The Relationship between Explanations and Practice in Behavior Analysis. Some Challenges, and possible Solutions

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Behavior analytic explanations and therapeutic practices differ from those of traditional psychology. A further important difference between behavior analysis and traditional psychology lies in the relationship between explanations and therapeutic practice. The article's main point is that an important source of traditional therapies is direct clinical experiences, while behavior analytic interventions have a more experimental basis. This results in challenges for behavior analysis: It is less guided and protected by cultural norms, and is more exposed in terms of the ethics and aesthetics of interventions. The article discusses several possible pitfalls for behavior analysis, and possible solutions, written from the standpoint of a behavior analyst.

Introduction

Behavior analysis is a small subfield of psychology, and behavior analysts have tried to explain the modest position. Skinner (e.g. 1974) complained that people prefer mentalistic explanations. Hineline (1990) argued that behavior analysis violates the "directionality of interpretative talk" that dominates our culture: Even when behavior shows large variations between individuals, behavior analysis does not appeal to ultimate, inner explanations. Bailey (1991), Lindsley (1991) and Foxx (1996) hold the language partially responsible. A common notion is that behavior analysis is simplistic and unable to explain complex behavior (e.g. Kohn, 1993). It is associated with people with developmental disabilities, and sometimes even with coercion (Sidman, 1989). All this is troublesome for behavior analysis. However, there might be a further problem: That the relationship between behavior analytic explanations or principles and clinical practice differs from what we find within other schools of psychology.

‘Explanations’ are answers to questions beginning with "why", "what causes", and so on (Moore, 2000). Any answer containing "because", or similar answers, can be called explanations. Scientific psychology has different kinds of explanations, and it is possible to identify at least one relatively dichotomous approach to explaining: To explain behavior historically by way of observable events, or to explain it by hypothetical processes and structures that are unobserved and unobservable. The historical approach is that of behavior analysis. A focus on hypothetical processes and structures is more associated with what has been termed ‘traditional psychology’ (Moore, 1998).

In many cases, people can distinguish between behavior analytic treatment and treatment based on more traditional schools of psychology, such as for example psychodynamic and person-centered, humanistic psychology,
just to mention two influential schools. Differences between behavior analytic and traditional explanations are probably less recognized, however, although it has been thoroughly discussed among professionals (e.g., Moore, 1998, 2000). A further difference between behavior analysis and traditional psychology seems to be even less well-known, even among professionals, including behavior analysts: a difference in the relationship between explanations and practice in the two approaches. I will try to describe how this relationship in behavior analysis differs from that of traditional psychology, how it can contribute to acceptance problems for behavior analysis, as well as possible solutions. In order to put behavior analysis into perspective, I will say a few words about folk psychology and important schools of traditional psychology.

Folk psychology

Horgan and Woodward (1990) define folk psychology as “a network of principles which constitutes a sort of common sense theory about how to explain human behavior” (p. 399). Mentalism is central: What we intend, believe or expect is accorded a primary, causal status. Mental processes themselves are rarely thought to need explanation; they are seen as a part of free will (see O’Donohue, Callaghan, & Ruckstuhl, 1998). Although internal causes dominate, environmental causes are not ignored, but are employed mostly when behavior varies little between individuals (Hineline, 1990). According to Valsiner (1984), people overemphasize static aspects of behavior, and frequently explain behavior by way of categories to which persons or behaviors belong: Acts occur because s/he is a woman, man, young, old, hostile, or friendly. People are familiar with group research from for example medicine and social sciences, and such methods are highly accepted in the study of behavior, too. Folk psychology has a variety of ad hoc explanations of human behavior; a few basic principles will hardly be considered fair against human complexity (O’Donohue, Callaghan, & Ruckstuhl, 1998). Of course, descriptions of folk psychology are typological themselves, and we must acknowledge exceptions.

Traditional psychology

Mentalistic explanations

Laypeople are amateur psychologists. The reverse may also be true; that psychologists are sophisticated laypeople (Valsiner, 1984). Traditional, scientific psychology has similarities with folk psychology, as far as explanations are concerned. Mentalism is common, such as when psychodynamic psychology explains behavior by way of a superego, an emotional block, or self structures (e.g., Baker, 1991), although we can only observe behaviors these are inferred from. Humanistic psychology emphasizes free will, and views the ‘self’ as an organized body that guides selection and interpretation of information, and consequently behavior (Houston, Hammer, Padilla, & Bee, 1989). It is also mentalistic to reify categories, like personality traits, and use them as explanations of behavior. However, mentalistic explanations are not always self-sufficient, and they do not preclude observable events from explaining the behavior. According to Moore (1998), mentalistic-sounding explanations may indirectly refer to historical events. Stated another way, mentalistic explanations refer to historical events at least partially, and it may be fair to talk about degrees of mentalism.

Historical explanations

Ultimate, mentalistic explanations are of limited value, and may even conceal historical events. Behavioral categories hardly explain anything, but may provide general guidance, when relations between categories and useful interventions are sufficiently clear (see Haynes, 1988). We also see historical explanations in traditional psychology, such as when psychodynamic psychologists talk about learning, that is, effects of experiences (e.g., Nielsen & Barth, 1991). Anecdotal case reports, referring to historical events, are also common (e.g., Crits-Cristoph & Barber, 1991). In client-centered therapy, the client is generally considered to be influenced by historical events to some extent (e.g., Levant & Shlien, 1987). Probably no-one will rule out the significance of historical events entirely. It is fair to say, however, that
experiments have played a modest role in the development of traditional therapies, such as psychodynamic and humanistic ones. All in all, traditional psychology employs a blend of mentalistic and historical explanations, reminiscent of the explanatory eclecticism of folk psychology (Leslie, 1997). The origins of traditional, clinical practice are therefore worth discussing.

**Beliefs, assumptions and principles**

A likely source of practice is beliefs and assumptions of for example psychodynamic and humanistic psychology, such as "psychological growth requires basic trust", "most of our motivation is subconscious", "people have free will", "everyone needs empathetic understanding" and "everyone needs unconditional positive regard". These form a general basis for therapy. A psychodynamic emphasis on the unconscious focuses on phenomena that patients are reluctant to talk about, or do not know. A humanistic or existentialist orientation implies accepting what the patient says at face value, acknowledging idiosyncrasies, and supporting assertiveness. Beliefs and assumptions of traditional psychology emphasize the complexity of human behavior, and contribute to therapeutic richness (see Hayes, 2004). Therapeutic principles are rules for conducting therapy, of which for example textbooks contain many (e.g. Crits-Cristoph, & Barber, 1991). These are recommendations for acting in connection with complex phenomena, not descriptions of basic behavioral processes, and indicate a top-down approach.

**Clinical experience**

Traditional talk therapies have been applied mostly to people with normal intelligence (Woods, Miltenberger, & Carr, 2006). In many respects, this is a homogeneous population compared with for example people with developmental disabilities: Criteria for mental disorders are based on the behavior of the normal population, while mental disorders are expressed more idiosyncratically in people with developmental disabilities (e.g Emerson, Moss, & Kiernan, 1999). Problem behavior in people with severe developmental disabilities was indeed poorly understood before the advent of functional analysis (e.g., Lovaas, Freitag, Gold, & Kassorla, 1965). In relation to communication, developmental disabilities range from almost normal functioning to severe problems. In contrast, people with normal intelligence are not only verbal, but often motivated to talk about their misery. The vast majority respond to ordinary social influences, such as conversation. Consequently, it is possible to approach problems in the normal population in more standardized ways, and more feasible to generalize clinical experiences from patient to patient. In brief, it has been possible to develop "talk therapies" based on clinical experience.

Therapists have talked with patients, and tried to understand and alleviate their problems (Casement, 1990). Therapists have learned therapeutic behavior: It is natural to repeat what has worked in similar situations, and to avoid repeating unfortunate actions. A supportive atmosphere makes patients feel better, and they return. According to the therapeutic lore, personal matters must be kept away from therapy, and personal relationships with patients must be avoided. To some extent, traditional therapies are refinements of everyday interaction, interpreted by concepts within for example psychodynamic psychology, such as transference, countertransference, and metacommunication (Bordin, 1979). Central tenets of client-centered therapy, such as empathetic understanding and positive regard (Houston et al., 1989), can be viewed as similar refinements. Over decades, traditional therapies have resulted in extensive cultures and literatures, and huge networks of more or less functional relationships between problems and solutions are established.

I should add that when traditional interventions work, they must do so for natural science reasons, not because mental causes have been correctly identified: As a result of talking with a psychotherapist of whatever type, one may change the perspective about one’s problem or situation. For example in psychoanalytic therapy or client-centered therapy, clients may talk about guilt or anxiety, and come to understand their behavior as a function of their history.
Once that happens, clients may see that they are not to blame for their situation and that they are not flawed. They see it as a result of natural causes, or of experiences. Alleviation of anxiety or guilt may come along with that.

To a large extent, problems which people seek help for are common problems like anxiety, mood disorders, impulse-control disorders and substance abuse (Wilson, Hayes, Gregg, & Zettle, 2001). Talking about such states in attempts at feeling better is culturally sanctioned (Hayes, Strosahl, & Wilson, 1999). Therefore, it should not surprise us that traditional therapies attract people, and that pressure to develop alternative, more effective approaches, for example based on more scientific principles, hardly exists.

Implications for the ethics, aesthetics and acceptability of traditional therapies

As far as the ethics and aesthetics of treatment are concerned, traditional therapies have a relatively easy task. Because most problems that people bring to therapy are well-known, most treatment goals are consistent with cultural views on healthy functioning. Informal, subjective reports are common in the evaluation of treatment, such as how laypeople observe changes. Therapists talk in familiar ways, contributing to a good atmosphere. Because therapies have been developed in clinical contexts, patients have influenced therapists’ behavior directly, right from the start. Large numbers of patients express their opinions about ethical and aesthetic matters, both in the therapy room and for example in the media, correcting undesired practices if necessary. Because most patients respond to ordinary social influences, therapies rarely contain controversial elements or concrete exercises. Therapies also become predictable: Expect similar treatment, that is, typical ways of talking about problems, for similar problems, from similarly-oriented therapists. In summary, ethics, aesthetics, and therapy are relatively automatically integrated. Folk psychology, everyday influences, and traditional therapies can be seen as aspects of the same culture.

Behavior analysis

Explanations and principles

Mentalistic explanations have no place in behavior analysis (Hineline, 1980). Behavior analytic explanations are always historical. Something, no matter how subtle, must happen in order to influence behavior, including feeling and thinking. Behavioral categories, such as autism and depression, never serve as explanations of autistic or depressive behavior. Functional classes of events that can influence behavior are summarized as principles of behavior. This is in line with natural sciences, where a principle is a law that explains how things happen or work (Moore, 2000). As in other natural sciences, a limited set of principles is considered sufficient to explain even complex behavior, just as a few principles can be used to explain complexity in evolutionary theory (Donahoe & Palmer, 1994). The first step for behavior analysis was to establish basic principles in the laboratory. Initially, these were applied to simple and arbitrary behaviors, and gradually to more complex and relevant ones. Following this strategy, behavior analysis has studied behavior ranging from barpressing in rats to anxiety and depression in humans.

The paramount principle is reinforcement. Other principles describe factors altering sensitivity to stimuli (see Murphy, McSweeney, Smith, & McComas, 2003). Verbal behavior is to a large extent explained by such basic principles, too (Skinner, 1957). Even within relational frame theory (Hayes, Barnes-Holmes, & Roche, 2001), a current approach to language and cognition, reinforcement is critical; so-called derived relational responding is operant behavior.

Behavior analytic principles provide no particular therapeutic guidance. Consequently, they are neutral as far as values and treatment decisions are concerned. It is first and foremost the use of the principles that ought to be subject to ethical and aesthetical considerations, reminiscent of decisions in engineering.
Other behavior analytic assumptions

Basic assumptions in behavior analysis stem from the philosophy of radical behaviorism (e.g., Skinner, 1974). Behavior is thought to originate in the environment. Treatment is therefore ultimately about changing the environment. Behavior analysis also has principles in the form of more general rules of therapeutic conduct: Because of the experimental tradition in behavior analysis, interventions should be described and evaluated clearly and systematically. Functional analyses before intervening are almost mandatory. Other principles are both practical and ethical, such as avoiding aversive interventions as far as possible, and providing alternatives before reducing behavior (e.g., Repp & Singh, 1990).

Behavior analytic principles as a source of practice

It is easy to identify behavior analytic principles in behavior analytic interventions, when we know them. Similar interventions can, however, have other sources: People have always rewarded behavior, and altered antecedents. A lot of what happens in everyday life has much in common with reinforcement procedures (see Staddon, 2001). Rearing children entails numerous “fading procedures”, such as introducing independence gradually. But carefully defined principles allow a more analytic approach (Baer, 1991). The probability of understanding what happens and what we can do increases. Hence more sophisticated behavioral analyses and interventions would have been difficult without behavior analytic principles.

Treatment based on functional analyses, such as reinforcing alternative behavior and reducing sensitivity to reinforcers maintaining problem behavior, is one innovation. Functional treatment has been successful in the treatment of relatively heterogeneous populations, such as people with developmental disabilities, where behaviors and their causes may be highly idiosyncratic.

The functional strategy is complemented by ‘default’ methods, that is, treatment independent of function(s) of problem behavior. We “simply” apply powerful variables in order to change behavior, for example when functions are hard to detect or when reinforcement of problem behavior is hard to control. Presenting arbitrary reinforcers contingent upon desired behavior or upon absence of problem behavior are typical default methods.

Although behavior analytic practice is based on behavior analytic principles, I must emphasize that anyone’s behavior, including the therapeutic behavior of behavior analysts, is influenced by contingencies. In other words, clinical experience is also a source of behavior analytic practice, but not in the same way as in traditional psychology: Clinical experience is necessary in order to develop traditional therapies (see above). Because behavior analytic practice is rooted in behavior analytic principles, at least the basic features of clinical methods can be developed in the laboratory. Consequently, clinical experiences are necessary first and foremost in order to make methods applicable.

In recent years, behavior analysis has entered the field of psychotherapy. For example Acceptance and commitment therapy (ACT), influenced by relational frame theory (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Hayes, Strosahl & Wilson, 1999; Wilson, Hayes, Gregg, & Zettle, 2001), indicates that behavior analytic principles can be applied to the understanding and treatment of complex behavior.

Still, behavior analysis may seem peculiar from a popular or traditional point of view, and is a psychological minority. An important reason may be that the relationship between behavior analytic explanations, or principles, and treatment creates pitfalls which are detrimental to the widespread use of behavior analysis. I will describe possible pitfalls, and suggest possible solutions.

Implications of explanations for the ethics and aesthetics of behavior analysis

Behavior analysis is concerned with certain clients and problems

Response rate was the dependent measure when the reinforcement principle took form in the 1930s (Skinner, 1938), and is still imp-
portant. In my opinion, the emphasis on rate is a natural consequence of studying operant reinforcement, which increases the number of times behavior occurs. It might also explain a behavior analytic preoccupation with behaviors that are easy to observe and count by independent observers, as indicated for example by studies published in *Journal of Applied Behavior Analysis*, while “many of the target behaviors exhibited by mainstream clinical populations include private dimensions” (Woods et al., 2006, p. 408), such as aversive feelings in the case of depression or worrying in the case of generalized anxiety disorder. Furthermore, a relatively simple, functional analytic approach is effective first and foremost when one or a few variables explain a large proportion of the behavior to be treated (Haynes & O’Brien, 1990). This may, at least partially, explain an emphasis on treating problems by altering discrete response-consequence relations in controlled settings (Critchfield & Kollins, 2001). All in all, behavior analysis is more occupied with well-defined, discrete behaviors, than with more global disorders.

Behavior analysis is used in many different areas, such as education, performance management, behavioral medicine, sports, and abuse treatment. Perhaps no other approach attains the same breadth. The emergence of behavior analytic psychotherapy may also even things out, as we get more involved with common disorders, such as anxiety and depression. There is, however, still an imbalance in research and practice, and behavior analysis remains associated primarily with developmental disabilities and severe disorders. The following discussion will therefore focus mostly on this area.

Treatment might appear conspicuous and artificial

People with developmental disabilities and/or severe disorders often respond inadequately to normal, verbal influences. More concrete methods are often necessary. However, when we treat idiosyncratic problems in heterogeneous populations by way of powerful variables, the ethics, aesthetics, and treatment are not automatically integrated, as opposed to what happens more easily within traditional therapies. Firstly, selection of goals becomes less rooted in cultural views on healthy functioning. As a result, the danger of selecting controversial goals increases. Secondly, interventions may become more different from ordinary, cultural influences. The possibility of being judged unethical or unaesthetic therefore increases. Examples of interventions that people may find unethical are those that include punishment or coercion, no matter how legally and humanely these are applied. Another example may be to “bribe” people with huge reinforcers. Unaesthetic examples may be the delivery of tangible reinforcers in public or according to rigid plans, taking large amounts of data on overt behavior without focusing, at least informally, on the client’s private experiences, and employing powerful variables, such as for example delivering reinforcers very generously (see also Hineline, 2005). For example Kohn (1993) portrays behavior analysis more or less as being these elements (but see Reitman, 1998). Finally, describing interventions in an overly technical jargon might decrease their appeal (see Foxx, 1996).

Treatment might be unpredictable

One source of variability is the generality of behavior analytic principles. For example reinforcement can involve nearly anything, from praise to money. Another source is the functional strategy, which entails that treatment decisions depend on behavioral functions, not on topographies (Pelios, Morren, Tesch, & Axelrod, 1999). This means that similar topographies can be treated in very different ways. For these reasons, any intervention is one out of an endless number of alternatives. Quite logically, variability decreases predictability. Because more depends on decisions in each situation, the danger of applying behavior analysis in unethical and unaesthetic ways might increase.

The nature of behavior analysis is easy to misunderstand

People tend to see an intervention as a result of the school it stems from, as they are used to such relations between principles and practice.
in traditional psychology. Few are aware of how behavior analysis differs from other schools in relation to this. My experience is that most people perceive a behavior analytic intervention as behavior analysis per se: that is, as a necessary expression of behavior analytic principles. Consequently, one particular intervention that only a few people dislike can worsen the reputation of behavior analysis, and result in prejudices, especially when they are ignorant of alternative behavior analytic solutions and decisions behind the particular intervention.

Finally, I have no reason to believe that ethical and aesthetic violations are more common in the behavior analytic community than in other therapeutic communities, only that we face some unique challenges.

**Suggestions for increasing the acceptance of behavior analysis**

**Broadening behavior analysis**

Developmental disabilities will and should remain important within behavior analysis. A preoccupation with disabilities will, however, contribute to keeping perceptions of behavior analysis alive; that we can only deal with simpler disturbances. Moreover, disabilities are fraught with ethical dilemmas in the selection of goals and methods, and controversial decisions are difficult to avoid completely. In order to increase acceptance, we should therefore encourage broadening of behavior analysis, for the following reasons: First, treating commonly diagnosed disorders, like anxiety and depression, will demonstrate the wider implications of behavior analytic principles. We can do more than just reduce severe problem behavior, and a larger part of the population will get first-hand knowledge of behavior analysis. Second, behavior analytic psychotherapy, like ACT, may be less criticized than other fields of behavior analysis. It deals with independent people, and consists mostly of talking, that is, the same tools as in traditional therapies. Consequently, it has the same safeguards as these against controversial practices. Of course, broadening must be based on scientific advances.

**Reducing controversial and artificial aspects**

Behavior analysis possesses effective methods. Especially when working with people with developmental disabilities, treatment often involves major manipulations of the environment. When we add that it may be easier for behavior analysts to do something controversial, and that many behavior analytic clients have a limited ability to represent themselves, it follows that behavior analysis requires more awareness and control than other approaches, not least in relation to ethics and aesthetics.

The behavior analytic community takes ethics seriously. The literature describes ethical principles for selecting objectives, use of least restrictive, effective interventions, and the right of recipients to have influence prior to, during, and after treatment (e.g., Matson & DiLorenzo, 1984; Van Houten, 1994), as well as philosophical considerations (e.g., Hayes, Hayes, Moore, & Ghezzi, 1994). The concept of "social validity", that treatment is conducted according to ethical guidelines and should produce effects of social significance, originated within behavior analysis (Wolf, 1978). If all live by these principles, there will be few unnecessary problems as far as the reputation of behavior analysis is concerned. However, in most countries, anyone can offer consultation in the name of behavior analysis, without credentials. Therefore, we must make ethical principles known not only to people who consider themselves behavior analysts, but also to the public. This is necessary in order to enable people to distinguish between good and bad behavior analytic practice, and to identify outright humbug.

Accepting behavior analysis demands more than ethics, however. Generally, people want efficient treatment, but preferably when it appears "natural". Nothing indicates that behavior analysts neglect the aesthetics of interventions, although it is less discussed than the ethics (see Hineline, 2005). An important task is to diminish unnecessary impressions of artificiality. First and foremost, we can make interventions look more or less like natural influences, as in the following examples: Noncontingent reinforcement is a technical procedure, based on functional analyses and careful selection of reinforcers and
reinforcement schedules. This does not have to result in a conspicuous intervention. Giving a client with attention-maintained self-injurious behavior continuous access to a caregiver, or just giving the person attention, care or access to certain activities sufficiently often, can often look perfectly natural and concurrently be a noncontingent reinforcement procedure. Reinforcement of desired behavior does not have to appear artificial either, if we use it in ways which are common when people reinforce each other's, including children's, behavior, in relaxed, spontaneous, and varied ways. What we call "escape extinction" takes place in any situation where a person has to do something. Again, looking at how it takes place in everyday situations may be useful in order to appear authentical.

Another aspect is the complexity of interventions. Multi-faceted interventions, where a number of less-powerful variables each contribute a little bit, can appear more natural than one, powerful variable, such as massive reinforcement. A final aspect is how rapidly we attempt to reduce problem behavior. In general, more careful approaches may increase acceptability.

Such dimensions can be varied depending on context, that is, legal regulations and the attitudes of clients and those representing them. A general rule might be to intervene naturally and carefully when this is mandated and demanded, and more artificially and radically when it is allowed, demanded and necessary in order to achieve important results. The important thing is sensitivity to recipients and the public in general.

Language

A related issue is the language of behavior analysis. Behavior analytic concepts summarize what people can observe, and it should be possible to describe analyses and interventions with a minimum of technical jargon, if need be. Most uninitiated people prefer everyday words, and a non-technical language can improve implementation (Adkins, Singh, McKeegan, Lanier, & Oswald, 2002). We should therefore use behavior analytic terms in a modest way when they might stir scepticism or are unknown, and explain carefully what they mean, that is, make behavior analysis less aversive (see also Foxx, 1996).

Limits to reducing controversial aspects and adjusting language

As we gain experience, we should become more guided and protected by cultural norms and less exposed in terms of ethics and aesthetics, just like traditional therapies. I will emphasize, however, that there are limits to reducing controversial aspects. The question becomes: How many controversial aspects can be removed without removing behavior analysis? In my opinion, ethics pose few problems, as practice is regulated by law and ethical codes to a large extent. I also think that aesthetical dilemmas can be solved in most cases. I am more concerned about our language. If we always describe our interventions in everyday language, and conceal the principles that they are based on, we may become an underground movement. When I communicate with sceptical or slightly hostile people, I alternate between technical jargon and everyday language, the latter serving as brief definitions of the behavior analytic concept that I am using. The more scepticism or hostility, the less technically I speak or write, and vice versa. I never hide the behavior analytic origin of what I suggest. My personal experience is that modesty and sensitivity decrease resistance.

Emphasizing flexible relations between principles and interventions

Prejudices against behavior analysis are hard to avoid, if behavior analysts apply it stereotypically, instead of more flexibly. But it is still difficult to talk about necessary, behavior analytic solutions. Behavior analysis, like other natural sciences, offers no specific solutions. Attitudes toward interventions vary among behavior analysts, just as among other people, although interventions are based on the same principles. For example the debate on aversive interventions reveals a diversity of views (e.g., Repp & Singh, 1990). An important task is to prevent and eliminate associations between behavior analysis and particular interventions. In fact, we should try to make it known to the public that
particular interventions are largely irrelevant to the understanding of behavior analysis.

In relation to this, I find Hayes’ (1978, 1991) portrayal of relations between behavior analytic philosophy, explanations, methods and techniques, useful. Like other natural sciences, behavior analysis consists of four levels. The broadest one is the philosophy, or basic assumptions. The next one is theory; how we talk systematically about behavior, that is, principles. A more narrow level is methods, or how principles can be generally applied. Finally, techniques are specific therapeutic practices. A few assumptions and principles result in numerous methods and an endless number of technical applications, not in particular applications, which must be decided in each case. In contrast, people who are ignorant of this may perceive interventions as direct expressions of the philosophy and theory of behavior analysis. No matter how strongly we dislike particular interventions, however, this is hardly a reason to reject behavior analysis in general, only to reject particular interventions, behavior analysts, or decision-makers. Our task, more than the task of therapists of other orientations, is to present alternatives, not to insist on particular solutions. Ethical and aesthetical treatment requires a thorough understanding of behavior analytic principles, that is, an ability to utilize the generality of the principles. This is important when we teach and present behavior analysis.

**Concluding comments**

To a large extent, different schools of psychology are the result of different world views, and perhaps “never shall they meet”. However, arguments based on traditional mentalistic assumptions could sometimes be resolved by looking at the data. Two examples come to mind: First, psychoanalysts have advocated symptom substitution: If causes of symptoms are not treated, removal of symptoms will result in new symptoms. Rather than discussing hypothetical, underlying mechanisms responsible for substitution, behavior analysis approaches the issue experimentally. For example, when members of a response class are extinguished, the probability of other members of the class, or new topographies with the same function(s), increases (see Johnston, 2006; Parrish, Cataldo, Kolk, Neef, & Egel, 1986). In other words, whether symptom substitution or replacement takes place, is an empirical matter. Second, we have “the negative effects of reward on intrinsic motivation” controversy. The basic tenet of Deci’s (Deci, Koestner, & Ryan, 1999) theory is that rewards decrease intrinsic motivation to perform activities, that is, the motivation to do things for their own sake. If this is true, behavior analysis, or any use of planned reinforcement, is threatened. This view, too, can be investigated experimentally. In brief, attempts at reinforcing behavior are largely beneficial to intrinsic interest. It may undermine intrinsic motivation only when rewards are given for high-interest tasks, are tangible, offered beforehand and loosely tied to performance, and in highly contrived laboratory situations (Cameron, Banko, & Pierce, 2001).

An important task for science is to produce practical results (Barnes-Holmes, 2000). Behavior analysis has been successful as far as building a science of behavior is concerned. However, behavior analysis is of less value if people do not want to learn, understand, and use it (Neuringer, 1991). Beginning in the laboratory has been crucial to our science, but this effective kind of psychology has been hard to market and has presented us with a huge pedagogical task. In more classical natural sciences, researchers have been allowed to understand basic principles before applying them to complex phenomena. Such a strategy has not been the case in psychology, because of its complex subject matter and the bias in folk psychology. In psychology, it seems necessary to convince people that the most interesting questions can be addressed right from the beginning. Consequently, we must not underrate the experience that complex behavior can be explained and that the right interventions can be offered.

Generally, it is tempting to consider “short cuts”. The positive behavioral support (PBS) movement, and its name, can at least in part be seen as a response to the limited acceptance of behavior analysis. Some proponents of PBS,
such as Carr (1997), claim that PBS is a unique approach, different from behavior analysis. However, there is little doubt that PBS consists of well-known applied behavior analysis, and the Association for Behavior Analysis has a PBS special interest group. Carr and Sidener (2002) call PBS a “service-delivery framework” (p. 251). It emphasizes methods that are easy to accept and implement, that is, antecedent and positive reinforcement methods. Consequently, it becomes a predictable approach, which is easier to understand than the complex field of behavior analysis. Moreover, the words positive and support can be perceived as attempts at reducing resistance. Similar comments are relevant to programs like Aggression Replacement Training (Goldstein, Glick, & Gibbs, 2006) and Parent Management Training, Oregon model (Reid, Patterson, & Snyder, 2002). These programs are largely based on behavior analysis, but this is rarely underscored. Finally, cognitive behavior therapy is widely accepted. One reason might be its common-sense conceptualization of the relations between cognition and more concrete behaviors. In contrast, behavior analysis has a bottom-up approach, that is, trying to develop a treatment approach on the basis of a thorough understanding of verbal functioning (Hayes et al., 2006).

Convenient simplifications are against the nature of behavior analysis. After all, the ambition is to establish a comprehensive psychology. We should therefore work patiently according to a bottom-up approach in order to show our raison d’être. The task we are facing is formidable, and may be illustrated by an untitled poem by an unknown author, purportedly about the competition among London’s newspapers in the late 1800s. Most behavior analysts should recognize the dilemma it describes, and I hope it will not ultimately become a poem about behavior analysis:

Tickle the public, make ’em grin
the more you tickle, the more you’ll win
Teach the public and you’ll never get rich
you’ll live like a beggar, and die in a ditch

References


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