This paper traces the birth, quiescence and renaissance of clinical behavior analysis (CBA). CBA is the application of radical behaviorism to outpatient adult behavior therapy. It addresses the question of how talking in the consulting room helps the client outside of the office, in his or her daily life. The answer as formulated by CBA has led to exciting and significant developments with considerable promise for improving therapeutic interventions. A brief historical account of CBA is described that involves the interplay of three strands involving clinical applications of behaviorism: behavior therapy, applied behavior analysis, and the development of the Association for the Advancement of Behavior Therapy (AABT). These strands are traced through publications in *Behavior Therapy* from its inception to the present. We contend that there is a need in AABT and in behavior therapy in general for what CBA has to offer. As we see it, the major problems facing the AABT membership with its current emphasis on cognitive therapy and empirically validated treatments include the lack of a coherent theoretical base that can embrace all of the techniques used by behavior therapists. Now with all the behavioral procedures that have been developed, a horrendous question arises, "When do you use which procedure for what kind of person?" We conclude that far from being a thing of the past, CBA has a bright future in answering this question. Behavior analysis of the therapeutic situation offers a unique, coherent theoretical base that can embrace all techniques used by behavior therapists, including cognitive therapy strategies.

Clinical behavior analysis (CBA) is defined as the application of radical behaviorism (Skinner 1953, 1974) to answer the most basic question about outpatient adult behavior therapy (or any other type of psychotherapy) (Kohlenberg, Tsai & Dougher, 1993). Since outpatient treatment consists of verbal interchanges between client and therapist, the question is this: what is the mechanism that explains how this talking helps the client outside of the office in his or her daily life? In this paper, we contend that CBA is an exciting, new, and significant development that holds considerable promise for improving therapeutic interventions. We also recognize that most behavior therapists are only superficially familiar, if at all, with CBA and are not aware of its considerable potential as a highly effective treatment. There are several factors that account for the relative invisibility of CBA, not least of which is its mercurial appearance over the last 46 years.

THE BIRTH OF CBA

In *Science and Human Behavior* (1953), Skinner gave an analysis of psychotherapy, including behavioral interpretations of terms such as resistance, repression, and free association. Following this work, very little was published on CBA other than the insightful, but largely ignored papers by Charles Ferster (1967, 1972a, 1972b, 1972c, 1979). Neither Ferster nor Skinner intended to devise new approaches to treatment in these writings. Instead they wrote in behavioral language, demonstrating a more useful way of describing, understanding, and in Ferster's case, teaching the change process. So, CBA got its start quite early in 1953 and then all but disappeared until its reemergence in 1987 with the publication of an edited book (Jacobson, 1987). The Jacobson book contained chapters by Hayes (1987) and Kohlenberg & Tsai (1987) that described in detail their approaches to using Skinnerian principles to treat outpatient adults. We will refer to this hiatus as the quiescent period of CBA. The reasons that behavior analysts did not pursue CBA play a role in understanding the nature of its renaissance.

CBA’s Quiescent Period

Our historical account of CBA involves the interplay of three strands involving clinical applications of behaviorism. These are behavior therapy, applied behavior analysis, and the development of the Association for the Advancement of Behavior Therapy (AABT).
Behavior therapy is the application of laboratory-based principles of learning (in the early years) to human problems and a commitment to empiricism in evaluating the effects of the treatment. Applied behavior analysis is more narrowly defined as the application of operant conditioning laboratory principles to treating and solving human problems - in other words, the Skinnerian based treatment approach. Although both are applications of Skinnerian operant principles to real human problems, CBA is distinct from applied behavior analysis in that it focuses on outpatient "talk" therapy, whereas applied behavior analysts pay very little attention to such therapy. AABT is the dominant professional/scientific organization to which behavior therapists belong and, with its journal, *Behavior Therapy*, is the primary voice of behavior therapy.

In 1966, during CBA’s quiescent period, AABT was established, and its journal, *Behavior Therapy*, came into existence in 1969. Although CBA was quiescent, applied behavior analysis was not. In fact, applied behavior analysis played a very significant role in the development of behavior therapy during these early years. Applied behavior analysis was considered one of the two pillars of behavior therapy, the other being desensitization and classical conditioning based treatments.

During this period, behavior analysis was in the mainstream of behavior therapy. There was a virtual explosion of research on behavior change techniques based upon operant principles (e.g., Ayllon & Azrin, 1965; O'Leary & Becker, 1967; Wolf, Risley, & Mees, 1964). In the years 1970 to 1978, a casual tabulation of the papers published in *Behavior Therapy* showed that about 40% of the empirical and treatment papers referred to the operant terms *contingency, reinforcement, extinction, or discriminative stimulus*. Many of the published graphs were cumulative records (a favorite of behavior analysts) that showed a baseline condition, a reinforcement condition, and an extinction condition. These graphs showed how the therapist's within-session actions (e.g., applications of reinforcement and punishment, shaping, exposure to feared stimuli) produced behavior change. It is important to point out that in these papers, the behavior changes that were the goal of treatment were also observed during the session; we will elaborate on the significance of this later. There were, of course, equivalent numbers of papers on desensitization and classical conditioning applications and it was not unusual for individual papers to have references to both.

Given that applied behavior analysis was a foundation of behavior therapy and had a strong presence both in AABT and in its journal, it might well have continued playing a substantial role. However in the 1980s and 1990s, through an unexpected, curious turn of events, applied behavior analysis became a minor presence in the pages of *Behavior Therapy* (with the notable exception discussed later in this paper) though AABT, with over 4000 members, had grown and prospered. Most behavior analysts now belong to the Association for Behavior Analysis and publish their work in another journal, the *Journal of Applied Behavior Analysis*. Our explanation for this turn of events is closely related to the quiescence and eventual renaissance of CBA.

First, behavior therapists became increasingly interested in working with adults in the outpatient psychotherapy environment. Applied behavior analysts, on the other hand, mainly worked in settings that differed from the typical psychotherapy office. Further, the kinds of problems that applied behavior analysts dealt with were not typical problems of the adult outpatient such as depression, problems of the self, difficulties in intimate relationships, and existential anxiety. Instead the behavior analyst was extremely effective in treating problems such as head banging, poor math performance, hyperactive school children, tics, mutism, towel hoarding, and lack of rudimentary self care skills in hospitalized patients with schizophrenia. So, given the growing interest in adult outpatient problems and the seeming inappropriateness of applied behavior analysis, behavior therapists became less interested in applied behavior analysis. Even more telling, many applied behavior analysts left the fold and turned to cognitive therapy for guidance in doing office-

The abandonment of the Skinnerian approach in mainstream behavior therapy was based on an unfortunate and misguided assumption. The process was as follows: First it was correctly concluded that applied behavior analysis was effective for a wide variety of problems ranging from self-destructive behaviors in severely disturbed children to problematic learning difficulties of children in classrooms. Second it was clear that the kinds of problems that applied behavior analysis was used for all had one thing in common, namely the focus on actual within-session occurrences of the client's problematic behavior and improvement. That is, in order to use operant techniques, the therapist had to observe the problematic behavior directly, deliver the rewards and punishments, and actually see the behavior change. Third, it was assumed that most of the problems presented by outpatient adults, such as "difficulties in intimate relationships" or "depression," or "anger" occurred only outside the therapy session in their daily life and could not be observed and reinforced directly by the therapist during typical office treatment. This last assumption, we believe, was erroneous.

In addition to this erroneous conclusion, there were other barriers that deterred behavior therapists from using Skinnerian based methods for outpatient adults. Some applied behavior analysts themselves uncritically accepted the erroneous conclusion and, as discussed by Hawkins et al. (1992), became cognitive therapists. Others inappropriately used operant techniques with adults that further added to the prevailing misconception that behavior analysis had little to offer in the adult treatment arena. For example there were procedures such as contracting, e.g., "I'll fine you a nickel if you don't do this and that kind of behavior or if you weren't nice to your wife", or only paying attention to a client with depression if they were smiling, or asking a husband to earn points for taking out the garbage that could be redeemable for sex with his wife. So, during the early years of behavior therapy and continuing till just recently, applied behavior analysts were not very effective in devising treatments that addressed the daily life problems of adult outpatients.

Thus we agree with Wulfert, in this series, that that particular form of the Skinnerian approach failed to meet an important need for expanding the scope of behavior therapy. We also agree that this failure set the stage for the so-called "cognitive revolution," because cognitive therapy easily lent itself to office treatment.

The Renaissance

Unfortunately, the fact that problematic client behavior actually occurs in the office was overlooked by most behavior analysts. One reason for this oversight was that behavior analysts were focusing their efforts in other settings. They were doing very well with the populations in institutions such as school classrooms, mental hospitals and even whole communities. But Behavior Therapy stopped publishing this kind of work because the readership had more interest in office treatment, so cognitive therapy papers appeared with increasing frequency. We suspect that those applied behavior analysts who didn’t embrace the cognitive perspective, left AABT and joined the Association for Behavior Analysis, published in their own journal (The Journal of Applied Behavior Analysis) and more or less abdicated their role in outpatient treatment to cognitive therapists.

This situation set the stage for a renaissance of clinical behavior analysis. How did we get back on track? From our perspective, the watershed event in this whole clinical behavior analysis area was Steve Hayes’ work (Hayes, 1987; Zettle & Hayes, 1982,). He took Skinner's Verbal Behavior (1957) and applied it to outpatient individuals while investigating the underlying principles with corresponding laboratory work. For the first author, Kohlenberg, Hayes’ work was an eye opener, because early in his own career during the 1970s, he was a radical behaviorist at heart, but was unable to use Skinnerian principles when doing outpatient treatment. At that time, it was difficult to conceptualize outpatient treatment in Skinnerian terms because the framework wasn’t
there. Then Steve Hayes’ work changed that. There were many other contributors who added to this, but it was a concentrated effort on his part that made the critical difference. This symposium that is gathered here today is a direct result of Hayes’ application of radical behavioral principles to outpatient treatment. Now there is a way for behavior analysts to start talking about what goes on in a talk therapy situation.

Behavior therapists abandoned applied behavior analysis and the idea of using the Skinnerian approach, as we said, due to an erroneous conclusion that problems presented by outpatient adults do not occur in the therapy session. We do not think that the therapy environment actually differs significantly from the client’s daily life environment. On the contrary, we contend that most people's daily life problems are the same kinds of problems that occur in-vivo, during office treatment. In daily life, our problems have to do with relating to other people, and therapy requires the client and therapist to relate to one another.

Functionally speaking, the way you know whether a client-therapist environment is the same or different from the environment on the outside is whether or not it evokes the same kinds of problems the client reports having outside of therapy. And in fact, if therapists take a functional view of client behavior, they see that the same kinds of client problems actually do happen in the office as in daily life. That's because the therapy situation is part of daily life: it’s not separate from the natural world. That being the case, the behavior analyst who's used to working with behavior as it occurs in a classroom or Skinner box, actually has the same opportunity to do something with on-going client behavior in the outpatient therapy office.

A Grand Theory for Behavior Therapy

We contend that there is a need in AABT and in behavior therapy in general for what CBA has to offer. As we see it, the major problems facing the AABT membership with its current emphasis on cognitive therapy and empirically validated treatments include the lack of a coherent theoretical base that can embrace all of the techniques used by behavior therapists (Branch, 1987). During the rapid growth period of behavior therapy there was almost no interest in theory. Now with all the behavioral procedures that were developed, a horrendous question arose, “When do you use which procedure for what kind of person?”

In fact, this is a big question for all therapies, and we behavior analysts are actually in a good position to answer it. There is nothing in a behavior analytic approach that rules out any procedure. We can do anything. We might conceptualize it in different terms than a cognitive therapist might, but basically we can embrace every treatment procedure that AABT has ever had presented at conventions or published in their journal. We can fit it into a theoretical structure and solve the problem of deciding which procedure to use. The idea that behavior analysis offers an integrative treatment approach is very compelling. There really isn't any other theory or theoretical approach that can embrace every procedure, from cognitive interventions to free association. Kohlenberg & Tsai (1994), who used CBA to embrace psychoanalytic and cognitive therapy procedures, demonstrated the integrative possibilities of this approach.

The Bright Future for CBA

There has been a recent spate of reports showing that medication is better than psychosocial treatment for a variety of disorders such as depression. If medication is in fact better, then it's not a problem. But many of us think that psychosocial treatments could be better and are preferable in the long run. Now what's the solution to the problem? We must develop more powerful treatments. Again, looking at the last two 1997 issues of Behavior Therapy, the innovative treatments with promising futures that were mentioned the most came from the behavior analytic tradition.

We're in a position to offer something new to the field. One strategy for doing that is to build upon something that's already there. This is fairly easy to do if you look at the integrative power of behavioral analysis referred to above. As a case example, we have done a behavioral analysis of cognitive behavior therapy for depression and have come up with some very
promising improvements that should enhance efficacy. One such improvement is based on the notion that maximum change occurs when improvements in the client's behavior are reinforced as they occur, within the therapist-client relationship. For example, a client who feels isolated because s/he always needs to appear strong, competent and in control, happens to admit a fear or a weakness to the therapist. If the therapist responds honestly that s/he feels closer to the client as a result of this disclosure, that this may help the client to risk making such a disclosure with selected others outside of therapy, consequently feeling less isolated. In other words, an in-session, directly observable client behavior (admitting a weakness to the therapist) occurred and was immediately reinforced. We have been conducting an NIMH treatment development study to find out if these in-vivo enhancements could be implemented. Although the study is not yet completed, preliminary results indicate that experienced cognitive therapists can learn how to do the enhanced treatment. As shown in Figure 1, therapists doing the enhanced treatment with clients with depression make much more use of the therapist-client relationship as an in-vivo example of their daily life problems.

Behavior analysis can even help with problems that are perplexing to cognitive therapists regarding such issues as cognitive structures, cognitive products, and automatic thoughts, specifying exactly how they differ and how to change them (Kohlenberg & Tsai, 1991). We have some very good solutions to these questions that are based on distinctions between rule-governed and contingency-shaped behavior. So, not only can we improve treatment but we can also help cognitive therapy and make some friends. We agree with Wulfert that we need to reach out, offer something, and learn something, rather than just being critical of our AABT brothers and sisters. Our study on enhancing cognitive behavior therapy has shown what a good treatment cognitive therapy is and how difficult it is to do properly. We employed experienced cognitive behavior therapists and have learned to appreciate what they do. It is actually a very good treatment; it's easy to undersell cognitive therapy if you don't see it in action and appreciate how difficult it is to do properly.

Although behavior analysis was out of the picture till very recently we think the current status is good, based on certain bits of evidence. First of all, Steve Hayes is the president of AABT and a behavior analyst. Not only that,

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2 Technically, the event is not known to be reinforcing until we can observe future occurrences of the client behavior in question.
but Neil Jacobson, a recent radical behavioral convert, chided the audience in his 1991 AABT presidential address that AABT wasn’t behavioral anymore and had ignored functional analysis. Secondly, if you look at AABT programs, you’ll find there are more and more behavior analysts actually presenting at AABT. Third, more evidence can be found in the last two issues of the 1997 Behavior Therapy. These issues were devoted to an assessment of the last 30 years and the future of AABT and behavior therapy. Interestingly enough, they were edited by two behavioral analysts, Rob Hawkins and John Forsyth, good evidence that clinical behavior analysis once again has a strong presence in AABT. Some may not like the idea that we are using “influencing AABT or being in AABT” as a measure of the health of CBA. But given the size and influence of AABT, it’s a meaningful measure. Fourth, if you look through those last two 1997 issues of Behavior Therapy, it’s remarkable how much attention is being given to behavior analysis by mainstream behavior therapists. References to Kohlenberg & Tsai and Hayes are frequent. That’s evidence that clinical behavior analysis is more present than it has been since the very early years. So our assessment is that the current status of CBA is good and our future is bright.

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