Chapter 4

Sharpening the Focus by Refining Goals and Objectives

Goals

1. Describe what is meant by the mission of an organization or service and why it is important for behavior analysts to be familiar with their own organization’s mission.

2. Define, illustrate and differentiate among strategic planning, goals, and behavioral goals/behavioral objectives.

3. Discuss what factors should be considered prior to selecting a goal for a formal behavior analysis program.

4. Define and illustrate:
   a. behavioral cusp
   b. pivotal behavior
   c. target behavior
   d. operational definition
   e. operation

5. Discuss the relevance of the behavior analysts’ competencies to ethical considerations.

6. Describe one of the first tasks of a behavior analyst.

7. Discuss how test scores, records, and other materials are used and the purposes they serve in goal selection.

8. Discuss how each of the following general considerations enter into goal selection:
   a. goals achievable yet challenging
   b. goals constructive and functional
   c. interventions direct or indirect
   d. skills foundational or enabling
   e. short- and long-term benefits
sharpening the focus by refining goals and objectives

9. Define the *constructional* approach
10. Define and differentiate between *functional* and *alternative* goals.
11. Discuss which goals are best defended on ethical grounds.
12. Discuss some ways to avoid and resolve goal conflicts.
13. Define *advocate*.
14. Define and discuss the usefulness of behavioral contracts.
15. Discuss and illustrate the differences between *voluntariness* and *coercion*.
16. Define and illustrate the components of behavioral objectives, including specifying the:
   a. context
   b. behavioral dimensions
      i. rate
      ii. latency
      iii. intensity
      iv. topography
      v. criterion level
      vi. accuracy
17. Define and illustrate a FERG.
18. Develop and specify two behavioral objectives for a client or yourself, following the format provided in this chapter. One must include a FERG and the other an alternative non-FERG behavior.

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“Okay folks. Let’s pile on board. The bus is ready to leave.”

“I’m ready. Got my suitcase full of ABA principles and procedures. What’s my first stop?”

“You’re the expert! You decide.”

“All right. Let’s take a look at the map!”

A map is a good idea (see Figure 4.1), because lacking a good plan, you could meander about pointlessly and waste your own and your clients’ resources. A far better approach is to spend the time up front to maximize your contributions toward the best possible outcomes for everyone concerned. Find out what the family or organization and its constituents value (more technically, “their reinforcers”); what they see as their *mission* (what success would look like), and what specific steps they are hoping to take (their *strategic plan*) toward meeting that mission. Discover what human and material resources are available. Identify major challenges (maybe the basis for your services being sought) but, of crucial importance, discover current programmatic strengths in the form of recent achievements and current progress.

**YOUR ORGANIZATION’S MISSION**

While a family does not usually stipulate a mission for itself, members undoubtedly share a num-
ber of short- and long-range hopes and dreams for its members. When those are discussed among its able members, those hopes and dreams can serve the same function as an organizational mission. Schools, institutions, agencies, and other service and business organizations each have either implicit or, preferably, explicit missions or fundamental purposes for existing. A school’s mission may be to enable students to gain the knowledge and skills necessary for functioning independently in society. For a business organization, it might be increasing or maintaining profitability by providing high-quality goods or services at competitive prices. At the public service level, the mission usually articulates what assistance it hopes to provide for its clientele. Similarly, units within organizations have their own key reasons for being: The social studies department of a school wants students to be prepared to participate as responsible members of society; the claims department of an insurance company, to process claims fairly and expediently; a factory’s safety department, to promote the health and well-being of workers; the quality-control division to increase profits by reducing rejects.

When you affiliate with an organization, in a sense, you “buy into” its mission. Should that mission be obscure, you should seek to clarify it, permitting you to match your own goals with those stated therein. You will then be able to see whether personnel seem to be working together toward that common goal or at cross purposes. You will have a better idea of how your efforts and the stated direction of the organization link up with those of your

**Figure 4.1** A road map to mutually agreeable objective selection.

**Box 4.1**

Psychological services in the Deep Valley District have concentrated primarily on conducting assessments of students for special education placement. Mr. Ernest ("Ernie") is more interested in consulting with teachers and has been designing an in-service consultation program. Before beginning this consultation, Ernie presents his plan to his supervisor, and together they review the mission of their unit: “To remedy and prevent students’ social, emotional, and academic difficulties.” Ernie is able to convince his supervisor that providing consultation to teachers will accomplish their purposes more cost efficiently in the long run. The program succeeds and the supervisor becomes Ernie’s strongest backer.
colleagues and supervisors, and what organizational support you may expect for your activities.

**ORGANIZATIONAL CULTURE**

“Behavior comes to conform to the standards of a given community when certain responses are reinforced and others are allowed to go unreinforced or are punished” (Skinner, 1953, p. 415). Skinner uses the term culture to define such environments and elaborates on how local and broader cultures influence the group practices that generate patterns of behavior, manners, and customs. Within business organizations in the United States, for instance, the overarching power for executing its goals often is vested in a single individual, the Chief Executive Officer. Yet, that is not always the case. For instance, in various Native American tribes, power is shared far more broadly (Lowery & Mattaini, 1999). That may be the case, too, in particular families and business, educational, and service organizations.

Yet, just as cultures vary across and within nations, so do they at the local level. The ethos within one family or subculture may reflect a value for (and therefore reinforce) conformity and docility, punishing assertiveness; another might tend to reward individual self-expression and deliberately teach assertiveness skills. Similarly, local standards of what constitutes reinforcement, extinction, and punishment prevail wherever behavior analysts apply their skills, whether with individuals from various ethnic cultures or within families, community, educational, social, business, commercial, or other organizational settings. Before involving yourself as an external or internal consultant, you are well advised to discover how closely your cultural values mesh with theirs. For one very real example, some programs serving persons on the autism spectrum routinely treat maladaptive behavior with punishment, never stopping to investigate why the behavior is happening in the first place. Others refuse to apply any form of aversive management (positive or negative punishment), even despite clients posing immediate threat of endangering themselves or others. And others, probably most, fall somewhere else along the continuum. You need to clarify how your own and their values mesh, if you are to succeed and gain satisfaction from your involvement.

**STRATEGIC PLANNING**

“Simply put, strategic planning determines where an organization is going over the next year or more, how it’s going to get there, and how it’ll know if it got there or not” (McNamara, 2008). An example we have selected because the plan incorporates evidence based on applied behavior analytic research is the Virginia Strategic Plan for Pedestrian Safety (2005–2010) (Porter, Anderson, Martinez, & Anderson, 2005). That program’s planned strategies for the five-year period included:

1. evaluating long-term use of programs
2. focusing on crash, injury, and fatality changes
3. obtaining funding for long-term evaluations of programs showing one- to two-year effectiveness
4. changing public perceptions with enforcement and/or fear appeals

Those for the first two years included documenting risk and exposure, educating children, preparing crosswalk signal technologies, implementing law enforcement for pedestrians and driver non-yielders, and assessing attitudes.

Notice how this kind of planning permits groups to operate accountably by generally agreeing on where, when, and how they hope to accomplish their purposes. Although a strategic plan usually is focused on the entire organization, forward-looking personnel units, such as teams or groups, are well advised to collaborate in laying out their intended destinations for the year and how they plan to get there.

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1The analysis of behavior concerns itself with scientific methods and the results of those investigations. Behavior analysts, both experimental and applied, also must concern themselves with humane and ethical methods. Watch for the image of the scales of justice when material related to ethics or legal issues is discussed.
Goals

Once you begin operating within a system, an overabundance of challenges may be brought to your attention. Personnel with applied behavior analytic skills often are employed to help cope with immediate issues, such as learning challenges and/or problems of quality, production, misconduct, and risks to health and safety. If no strategic plan is in place or no one else is there to help you set priorities, you will need to do that yourself. Because time, energy, material, and other resources always are finite, distribute them carefully. Decide if an intervention is warranted and, if so, come to a common agreement with those involved as to both the goals and objectives of the program. Certainly, you will want to avoid investing the major resources required of a fully experimental behavior analysis for really minor behavioral challenges. Here we offer some suggestions to help guide you through this difficult decision-making process.

Goals Defined and Illustrated

In contrast to behavioral objectives (about which you will read later in this chapter), goals indicate a broad or abstract intended outcome (Mager, 1997a). Behavioral goals indicate the direction in which behaviors are to be changed: Are they to be increased, developed, expanded, maintained, decreased, or restricted? For example, goals may be formulated in terms of enabling a person to act more often (e.g., use compliments more frequently), acquire new behavior (e.g., learn how to use a new piece of equipment), transfer it to a new context (e.g., use math skills at the grocery store), maintain it over time (e.g., habitually compliment merited staff performance), or to diminish or stop doing it (e.g., stop hitting oneself). Before designing and implementing a behavior-change program consisting of formal behavioral objectives, you may choose to break down behavioral goals into specific numerical levels. In this chapter, we begin by discussing goal and objective selection in general. (Later, in Chapter 24 we return to the topic to discuss the how supervisors or managers might incorporate the concept of goal levels within organizational goal-setting.)

Factors Influencing Goal Selection

Many aspects need to be considered when deciding whether a goal, a detailed behavioral objective, and an intervention to address that objective are warranted. Besides its consonance with the mission and goals of the organization or family, these include: legal mandates, determining how closely its achievement will contribute to the organization’s mission, assessing the severity of the problem, identifying realistic goals, obtaining human and material resources, clarifying challenges, and specifying the roles and functions of those to be involved.

Organizational purpose. We have learned the importance of becoming familiar with the mission of your organization. So one of the very first issues to address in setting objectives is: How would accomplishing the objective support that mission? In our example of Ernie, the behavior analyst working in the schools (Box 4.1), we saw how the change in focus from exclusively testing to consulting with teachers turned out to be better suited to the program’s mission.

If your organization spends many of its resources on superficial aspects, such as the aesthetics of its work space, ask how important that is, in contrast with providing adequate personnel or materials to support its mission.

Legal mandates. Public organizations generally are designed to serve communal needs. In the United States, for instance, clearly specified objectives are required of all special education programs. According to the Individuals with Disabilities Education Act Amendments of 1997 (IDEA) and the Individuals with Disabilities Education Improvement Act (IDEIA, 2004),

2Simply because other publicly or privately supported programs do not necessarily mandate specific behavioral objectives at this time does not mean they aren’t warranted or won’t be mandated in the future.
strategies to address behavior problems for youngsters in special education are to be considered by the IEP (Individual Education Plan) team when the student’s behavior impedes his or her learning or the learning of others. The strategies must include (a) writing goals and objectives to address the problem behavior and (b) developing measurable evaluation criteria to assess progress toward those goals. (Soon we describe the technique many behavior analysts have grown accustomed to using to achieve those dual purposes.)

Real challenges and specific goals. Being realistic about what constitutes a problem or challenge is important. A person may label a pattern of responding “a problem,” when in fact the difficulty exists only in the eyes (or ears) of the beholder. For instance: a worker who hums slightly off key while working bothers the shift supervisor but no one else; you view yourself as a failure because you have not yet become a celebrated concert pianist, Olympic champion, or author of a bestselling novel. In the same way, supervisors, parents, and teachers may set unreasonable goals for themselves, their employees, children, and pupils. When those goals fail to be attained, participants may be seen as displaying problematic behavior.

Sometimes hearsay evidence is the basis for designating a behavior as problematic. For instance, Timmy’s previous teacher may have warned his new teacher to watch out for Timmy. The mere fact that Timmy is now under closer scrutiny may cause the new teacher to overreact to Timmy’s normal horse-play at recess. Or irrelevant factors may distort people’s perceptions, as in the case of Joyce, who may appear unusually boisterous to the members of the community board simply because she has a particularly loud, deep voice. Or the importance of particular data may be magnified: Sue is convinced that she is fat because she weighs two pounds above her self-designated ideal weight.

Deciding How Severe the Challenge Actually Is

How do we decide when a problem is serious enough to justify behavioral programming? Here are several factors you might consider to aid your decision:

Several independent requests for assistance with the same individual. Do requests to help an individual come from multiple sources? Here are a few examples: Lucretia has frequently been sent home by neighbors for fighting. Her parents observe that other children avoid Lucretia and her parents freely admit to the behavior analyst that they have no control over her. She bullies her younger siblings and others in the neighborhood. It is reasonably safe to conclude that a problem exists.

Paula, who labels herself “a procrastinator,” also has received feedback on her yearly supervisory evaluations indicating that she has a severe problem with meeting deadlines. In fact, her coworkers also share their concerns about Paula’s procrastination. Because that habit prevents Paula from gaining the promotion she seeks, the problem probably is sufficiently serious to deserve being addressed.

By contrast, Sue’s concern about her minor weight fluctuations is not corroborated by her physician, husband, or friends. Eventually, they convince her that this is not a problem deserving an intensive intervention.

Functioning radically different from comparison group members. Standardized test scores and the results of other formal evaluations show how the person has performed in comparison with group norms. The more evidence that can be gathered from various independent sources, the more valid will be the conclusion that a problem probably exists:

Charlie scores three years below his grade level on a standardized achievement test, lower than 85 percent of his peers on a mental-maturity test, and several years below his chronological age level on a developmental inventory. Formal and informal observations provide useful data as well. The number of reading tasks he completes compared to others in his class, his poor physical performance in tasks such as throwing a ball, and his erratic social behavior suggest that all is not well with Charlie.

In an investigation to determine whether the need actually existed and if so, how they might proceed, Gajar, Schloss, Schloss, and Thompson
(1984) compared the conversational behavior of two 22-year old male head trauma patients against that of a social comparison group.

**Dramatic changes in an individual’s behavior.** Again, information from a number of sources helps to confirm the existence of a problem, especially when an individual’s behavior apparently has recently undergone a substantial change.

**Have direct and informal solutions been attempted?** Is the behavior of concern related to a **physical** problem? For example, Marsha might be ill; perhaps she has a vision problem causing headaches or something more serious. Suppose a child has recurring toileting problems. Whenever persistent bodily symptoms are reported, the change agent should have the individual consult a physician before undertaking a behavioral intervention.

Sometimes the potential of **logistical changes** (that is, simple alterations in the ways of managing the flow of services efficiently and effectively) may be revealed by a simple examination of the sequence of interactions between the individual and the physical environment (described in Chapter 10). Close observation and analyses of data can help to identify promising ecological changes. For instance, Charlie is easily distracted by activities in the classroom. Placing a partition between him and the rest of the class may be just what is needed to enable him to complete more assignments.

**Changes in the physical environment,** such as in lighting, furnishings, equipment, room or seating arrangements also may solve the problem simply. The importance of having sufficient materials to occupy all children in a preschool class was demonstrated by Doke and Risley (1972), who showed that almost all their students participated in activities only if each one had the necessary materials. Similarly, environments with a high density of preferred events for children with autism contributed to the prevention of the stereotypic and self-abusive behavior that many of these children exhibit (Van Camp, Lerman, Kelley, Contrucci, & Vordonran, 2000). Numerous studies also have shown that environmental modifications, such as clearly designated pedestrian crossing lanes, can aid in preventing accidents and injuries (Van Houten, 1988; Van Houten, & Malenfant, 1992).

Sometimes you can alter staff assignments or make minor changes in staff performance. Todd, Haugen, Anderson, and Spriggs (2002) simply requested that staff increase their specific feedback to regular education students to a ratio of 4:1 positive to corrective comments. This both reduced problem behavior and increased staff satisfaction. One of the students in a study reported by Wilczenski, Sulzer-Azaroff, Feldman, and Fajardo (1987) increased his level of participation just by being assigned to a different work group; another improved when his seat was changed.

Checklists, as described in Chapter 3, can prompt personnel to engage in the desired behavior (Bacon, Fulton, & Malott, 1982); for example to improve the performance of those laboring on an assembly line (Sulzer-Azaroff & Harshbarger, 1995) and that of personnel working in intensive care units (Pronovost, Wu, & Sexton, 2004).

The type of demands made of people matter, too. Tasks that are challenging but achievable work best, whereas those too demanding, or too easy, frequently set the occasion for problematic reactions (Carr & Newsom, 1985; Iwata, Pace, Kalsher, Cowdery, & Cataldo, 1990; Lee, Sugai, & Horner, 1999; Umbreit, Lane, & Dejud, 2004). For example, when Marsha has been assigned an unusually heavy workload, she “takes it out” on her family.

Other solutions may seem hardly worth mentioning; but sometimes we overlook the obvious. One tactic is to ask people to change their behavior. In some situations, the offender may have no notion that what he is doing is not welcome, as in the instance of the worker who sings to himself off-key. Joyce may not be aware that her voice carries as far as it does. Perhaps taking her aside and asking her to speak more softly will solve the problem. If simple solutions do not remedy the problem, though, consider additional factors when deciding whether undertaking a formal behavior analysis program is merited.

**Is the challenge serious enough to justify proceeding?** How do behavior analysts go about deciding which challenges take precedence? While no hard-and-fast rules exist, in this section we discuss some factors you might consider when faced with a similar dilemma:
• whether repairing the problem is in keeping with the mission and/or long-range objectives of the organization, family, or individual
• the clients’ willingness to participate
• the likelihood of success
• dealing with emergencies and critical events
• behavioral cusps and pivotal behaviors
• the degree of public and supervisory support
• source(s) of control over goals
• the behavior analyst’s competence
• availability of alternative services
• practical considerations such as funds and personnel

Agreement with organizational or familial mission and long-range goals. Sometimes we are tempted to undertake a challenge just because it interests us or at the urging of others. A colleague asks for help with a charity drive; Hector wants guidance in redesigning his workout schedule; Matilda asks for assistance in preparing her daughter for a beauty contest; Brenda’s concern is demanding that all associates keep their cubicles neat and tidy. While these purposes may seem laudable, you need to ask yourself how high they are on the organization’s or family’s priority list and what value they add toward their mission or goals. This is not to say that you should refuse all such requests. You may need to work on them outside of work hours, though.

The clients’ willingness to participate. The highest priority status should be accorded to those requesting help. Paula seeks assistance in overcoming her procrastination; Pearl’s parents are desperate for guidance with their daughter; Vinny, who has been having severe asthma attacks lately, has been referred by his doctor because he is confused about the routines he needs to follow. With so much at stake, these people probably will make an extra effort—in contrast to someone like Harry, who refuses even to admit, no less to deal with, his angry outbursts when things go wrong on the job.

Procedures with demonstrated effectiveness (the likelihood of success). The thousands of published research reports on applied behavior analysis now provide us with abundant information to guide us in choosing especially promising programs. Journals like the Journal of Applied Behavior Analysis and others cited in the reference list contain reports of behavior analysis programs that have produced successful results in educational, clinical, institutional, medical, job, community, home, and other settings. [In fact, in its first issue, the Journal of Applied Behavior Analysis (1968) heralded the substantial beginning of the movement toward scientifically addressing behavior in applied settings.] Behavior analysts who stay informed about procedures that are consistently effective as well as about new and promising ones are more likely to make wise selections. In fact, it is the behavior analyst’s ethical responsibility to remain current with findings, and based on that knowledge, to recommend and apply demonstrably effective interventions. (See Chapter 31 and the Guidelines for Responsible Conduct for Behavior Analysts, 2010, by the Behavior Analyst Certification Board®.)

Dealing with emergencies and critical events. A high priority should be assigned to critical events or emergencies. Imminent danger to clients must be of prime concern. Problems such as extremely aggressive or self-abusive behavior, serious addiction, criminal acts, and exposure to an environmental catastrophe fall into this category. As always, assuming these issues are in keeping with the organization’s mission and priorities, major life decisions such as dropping out of school, transferring to different training programs, marrying, undergoing an abortion, and so on, may also be addressed.

Behavioral cusps and pivotal behaviors. Behavioral cusps and pivotal behaviors often are assigned priority status because they are behavior upon which other behavior can be built. They are basic building blocks for developing behavioral repertoires. Rosales-Ruiz and Baer (1997) defined a behavioral cusp in terms of:

Behavior that has consequences beyond the change itself, some of which may be considered important … it exposes the individual’s

3 Readers who master this book will have the necessary knowledge and vocabulary to read and comprehend much of the professional literature.
repertoire to new environments, especially new reinforcers and punishers, new contingencies, new responses, new stimulus controls, and new communities of maintaining or destructive contingencies. When some or all of those events happen, the individual’s repertoire expands; it encounters a differentially selective maintenance of the new as well as some old repertoires, and perhaps that leads to some further cusps. (p. 534)

Bosch and Fuqua (2001) state that a behavior is likely on a cusp if it meets one or more of the following five criteria: “(a) access to new reinforcers, contingencies, and environments; (b) social validity; (c) generativeness (the potential for recombination of minimal repertoires into more complex response classes); (d) competition with inappropriate responses; and (e) number and the relative importance of people affected” (p. 123). The more of these criteria the behavior meets, the more appropriate it is to say the behavior is on a cusp.

Similarly, pivotal behavior, once learned, produces changes in other adaptive untrained behavior (Koegel & Koegel, 1988; 2006). For example, “self-initiations” such as requesting help and initiating play are likely pivotal behaviors in that they “appear to result in widespread positive changes in a number of areas” in that these self-initiations help clients to interact more effectively with others in their environment (Koegel, Carter, & Koegel, 2003, p. 134).

Note the overlap between the two concepts: behavioral cusps stress greater access to new contingencies and environments while pivotal behaviors stress corresponding changes in other untrained behaviors. As greater access to additional environments and contingencies often leads to changes in other behaviors, these terms often are used interchangeably. The advantage of selecting and teaching behavioral cusps and pivotal behaviors are that once they are learned, you can help your clients attain greater access to environmental reinforcers and other contingencies while expanding their repertoires and helping them learn more rapidly.4

Public and supervisory support. Parent groups, boards, committees, and other public groups often are major determiners of organizational priorities. They may, for example, urge that primary emphasis be placed on quality assurance, reading achievement, sexually communicated diseases, citizen responsibility, drug abuse, or some other favored issue. Because continued support is so important to the success of any program—particularly one that departs from traditional custom—this consideration is not trivial. Those served by schools and other community agencies deserve a major say about the nature of those practices. Establishing priorities that reflect members’ concerns and involving representatives in program planning increase the chances for continuing support.

Just as a parent needs the backing of his or her spouse, relatives, and/or friends to adhere to a program, supervisors often contribute heavily toward the long-term effectiveness of programs in their settings. They manage some of the more gratifying personnel rewards: salaries, promotions, assignments, approval, and privileges. Supervisory support usually is essential to the continued cooperation of those involved in a behavior analysis program. As with the public, ongoing assistance is more probable when supervisors are involved in setting priorities.

Source(s) of control over goals. With supportive factors in place, attaining certain goals may seem highly probable. Yet progress bogs down. Is there any reason why production at Purple Triangle fails to improve despite the consultant’s intervention? We need to ask ourselves “Is the goal we selected beyond our control? Are the important antecedents and consequences of the behavior available to us or not?” Proposed rates of increase in production at a manufacturing facility may be seen as exploitive of labor and therefore unacceptable to the union. When change agents strongly suspect or recognize that a behavioral goal will not be supported because outside forces hold greater power over its achievement than they themselves do, they had best seek that group’s cooperation in refining the objective (or, as we discuss in Chapter 6, identify contingen-

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4A responsive teaching curriculum has been developed for teachers and parents that focuses on pivotal developmental behaviors (e.g., attention, persistence on task) for children with autism, Down syndrome, and other developmental disabilities (Mahoney & MacDonald, 2007).
cies of sufficient power to override those impediments. By collaborating with union representatives at a manufacturing facility, for instance, you may identify mutually satisfactory, acceptable, and realistic production goals.

**The behavior analyst’s competence.** Along with their fellow practitioners—physicians, lawyers, teachers, social workers, counselors, psychologists, and others—applied behavior analysts may only institute programs that they are competent to conduct. Preferably, they have mastered their skills through supervised training. But they also need to understand the special qualities inherent in the organization or agency with which they intend to involve themselves. Approaches to applying behavioral skills in schools are different from practicing ABA in hospitals, factories, banks, clinics, insurance companies, sports teams, the military, with families in the home, and so on. Missions, goals, priorities, and specific objectives differ from one to the next, as do the key contingencies of reinforcement. So, analysts considering affiliating themselves with an organization whose purpose, structure, operation and/or function is unfamiliar are best advised to dedicate themselves to learning in depth, under supervision, about those elements before embarking on any ambitious undertakings. Otherwise, they should limit their activities to those areas for which they possess the requisite skills and with which they are thoroughly familiar. (We elaborate further on these ethical considerations in Chapter 31.)

**Availability of alternative programs.** If you work in a school system located in a community with an effective drug-treatment program, and that is not your specialty area or in line with the system’s highest priorities, refer drug-abuse cases to that program. If a problem seems to arise from family difficulties, local family clinics might be appropriate referral agencies. A personnel manager probably should refer employees having serious adjustment problems to reputable mental health clinics. Behavioral analysts should acquaint themselves thoroughly with, and as appropriate, communicate and/or collaborate with effective programs that their organizations, communities, and schools offer.

**Practical considerations such as funds and personnel.** Funds and the available services, facilities, equipment, and materials certainly must be considered when priorities for behavior analysis programs are being established. If a particular program requires a special facility—for example, a playroom, additional observational facilities, observers and aides, individualized instructional materials, or other costly items—and if funds to fulfill the requirement are unavailable, attempting the program makes little sense. Before rejecting the notion altogether, however, recognize that an imaginative and persistent behavior analyst often can tap resources (in the form of donations, grants, contracts) not immediately apparent. (Suggestions for free and inexpensive materials and support services are scattered throughout this book.)

Before designing a systematic behavior analysis program for a troubling behavior, review the checklist in Figure 4.2 related to setting priorities. Affirmative responses to most of the items on the checklist suggest that a substantial problem has been identified, so the appropriate decision is to go ahead and begin to select behavioral goals. However, behavioral goals also may be appropriate for simple or sophisticated performance you wish to teach or minor problems that have not responded satisfactorily to direct or informal solutions. As we elaborate upon in subsequent chapters, these constructive goals generally will not require the same level of detailed assessment or monitoring as the more troublesome behaviors.

**Defining Problems and Tentative Goals Behaviorally**

As we have seen, organizational or individual goals often are expressed in broad strokes; but to work effectively with those challenges, we must translate them into operations, that is, express them behaviorally (see below). Then they can be referred to as target behavior: *the behavior to be addressed systematically.*

“Ramon is lazy; he should realize his potential and stop goofing off.” “Paula procrastinates; she hopes to rid herself of that nasty habit.” “Lucretia is hostile; she should learn to get along better with her playmates.” “Henrietta is a hypochondriac; she
1. a. Does the behavior of the person or group depart substantially from that “typical” of comparable people or groups?
   b. Has the person’s behavior recently changed dramatically?
   c. Has assistance been sought from qualified, presently available domain specialists and/or counselors, therapists, personnel assistance staff, conventional agencies or sources, such as local specialized clinics?

2. Have direct or informal solutions been attempted?
   a. Asking the person why s/he is behaving in that manner?
   b. Explaining why this is a problem and discussing possible alternative solutions?
   c. Asking the person to change his or her behavior, explaining the reasons for the requested changes?
   d. Has the person received instruction or training in the desired performance?
   e. Has altering assignments and responsibilities been considered?
   f. Have you tried making a simple deal: “You do _____; I’ll do or give you _____.”
   (See “Let’s Make a Deal” in Bondy & Sulzer-Azaroff, 2003, pp. 66–67.)
   g. Has altering the physical or social environment been considered?
   h. Have health-related causes been eliminated by a physical examination?

If you answered “no” to any of the questions in item 2, consider those informal methods before you institute a systematic applied behavior analysis program; but if answers are affirmative, feel justified in continuing. Your answers to item 3 should inform your decision as to whether to initiate a program.

3. Does the proposed behavior analysis program have sufficiently high priority and level of support to justify proceeding?
   a. Is there sufficient evidence that it is likely to succeed?
   b. Is the problem critical?
   c. Is the objective to teach a pivotal behavior or a cusp?
   d. Will the public support the program?
   e. Will the program receive supervisory support?
   f. Will the path toward attaining the goal be under the control of those involved?
   g. Is the behavior analyst competent to conduct the program successfully?
   h. Are resources adequate?
   i. Are other organizations unable to handle the problem adequately?

Figure 4.2 An informal checklist for deciding whether a problematic behavior warrants implementing a formal functional assessment and/or intervention program

should not be so obsessed with her bodily ills.” Obviously these labels need to be defined as specific actions. But how may we accomplish that?

We already know that the behavioral approach limits itself to the things people (and other organisms) do and “say”—actions that are objectively observable and measurable.5 Restating actions behaviorally permits us to program and monitor change more effectively and convey our purposes, methods, and results more clearly. So we rephrase terms like lazy, cooperative, lovable, hostile, and hypochondriacal into precise observable actions or operations. Now we are in a better position to design and monitor pro-

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5This does not eliminate behavior such as thinking, because thinking is something that we do and can be measured by verbal reports. However, we have elected to consider them only minimally in this book. If this area is of special interest to you, we suggest you consult texts on cognitive behavior therapy.

grams of change precisely, by altering the events that precede, accompany, or follow those actions.

A good way to approach the task is to ask, “What would the individual do (remember the action orientation of behavior analysis) if s/he were to come closer to “realizing his potential”? Would s/he complete more assignments accurately, offer more correct answers, ask to assist others in group activities, read and report on more books, obtain a work-study job and receive satisfactory performance ratings, win a Nobel Prize? When those concerned with Ramon’s behavior are convinced that they are all talking about the same thing, monitoring is easier, because operationally defined behavior can be observed and measured objectively (e.g., assignments completed, accuracy levels achieved, instances of volunteering answers).

An operation is an act that affects the environment. When terms are broken down into objectively observable and measurable components, they are said to be operationally defined. Writing is an operation because it produces measurable changes on paper. Hitting is an operation because it is a quantifiable force that comes in contact with an organism or object. Screaming is an operation because it raises the level of ambient decibels of noise. “Intelligence,” “anxiety,” and “hostility” are not operations. They are inferred internal states. But answering questions correctly, tensing one’s muscles, or hitting and kicking are operations. One of the behavior analyst’s first tasks is to help program implementers and clients translate vague terms and problems into specific, quantifiable behaviors. (We shall return to this point in our discussion of behavioral objectives.)

A further caution: Although what people report that they do often matches their actual performances, frequently enough it does not. Saying and doing are two different behaviors. Baer, Wolf, and Risley (1968) noted that, in specifying goals, the issue is what individuals do, not what they say they do, because ABA:

… usually studies what subjects can be brought to do rather than what they can be brought to say; unless of course, a verbal response is the behavior of interest. Accordingly, a subject’s description of his own nonverbal behavior usually would not be accepted as a measure of his actual behavior unless it were independently substantiated. Hence, there is little applied value in the demonstration that an impotent man can be made to say that he no longer is impotent. The relevant question is not what he can say but what he can do. (p. 93; italics added)

Refining Your Selection of Goals

Once the problem and tentative goals have been operationally defined, you will want to do some homework to determine how reasonable and realistic they may be. Review relevant documents such as test scores, records, and other materials, and then analyze the current situation.

Test scores, records, and other materials. Standardized test results, sales and reject figures, records in personnel files or a teacher’s grade book, production or safety reports; assignment folders; library records; behavior assessment systems, and other documents may provide valuable information relevant to both general program goals and specific objectives, as well as to the selection of procedures for given clients. Ramon’s school records may show that his intelligence and reading test scores are above average but that he completes very few reading assignments. His library card may indicate that he has checked out two books on dinosaurs and that the results of an interest inventory peak in the natural sciences area. This hints of a potential goal. Such records and tests furnish general indications of clients’ levels of functioning and suggest reasonable starting places for choosing promising tasks and materials for them.


For specific client challenges, see the journal Behavioral Assessment and behavioral checklists, such as the Functional Assessment Checklist for Teachers and Staff (March et al., 2000), the Adaptive Behavior Scale for schools (ABS-S) (Lambert, Nihira, & Leland, 1993), and the Adaptive Behavior Scale for community and residential settings (ABS-RC) (Nihira, Leland, & Lambert, 1993).
Be cautious about interpreting the results of standardized tests, though. Scores derived from even the most carefully conceived tests can be influenced by factors stemming from the respondent’s history and current circumstances (for examples, see Ayllon & Kelly, 1972; Bradley-Johnson, Graham, & Johnson, 1986).

Clients’ case records often contain useful information. Data on physical condition, social and emotional development, and academic or vocational progress may contribute to decisions about goals and procedures. Ramon’s records might indicate reasonable progress until ninth grade. Perhaps something mysterious about the class, the teacher, the materials, friends, or other events may have affected his performance. The fact that Ramon has progressed satisfactorily in the past, however, does say something about his capabilities: Planning a program to help bring his performance up to the level of his classmates would not be totally unreasonable. Yet this sort of information must be augmented with more current and objective evidence. Directly observing and recording the behavior of the person in the natural setting can be especially valuable in the goal-setting process (see Chapters 4 and 17).

GENERAL CONSIDERATIONS IN GOAL SELECTION

When selecting goals we must take into account ethical, practical, and scientific factors. It used to be said that “the behavioral approach is a headless technology, having no built-in goals about what should be taught or accomplished…. As an applied science, behavior therapy9 is simply a collection of principles and techniques about how to change behavior; it says nothing about who should modify what behavior, why, or when…” (Wilson & O’Leary, 1980, p. 258). That orientation began to change in the mid 1980s, when, for example, Hawkins (1985) pointed out that goal selection “is as much a scientific question as is the question of effective technique; it is simply a question that behavior therapy and behavior analysis have neglected” (p. 1138). As we cover general considerations, we address ethical, practical, and scientific factors: supporting constructive over suppressive goals; direct rather than indirect approaches; foundational or enabling skills; age and/or developmentally-appropriate objectives; benefit to the client, significant others, peers, staff, and society.

We also offer a broadened perspective, by suggesting that behavior analysts examine the relation of intended behavioral outcomes to the individual’s, organization’s, community’s, and/or family’s priorities. Additionally, you will see why focusing not only on short-term but also on long-term outcomes is important.

Achievable yet Challenging

Paula would like to stop procrastinating immediately. Yet every one of her reports over the past year has been late. Is her goal achievable? How about Lucretia’s mom’s requests that her daughter never hit another child or grab another toy? If goals are too far out of reach, everyone involved suffers. Progress disintegrates and all efforts are fruitless.

The achievability feature applies to us as behavior analysts, as well. Resist the temptation to collaborate with clients in setting goals that require you to manage conditions beyond your control. Frustation and failure will result. Do not expect to sustain a program directed toward employee satisfaction if an organization is in the process of scaling down and would welcome reductions in its workforce. Recognize the futility of independently competing with teenage peer pressure or the inherent pleasures of such temptations as substance abuse and sexual activity. After all, you cannot jump into others’ skin and act for them.

Fortunately, alternative approaches are possible. You might be able to harness some of the contingencies ordinarily beyond your control. By working collaboratively with organizational managers and labor representatives, you may be able to adjust the goals of your client-workers, say to find and apply safer job-performance guidelines. Through clever reinforcement tactics, you may induce siblings to

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9In the early years, the terms behavior modification, behavior therapy, and applied behavior analysis were used interchangeably.
support change within a family or members within a peer group.

Avoid goals that are too easy. They may prove punishing to clients who see themselves as progressing too slowly or who feel insulted by being asked to achieve something they see as trivial. Rather, challenging them to succeed by suggesting difficult but not impossible goals and setting up the conditions permitting them to do so may prove a great source of satisfaction for all (Latham & Bal-des, 1975; Umbreit, Lane, & Dejed, 2004).

Reasonably challenging goals stand a better chance of being realized than those that are patently simple or overly ambitious. For instance, Paula might reject a too-easy 5% or a too-difficult 100% completion target, aiming instead for handing in one-fourth of her reports on time for several weeks. Then after that target is accomplished, she could raise the standard for success by another one-fourth of the original target, and so on until she approaches perfection, at which point the requirements might be lowered. (Perfection is hard to come by for any of us.) Initially, Lucretia might be more likely to succeed in making it through a five-minute play session without hitting; later, six minutes, etc. Success is much more likely under those circumstances. So choose goals you have good, preferably data-based, reasons to believe your clients will need to strive for but that they appear capable of achieving.

Constructive and Functional Goals

Use a constructional approach. You can see why, whenever possible, goals serving to construct repertoires and increase options are preferable to those directed toward eliminating or reducing performance. Try to state goals in terms of what the person is to do, rather than is not to do: “Be on time” rather than “Don’t be late”; “Complete tasks” rather than “Don’t waste time”; “Bring work materials”; rather than “Don’t forget your materials.” Goals are not to be selected for the primary benefit of others (e.g., “Be quiet, be still, be docile”), but for that of the client (Winett & Winkler, 1972). A constructional approach, which we advocate, teaches or builds rather than reduces or eliminates behavior (Goldiamond, 1974, 2002; Hawkins, 1986). Specifically, the constructional approach (Goldiamond, 1974, 2002) involves:

1. Observing or interviewing to determine the desirable outcome or the repertoire to be established.
2. Identifying the current effective repertoires upon which to build.
3. Selecting change procedures that will build on the current effective repertoires in steps that can be accomplished successfully.
4. Selecting and using reinforcers that will maintain the goal behavior throughout the duration of the program and thereafter.

The constructional approach also emphasizes using natural reinforcers such as those that previously reinforced the problem behavior. A study by Carr and Durand (1985) illustrates this aspect: Some of their students with autism were disruptive while working on assigned tasks. The investigators wondered whether the disruption continued because of the attention the students gained or because of the difficulty of the task. Reversing the order of treatment between groups, the researchers taught one group of these students to say, “How do you like my work?” (which was followed by adult attention and approval); and then later to say, “This is too hard” (which was followed by adult assistance). Some of the students (presumably those seeking attention by disrupting) who were taught to say “How do you like my work?” disrupted less often while learning the other (help) phrase hardly impacted the frequency of their disruption. Similarly, when the other students (seemingly those who were disrupting as a way of seeking relief from a task too difficult for them) were taught to obtain attention by saying “How do you like my work?” their rates of disruption continued. Only after learning to say, “This is too hard” did they disrupt less frequently.

Note that rather than arbitrarily punishing the disruptive behavior, Carr and Durand first identified the students’ functional reinforcers (i.e., attention and relief; see Chapter 10 for means of identifying these functional reinforcers) and then taught them sound constructive alternatives that would generate reinforcers identified as effective for them in that
setting. By teaching their students how to achieve functional goals, “… these researchers circumvented the disruptive behaviors that were immediately costly to the teacher and ultimately costly to the child” (Hawkins, 1986, p. 358).

**Incorporate functional and alternative goals.**

**Functional goals produce functional reinforcers.** They focus on teaching clients how to obtain their reinforcers in socially acceptable ways (e.g., appropriate ways of gaining attention; escaping from a punitive situation; gaining access to items, activities, or sensations; etc.). Selecting goals that expand clients’ functional repertoires and yield them reinforcement is critically important. Nevertheless, when Green et al. (1987) observed 43 classrooms of students with severe handicaps, they found that about two-thirds of all tasks were nonfunctional; the skills being taught would not result in reinforcement from the natural environment, as would proper eating, toilet training, or requesting rather than demanding. The situation was remedied when Reid et al. (1985) used in-service training to teach these teachers how to alter their curricula to favor teaching functional tasks.

When the concern is with diminishing or eliminating an unwanted behavior, **replacement goals** need to pass the test of functionality for clients; that is, new goals need to be designed to constructively provide the reinforcers formerly provided by aberrant behaviors. The scope of applied behavior analysis reaches far beyond that sort of management, though, to increasing, hastening or slowing, shaping, refining, transferring, and otherwise abetting performance improvement. Most program goals will tend to fall within the latter categories and will be pursued by identifying individually-effective reinforcement strategies. Beyond those, we also need to be sensitive to the perspectives of others intimately involved (parents, teachers, supervisors, managers, peers, subordinates, and so on). For example, a boy may swear and refuse when asked to do a difficult task. The **functional goal (behavior that gets him what he wants in a socially acceptable manner)** might be to teach him to say that the task is too difficult or to request breaks. However, his workshop supervisor may wish to pursue additional **alternative goals not necessarily designed to serve the same function for the client as his misbehavior did, but teach him alternative ways to behave.** These might include his also (1) completing his work, and (2) ceasing his refusing and swearing. There is no reason why such goals may not be added to the mix, provided the emphasis is on teaching the client constructive behaviors. In fact, you probably will include multiple goals in many of your behavior-change programs.

**Direct Rather than Indirect Approach**

In a direct approach we target the behavior of concern, whereas with an indirect approach we try to accomplish our purpose by addressing some other behavior that we presume will influence the target. In the past, analysts assumed that if we could just get students to stop disrupting and misbehaving they would automatically learn more; just by persuading workers to stop being off-task, they would produce more. Now we recognize that these assumptions were naive (Ferritor, Buckhold, Hamblin, & Smith, 1972; Scheirer & Kraut, 1979). If what we are hoping to see is Ramon performing better in school, our best strategy would be to select as primary goals those directly related to improved school performance, rather than diminished disruptiveness.

Along those same lines, concentrating all one’s efforts on reducing the aberrant acts of individuals with personal, social, or developmental dysfunctions does not necessarily produce success. We are better advised to teach new skills (in preference or in addition to working on reducing interfering behaviors). If readying Helen for community employment is the long-range goal, we would want to be sure to teach her to do her job well, rather than concentrating on eliminating her occasional conversations with imaginary friends. Whenever possible, take the direct path.

**Foundational Skills**

When higher-level skills **clearly** depend upon more basic ones (“behavioral cusps,” “keystone,” “pivot,” “foundational,” or “enabling” skills, the value of some of which we have mentioned earlier)—we must first assess for, and if necessary teach, those fundamental proficiencies. For example, holding the pencil properly, positioning the angle of the
paper correctly, and drawing freehand lines and various shapes are enabling skills for handwriting; explaining the functions of each lever and button are enabling skills for operating a cutting machine. So, as necessary, remember to begin by teaching missing foundational skills.

Immediate and Long-Term Benefits

Probably most who prepare personnel and serve clients assume their efforts are worthy. Applied behavior analysts, however, require something beyond good faith. We also explicitly tell our clientele the intended outcomes, including anticipated long- and short-term benefits, while monitoring and analyzing progress along the way.

Educators, clinicians, healthcare professionals, managers, direct-service personnel, and others must be able not only to defend the client goals they plan to encourage, but also to justify the actions they intend to undertake. Clearly-explained goals simplify this process by highlighting the relation between the methods and anticipated outcomes. In addition to defending the importance of helping Ramon improve his academic performance, his teachers (or counselor or school psychologist) would need to describe how the instructional environment would successfully support the attainment of that goal.

When benefits are obscure ("She will be a better person for it!"), controversy may arise because interested parties may fail to see the value of the activity. On the other hand, consumers generally find precisely described performance goals (e.g., holding a pencil, tracing, and writing; setting up, analyzing, and solving an equation; or performing a specific job skill) much easier to understand and to accept. In modern society, acquiring such skills is valued, and schools and training programs have been established to further those purposes. But what of some of the subtler classes of behaviors: paying attention, appreciating the value of a task, social skills, work habits, responses that may impede productive or healthy change, and so on? How important are staying on a task for long periods of time, independently seeking more information, following directions, cooperating, organizing activities, and refraining from aggressing or inciting others to engage in disorderly acts? It is our job to defend the value of goals of that sort that enable the development of other beneficial behaviors: For instance, that paying attention is necessary for learning.

Long-term goals often can be accomplished by mastering a succession of readily acquired short-term ones. When change agents initiate any complex program of behavior change, if they initially select rapidly achievable goals, immediate reinforcement will result, not only for the client but also for others directly affected: parents, teachers, supervisors, etc.

The most ethically defensible goals are those selected to promote improved adjustment, adaptation, competence, or habilitation; that support the development of a “... repertoire that maximizes short- and long-term reinforcers, for the person and for others, and minimizes short- and long-term punishers” (Hawkins, 1986, p. 351). How adaptive any particular response to the environment may be is “the degree to which it maximizes the benefits and minimizes the cost” (Hawkins, 1986, p. 351). Notice how flexible and general, yet economical, this rule is. Goals selected according to those features are measurable, broadly applicable, able to be individualized, culturally adaptable, and consistent with the perspective that “adjustment” is a continuous (a question of degree) rather than a dichotomous (either/or) variable. Credit and blame for problematic behavior are avoided, yet the impact of the goal achievement is assessed in terms of its effect on the client, and also on the significant others in the client’s immediate and broader environment. As Hawkins (1985) has pointed out:

The scientific question, then, in terms of setting goals for individuals is “what will reduce the costs and/or increase the benefits to this person and/or others?” For an unhappy freshman who is facing vague, existential problems and is questioning the meaning or value of his or her life—a type of problem for which behavior therapists and behavior analysts are least prepared, because no behavior is referred to by the client—one might hypothesize that one or more of several goals is relevant: greater skill at studying or at making new friends, becoming active in an activist organization,
setting more realistic academic goals, coming to a decision about tentative career objectives, and so forth. If one or more of those goals is then achieved and it is scientifically demonstrated, by methods such as those suggested by Barlow, Hayes, and Nelson (1984), that the person is no longer unhappy or questioning the value of his or her life, the conclusion suggested is that the goals selected were, indeed, functional for that individual. Similarly, if a clinician teaches a delinquent youth to, for example, carry on conversations effectively with middle-class nondelinquents, to read as well as age peers, and to “read” people’s positive and negative social reactions; and if that youth no longer engages in delinquent behaviors (which primarily cost others, at least in the short run), the conclusion suggested is that these “target behaviors” were functional for this individual and relevant to his other problem. (p. 1138)

Above all, the behavior analyst should be guided by concern for the client and by evidence that the natural environment will support the goal. Teaching Lucretia socially constructive alternatives, such as non-aggressive forms of assertiveness, probably would require considerable time and effort. Yet she only will benefit if those in her environment adequately reinforce that assertiveness. One of our jobs then, would be to assess her social environment by observing her teachers, family members, and playmates to determine if reinforcement is likely to be forthcoming or can be trained and managed.

Age and Developmental Level

When goals are mission oriented, functional in terms of short- and long-term payoff, and serve as foundations for more advanced performance, they may well be suited to the client’s developmental level. But that is not necessarily the case. Yes, as Dyer, Santarcangelo, and Luce (1987) have shown, selecting communicative goals for individuals with developmental delays according to the sequence in which typical children tend to acquire language skills did allow the students to progress more rapidly and accurately than when goals were more developmentally advanced. But that does not mean that we should provide instructional materials suitable to much younger children to older clients with severe developmental delays. Rather, those learning and recreational materials need to be adjusted to be more age-appropriate.

Analysts also need to address how to broaden a client’s spectrum of skills to include the wide variety of activities beyond their developmental levels, but in ways appropriate to their chronological ages. Sometimes trainers refer to their clients’ developmental levels to justify instructional activities clearly out of synchrony with their ages. Familiar instances are teaching adult clients with handicapping conditions to string beads, to cut and paste in scrapbooks, or to color. Presumably these promote the clients’ verbal, cognitive, or motor skills, yet they are hardly age appropriate. Many actual jobs, for instance packing, labeling, and so on, require similar eye-hand coordination, and can be trained in the same way. Why not support people’s learning such tasks instead, so they can work at paying jobs as typically functioning adults in modern societies do.

Additionally, there is the issue of ecological soundness: Following the suggestions of Bates, Renzaglia, and Wehman (1981) and Brown et al. (1979), when Reid et al. (1985) taught personnel to choose as teaching materials those encountered in a student’s non-classroom living setting or used by non-handicapped persons of the same age group, experienced clinicians ranked the tasks as more relevant than previous, less functional tasks.

Consider Developmental Factors when Setting Goals

Watch children pretending. As Lifter and Bloom (1989) have suggested, pretend play is not only reinforcing in its own right, but also serves as a vehicle for learning verbal and other skills that typify the performance of most children of those ages. You can see why knowing the ways young people’s behavior normally evolves is essential for practitioners participating in goal selection.
PREVENTING AND RESOLVING GOAL CONFLICTS

Unfortunately, sometimes program personnel and/or family members disagree about the priorities they assign to particular goals. One supervisor may prefer quiet; another may have no objection to “normal hustle and bustle.” Such conflicts can arise from many sources: managers, parents, therapists, workers and/or their representatives, and so on. To avoid working at cross purposes, we must find ways to avoid and resolve such conflicts. While reviewing the suggestions below, recognize that there are no simple one-size-fits-all solutions to goal conflicts, but some mechanisms do exist to prevent or limit their escalation. These include participation by clients, parents, and other concerned individuals (worker organizations, supervisors, individual staff, community members); also advocacy and behavioral contracting.

Participative Goal Setting

Sometimes participative goal setting (Chapter 3, and further elaborated upon in Chapter 21) is a legal requirement; other times, a case of evidence-based “good practice.” Be aware that in some jurisdictions, key participants, including parents, and when possible, students, are required by law to be involved in the selection of short- and long-term goals and treatment procedures while planning services for special education (e.g., The Individuals with Disabilities Education Improvement Act of 2004). Plus, as previously discussed, consumers’ participation can abet the selection of goals apt to be achieved more rapidly and supported by the natural environment. Also, be aware of the ethical consideration involving client participation (see Chapter 31).

Arranging for Advocacy

The trend in public policy toward ensuring equal rights for everyone, regardless of disability or group affiliation, has accelerated in many nations during the past half century. Similarly, representatives of previously powerless groups, like children or people with severe emotional or developmental disabilities, increasingly have insisted that the perspectives of those people be considered in decisions affecting them. This can mean that in addition to their traditional advocates (parents, relatives, or guardians), severely disabled, abused, or very immature clients may be represented by outside advocates.

When a client clearly does not have the capacity to participate in setting goals or endorsing methods—for example, when a child lacks speech or an adult fails totally to communicate—an advocate may be appointed to represent his or her interests. The appointee may be a community representative, such as a clergyman, law student, or even a panel of interested citizens, who undertakes to consider the goal from the point of view of the client. The advocate is the client’s agent, not the agent of an organization or institution. Advocates put themselves in the place of their clients and argue on their behalf. This arrangement makes it more likely that the client’s best interests are served.

Conflicts in goal selection can arise when benefits and costs affect different members of the group unequally. By negotiating a behavioral contract stipulating mutually acceptable responsibilities and anticipated outcomes, those involved stand a better chance of achieving a reasonably equitable balance across program goals and procedural details. The negotiation should consist of a discussion of the various goals and how their accomplishment might affect each of the participants for better or worse, along with the responsibilities of each party. This includes as many short- and long-term benefits and costs as can be anticipated. Benefits might include enhanced personal, social, academic, or job skills, or diminished rates of responses that interfere with other desired outcomes. Costs could involve increased expenditures of material and human resources (skilled performance, time, effort); loss of control or power; loss of other social rewards; or increases in unpleasant events, such as delays until clients are dressed, amplified noise levels, the need to wait patiently, and so on.

Behavioral or contingency contracts, sometimes referred to as “therapeutic contracts” (Sulzer, 1962), encompass the goals and procedures of the behavior analysis program that have been accept-
ably negotiated between clients or their representatives and the change agent. These goals and procedures are mutually agreed to by the client or advocate and others involved or affected by the program. Because both mutually agreeable goals and procedures are determined in advance by all involved parties, goal conflicts are kept to a minimum. (For a more in-depth discussion of this topic, see Chapter 11.)

**Terminating Services**

No responsible independent adult should be forced to undergo behavior analytic services. The freedom of clients (or their surrogates) to terminate behavior analytic services has been incorporated into the Behavior Analyst Certification Board® Guidelines for Responsible Conduct for Behavior Analysts (2010). (See Chapter 31.)

**Supporting Voluntariness over Coercion**

*Voluntariness* is an important element of a behavioral contract. However, a conceptual problem may arise when a behavior analyst speaks of “voluntariness.” A dictionary defines *voluntary* as (1) Proceeding from the *internal will* or from one’s own choice or full consent; (2) Unconstrained, self-impelled, freely given, done, etc. Definitions include non-operational words like *intent* and *will*. Those are unsatisfactory because, as you progress through this text, you will see that essentially everything we do is controlled in some way. Some sources are obvious, some subtle: salaries, material gifts, awards, bonuses, eye contact, nods of approval, others’ agreement or disagreement, privileges, particular activities, observing other people being rewarded, relief from discomfort, and an endless array of others. The behavior analyst recognizes that behavior can persist even when it produces only very occasional reinforcement.

Similarly, threats and unpleasant consequences, including loss of reinforcers, also continually operate on behavior. Some examples are obvious: Speeding along at over 90 miles an hour may lead to a ticket, arrest, or death on the highway; failing to fulfill job responsibilities can result in dismissal or non-completion of assignments to poor grades. Other consequences are far more subtle: inattention to uninteresting conversation; a slight shoulder shrug or no response to a stated opinion. How long would any of us continue studying if we were not rewarded with grades, increased job options, salary increments, approval from important people in our lives and ourselves, or at least by encountering interesting, engaging, or potentially useful material? Don’t we avoid negative consequences—poverty, loss of prestige, social derision—by remaining in a job, attending school, maintaining a household, and so on? Numerous reinforcers and punishers operate in all our daily lives. Total voluntariness, from the behavior analytic point of view, is a myth, because positive and negative constraints are ever present. So when we use the term *voluntary*, within behavior analysis, then, we might define it as the *client’s voicing agreement with the terms of the behavior-change program under non-coercive circumstances*.

What is *coercion*? Its two forms are *oppressive or aversive force* and *disproportionately powerful incentives*. In other words, the stronger the aversive or reinforcing stimuli used, the more powerful the degree of coercion. Let us consider a couple of examples.

Willie comes to class, takes out his material rapidly, and promptly begins to produce work of excellent quality. When the teacher requests assistance with an exhibit, Willie offers to participate. First, consider some aspects of Willie’s reinforcement history: Willie has received A’s for good work in the past. His girlfriend admires his seriousness. His teacher, Mr. Mulligan, smiles and nods at him from time to time as he completes his assignment, and he gestures appreciatively when Willie offers to participate. Willie reviews the task he has completed and sees that he has learned to solve a challenging problem: “That was a tough one, but I did it.” Is Willie’s performance voluntary? Now suppose that his dad had promised him a motorcycle, car, or a trip to Europe if he did well in his studies. Would Willie’s behavior still be voluntary?

Suppose that on the other hand, Willie experienced frowns, poor grades, and ridicule from his friends for poor performance in the past. Maybe his
dad denied him the use of the car for the remainder of the year if his grades did not improve. Would any of those threatened negative consequences mean that Willie’s classroom performance is not voluntary?

Voluntariness and coercion are not absolutes but conditions that fall along a continuum. Therefore, to meet the ethical requirements for voluntary goal selection, your best approach is to identify those reinforcers and aversive consequences currently operating and minimize any that are unreasonably powerful. As the strength of reinforcers and punishers increases and client involvement with goal and procedural selection lessens, the risk of coercion increases.

**BEHAVIORAL OBJECTIVES**

After all concerned, or affected participants, have mutually agreed upon goals that are to be actively supported, the next step is to develop and communicate your behavioral objectives. These should be prepared in writing and approved by the client or someone empowered to make decisions for him or her. (See Chapter 31 for more detailed caveats.)

**Behavioral Objectives Defined**

A behavioral objective consists of: (1) a goal behavior; (2) clear specifications of the conditions or context within which the behavior is to occur; and, (3) the criteria, or standards for determining when the objective has been accomplished (Mager, 1962, 1972, 1997b). Having previously discussed goal selection, we next address context and a variety of behavioral dimensions used to set the criteria by which a client’s success would be judged.

Specify the context. The context includes the surrounding conditions under which the desired response is to occur, including the setting, furnishings, materials, personnel, and so on. If Ramon is to write more reports, is he to do all his preparation during social studies class, or whenever he wishes? To what materials can he have access? If Lucretia is to play cooperatively with other children, sharing materials and not hitting, pushing, or grabbing, how many children is she to play with, where, and with what toys? Obviously, it would not be appropriate for her to share toys during her nap or at mealtimes.

The description of the context must specify any givens or restrictions to be placed on the response: how, where, with what, with whom, and when it is or is not to occur. Because it is essential to consider generalization and discrimination from the beginning, at the outset we must specify each setting in which the behavior will or will not be supported. (See Chapter 21 for methods designed to promote generalization of the behavior across different conditions and discrimination between one setting and another.)

Specify the criteria. The criteria constitute the part of the objective that states the standards used to determine whether or not the objective has been achieved. Criteria are expressed as measurable behavioral dimensions (such as frequency, rate, acceleration, quantity, and so on) that characterize particular aspects of the performance. (See Table 4.1 for examples.)

Would “accomplishing 90% of the assignments” or “completing four reports a day” tell the whole story? How would you be sure the behavior was firmly established or extinguished? We therefore need to add another behavioral dimension: the rate of criterion level, or rate at which the criterion level maintains. Before shifting over to a maintenance mode by thinning out reinforcer delivery, we must ask ourselves, “How consistently, often, and/or over what period of time should the criterion level be sustained before we will conclude that the behavior is sufficiently established in the person’s repertoire?” For example, the initial goal might state: “Bruno will practice an hour a day five times per week, over a period of three months”; or “Shakisha will provide one answer and one question three times a week, for ten weeks in a row.” After those goals are met, then it might be appropriate to shift over to a maintenance mode by adjusting the requirements.

When developing your objective, unless clearly obvious, you also will need to indicate the condi-
behavior analysis for lasting change

**Generalization** or **discrimination**; the length of time the behavior is to continue (maintenance) needs to be considered as well.

Specify other behavioral dimensions as appropriate. Depending upon the goal and the circumstances, your objective may include additional behavioral dimensions, including accuracy, latency, intensity, and topography. See Table 4.2 for descriptors and examples of these terms.

Above all, the key standard for determining if a significant behavioral change has occurred is its **practical importance** (Baer, Wolf, & Risley, 1968). A mutually agreeable criterion for success should be established before administering the behavior-change program to avoid subsequent indecision, disagreement, or bias in determining if and when the goal has been reached. The level selected for the initial criterion should not necessarily be the ideal level, but the **minimum acceptable** to all program participants. Naturally, this choice does not prevent higher levels of performance; it simply serves as a guide to evaluating the current effectiveness of the behavior-change program. If behavior has been altered enough to satisfy those affected by the change, including, as appropriate, the clients themselves, significant others, supervisors, teachers, parents, students, and staff, the criterion can be said to have been achieved.

One other important point: When choosing objectives we must be reasonably certain that the selected behavior-change objective is neither too easy nor too challenging for the participant to master. If too easy, boredom is likely, in the form of lack of attention to the task. If it is too difficult, aggression or escape (often characterized as frustration) may result. The solution: if too easy, choose more advanced or complex objectives; if too complex, break the task down into its smaller components, then teach those separately before recombining them into their composite form. (See Chapter 14 for a more complete discussion of task analysis.)

**Sample Behavioral Objectives**

The following illustrate a useful format for writing behavioral objectives:

### TABLE 4.1 Measure of Proficiency Levels

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measure</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Proficiency</td>
<td>frequency</td>
<td>The number of times a response occurs</td>
<td>Paula will complete 4 reports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Shakisha will provide at least 1 answer and 1 question when conversing with peers.</td>
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<td></td>
<td></td>
<td></td>
<td>The team will accumulate 20 days without a lost-time injury.</td>
</tr>
<tr>
<td></td>
<td>percentage</td>
<td>Proportion or number of times achieved or correct, divided by total possible times multiplied by 100</td>
<td>Ramon will complete 90% of his assignments each week.</td>
</tr>
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<td></td>
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<td></td>
<td>80% of the work teams will have a quality assurance plan in place by the end of the fiscal year.</td>
</tr>
<tr>
<td></td>
<td>duration</td>
<td>The length of time that passes from the onset to the offset of a behavior</td>
<td>Shakisha will converse audibly for at least 30 seconds.</td>
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<td></td>
<td></td>
<td></td>
<td>Henri will brush his teeth for a full 2 minutes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Betsy will exercise for a full hour.</td>
</tr>
<tr>
<td></td>
<td>rate</td>
<td>The number of times a response occurs within a given period of time or per opportunity</td>
<td>Bruno will practice an hour a day.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Betsy will exercise 5 days per week.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Betsy will do 25 push-ups within 3 minutes.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>The team will assemble 30 engines per day.</td>
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</tbody>
</table>
Problem Behavior: Vinh, an asthmatic, fails to follow her physician’s instructions.

Goal: Comply with instructions for using inhaler.
Topography: Inhale twice deeply as demonstrated and practiced.
Context/Conditions: Wherever an asthma attack occurs (home, work, community).

Criterion Level:
Rate of Behavior: Use 4 times a day and whenever an attack occurs.
Rate of Criterion: Specified rate of behavior is to occur for 5 consecutive days.
Latency: The inhaler will be used within 2 minutes of the start of an attack.
Intensity: N/A; Accuracy: N/A

Behavioral Objective: As demonstrated, Vinh will inhale twice deeply 4 times a day as well as within 2 minutes of the onset of an attack, for 5 consecutive days.

Problem Behavior: Lucretia does not share with other children, but instead hits and pushes them and grabs their toys.

Goal: Lucretia will hand toys to another child on request.
Topography: Toy handed (not thrown) to playmate.
Context/Conditions: 1 or more other children, array of toys.

Criterion Level:
Rate of Behavior: At least once, conditions appropriate, in each of 3 out of 4 half-hour blocks of time.
Rate of Criterion: 3 consecutive days.
Latency: Within 1 minute of request.
Intensity: N/A; Accuracy: N/A

Behavioral Objective: In the presence of 1 or more other children, upon request, Lucretia will hand toys to another child within 1 minute, at least once in each of 3 of 4 half-hour blocks of time for 3 consecutive days.

Problem Behavior: Shakisha does not converse with her peers.

Goal: Shakisha will ask questions and respond to her peers’ questions.
Topography: Requests and responses will be in complete sentences.
Context/Conditions: Recreation room, break time.

Criterion Level:
Rate of Behavior: At least 1 answer and 1 question per day.
Rate of Criterion: 3 consecutive days.
Latency: Responses to questions will occur within 30 seconds.
Intensity: Loudly enough to be clearly heard by the listener.
Accuracy: N/A

Behavioral Objective: In the recreation room during break, Shakisha will ask and answer questions within 30 seconds, in complete sentences loudly.

### TABLE 4.2 Additional Dimensions of Behavior

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Descriptor</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topography</td>
<td>The form, appearance, or shape of the behavior; its physical or natural features</td>
<td>Lea is to sit with all 4 legs of the chair on the floor, facing forward, her buttocks on the seat, with her feet on the floor.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>The extent or degree to which the response meets standards</td>
<td>Ramon will score 90% or above on his completed assignments.</td>
</tr>
<tr>
<td>Latency</td>
<td>The time that elapses between an antecedent (cue, prompt, signal) and a response</td>
<td>Lucretia will begin to pick up her toys within 2 minutes of her mother saying, “Time to clean up.”</td>
</tr>
<tr>
<td>Intensity</td>
<td>Strength or force with which a behavior is expressed</td>
<td>Shakisha will speak loudly enough for all her friends to hear. Joe Duffer will hit the golf ball hard enough for it to reach the 100-yard mark.</td>
</tr>
</tbody>
</table>
enough to be heard by the listener, at least once daily for 3 consecutive days.

Here is an example that incorporates the findings of a functional assessment:

**Problem behavior:** Nakita throws work material to the floor to escape from long, difficult tasks.

**Functionally Equivalent Replacement Goal (FERG):** Request breaks or assistance from supervisor, as appropriate.

**Topography:** In a normal speaking tone and in a complete sentence.

**Context/Conditions:** When given long, difficult tasks at a sheltered workshop and in a residential center.

**Criterion Level:**

**Rate of Behavior:** at least 2 requests for breaks and/or for assistance per 45-minute period, while working on a long, difficult task.

**Rate of Criterion:** 4 of 5 days

**Latency:** N/A

**Intensity:** Loud enough to be heard by supervisor.

**Accuracy:** N/A

(Note how it is helpful to include the purpose or function of the replacement behavior when preparing a functional objective. This way you are in a better position to select the FERG.)

**Behavioral Objective:** In complete sentences and loud enough to be heard by the supervisor, Nakita will request breaks and/or assistance at least twice per 45-minute period while working on long, difficult tasks during 4 out of 5 days.

**SUMMARY AND CONCLUSIONS**

While not behavior analytic procedures per se, goals and objectives guide the behavior analysis intervention. Objectives allow us to determine when the goal has been reached and guide the behavior analyst, enhancing the likelihood that the targeted behavior will continue in the original and perhaps in new situations. Well-stated goals and objectives are critical to the success of a behavior intervention program.

In setting goals and objectives, we must take into account a number of practical considerations; above all, whether a behavioral goal and intervention is justified. These points are summarized in Figure 4.2.

Once we determine that a behavioral goal is warranted, it must be operationalized to permit reliable observation and progress monitoring. Therefore, a common early task for the behavior analyst is to assist program implementers and clients to specify problems and goals in behavioral terms. However, the selected goal(s) and objective(s) must also be appropriate to the client and situation. Therefore, other ethical, practical, and scientific factors that may influence goal selection must be considered to ensure that the selected goals and objectives are reasonable and realistic. These include: reviewing test scores, records, and other materials; ensuring that the goal is achievable yet challenging; selecting constructive, functional, and alternative goals; taking a direct rather than indirect approach; assigning priority to foundational behaviors; considering immediate and long-term benefits for the client and important others; ensuring that the goal is as appropriate as possible to the clients’ age and developmental level; and assuring that the goal compliments the organization’s, parents’, and/or society’s mission. We also supplied several suggestions to help prevent and/or resolve goal conflicts, including participative goal setting, advocacy, and behavioral contracting. Finally, we illustrated several different kinds of behavioral objectives and described their components. In the next chapter, we look at how reinforcement functions to encourage the client to achieve the objective.

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10 Additional behavioral objectives can be found on the text Web page, including those that target the problem behavior (reducing the behavior).