity for only a single response on each trial. It does not apply to free-operant responding, where the frequency of the response is free to vary from zero to 100 or more per minute. In the case of discrete-trial training, for example, with an autistic child, we can ask a question or give an instruction and then score each discrete trial as to whether or not the child made the response. If the child responded on 7 of the 10 trials, the probability of the response is 0.7. But, suppose in the free-operant Skinner box, Rudolph, the rat, pressed the lever 7 times in the first minute; what’s the probability of his response? Not 7 divided by 10, nor 7 divided by 60. The concept of response probability doesn’t apply in these free operant settings because there’s no way you can compute it. Skinner rarely (perhaps never) tried to compute free-operant response probability; instead, his use of response probability was more like his use of response strength, a concept he later criticized as being a reification in behavior analyst’s clothing.

On the other hand, as Jack Michael pointed out, response rate applies to the free-operant Skinner box, but not the discrete-trial training session. Rudolph pressed the lever 7 times in the first minute, so his response rate was 7 per minute. But it doesn’t make sense to say the autistic child’s response rate was 7 per minute, because, whether he had a minute or 10 minutes to make those 7 responses is, at least in part, under the control of the trainer. So a slow trainer would artificially cause the child to appear to have a slower response “rate” than would a fast trainer. Thus, rate is a poor measure of the child’s behavior.

So, at Jack’s suggestion, we usually use response frequency, to refer to both the rate of free-operant responding and the relative frequency (probability) of discrete-trial responding.

⁷The infant’s crying raises an interesting problem—the cry-wolf phenomenon. The infant’s crying is a very functional escape response because it will bring a watchful parent to the rescue when the diapers are wet. Crying will also be reinforced by the watchful parent when the child is hungry. But it is very easy for crying to become dictatorially dysfunctional, when the overwatchful parent reinforces crying with attention and comfort every time it occurs. It’s not always easy for the outsider to discriminate between functional and dysfunctional crying, though most parents may learn that discrimination.

Comment: I added and then removed this footnote: Life isn’t simple, and not everything categorizes nicely; but here’s the way I think it is: A *reinforcer* is any stimulus, event, or condition whose **presentation** immediately following a response and **increases** the frequency of that response. But a particular stimulus may function as a reinforcer under some conditions and not under others. For example, you might increase the required effort of the response and find that an otherwise effective reinforcer is no longer effective; the stimulus no longer functions as a reinforcer. So, I’m saying sometimes an m&m is a reinforcer for a kid, if under some conditions it functions as one. But I won’t be too surprised, if you require the kid to run 10 miles for one m&m and find that she refuses. That doesn’t mean the m&m won’t function as a reinforcer under reasonable conditions. And, also, if she just ate a pound of m&m’s, I doubt if m&m’s would function as reinforcers, for a while. Similarly, if we only gave her 1/20th of an m&m, that m&m fragment might not function as a reinforcer. So, when we say *food is a reinforcer*, you could also say *food functions as a reinforcer*; and we’re always implying that it functions as a reinforcer under the proper circumstances.

1. *Reinforcer*—define it and give an example of attention as a reinforcer. (When we ask for examples, we will normally be happy with examples from the text. We won't mean original examples, unless we say so. But your instructor might want original examples; better check.)

HOW IMMEDIATE IS IMMEDIATE?

If the reinforcer is to reinforce a particular response, it must immediately follow that response. But how immediate is immediate? We don't have any experimental data on this one for human beings, but the research on nonverbal animals suggests that a minute or two pushes the limit (even 30 seconds is hard). And if you talk to most any behavior analysts working with nonverbal children, they'd agree. They'd quit their job if they had to wait 60 seconds before delivering each reinforcer to their children. Such a delay is a good way to ensure that no learning would occur, even with people—at least no desirable learning.

So, if you're trying to reinforce a response, don't push that 60-second limit. Push the other end, the 0-second end. The direct effect of reinforcers drops off quickly as you increase the delay, even to 3 or 4 seconds. And even a 1-second delay may reinforce the wrong behavior. If you ask a young child to look at you and then give the reinforcer 1 second after the response, you're liable to reinforce looking in the opposite direction. So one problem with delayed reinforcement is that it reinforces the wrong response—the one that occurred just before the delivery of the reinforcer. Probably a reinforcer must be delayed no longer than 1 second to be considered immediate and the closer to 0 seconds, the better.

QUESTION

1. How immediate is immediate, when reinforcing a response?

Example of Reinforcer?

WHO WAS THAT MASKED STUDENT WITH THE SILVER STAR?

Now back to the main point. You tell your friend you'll paste a silver star on her forehead as a reinforcer every time she helps you with your homework. But that may not do the trick. Just because you call the silver star a reinforcer doesn't mean it will work as one. Another way to put it is: Will she more frequently help you with future homework? Will the silver star on her forehead help you to become a star pupil in class? If it does, then you've probably got a reinforcer on your hands, or at least on her forehead.

*Example of Reinforcer Behavioral School Psychology*⁸

⁸We will use the terms *Behavioral School Psychology* and *Behavioral Special Education* somewhat synonymously, though the traditional approaches to these two areas are quite different. Traditional school psychology concentrates on performing psychological tests of students, largely to determine whether they should go into a special education classroom; but behavioral school psychology and behavioral special

ERIC'S CLASSROOM TANTRUM—PART I⁹

Eleven-year-old Eric sat quietly in the classroom, cute enough to be on a Norman Rockwell cover of the *Saturday Evening Post*. Middle America's stereotype of the American kid—unruly red hair, freckles, dimples, worn Nike shoes, the back of his plaid shirt pulled out of his Levis, his fly half unzipped. Then he started glancing around the room, at first on the sly, and then twisting his whole body in the process, a bit disruptive, but still cute. He wrinkled his face and began making soft noises—less cute. The soft noises quickly became snuffles, then cries, then shouts, "I hate it! I hate it! I want out! Let me out! I hate you!" The American-kid fists began pounding the desk. Eric fell out of his seat and lay on his back, now pounding the floor with his fists and kicking it with his Nikes. He was shouting and crying with more intensity than seemed possible from his small, trembling body, "Hate it! Hate it! Hate it!" The truth behind the cover boy.

Sue sprang from her desk when Eric hit the floor. Now what? She paused an instant, unprepared. Then she ran to Eric and tried to pick him up, but his body went rigid and he started pounding on her stomach. She withdrew in pain.

"Eric, Eric, what's the matter?" she asked, with as much of a calming tone as she could achieve.

"Hate it! Hate it! Want out!"

The class fell apart immediately. None of the other kids had ever seen anything like this. They stared at Eric, ignoring their studies.

Eric stopped more than Sue's classroom; his shouts and pounding paralyzed the whole school, as all the teachers and staff ran into Sue's classroom. She stood there, her arms dangling at her sides, helpless, embarrassed, ashamed. Her first day on the job and already a failure.

She felt better when Bob went over to Eric, with all the confidence his senior status and experience justified; but he, too, had to retreat from the pounding Eric gave him. If Bob couldn't handle Eric, then who could expect her to?

The staff settled for long-distance psychotherapy, being careful to stay out of Eric's reach. "It's OK, Eric." "Do you want your mommy, Eric?" "What's the matter, Eric?" And with firm finality, "All right now, Eric; enough of this nonsense. Get back in your seat and settle down." Followed quickly by a guilty, "We love you, Eric." "That boy's throwing a regular hissy fit."

Also consultation: "What's the matter with this poor child?" "Just an extreme anxiety attack." "Fear of failure." "Probably dyslexic." "School phobia." "Frustrated." "He's expressing a deep-seated

Comment: ○Your friend has no silver star on her forehead. Your friend helps you with her homework. Your friend has a silver star on her forehead.

education both concentrate on using behavioral techniques to improve classroom teaching, especially for students with difficulties.

⁹Based on Zimmerman, E. H., and Zimmerman, J. (1962). The alteration of behavior in a special classroom situation. *Journal of the Experimental Analysis of Behavior*, 5, 59-60.

insecurity.” “The kids tease him.” “We do not,” shouted a defender of juvenile morality.

Analysis

While Eric was throwing his tantrum in the school building, Dr. Mae Robinson was parking her Skylark in the school’s parking lot. She got out, still thinking about the meeting she had just left with the principal of West James Elementary School. She felt flattered that he had referred Eric to her school, the Rosa Parks Academy. The principal thought maybe she could help Eric, after the West James school psychologist and special education teachers had given up on the boy. She smiled as she wondered if it bothered them to ask for the professional expertise of a black woman, the youngest principal in the school district. Maybe they were just dumping Eric on her, getting rid of a problem, with no hope that she could help the poor boy. Educators sometimes grow cynical after years of disillusion. She had to force herself to stop thinking that way. She had to give them a chance, like they seemed to be giving her. But still. . . .

As for Eric, well, she would just have to see. But she thought she knew what caused his problem. No internal demon expressed itself through his tantrums. No warped perception separated Eric from reality. He acquired his obnoxious, pitiful, disruptive behavior because of its consequences. And the way they described Eric’s problem, it sounded like he got plenty of reinforcing consequences. He was getting more attention in 5 minutes of tantrums than most people get all day. Attention is a social reinforcer. Attention is contingent (or dependent) on Eric’s tantrums. Here, attention reinforces his tantrums. He may throw a lot more tantrums than he would if no one attended to his tantrums.

The analysis seemed simple to her, though neither the principals, the school psychologists, nor the special education teachers had suggested it. She knew the cause, but what about the cure? She’d have to think about that.

Mae walked across the gravel parking lot to the 80-year old, two-story, brick school building. She had saved it from the demolition crew to house her new special school. As she approached, Eric’s shouts gradually caused her to stop thinking about Eric’s conference and to start thinking about Eric’s reality. She quickened her pace, hurrying to the entrance of the shabby old building. Then she bounded up the inside stairs to the second floor and into Sue’s classroom.

Mae stood a minute, amazed. By this time, spectators had packed the room; not only were the teachers from the other classroom watching and giving advice, but so were their students. This was no time to speculate further about the causes of poor Eric’s problems. Mae had to act. She had to solve the problem.

What will she do? Will she succeed? Or would we be so devious as to include studies that are failures? Hold tight, dear readers; only future chapters will tell.

QUESTION¹⁰

1. Give a classroom example of the way tantruming might be related to social reinforcers. Notice that we say “might be” because we have not experimentally shown that social reinforcement is maintaining Eric’s tantruming. So far, all we’ve got is Mae’s educated guess.

Examples and Nonexamples REINFORCER

Here’s a list of questions with our answers. Now, would it be naive of us to ask you to think through your answer to each question before you look at ours? We know thinking is harder than just reading, but give it a shot anyway.

Question:

What’s your guess? Would a silver star on your friend’s forehead normally act as a reinforcer?

Our guess:

Probably not, not unless your friend is about three years old, or into punk fashions, or both. Of course, we’re just guessing, based on our experience. You’ll only know for sure if you try it and see if she helps you more frequently in the future because of her star-spangled forehead. (Of course, whether something is a reinforcer or not depends on many things, such as the person whose behavior you are trying to reinforce and the specific response you’re trying to reinforce.)

Question:

What about other things on her face—like mascara on her eyelashes, eye shadow on her eyelids, rouge on her cheeks, and lipstick on her lips? Might they act as reinforcers?

Our answer:

It usually depends on what her female friends paint on their faces. But if she paints her face, then the paint on the face is probably a reinforcer for the act of putting it there. And if she pays cold cash for the stuff, then owning it must be a reinforcer for such consumerism.

Question:

What about the principal’s asking Mae’s help with a tough case like Eric? Is his request a reinforcer for Mae? Will she rush over to the West James Elementary School again when she gets a call to help another kid with problems?

Our answer:

Could be, especially if Mae is new to the game and few people have recognized her for her skills as a behavior analyst. But if this

Comment: ○(Remember that the examples for the regular questions need not be original; they can be the examples you just read, unless your teacher says otherwise.)

¹⁰The “questions” in these “study questions” sections are often stated as study objectives (e.g., be able to give an example of such and such); but to keep things simple, we’ll call these sections “Question” sections and not “Objective” sections.

were the 10,000th case other principals had put on her, well, who knows? Though the 10,000th case may be an overload, it is still a reinforcer to know you're appreciated and needed.

Question:

Mae thought that all the attention Eric got for his tantrums probably acted as a reinforcer that caused the tantrums to occur. At least that reinforcer probably kept the tantrums going once they got started. But what reinforcer maintained the giving of that attention; what was the reinforcer for staring at poor Eric?

Our answer:

The spectacle is our guess. Remember, **behavior such as attending occurs because it has been reinforced**. So if they're attending to that behavior, the spectacle is probably the crucial reinforcer.

**DConcept
Behavior**

- A muscle, glandular, or electrical activity.

Keep the following in mind: In the examples of this section, we're just guessing about what the reinforcers might be. You'd have to do an actual experiment to be sure.

QUESTIONS

1. Give an example of something that is probably a reinforcer for some people and not for others. Also, while you are at it, explain it.
2. Give a few examples where the sight of something probably reinforces the behavior of looking at it.

**MORE CONCEPTS THAN YOU'D
CARE TO KNOW**

Here are a few concepts of a semitechnical, semiobvious nature. Still it may help to discuss them for a couple of minutes, so they won't cause any trouble later.

BEHAVIOR

What is behavior? Maybe more than you might think. **Behavior** is

**DGeneral Rule
Dead-man test¹¹**

- If a dead man can do it, it ain't behavior.
- And if a dead man can't do it, then it is behavior.

anything a dead man can't do. Like scratch his nose. Talk. Smile. Cry. Think. Dream. Behavior may even be the firing of a neuron in the nervous system. Behavior is not necessarily falling over a cliff. A dead man can do that, with a little help from his friends. If a dead man can do it, it isn't behavior.

We find the first line of the **dead-man test** one of our most helpful tools in trying to understand complex instances of human behavior. Without it, we'd often end up analyzing the wrong thing—nonbehavior.

However, apply the dead-man test only to behavior, not to reinforcers. For example, sometimes silence is the golden reinforcer, without a living soul around but you. So don't apply the dead-man test to the reinforcer of silence.

The second part of this general rule is also useful: *If a dead man can't do it, then it is behavior*. Dead men don't dance. Dead dogs don't bark. But Dead heads *do* go to rock-and-roll concerts (in other words, this is just a rough, general rule, and you shouldn't get completely bent out of shape if you find an exception now and then). This second line may come from a less flamboyant and more traditional definition of behavior: *Behavior is anything an animal (including the human animal) does*.

But here's the most common definition of behavior:

However, we make more use of the dead-man test than the more formal definition of behavior because we consider thinking, dreaming, and having images as part of the subject matter of behavior analysis; and we're not sure those activities involve muscle or glandular activities, though they probably do involve electrical activity. Furthermore, we suspect reinforcers can increase the frequency of those activities; so that's even more reason to want to consider them behavior.

Here's something that confuses many students: **Behavior analysts use response and behavior almost interchangeably**. So we might say *Bobbie's crossing his legs is behavior* and we might say *it's a response*. In other words, we don't necessarily restrict *response* to mean a reaction to something, as when you react to a joke by smiling.

Behavior = Response

Here are some other words that mean more or less the same as *behavior* or *response*: *act, action, movement, and reaction*. When we speak of *behavior*, we don't restrict its meaning to "comportment" or "manners." For example, our technical use of the term wouldn't include "I want you to be on good behavior" or "she was ill-behaved." This means that *Elementary Principles of Behavior* is not about how to avoid getting a scolding from your mother for being rude or for talking with your mouth full.

BEHAVIOR ANALYSIS

Behavior analysis is the study of the behavior of human beings and other animals. And that's what this book is about.

Now let's get more precise:

¹¹Be serious. You don't really want us to say *dead-person* test do you? *Dead-person test* is in the tradition of the classic *Dead Men Don't Dance* and the more recent *Dead Men Don't Wear Plaid* flick. And, in an

non-anonymous survey, 11 students said definitely keep it, 2 said maybe keep it, and only 1 said maybe bag it. By the way, Ogen Lindsley invented this concept in 1965.

*D*Concept
Behavior analysis

- The study of the operation of the principles of behavior with both human beings and other animals.

BEHAVIOR ANALYST

If you know what behavior analysis is, the following shouldn't come as a major shock: **A behavior analyst is a person who studies the operation of the principles of behavior.**

*D*Concept
Repertoire

- A set of skills.
- What a person or animal can do.

Many behavior analysts are psychologists. Many are not. They might be special education teachers, social workers, nurses, or business administrators—anyone studying the effects of behavioral procedures.

Behavior analysts often work as *performance managers*. Performance managers include all sorts of people trained in the principles of behavior—teachers, parents, coaches, supervisors, clinicians, social workers, animal trainers, and those who manage their own personal performance (though managing one's own behavior is no easy trick). Of course, most teachers, parents, and so forth are not performance managers (as we use the term) because they are not knowledgeable using the principles of behavior.

We slightly prefer *performance manager* or *behavior manager* over *behavior modifier*. Why? Because a manager may have the goal of supporting an already satisfactory performance with no need to modify it. Said another way, if it isn't broke, don't fix it—don't modify it. *Behavioral engineer* is another acceptable term that means about the same thing—though for some people, it implies that we're working with machines and not people.

Whatever label we use, keep in mind that we're talking about using the principles of behavior, like the principle of reinforcement, to manage performance. We're not talking about brain surgery or drugs when we speak of managing performance or modifying behavior.

You might consider the behavior therapist to be a behavior modifier who specializes in working with abnormal behavior, traditionally the kind seen in a psychiatric hospital or mental health clinic. Behavior therapists are often clinical psychologists or so-

cial workers, though not always. Normally you wouldn't apply the term *behavior therapist* to a behavior analyst who sets up reinforcement procedures to improve productivity in a factory.

REPertoire

Your **repertoire** is your bag of tricks. If you've gotten this far in our book, then your repertoire must include reading English. Or else you're wearing out your thumb with a foreign-language dictionary. By the time you finish this book, we hope your repertoire also will contain behavior analysis. Dancing may be in your repertoire. Perhaps playing baseball, or at least talking about playing baseball, also is in your repertoire. Or if you can't throw a baseball, can you at least throw a tantrum, like Eric? Is tantruming part of your repertoire?

The reinforcement of novel behavior puts that behavior in your repertoire—you learn it. Reinforcement of established behavior maintains that behavior in your repertoire. You learn Spanish, and then you practice it or else you lose it. You learn behavior analysis and then you practice it or lose it. "Use it or lose it" is a good folk principle of behavior.

But: Repertoire is not a thing. You don't have a repertoire that holds all your tricks. It's just a way of speaking, a risky convenience. Your repertoire is just the total collection of things you can do. It's not a warehouse from which you retrieve your stored tricks.

If, by the end of this book, you can pronounce *repertoire* correctly and with grace, you'll be ahead of most people. *Reper* is no big problem. You don't get much credit for that part. Except you pronounce *re* as in *represent*, not as in *repeat*. So try it: *reper*. Remember, don't say it like *reaper*, as in the grim *reaper*. The hard part: *toire*. Like *twar*, as in *car*, not like as in *war*.

BEHAVIORAL INTERVENTION

By *behavioral intervention* we mean the use of a behavioral procedure. We don't mean a military intervention. For example, Mae plans to intervene in Eric's classroom tantrums. But don't think a behavioral intervention means to interrupt behavior. Mae might also use a behavioral intervention to increase the amount of time Eric studies. (We don't want to make such a big deal of behavioral intervention as to require you to memorize a formal definition. We just want you to tune in.)

We prefer to stay neutral and say *the performance manager intervenes with behavioral problems or performance problems*. We tend not to talk of "treating" behavior problems, because we don't want to imply a medical model (see Chapter 2 to read our rantings on the evils of the medical model myth).

BASIC ENRICHMENT

THE FUNDAMENTALS VS. THE ENRICHMENT SECTIONS

We've divided this and the other chapters into two main sections. We call the second section the Enrichment section. We call all the

subsections that come before it the Fundamentals section. You need to master all the issues, concepts, procedures, analyses, and examples in the Fundamentals section to understand the Fundamentals sections of the following chapters. The Fundamentals are the bare bones.

However, you don't need to master the material in the Enrichment sections to understand the Fundamentals in later chapters. But many professors and students thought the Enrichment sections were the best part of the first edition of this book. Your professor may agree and may wish to include parts or all of the Enrichment sections on your quizzes as well. He or she probably will let you know.

Also, we have divided the Enrichment sections of many chapters into two levels—basic and intermediate, with an occasional advanced enrichment section, as well. We've tried to keep the basic level on the same level of difficulty as the Fundamentals sections. The intermediate level is more difficult, though it assumes no knowledge of behavior analysis before you read this book.

WHY JUST A BEHAVIORAL VIEW?

Sid's Seminar

Max: I've been reading ahead, and it looks as if this book deals mainly with behavior analysis. It doesn't say much about other approaches to psychology. Why not psychoanalysis, Freud, Piaget, information processing, cognitive psychology, humanistic psychology?

Joe: What do you expect? The title of the book is *Elementary Principles of Behavior*.

Tom: That may be the title of the book, but shouldn't we be getting a broader view of the various psychological theories in this class?

Sid: An interesting point. Psychology sure isn't short on theories. We've got Freud, Jung, Piaget, cognitive psychology, humanistic psychology, gestalt psychology. . .

Joe: The people in California produce a new pop theory almost every week.

Sid: Here's what I've found in teaching this course. I used to try to cover all the theories, but the students got shortchanged. They didn't learn enough about any one theory to really understand it, let alone make use of it. At best they learned a few clichés they could use in making small talk. They don't appreciate or understand. They gain no solid knowledge. They learn no useful skills. On the other hand, when I devote a whole course to a single approach, the students understand and appreciate that approach—both its strengths and its weaknesses.

Tom: OK, but why behavior analysis? Why not Freud?

Sid: Because I'm a professional behavior analyst. Behavior analysis is what I teach best.

Joe: Also, behavior analysis has more scientific data supporting it and can be applied to more areas than any other approach.

Sue: Professor Harper said if you want to study Freud, you have to go to the English department. He said almost no major psy-

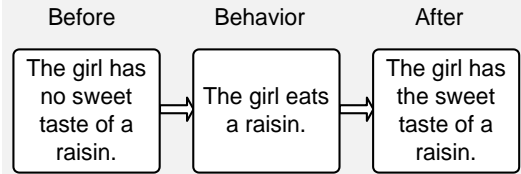
chology department in North America takes Freud too seriously any more.

¹²

¹²*Official unbiased recommendation:* If you want to read more about the general field of psychology, including Freud and Piaget, though from a behavioral perspective, you might check out Malott, R. W., & Whaley, D. L. (1976). *Psychology*, New York: Harpers College Press (out of print). This book also features Mae, Dawn, Sid, and Juke when they were undergraduates at Big State University.

INTERMEDIATE ENRICHMENT

Will this reinforce eating raisins?



MAKE SURE YOUR ASSUMED REINFORCER REALLY REINFORCES

Remember how we define reinforcer? A stimulus, event, or condition that will increase the future frequency of a response it has immediately followed. We do things that will get us reinforcers. And we also stop doing things that cost us reinforcers. For example, we might get reinforcers, like smiles and approval, by being halfway decent to people. And we might lose those reinforcers by being halfway nasty to them; so we could stop losing those reinforcers by stopping our nastiness.

Still we don't know for sure if someone's smile is a reinforcer for us, at least not until we find ourselves doing things that produce

DGeneral Rule

Check the assumed reinforcer first

- Before spending much time trying to reinforce behavior,
- make sure you have a true reinforcer.

that reinforcer or no longer doing things that cause us to lose that reinforcer.

For example, a crocodile smile might not be a reinforcer, unless you're another crocodile.

We all tend to use the term *reinforcer* to describe conditions whose reinforcer value we have not shown. We tend to assume that something will reinforce a particular response of a particular

person just because it has reinforced other responses of other people in the past or just because we think it would if we were that person. It's OK to start that way, though it's risky business if you don't check out your **assumed reinforcer** before going any further. Many so-called failures to modify behavior are often just failures to use a true reinforcer.

For example, suppose you plan to use raisins to reinforce a mentally handicapped¹³ girl's talking. Make sure the girl will eat the raisins first. Does the taste of the raisins reinforce her response of picking up one and putting it in her mouth?

If it doesn't, you may be in for many long, tedious, so-called reinforcement sessions with no progress when you try to use raisins to reinforce talking. Failure to use this general rule may account for much wasted time of behavior analysts and their clients. Once we were working with a child with serious academic problems. So we were giving him an M&M candy every time he read a sentence correctly. After his mouth and pockets were bulging with the candies, he said, "Look, I'll keep reading the sentences; but please stop giving me those M&Ms."

Remember we define reinforcers in terms of their effect on behavior, not in terms of what people say. The people may not know, or they may lie. For example, "Boys, would looking at dirty pictures be a reinforcer for you?" "Oh, no, Mother!"

QUESTION

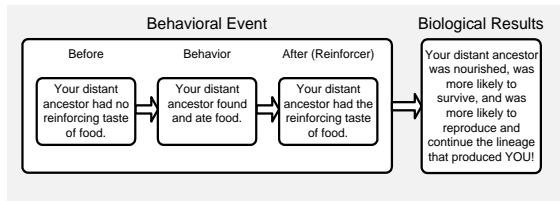
1. State the "Check the reinforcer first" general rule and then give an example of where and how you should use that general rule.

BIOLOGICAL EVOLUTION AND REINFORCERS

Life is full of stimuli, events, and conditions that help us survive (they nourish our body's cells and/or help our population survive). Fortunately, most animals, including the human animal, have evolved so that many of those biologically helpful conditions also

¹³Some people have failed to acquire various functional (helpful) behavioral repertoires and have acquired other dysfunctional (harmful) behavioral repertoires. In the past, such people were often designated as *idiots*. This term became so distasteful that *retarded* came into professional use. Then *retarded* became so distasteful that *developmentally delayed* or *developmentally disabled* became the most acceptable designation. Unfortunately, *developmental* implies an erroneous cause or underlying process for these problems. *Developmental* implies that the person's repertoire was growing, just as the body grows or, just as a seed becomes a flower; but something interrupted or slowed down this automatic, biological growth process, with the result that the person's repertoire development failed to keep up with the physical development. There is little if any evidence to support the claim that repertoires develop automatically as a result of biological maturation. Now, the terminology most accepted in the education field is now *mentally impaired* and *mentally handicapped*. So we will try to use that terminology in this book.

act behaviorally as reinforcers. For example, we tend to repeat acts that produce food, water, and sex. Food and water help us as individuals and thus as a species to survive. Sex helps us as a species to survive.



Your ancestor found and ate the food. The food and its taste reinforced that finding and eating; in other words, when your ancestor doesn't have any food, he will repeat those behaviors that had found food in the past and he will eat the found food. The biological result is that he will be better nourished and more likely to survive. And if he survives, he will be more likely to have offspring, unto your generation, with the miraculous result that you were born to carry on the cycle of repeating behaviors that have been reinforced and will, hopefully, lead to your survival.

Sex is slightly different. Sex is fun (reinforcing) for us as individuals, but it doesn't help our survival as individuals. We have evolved in such a way that food and water are reinforcers because consuming food and water has allowed individuals to survive long enough to produce and raise offspring. The reason we have evolved in such a way that sexual stimulation is a reinforcer is that the resulting sexual stimulation has caused individuals to copulate and thus produce offspring. Unfortunately, not all beneficial or helpful stimuli or conditions are sufficient reinforcers for many of us. For example, most adults in the United States fail to find the stimulation from physical exercise much of a reinforcer. So they fail to do the exercise needed to keep their bodies in good shape.

And, unfortunately, not all reinforcers are good for us. Salt, sugar, and fat are examples. "I'll have a fudge sundae after I finish these nachos." Or you can trash yourself big time by having a cup of coffee with cream and sugar as you finish off your cigarette. Harmful reinforcers have become so prominent in our modern world that I've adopted this policy:

**If it feels too good, be careful.
'Cause it'll likely sneak up from behind,
and bite you on your rear end.**

QUESTION

1. Give three examples
 - An example of a reinforcer that is helpful for you.
 - A helpful stimulus or condition that is not a reinforcer.
 - A reinforcer that is harmful.

HOW TO USE THE STUDY QUESTIONS

Now we're starting to roll. But before we start rolling so fast we get out of control, let's take a brief break and spend the next two sections discussing how to use this book. Then we can really get up to speed. We interrupt now because you may need this information to most effectively reread this chapter and read the remaining chapters.

Question:

What are the main questions of the previous sections? What are the main points? What are the main goals? What are the main questions your professor *might* ask you on the next quiz?

Answer:

The questions listed under the "Question" headings. (Your professor will probably tell you what, if any, relation there is between our questions in the book and his or her questions on quizzes and exams.)

Whenever you finish a section or so, you should be able to answer those questions placed at the end of those sections. If you can't, then give the section another shot. Whenever you finish a chapter, you should still be able to answer those questions. So review it quickly to be sure. Whenever you take a quiz or exam, you should still be able to answer the questions. So take at least a half hour or more to review the questions for each chapter before each quiz.

But there's more to life than study questions. You also should read the sections to which the study questions refer. For one thing, it may be tough trying to memorize answers that don't make sense. A quick skim won't be enough. Carefully reading the relevant sections should put more sense into the questions, the answers, and you. For another thing, if I were your professor, we'd probably ask you a few more questions that weren't in the list of questions, just to keep you sharp. Or from a more long-range view: The questions list only the main points, not all the points. We can't test you on much of what we hope you will get from reading our book—for example, an appreciation of the field of behavior analysis.

IN DEFENSE OF "MICKEY-MOUSE" QUESTIONS

My view of the level of these study questions may shock you. They require no more intellectual skills than you'll find in your average turnip. Yet memorizing their answers requires more work than we should ask of a self-respecting college student. They don't require you to think, just memorize—every concept, principle, and general rule, word for word. (It doesn't have to be word for word, just perfect; but word for word is the safest.)

Why? Because of a surprising report from our best, most thoughtful, and most creative students. Over the years, they've reported that it helped them to memorize everything first. Like memorizing the vocabulary for your Spanish course. Memorize our concepts and you'll *use* them with greater ease; and use them you must! Then, as a result of your using the concepts and principles awhile, you will understand them. You no longer will need to worry with your memorized definitions. Memorize and you take one small but helpful step toward enlightenment.

Also, there's a good chance your instructor will be a real stickler on the quizzes. You'll define a term in a way that looks good to you, but your instructor will say, "No, you left out a word that changes the whole meaning of the definition."

"It was just one word!"

"Right, the most crucial word."

"But I was close."

"Not close enough."

"But I meant to include that word; I just forgot."

"Right. See you in class next week."

The thing is, even with years of experience in behavior analysis, we've had to spend hours defining these terms so the definitions would say exactly what they need to say. (We even had to enlist the help of many of our friends and colleagues and undergrad students too.) The odds aren't too high that you can do it casually if this is your first tour of the land of behavior analysis.

Of course, you should check with your instructor to see the exact relation between these study objectives (questions) and the quizzes and tests in your particular course.

And when we ask for examples, you can just tell us the ones in the book; fine with us! They don't have to be original. Here's why I don't usually require original examples on my quizzes: My experience is that, by itself, a textbook such as this can't get your repertoire to the point where you can reliably discriminate between examples and nonexamples of concepts, let alone reliably generate correct, original examples; so we think just remembering our examples is a step in the right direction. When we use this book, we supplement it with a workbook, *How To Analyze Behavioral Contingencies*. That workbook trains students to creatively generate original examples and analyze novel examples of our concepts. However, whether or not your professor is using this workbook, he or she may want you to generate original examples on the quizzes. There's also a good chance he or she will tell you in advance, but you know how professors are, so you might want to check up front.

We receive d a few ques tions and ex- pres sion s of conc ern abou t our treat ment of

HOW TO READ TEXTBOOKS

Here are some guidelines to follow when you're reading a textbook:

- **Know the title of the book.** That may help you better understand what the book is talking about while you're reading it. It may help you keep the big picture. We know one professor, Jerry Mertens, who's so convinced of the importance of this knowledge that he asks for the textbook titles on his exams—not a bad idea.
- **Know the title of the chapter and section.** Remembering the chapter and section title while you're reading a section will help you understand what the examples are about. And remembering that will help you answer quiz questions such as *What's Rod's sleep problem an example of?*
- **Relate examples to concepts and principles.** Look at the concept and principle defined just before or just after an example and see how the example illustrates that concept or principle. Doing this will also help you better understand what both you read and how to answer quiz questions.

Controversy

TRANSGENDER CONCERNS

Comment: 1. . What about the issue of using behavior mod to help a heterosexual become a homosexual?