

# Into the Lion's Den: Incorporating Personality and Evolutionary Psychology to Expand Clinical Behavior Analysis

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## ABSTRACT

This paper incorporates aspects of the personality and evolutionary psychology literatures into a behavior analytic framework to expand clinical behavior analysis. We argue that personality can be understood in reference to contingencies of reinforcement that are differentially potentiated across individuals by the joint influences of phylogenetic and ontogenetic variables. Moreover, we propose that the behavioral effects of phylogenetic variables, which have been relatively neglected in the behavior analytic literature, can be conceptualized as functioning like establishing operations. This conceptualization provides a partial behavioral account of the variability across individuals with respect to reinforcer potency and why some behaviors appear to be refractory to change or therapeutic intervention. The practical ramifications of our approach to personality are exemplified in a clinical case example and discussion of acceptance-based couple's therapy.

*Key words:* personality, clinical behavior analysis.

## RESUMEN

Este artículo incorpora aspectos de las literaturas relativas a la psicología de la personalidad y la psicología de la evolución dentro de un marco analítico-conductual para expandir el análisis clínico de la conducta. Se argumenta que la personalidad puede ser comprendida en referencia a las contingencias de reforzamiento que son potenciadas diferencialmente a través de individuos por la influencia conjunta de variables ontogenéticas y filogenéticas. Además, se propone que los efectos conductuales de las variables filogenéticas, que han sido relativamente descuidados en la literatura analítico-conductual, pueden ser conceptualizados como funcionando igual que el establecimiento de operaciones. Esta conceptualización proporciona una explicación conductual parcial de la variabilidad interindividual, de la potencia de los reforzadores, y de por qué algunas conductas parecen refractarias al cambio o a la intervención terapéutica. Las ramificaciones prácticas de nuestra aproximación a la personalidad se ejemplifican en un caso clínico y la discusión de la terapia de pareja basada en la aceptación.

*Palabras clave:* personalidad, análisis clínico de la conducta

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A person is not an originating agent; he is a locus, a point at which many genetic and environmental conditions come together in a joint effect. As such, he remains unquestionably unique. No one else...has his genetic endowment, and without exception no one else has his personal history. Hence no one else will behave in precisely the same way.

B. F. Skinner (1974, p. 185)

Personality is a topic that has been relatively neglected in behavior analysis (Dougher & Hackbert, 2000). There is a common misperception among psychologists that behavior analysts have neglected personality because they simply are not interested in the topic (Maddi, 1996). To quote from a graduate level personality text, "Do radical behaviorists really deny the existence of common, unchangeable aspects of human nature? No, but they will not speculate about them, and they consider them unimportant in behavior modification" (Maddi, p. 438). This apparent lack of interest also is commonly attributed to behavior analysts being extreme or radical environmentalists. As Meehl (1986) reports, a common assumption about behavior analysts is "that they don't like traits and they don't like genes" (p. 315). Meehl goes on to assert that while operant behaviorists often dislike trait language, they need not. We agree with this assertion. In fact, it is our contention that trait or personality language actually has something to offer a science of behavior, if we can come to understand it in a useful way. More precisely, if we can talk about personality in functional as opposed to structural terms. A functional understanding of personality is useful precisely because it advances the objectives of behavior analysis, i.e., prediction and control. Moreover, by ignoring an aspect of human behavior that most psychologists find both important and inherently interesting behavior analysis runs the risk of professional marginalization and misses an important opportunity to influence the field.

#### BEHAVIOR ANALYSIS AND PERSONALITY

The fact that behavior analysts do not spend much professional time talking about personality should not be considered evidence that we have nothing of interest or importance to say about the topic. Certainly, behavior analysts commonly use personality or trait terminology in casual discourse. As Meehl (1986) reports, even Skinner found some use for the measurement of personality traits as he routinely checked applicants' scores on the Miller Analogies Test before admitting a student for graduate study. Although sparse, there are references to personality in the behavior analytic literature (e.g., Harzem, 1984; Lamal, 1991; Lundin, 1974; Lubinski and Thompson, 1986; Poling, Schlinger, Starin, and Blakely, 1990; Parker, Bolling and Kohlenberg, 1998; Tustin, 2000; Iwata, Dorsey, Slifer, Bauman and Richman, 1982). Harzem (1984) advocated that, "extension of the experimental analysis of behavior to the study of individual differences and personality is likely to be important both scientifically and for the future growth of behavior analysis" (p. 385). Despite this, behavior analysis has not embraced the study of personality or individual differences, and it is fair to ask why.

One possibility is that personality is not easily studied. It is necessarily historical and does not readily lend itself to laboratory based experimental analysis. Furthermore, the study of personality often involves considerations of genetic or phylogenetic variables. Although Skinner (e.g., 1977) made it explicitly clear that, "The behavior of organisms is a single field in which both phylogeny and ontogeny must be taken into account" (p. 1012), the relative influences of phylogenetic variables and the processes by which they affect behavior has been relatively neglected by behavior analysts. This neglect likely has served to perpetuate the misperception that behavior analysts insist that all behavior is the result of conditioning or ontogenetic variables. Given this situation, the purpose of this paper is to address from a behavior analytic perspective some data from the personality and evolutionary psychology literatures and to illustrate the implications of this conceptual analysis for clinical behavior analysis. Specifically we argue that personality or personality traits can be usefully understood in reference to potentiated contingencies of reinforcement and that both phylogenetic and ontogenetic factors are important determinants of which contingencies are differentially potentiated across individuals.

### *Defining Personality*

It may be useful to begin our discussion by clarifying how the concept of personality is treated within mainstream psychology. Some common definitions offered by prominent personality psychologists include: "Personality is something that does something" (Allport, 1937, p. 48), "those characteristics of the person or of people generally that account for consistent patterns of behavior" (Pervin, 1989, p. 4), and "that which permits a prediction of what a person will do in a given situation" (Cattell, 1950, p.2). As these quotes illustrate, personality theorists see personality as a cause of behavior that, once identified, allows for the prediction of behavior. However, reification, circular reasoning, and teleology characterize these definitions. For behavior analysts, personality is neither an explanatory concept nor a thing. Parker, Bolland, and Kohlenberg (1998), for example, argue that the major problem with traditional notions of personality is that many psychologists engage in a futile hunt for a thing called personality. The problem with this approach, of course, is that the abstracted thing is generally inferred from the very behavior it purports to explain, and nothing in the way of explanation is therefore gained from the inference. That does not imply, however, that there is no scientific advantage in abstracting such concepts. From a behavior analytic perspective, the key would be to define the concept functionally and stipulate its determinants.

Behavior analysts would have little difficulty with defining personality in terms of behavior, provided that behavior is defined functionally rather than topographically or structurally. From a functional perspective, behavior can be understood only in relation to its controlling contingencies. Thus, when we speak of behavior we are really speaking of behavior-environment units. There are at least two behavior analytic definitions of personality that take this functional perspective. Skinner (1974) defines personality as "...at best a repertoire of behavior imparted by an organized set of contingencies" (p. 164), and Poling, Starin, Schlinger and Blakely (1990) define it as "behaviors that

consistently occur in particular situations” (p. 249). Although we basically agree with these definitions, we are concerned that they fail to emphasize adequately that behavior cannot usefully be defined apart from the context and contingencies within which it occurs. A contingency is a unit of analysis (see Sidman, 1986), and behavior is a functionally inextricable part of that unit. Thus, even at its simplest level, behavior cannot be understood or even described apart from its consequences. Given this definition of behavior, if we then attempt to define personality in terms of consistent patterns of behavior, we are really speaking of consistency in the contingencies of reinforcement in which behavior participates. On this view, individual differences or differences in personality can be understood as differences in potentiated contingencies of reinforcement, i.e., differences in the range of events that serve as potentiated reinforcers (and punishers) and the behaviors that have produced those events in the past.

In a recent paper concerned with behavior analysis and personality, Parker et al. (1998) pointed out that personality refers to consistent patterns of behavior, and that this consistency can be explained in terms of similar functional relationships (past and current) across different contexts. This explains why, across topographically different environments, there is consistency in an individual’s behavior. Conversely, within contexts, different functions can be served by topographically similar behavior emitted by the same or different individuals. Formally similar behaviors may be due to very different outcomes and thus serve different functions (Parker et al., 1998).

If we define personality in terms of the contingencies of reinforcement that tend to be potentiated across a range of contexts, it could be conceptually and pragmatically useful in certain situations to describe or characterize individuals in terms of personality traits. For example, it can be behaviorally meaningful and useful to characterize individuals as kind, aggressive, shy, extroverted, intelligent, sensitive, or dull because it potentially allows for greater prediction and control. If we are told that an individual is shy, it may evoke a repertoire quite different from the one that would be evoked when told that an individual is aggressive. Moreover, the label conveys information about the kinds of contingencies and consequences that are likely potentiated for that individual, as well as the kinds that are not. Although it may at times be useful to use personality traits in this way, traits are certainly not explanations of behavior. Rather, they themselves need to be explained. Given what we have argued thus far, the next question to be addressed is what accounts for the differences among individuals in terms of the contingencies and consequences that control their behavior.

To some extent, differences among individuals in terms of potentiated contingencies of reinforcement are, of course, the result of conditioning histories. Examples abound, and the obviousness of this claim requires no illustration. However, we would argue that conditioning history alone is an insufficient explanation. No conditioning history, for example, is needed to explain humans’ preferences for salt, sugar, and fat. It is often amusing to observe at social gatherings or occasions where “junk food” is available the behavior of children who have been on restricted or healthy diets. These diets are frequently imposed on children by parents in an attempt to instill healthy eating habits and a preference for vegetables and healthy foods over candy and cookies. When out of their parents’ view, the manic intensity with which these children sometimes consu-

me the “forbidden” foods, is a testament to the power of phylogenetically potentiated (unconditioned) reinforcers. Of course, based on just these observations, one could not conclude that sugar, fat, and salt are phylogenetically potentiated reinforcers, but their near universal potency as reinforcers certainly is impressive. Our point is simply that there are factors outside of the lifetime of an individual that influence what contingencies of reinforcement and punishment are potentiated for that individual.

Of course, what we are saying is really nothing new. Behavior analysts have long assumed that behavior is the result of the joint influences of phylogenetic and ontogenetic variables. Skinner (1974) argued that genetic endowment and personal history make a person unique, and Poling et al. (1990) argued that these combined variables, by producing consistencies in behavior, may be said to determine an individual’s unique personality. But while phylogenetic influences have been acknowledged, very little has been said about the processes by which these influences affect behavior. One potentially fruitful way to consider the effects of phylogenetic variables on behavior is to consider them as a class of setting events (Bijou, 1996), potentiating variables (Goldiamond and Dyrud, 1968) or establishing operations (Michael, 1982, 1993).

### *Establishing Operations*

Most theories of personality assign an important role to such constructs as “needs,” “drives” “instincts,” or “tendencies.” Behavior analysts instead view these kinds of motivational effects as dependent rather than independent variables and explain them as the results or effects of certain procedures, processes or operations. The most generally accepted term for these kinds of operations is Michael’s establishing operation. As most readers of this journal are aware, establishing operations potentiate or establish the elements of reinforcement contingencies. In particular, they potentiate the reinforcing functions of certain consequences, they increase the frequency of behaviors that have been effective in obtaining those consequences in the past, and they increase the salience or stimulus control of stimuli that have been correlated with the availability of relevant reinforcers. A number of establishing operations have been identified, including physiological conditions, behavioral histories, deprivation, aversive stimulation, ambient conditions, and a range of events that elicit emotions (see Dougher and Hackbert, 2000, for a more complete discussion). It is our contention, however, that phylogenetic variables may also serve functions similar to those described for establishing operations.

We assume that the mechanisms by which phylogenetic variables affect behavior are genetic and biological. Presumably, genetic combinations give rise to biological structures that are differentially susceptible to environmental stimuli. The relevant genetic and biological processes will be discovered by the work of scientists in other fields. The task facing behavior analysts is to articulate the behavioral processes by which these variables influence behavior. We would argue that conceptualizing these variables as, among other things, establishing operations, allows us to provide a behavioral explanation of the relatively stable behavioral differences among individuals identified by personality theorists. It also provides some level of explanation of why certain

behaviors are so resistant to environmental manipulation.

### PERSONALITY TRAITS

Researchers interested in personality traits focus their efforts on identifying and measuring the dimensions along which individuals differ. Traits have been defined as “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions” (Costa and McCrae, 1998, p.104). Trait theorists typically use factor analysis to identify these stable, relatively independent, classes of behavior, which can then be used to distinguish among individuals. Repeatedly, factor analytic studies have yielded five relatively stable dimensions of behavior. These are called the “Big Five” and include: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (see Digman, 1990; Goldberg, 1993 for a history of the discovery of the Five-Factor Model). At the population level and for purposes of prediction, this approach has value. For example, knowing that someone is extraverted can allow one to make reasonable predictions about how that person will behave in certain situations.

It may seem odd to read about personality traits in a paper written by behavior analysts. After all, as Meehl (1986), points out, “psychometric factors [traits] are in Skinner’s standard list of non-functional –even mythical– variables” (p. 332). Meehl goes on to assert, however, that operant behaviorists need not dislike trait language, and by that he means that traits can simply be seen as response classes, a concept that is quite compatible with behavior analysis. Along those lines, there have been previous attempts by behavior analysts to provide an account of personality traits. For example, Harzem (1984) defined a ‘personality characteristic’ as “a cluster of functional relations between (1) a set of variables and (2) the already-established behavior patterns of an individual” (p. 391). In line with Meehl’s definition, Lubinski and Thompson (1986) also define traits as response classes, by which they mean a set of topographically distinct behaviors maintained by the same consequences. If we apply this definition to the “Big Five” traits, we move beyond simple descriptions of behavior and begin to incorporate reinforcers and reinforcement contingencies into the concept of a trait. Thus, introversion is not simply the tendency to be shy, quiet and avoid others; it is a description of a set of potentiated reinforcers and punishers. Introverted individuals find it reinforcing to avoid crowds and spend time alone or with small groups of individuals. Individuals who score high on measures of conscientiousness are relatively more sensitive than others to the social reinforcement associated with behaving in ways that society labels moral, ethical or responsible. The point here is that by understanding traits as functional units consisting of the elements of reinforcement contingencies, it allows us to see individual differences as differences in potentiated contingencies of reinforcement.

Tustin (2000) has taken this behavioral approach to personality traits and has examined new techniques for measuring preferences between reinforcers (via demand functions). He has hypothesized that individual differences in reinforcer preference may be related to consistent differences in behavior, such as those observed in personality traits. Further, Iwata, Dorsey, Slifer, Bauman, and Richman (1982) have identified four

basic reinforcement categories found to be effective with people with developmental disability: 1) tangible reinforcers, 2) social attention, 3) sensory stimulation, and 4) escape from task demands. It would be interesting to expand Tustin's and Iwata et al's approach to identify reinforcer preferences in the general population.

### *Evolutionary Psychology*

If individual differences can be understood in terms of differences in potentiated reinforcement contingencies, the sources of these differences would be found in relevant establishing operations. We have argued the value of considering both ontogenetic and phylogenetic factors as important determinants of which contingencies of reinforcement are differentially potentiated across individuals. "Operant behavior is an evolving interface between organism and environment. Operant processes produce novel forms of behavior, just as evolutionary processes produce novel forms of organisms. Further, the vehicle for producing both kinds of novel forms is selection" (Glenn, 1991, p. 45). Despite the fact that we share a selection model of causality, behavior analysis has remained largely separate from evolutionary science (Brown and Hendy, 2001). Baum (1995) has cautioned that, "Behavior analysis risks intellectual isolation unless it integrates its explanations with evolutionary theory" (p.1). Given that our emphasis in this paper has been on phylogenetically based establishing operations, we suggest that it might be useful for behavior analysts to turn to evolutionary psychology to facilitate our understanding of the selection processes that operated upon early humans to create our collective and individual sensitivities to reinforcement contingencies and preferences for classes of reinforcers.

Human learning depends importantly on evolved biological predispositions. There clearly are highly potent unconditioned reinforcers and unconditioned stimuli whose effects clearly appear to be innate. The notion of equipotentiality of conditioning has been replaced with the premise that there are some stimulus relations that organisms are "prepared" to learn, and to learn quickly (e.g., Seligman and Hager, 1972). Personality theorists have long been concerned with identifying the most important dimensions along which individuals differ. Individual differences that are closely linked with natural selection, sexual selection, and life history influences seem to be a good place to start. Kenrick, Sadalla, Groth, & Trost (1990) have shown that personality traits such as dominance, friendliness, and emotional stability are closely tied to sexual selection in that they greatly influence mate choice. Evolutionary psychologists have offered interesting and often compelling, selection-based accounts of a variety of human preferences and behavioral tendencies including sexual attractiveness and gender differences in mating strategies (e.g., Gangestad and Simpson, 1990), parental investment, (Kenrick et al., 1990), social affiliation and altruism (e.g., Cosmides and Tooby, 1992), aggression and gender differences in aggression (e.g., Daly and Wilson, 1988), social status seeking (Kenrick et al., 1990), and even personality traits like introversion and extroversion (e.g., Stelmack, 1990). We are mindful of the circular reasoning inherent in some evolution-based accounts of behavior, such as inferring an explanatory adaptation

for every observed behavioral tendency. Nevertheless, many evolutionary accounts of behavior are functionally or selection based, empirically supported, conceptually coherent, and potentially very informative for behavior analysts. Unless one makes the naïve assumptions that humans have no innate preferences for stimuli or behavioral tendencies, that human behavior is predominantly the result of conditioning, and that the functions of all stimuli are equally modifiable, there is nothing incompatible between evolutionary and behavioral accounts of behavior. To be sure, they take place at a different level of analysis and have different scientific objectives, but they can be mutually beneficial and informative. While we have been emphasizing in the present paper phylogenetic influences on behavior, we are not trying to make the case that personality as we have defined it here is more influenced by phylogenetic than ontogenetic factors or that learning histories are relatively unimportant in explaining behavior. We see these two classes of influences as interacting in fundamental, inextricable ways to determine the unique behavioral patterns of individuals. Categorizing these phylogenetic influences as establishing operations suggests a behavioral process for their effects and offers a partial functional explanation for the consistency in behavior and behavioral predispositions that have captured the attention of personality theorists and evolutionary psychologists. It also has some clear clinical implications.

#### CLINICAL IMPLICATIONS

It is a common observation that some behaviors are quite resistant to change. Despite a plethora of information about the harmful effects of smoking and being overweight, a relatively large proportion of the population continues to smoke and overeat. In clinical contexts, it is quite common to encounter behaviors that appear refractory to change, even after prolonged and intensive interventions. Examples include individuals who continue to drink alcohol excessively even after repeated treatment interventions and even when their health and valued relationships are in peril. Consider also the ill-advised and ultimately unsuccessful attempts of behavior therapists in the 1970s to alter the sexual preferences of homosexuals through such learning-based procedures as aversive conditioning and orgasmic reconditioning. What these examples reveal is that reinforcers vary with respect to their potency and salience, and some are extremely potent and refractory to change. Again, early behaviorists and behavior therapists often naively assumed that reinforcers were equally potent and that behavior was almost infinitely plastic. Even casual observation renders this assumption false, but behavior analysts have not clearly articulated the idea of a reinforcement hierarchy, addressed its determinants, or incorporated it into clinical practice. While we have tried to make the case that both phylogenetic and ontogenetic variables play important roles in this process, the practical ramifications of particularly potent reinforcers and punishers are often conspicuous in clinical contexts. This is exemplified by the following case.

A 32-year-old Caucasian male came to a university-based clinic complaining of discomfort in social situations. The client reported that he had been in cognitive-behavior therapy for almost two years. The previous therapist assumed, not unreasonably, that the client was socially anxious, and, therefore, used a combination of techniques including

exposure, role-playing, and cognitive therapy to reduce the client's social anxiety. In the end the treatment proved unsuccessful, and the client sought another therapist.

A series of interview and assessment sessions revealed that the discomfort that the client reported experiencing in social situations was not so much anxiety as it was boredom, disinterest, and disappointment. He went on to say that he had never found social situations very interesting, that he always preferred being alone to being with others, and that this preference was very distressing to him. He assumed it meant that there was something psychologically wrong with him. He stated that he wanted to be able to derive the same kind of enjoyment from social interactions that others seem to, and that was his goal for therapy. Further sessions revealed that, except for sexual gratification, the client was uninterested in developing or having intimate relations with others, and that previous attempts to develop relationships left him feeling frustrated and depressed. Again, the depression stemmed from his conviction that he had a psychological disorder and was missing out on something others seemed to enjoy. The client had many of the characteristics of a schizoid personality disorder. He was not particularly anxious in social situations, but he derived no pleasure from interacting with others, he preferred to be alone, and he actively avoided being in the company of others. The relevant data suggested that schizoid disorders are relatively uncommon and not very responsive to treatment (DSM IV). From a behavioral perspective, the label schizoid personality disorder is not, in itself, particularly helpful. It does, however, suggest that social interactions, which do function as potentiated reinforcers for most humans, are not likely to function as such for this client and are more likely to function as punishers. Moreover, therapeutic interventions aimed at making social interactions more reinforcing are likely not to be effective. Given this assessment, the therapist decided to try an acceptance-based treatment approach (Hayes, Strosahl and Wilson, 1999) that focused on a) helping the client accept (see Dougher, 1994; Hayes, 1994, and Cordova, 2001 for discussions of the term acceptance) the fact that he was different from others in terms of his interest in social interactions, and b) helping him develop and pursue activities that were reinforcing and that enriched his life. The treatment lasted approximately six months and had a positive outcome.

The concept that differences in personalities are founded in the different reinforcers to which individuals are susceptible is particularly relevant when discussing couples' therapy. Although the problems that couples seeking marital therapy experience are very diverse, they often involve conflict around one spouse wanting more or less of something from the other spouse, whether it is help with housework, sex, affection or levels of interaction. Because most couples have had significant problems for significant amounts of time before they seek help, conflict is the most salient feature of their relationship and as such, the feature that has traditionally received the most therapeutic attention. Several studies (see below) have found, however, that treatments that emphasize simple reinforcement procedures are much less effective than those that emphasize acceptance. To elucidate this assertion, we will discuss the basic principles and goals of the different couple therapies currently in use and how acceptance is used to increase their effectiveness.

Traditionally, couples therapy has focused on teaching couples how to better

express themselves during conflicts in order to avoid blaming and putting the other spouse on the defensive. Usually this type of therapy involves teaching the couple to use "feeling statements" (e.g., "I feel" or "When you do that, I feel...") and reflective or active listening techniques. The rationale for reflective listening is that it would help the speaking spouse feel that his or her complaints were being given serious consideration and, thus, diffuse some of the anger that couples express during arguments. Unfortunately, traditional couples therapy does not go much beyond these conflict resolution strategies, and while couples often see short-term gains, the relapse rate among these couples has been extremely high. Follow-up studies have found relapse rates for traditional couples therapy to be nearly 85% (Gottman, 1999). Even more disconcerting than the high relapse rate is the finding that most couples relapse within nine months of the termination of therapy.

The high failure rate of traditional marital therapy might be attributed to its "one size fits all" approach that asks couples to be extremely emotionally controlled during the heat of an argument. Furthermore, there is no consideration given to individual differences in emotional reactivity. To highlight this fact, research has found that, based on conflict styles, there are three types of stable couples (Gottman, 1993). These stable couples include those who avoid and minimize their conflicts, those who are quite volatile during conflict, and those who validate each other's points of view during conflict. The validating couple is the only couple that resembles what traditional marital therapy strives to create. Yet, the other two couples, as long as they are matched in their conflict resolution style, are also just as likely to have a long lasting marriage. There is no acknowledgement or attempt by traditional marital therapy to accommodate the ideographic differences in personality of the spouses and how those individuals manage their emotions during conflict. In other words, traditional marital therapy believes that there is only one way to be happily married.

Traditional behavioral couples therapy (TBCT) is another treatment modality that has received a great deal of investigation and is one that is widely utilized by behavior therapists (e.g., Halweg and Markman, 1988). TBCT is based on social-exchange theories and operant learning principles and has the underlying belief that marital satisfaction is based on the ratio of positive to negative behaviors exhibited by couples (Jacobson and Margolin, 1979). The means of achieving the desired ratio is often, however, very contrived. Much of the initial focus of TBCT is on having the couple complete homework assignments that are designed to increase their rate of positive behaviors (Jacobson and Margolin, 1979) and include such social exchange agreements as "if the husband does the dinner dishes, then the wife would have sex with him that night." Once some of the negativity between the couple is reduced, the behavior therapist then begins to work with the couple on communication and problem-solving techniques. As with individual behavior therapy, behavioral couples therapy teaches the couple to become their own therapists and to apply the conflict resolution skills that they learn in therapy to future disagreements.

Unfortunately, like traditional marital therapy, TBCT does not go much beyond generic communication and conflict resolution. That is, the strategies taught to couples are the same strategies taught to all couples in this type of therapy. As any behavior

analyst would predict, this non-ideographic approach and reliance on contrived, nominal reinforcement has led to high long-term failure rates with TCBT. Estimates from several follow-up studies conducted over the two years following the termination of therapy show that 50% of couples who have participated in traditional behavioral couples therapy relapse within two years (Gottman, 1999; Jacobson, Schmalings and Holtworth-Munroe, 1987). Another significant factor in these high relapse rates is TBCT's incorporation of social exchange theories. Research investigating the actual behaviors exhibited by happily married couples has found that these kind of arbitrary arrangements ("if I do this, then I'll get that...") are only present in unhappily married couples and that happily married couples give freely to one another without any thought of what will be gotten in return (Gottman, 1999).

Although these relapse rates are better than those of traditional marital therapy, the fact that up to half of the couples that receive this treatment relapse is alarming and has propelled researchers to investigate what is lacking in these treatments. Beginning in 1996, Neil Jacobson and Andrew Christensen began some collaborative investigations of the factors that underlie the failure of TBCT. To better illuminate their findings, we will discuss the development of their Integrative Behavioral Couples Therapy (IBCT) that was developed in response to the shortcomings of TBCT.

The most striking component of IBCT is the addition of behavior analytic principles to marital therapy. Through an emphasis on the functional analysis of each couple's relationship, IBCT allows for a recognition of how each spouse's individual history (their personalities) as well as their joint history and current environment come to bear on the couple's relationship (Berns, Jacobson and Christensen, 2000). The inclusion of a consideration of each spouse's individual history or personality is inherent in the incorporation of acceptance in IBCT. The objective is to get couples to accept rather than try to change each other's behavior. This leaves the couple free to focus on developing those interactive repertoires that make the relationship mutually reinforcing and enriching. Acceptance of the other is facilitated to a large extent by helping spouses understand how each other's histories and personalities are related to the behaviors they each exhibit. For example, if a wife comes to understand that her husband is somewhat shy and introverted, she will understand his lack of enthusiasm at the prospect of attending a party or why he is not more talkative and, perhaps, be less inclined to believe that it is because he does not like her friends or that he is rude and stand-offish. More ideally, she will even take steps to ensure that he feels more comfortable in those settings by leaving him less on his own or occasionally attending a function by herself. One can also see that by her kindnesses, her husband could become more willing to attend functions with her because he knows that he can count on her to help him feel comfortable. As such, an area that was once a point of contention for the couple has become, through acceptance and understanding, an opportunity for collaborative effort. By fostering understanding and empathy, the criticism and blame can be reduced or eliminated and, thus, establish an environment more conducive to positive change. Because it is a relatively recent innovation in couples therapy, there are not yet a sufficient number of outcome studies to allow firm conclusions about its long-term effects. It is encouraging, however, that the few studies that do exist, indicate ICBT

does seem to have better long-term outcome than TBCT (Berns, Jacobsen, and Christensen, 2000).

Another example of the effectiveness of acceptance based marital therapies is the couples' workshop designed and conducted by John Gottman at the University of Washington. Although Gottman does not specifically apply behavior analytic principles to his couples' workshops, acceptance is a significant component. Through his work with happily married couples in decades long marriages, Gottman found these couples to have a significant level of acceptance and understanding of each other's personalities and even each other's peculiarities (Gottman, personal communication, December 11, 12, 1999). Because such acceptance was a significant influence on the satisfaction of the couples in his study, he designed exercises to foster acceptance and understanding in the distressed couples that attend his workshops. Follow-up studies on couples who have attended one of these workshops have shown that relapse rates fall to zero nine months after the workshop (Gottman, 1999). As with IBCT, acceptance is not the only component of Gottman's couples workshops, but it is another example of the efficacy of acceptance based interventions and their ideographic approach to marital therapy.

#### CONCLUSIONS

As Meehl (1986) states, behavior analysts traditionally don't like traits and they don't like genes. We think this is unfortunate because there is a good deal of data in the personality and evolutionary psychology literatures that is of value to behavior analysts, especially those working in clinical settings. We need not avoid trait language if we can put it into proper perspective. The fact is that humans do exhibit a remarkable consistency in behavior over time, and we should be able to account for that. In addition, it seems quite plausible if not obvious that the phylogenetic selection processes that have operated on our species and related species over the eons would have created organisms with clear behavioral predispositions and tendencies and that these factors would figure prominently in the behavioral consistency identified by personality theorists. We have tried to bring a behavior analytic perspective to bear on these findings by suggesting that personality can be usefully understood in relation to potentiated contingencies of reinforcement and that individual differences can be found in the differential potency of reinforcement contingencies across individuals. Further, it is our contention that both phylogenetic and ontogenetic factors come to play in this regard and that they function rather like establishing operations. That is, they potentiate reinforcers, they evoke relevant behaviors, and they enhance the salience or control of the stimuli that participate in relevant contingencies. The implications of this perspective are particularly relevant in clinical contexts where therapists are confronted frequently with behavior patterns that are resistant to change. The acknowledgement that all reinforcers are not created equal sets realistic limits on the selection of therapeutic interventions and inspires the development of interventions that are individually tailored in accord with the contingencies of reinforcement (personality?) that are or could be potentiated for a given client. This naturally, although not exclusively, leads to acceptance-based approaches because of their focus on accepting the effects of clients' reinforcement

histories and making changes in line with the goals and objectives that individual clients set for themselves.

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