The role of personality in cognitive-behavioral therapies

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Abstract:

Trait-based theories of personality explain behavior across situations based on a set of broad personality attributes or dimensions. In contrast, recent social-cognitive theories of personality emphasize the importance of context and take a combined nomothetic/idiographic approach to personality. The social-cognitive perspective on personality resembles cognitive-behavioral therapies, which explain behavior in particular situations based on interactions of specific cognitions, mood states, and stimulus conditions. This article considers how contemporary personality theory and research might be integrated into the study of the outcomes and processes associated with cognitive-behavioral therapies. We propose that applying the social-cognitive perspective on personality to the study of how cognitive-behavioral therapies work provides both validation of current theories and promising directions for additional research. We review the research literatures on cognitive theories of psychopathology and cognitive-behavioral treatments to examine how the topic of personality has been addressed in those literatures to date. We then explore some commonalities between cognitive theories of psychopathology and psychotherapy and recent social-cognitive approaches to personality, suggesting that an integration of the two areas is overdue.

Keywords: cognitive behavioral therapy | CBT | personality theory | personality disorders

Article:

The role of personality variables in cognitive and behavioral therapies (CBTs[1]) has been discussed infrequently in the treatment literature, and few attempts have been made to integrate research on personality into a broader perspective on process and outcome in such therapies. Given the widespread use and demonstrated effectiveness of CBTs, it is surprising that personality factors have received such limited attention, even in the treatment of personality disorders. One obstacle to applying personality theories in the study of CBTs is that traditional,

[1] While we recognize that there are important differences among various forms of cognitive and behavioral therapies, for the purpose of this article we refer to such approaches generically as CBTs.

trait-based approaches to personality are not easily incorporated into the theory underlying cognitive-behavioral treatment. Trait-based personality theories such as the Big Five approach explain behavior across situations based on a set of broad, unchanging personality dimensions (McCrae & Costa, 1997). In contrast, CBTs explain behavior based on interactions among specific cognitions, mood states, and situational factors (Hollon & Beck, 1994).

However, more recent research suggests that trait formulations may not adequately capture personality structure and coherence (see Cervone & Shoda, 1999). Alternative conceptualizations of personality such as the social-cognitive approach (Cervone & Mischel, 2002) emphasize the importance of context and use a combination of nomothetic and idiographic approaches to predicting behavior. As we will elaborate below, some of the basic principles of the social-cognitive perspective on personality are compatible with the principles of CBT (see also Mischel, 2004; Shadel, 2004; Shoda & Smith; all this issue). Despite such commonalities, the two literatures have remained separate, and the benefits of applying knowledge concerning personality to CBTs remain unrealized.

The purpose of this article is to consider the integration of contemporary personality theory and research into the study of the outcomes and processes associated with cognitive-behavioral therapies. In this article we focus on personality as a *system,* consistent with recent social-cognitive approaches, involving (but not necessarily limited to) cognitive processes, behaviors, neural pathways, emotional tendencies, and motivational orientations. From the social-cognitive perspective, it is these components and the interactions among them--within specific situations -- that form the basis of personality. We will suggest that a social-cognitive systems approach to personality is more amenable to CBTs than traditional approaches, and that applying such models to the study of how cognitive-behavioral therapies work provides validation for both sets of theories as well as promising directions for additional research.

We begin by reviewing the CBT research literature to examine how the topic of personality has been addressed to date, highlighting the limitations of previous efforts to integrate personality into CBT. We then explore some of the commonalities between cognitive and behavioral approaches to therapy and recent social cognitive approaches to personality, suggesting that an integration of the two areas is overdue. We propose some key features of such an integration and suggest how it could enhance our current treatment matching and intervention strategies.

Personality in the Theory and Practice of CBT: A Review of the Literature

There has been surprisingly little programmatic research exploring the role of personality in the clinical CBT literature. For the most part, personality has been examined almost exclusively in terms of *DSM*-based personality disorder diagnoses, or traits that are characteristic of those diagnoses. In contrast to the dimensional approach that characterizes the traditional trait theories in the personality literature, the *DSM* relies on categorical criteria for evaluation of personality disorders. Assessment of personality disorder often relies on diagnostic interviews; in contrast, assessment of personality in trait-based theories relies primarily on self-report questionnaires, such as the NEO Personality Inventory (Costa & McCrae, 1985, 1992). Regardless of the method of measurement, the common goal of personality assessment in both cases is essentially the identification of global, stable tendencies or enduring traits. More recent approaches to

personality, however, have shifted the emphasis from stability of traits across situations to a more fine-grained approach that attempts to explain the interactions of intra-individual and situational factors that account for variability in behavior. Still, the *DSM* provides the primary model of personality in applied clinical research, and, as such, attempts have been made to incorporate it into cognitive and behavioral theory and practice.

CBTs and Treatment of Personality Disorder

Cognitive-behavioral treatment principles have been applied to the development of treatment approaches for individuals with personality disorders. Researchers have found that cognitive processes such as beliefs and schemas play a role in personality disorders (e.g., Schmidt, Joiner, Young, & Telch, 1995). Young and Lindemann (1992), for example, presented a model that associates personality disorder with maladaptive schemas rooted early in an individual's developmental history. These early maladaptive schemas are described as involving "deeply entrenched patterns" of behavior (p. 13). To the extent that such models are tenable, these schemas may be critical components of a dynamic personality system and may play an important role in determining behavior. Arntz (1999) suggested that these cognitive processes even may be a "more valid way to operationalize personality disorders..." (p. S125).

Cognitive-behavioral approaches to therapy for personality disorder also draw on the notion of maladaptive cognitive processes (e.g., J. S. Beck, 1998; Linehan, 1993; Young & Lindemann, 1992). However, as Vallis, Howes, and Standage (2000) pointed out in their review of personality disorder treatments, most of the work in this area has been conceptual, not empirical. Therefore, the effectiveness of these approaches is largely unknown. Nonetheless, such treatment models underscore the potential importance of cognitive processes as part of the personality system, consistent with social cognitive conceptualizations of personality.

Personality as a Factor in Treatment Process

The CBT literature also has identified personality as a potentially complicating factor in the treatment of mood and anxiety disorders. A complete review and critique of that literature is beyond the scope of this article, so we will summarize the findings here. In a general review of the effects of personality disorders on treatment outcome (including different types of psychotherapy as well as pharmacotherapy), Reich and Vasile (1993) examined a number of studies of major depression, panic disorder, OCD, and substance dependence. Although some studies found no differences between patients with and without personality disorders on certain outcome measures, in general, personality disorder was associated with poorer outcome (defined variously in terms of such variables as greater risk for relapse, more residual symptoms, poorer social functioning, and higher risk of dropout). This conclusion appears to be consistent across studies of anxiety disorders and depression (e.g., Kuyken, Kurzer, DeRubeis, Beck, & Brown, 2001; Mennin & Heimberg, 2000; Shea et al., 1990).

A major limitation in these studies is the tendency to lump together different types of personality pathology. As such, any attempt to explore the mechanisms by which personality affects outcome is complicated by the sheer variability of personality characteristics across the range of Axis II disorders. Although some studies have broken down the general category of "personality

disorder" into more specific groups based on symptom clusters or traits to determine their effect on outcome (e.g., Kolden et al., in press), the results generally have not been tested in replication studies. The picture is further complicated by the consistent finding that patients with personality disorder typically have more severe Axis I pathology and/or multiple Axis I diagnoses (e.g., Shea, Glass, Pilkonis, Watkins, & Docherty, 1987). Under such conditions, it becomes difficult to ascertain whether it is the presence of personality-related factors or whether it is the severity of the Axis I disorder(s) that is responsible for relatively poorer therapy process and outcome.

Although these outcome studies were not designed to consider the role of personality in therapy per se, they raise important questions about *how* personality might affect therapy. For example, certain aspects of personality or certain traits may interfere with the therapeutic alliance and with the establishment of a positive, collaborative working relationship; indeed, there is some empirical support for this notion (Kolden & Klein, 1996; Vallis et al., 2000). The quality of the therapeutic alliance has been found to be a critical factor in outcome, both within CBT and across most types of psychotherapy (Barber, Connolly, Crits-Christoph, Lynn, & Siqueland, 2000). Certain personality tendencies may interfere with other aspects of the therapy process, such as homework compliance, which has been shown to be associated with more favorable outcome in cognitive and behavioral treatments (Bums & Spangler, 2000). Individuals with personality disorder often have considerable difficulty accepting the need to engage in regular homework and other forms of behavioral assignments (Freeman, 2002).

Theoretical Approaches to Incorporating Personality Into CBTs

In addition to the studies on personality and personality disorder we have discussed up to this point, there have been other attempts to integrate personality into the cognitive-behavioral approach. Studies of cognitive style reflect efforts to combine a focus on both individual differences and situational variables. One familiar example of cognitive style research is the literature on *sociotropy-autonomy.* Drawing on an intriguing historical literature, A. T. Beck, Epstein, and Harrison (1983) proposed that sociotropy and autonomy were important in understanding the etiology and maintenance of depression and in providing effective treatment for depression. Consistent with social cognitive theory, these investigators proposed a diathesis/stress model in which events in the social environment interact with personality to produce vulnerability to depression. Individuals high in sociotropy are said to be socially dependent, to place a high value on interpersonal relationships, and to be particularly vulnerable to depression in the face of interpersonal rejection or loss. In contrast, individuals high in autonomy have an achievement-oriented, independent motivational style, and vulnerability to depression is thought to occur in the face of life events involving personal failure (e.g., job loss). The two personality styles are hypothesized to be associated with different assumptions and underlying schemas and to be related to different patterns of symptomatology (A. T. Beck, 1983).

Studies examining the contribution of sociotropy-autonomy to vulnerability to depression have yielded mixed results. Initial studies indicated that sociotropy was associated with a pattern of depressive symptoms in both clinical and nonclinical populations but autonomy was not (Moore & Blackburn, 1994; Robins, Block, & Peselow, 1989). These findings were attributed in part to problems with the measurement of autonomy. Using a revised measure, Robins, Bagby, Rector,

Lynch, and Kennedy (1997) did find distinct clusters of depressive symptoms for the two personality types. Likewise, evidence has been mixed regarding the hypothesized interaction between personality style and type of life event (see Mazure, Bruce, Maciejewski, & Jacobs, 2000; Robins, Hayes, Block, Kramer, & Villena, 1995). As noted by Robins and Block (1988), a subject's *perception* of life events is an important component of the diathesis-stress model but often is not assessed directly. We note that such a combined nomothetic/idiographic assessment strategy is found in studies of social cognitive personality theory.

At least one treatment study suggests there may be specificity of associations among cognitions, situations, and outcomes. Zettle and Herring (1995) examined whether subjects in CBT who were matched to treatment format according to personality style (highly sociotropic subjects in group therapy and autonomous subjects in individual therapy) would show more improvement in depression than subjects not similarly matched to treatment. While both conditions showed improvement at posttreatment, subjects who were matched to treatment format were more likely to show clinically significant improvement. These results suggest that taking personality factors, particularly factors that reflect a consistent cognitive style, into consideration when planning treatment strategies may be useful in improving outcome.

Conclusions From the CBT Literature

To summarize, to the extent that personality has been considered at all within the CBT literature, it has been almost exclusively within two areas: personality disorder diagnoses and their influence on the efficacy of CBT, and the adaptation of CBT strategies for use with personality disorder patients. These studies, while providing useful clinical information, have involved few attempts to integrate personality factors with CBT on a theoretical level. Furthermore, by lumping together different personality disorder diagnoses and focusing on global, stable personality traits, these studies have failed to capture the complexities of the personality system and their potential interactions with situational contingencies.

As we will discuss in the next section, we suggest that difficulties integrating personality factors with CBT may stem from fundamental inconsistencies between traditional, trait-based personality approaches and cognitive-behavioral theory and strategies. However, the social cognitive approach provides an alternative conceptualization of personality that is actually quite consistent with CBT. We argue that it is necessary to look beyond *DSM*-based personality disorders and their collective effect on outcome in order to understand the underlying processes and components of an apparently "dysfunctional" personality system. This in turn may lead to the identification of specific targets for intervention or therapeutic strategies that may increase treatment efficacy.

Toward an Integration of Social Cognitive Personality Theory and CBT

There are intriguing parallels between more recent theories of personality structure, assessment, and coherence, and the theories and strategies associated with CBT. Common to these two fields are an emphasis on the importance of cognitive and behavioral assessment in a variety of situational contexts, a recognition of the crucial role of cognitive factors in understanding personality, and a desire to understand how personality subsystems (cognitive, motivational,

emotional, etc.) themselves form a coherent system. Still, for many clinical researchers and practitioners, the notion of "personality" may bring to mind traditional trait-based theories with limited relevance to the practice of cognitive-behavioral therapy. This is unfortunate, since the merging of more recent personality approaches with clinical research and practice could prove to be quite informative and mutually beneficial. As an example, consider the CBT therapist's goal of identifying patterns in a patient's interpretations of and responses to current and past experiences (a familiar goal to personality researchers). Through the use of behavioral self-monitoring and thought records, identification of situational contingencies and prediction (and alteration) of the patient's behavior in future situations becomes possible. Likewise, regarding social cognitive personality theory, Shoda, Mischel, and Wright (1994; see also Shoda & Smith, 2004, in this issue) suggested that an idiographic analysis of behavior displayed within a situational context over a number of occasions (*if, then* . . . relations) is necessary to understand personality organization.

In this section, we propose that the efficacy of cognitive and behavioral therapies can be enhanced by taking personality factors into consideration via the tools and conceptual models of social cognitive personality research. We provide examples (a number of which relate to a specific disorder, depression) to illustrate how this expanded approach might enhance our understanding of psychopathology as well as the effectiveness of CBT interventions. We continue to highlight commonalities between the conceptual framework underlying CBT and current social cognitive personality theories.

Incompatibility of Trait-Based Models With CBT

In contrast to dimensional trait models, recent theories of personality coherence emphasize the importance of understanding underlying causal mechanisms rather then relying on trait descriptions or global attributes to explain behavior. Mischel and Shoda (1994) noted that description of behavior in terms of global personality traits, which may or may not be observable in each situation, should not be confused with understanding the structure and function of personality itself. From the perspective of the CBT therapist, a useful model of personality would focus on individual differences, integrate the various components of an individual's personality system, take into account situational variation, provide explanatory/predictive power for an individual's behavior, and, ultimately, provide information about the individual that could be applied within the framework of the therapy (e.g., identifying targets for change or compensation, contributing to better understanding of change processes and predicting short-term and longer-term treatment outcome).

Traditional theories of personality have not provided a useful framework for understanding individual differences in CBT. We were unable to identify any studies in which a trait-based model was used as an explanatory framework to account for CBT outcome or process. Such a lack of research cannot be dismissed as coincidental; after all, social psychologists have been conducting research contributing to, and based on, the CBT literature for more than 25 years (A. T. Beck, 1991). Our conclusion is that the lack of influence reflects a fundamental incompatibility between approaches like the five-factor model and the theory and techniques underlying cognitive-behavioral intervention.

Simply put, the five-factor model (and related trait-based approaches to personality) seeks primarily to describe commonalities across situations, whereas the essence of CBT is to identify functional associations among cognition, affect, and behavior within situations. Knowing that an individual scored one standard deviation above the population mean on a particular personality dimension (e.g., extraversion), although useful in other respects, is unlikely to be helpful in a course of CBT. However, knowing what beliefs and attitudes typically influence that individual's interpretation of situational cues and trigger problematic conclusions or behaviors, or what attributional tendencies that individual manifested in social situations, *would* be of value in cognitive-behavioral treatment.

As we have noted throughout the article, alternative approaches to the study of personality have the potential for a meaningful integration into CBT theory and technique. Other articles in this special series describe these approaches in detail (Cervone, 2004; Mischel, 2004; Shadel, 2004; Shoda & Smith, 2004). Rather than reiterating those authors' comments, we will instead highlight particular research topics that we believe are exciting candidates for the integration of personality and psychotherapy research.

Areas of Potential Integration

Cognitive style. There is a paucity of research on stylistic differences in cognition as related to psychopathology and psychotherapy. However, proponents of social cognitive personality theory and cognitively oriented clinical psychologists would agree that *cognitive style* is an important foundation of personality. Cognitive style previously was considered from the perspective of psychodynamic psychotherapy (e.g., Shapiro, 1965), so the idea that individual differences in ways of processing social information might be relevant to treatment process and outcome is hardly new. Few studies have examined cognitive style in relation to CBT approaches and theory, but there is at least indirect evidence that cognitive style may be important. For example, attributional style has been shown to be relevant for understanding depression (e.g., Abramson, Metalsky, & Alloy, 1989). A negative attributional style may be associated with a particular pattern of depressive symptoms (Alloy, Just, & Panzarella, 1997) and has been shown to predict outcome in therapy, perhaps more robustly than demographic or background variables (Neimeyer & Weiss, 1990). Interestingly, there also is some evidence that individual differences in attributional style combine with situational factors and stressors to influence vulnerability to depression (e.g., Haines, Metalsky, Cardamore, & Joiner, 1999)--a conceptualization that is clearly congruent with CBT models.

Social psychology has a long tradition of research in the area of cognitive style, and although several investigators have discussed the parallel development of cognitive theories in social, cognitive, and clinical psychology (e.g., A. T. Beck, 1991; Hollon & Garber, 1990), there has been relatively little crossover from these areas. One potential mechanism underlying poor outcomes seen in patients with personality disorders is an overly simplistic and rigid cognitive style. Social psychologists have explored constructs such as *need for cognition* (Cacioppo & Petty, 1982) that address stylistic differences in information processing. However, we have not found applications of the need for cognition construct in the CBT outcome or process literatures. While it is unlikely that a score on a measure of cognitive style alone would be sufficient to explain difficulties in therapy or would be specific to any patient population, such data are still

likely to be useful. Understanding the interplay of the individual's cognitive style and other components of the personality system and the social environment should improve the therapist's understanding of the patient's problems as well as difficulties that arise in therapy.

Individual differences in cognitive style also may influence the choice of therapeutic interventions and provide a basis for determining appropriate treatment matching. Consider another aspect of cognitive style, *cognitive complexity,* as an example. Individuals with low complexity are characterized as rigid thinkers with tendencies toward dichotomizing and low tolerance for ambiguity (Khalili & Hood, 1983). High complexity, on the other hand, is thought to be characterized by an ability to integrate more differentiated elements and to view more subtle aspects of a situation. The low-complexity patient with depression may be more likely to experience difficulties with cognitive restructuring, such as difficulty generating alternative interpretations or seeing "gray areas" requiring more extensive preliminary training in thought monitoring and more assistance from the therapist with testing of beliefs and assumptions. In addition, the low-complexity patient might benefit from more concrete, behaviorally focused homework assignments. In contrast, a high-complexity depressed patient might already possess the cognitive skills that are critical in CBT but may need direction and encouragement in applying those skills to problem areas related to her depression. At the least, cognitive complexity may predict the number of sessions needed to achieve a desired outcome in CBT.

Self-regulation. Yet another example of an important component of personality applicable to psychotherapy is the individual's characteristic *self-regulation.* People differ in their customary styles of self-regulation, the ongoing cognitive process of evaluating oneself in relation to one's goals and changing behaviors in an effort to attain goals (Carver & Scheier, 1990). One model of depression proposes that self-regulation plays an important role in the development and maintenance of the disorder (Strauman, 2002). Underlying an individual's self-regulatory processes are two hypothetical cognitive-motivational systems, which are focused on attaining positive outcomes or "making good things happen" (promotion) and on avoiding negative outcomes or "keeping bad things from happening" (prevention).

The prevention and promotion systems (Higgins, 1997) are hypothesized to have neural underpinnings associated with the behavioral inhibition system (BIS) and the behavioral approach system (BAS), respectively (Strauman, 2002). Depression is thought to be characterized by decreased goal-directed behaviors, coupled with low levels of positive affect, which are associated with a deficit in the BAS (Watson, Weise, Vaidya, & Tellegen, 1999). Studies using brain imaging techniques have shown that approach motivation (a BAS function) and positive affect may be associated with left frontal activation (e.g., Tomarken & Keener, 1998). Identification of patterns of neural activation associated with personality processes allows for more rigorous testing of social cognitive systems models of personality and may offer a new means of assessing personality change in CBT. That is, treatment-related improvement in cognitive style or self-regulation could be measured at several levels, including physiological, self-report, and therapist observation.

Understanding an individual's characteristic goals and customary approaches to achieving those goals may provide important treatment-related information. A patient whose depression is associated with repeated failures to attain apparently reasonable goals may be using an approach

for goal attainment that is poorly matched to those goals. Consider, for example, a patient who feels isolated and wants a more extensive social network but is reluctant to reach out to new people for fear of hurting her best friend's feelings and making her best friend feel "inadequate." From a self-regulation perspective, she is operating from a prevention orientation: avoiding the possible negative outcome of offending her friend, which is in conflict with her promotion goal of widening her social network. In CBT, an approach that may be particularly effective is to examine the patient's motivational orientation and work on teaching new strategies for pursuing goals that are more likely to lead to the desired outcome.

The inclusion of a self-regulation focus in therapy is the topic of ongoing investigation. Strauman and colleagues have developed a CBT-based treatment for depression derived from theories of individual differences in self-regulation, and, in a recent study of depressed outpatients, self-system therapy (SST) appeared to be more effective than standard cognitive therapy (A. T. Beck, Rush, Shaw, & Emery, 1979) for individuals with significant problems in self-regulation such as high levels of self-discrepancy (Schneider, Vieth, Merrill, & Strauman, 2001). Future studies, by developing methods to identify which depressed individuals have significant problems in self-regulation, will aim to determine whether self-regulation may be a useful factor for treatment-matching.

Goal attainment also may involve the ability to *weigh short-term versus long-term consequences.* Metcalfe and Mischel (1999) propose that there are two systems involved in regulating control over immediate gratification in the interest of long-term benefits. The "hot" system is an emotion-based, impulsive system operating in the interest of immediate gratification. The "cold" system, on the other hand, is a cognitively based, rational system exerting control over immediate impulses. The balance of these two systems may be one aspect of personality that underlies psychopathology and personality disorder, and social-cognitive personality researchers such as Mischel have developed reliable methods for assessment of these critical cognitive variables.

Affect regulation. Yet another area of potential relevance for both personality researchers and cognitive-behavioral therapists is cognitive mechanisms of affect regulation. There is an extensive research literature on this topic, and a complete review is beyond the scope of this paper. However, individual differences in patterns of emotional experiences and responses are of obvious interest to clinicians. Many studies have shown, for example, that negative memories and judgments are more accessible during a negative mood state than during a neutral or positive mood state, suggesting that cognitive processes are influenced by affect. Thus, another contextual influence on cognitive processes is affect, although the relationship is reciprocal: Cognitions also influence affect (e.g., Teasdale & Bancroft, 1977). This has important implications for the CBT therapist working with a depressed patient. The reciprocal nature of the relationship between cognition and affect sets the stage for a vicious cycle in which negative cognitions and depressed mood perpetuate each other (Teasdale, 1983). Key strategies used in cognitive therapy target these negative cognitions and aim to break the vicious cycle.

Other aspects of emotional experience also have been explored by researchers and are relevant for therapy. One such characteristic is positive/negative affectivity, or proneness to experiencing positive or negative affect (Watson, Clark, & Tellegen, 1988; Watson & Tellegen, 1985). Some

types of depression have been conceptualized as involving deficits in positive affectivity (Watson et al., 1999). Specific behavioral strategies early in CBT for depression target this deficit in positive affect. For example, pleasurable activity scheduling is often one of the first strategies used by cognitive therapists to introduce more positive experiences back into the patient's daily life. However, for a patient whose personality is characterized by a more long-standing, stable absence of positive affectivity, more focused work in this area may be beneficial. We note that the research of Watson, Clark, and colleagues is an important exception to the argument that trait-based personality models are not directly relevant to CBT process and outcome.

Person × situation interactions. A final topic that can bridge the gap between CBT and personality theory involves person × situation interactions, which have been mentioned repeatedly in this article. Both personality researchers and CBT therapists share an interest in understanding the *situational specificity* of affective responses and behavioral tendencies. The interaction between situation and personality is likely to be complex, dynamic, and mediated by cognitive variables. As demonstrated by Cervone (1997; see also Cervone, 2004; this issue), the situation itself is a much less powerful predictor of behavior than the interaction between the situation and within-person cognitive variables such as beliefs. This notion of a dynamic process linking situational, cognitive, affective, and behavioral factors is consistent with the clinical literature. For example, the importance of cognitive personality variables in mediating the association between life events and depression has been acknowledged (Robins & Block, 1988). Furthermore, the research of Segal and colleagues (Segal, Gemar, & Williams, 1999; Segal, Lau, & Rokke, 1999) demonstrates that assessing individual differences in cognitive content and process among depressed patients allows better prediction of treatment response and relapse.

A particularly compelling insight from social-cognitive models of personality is the observation that information processing tendencies may vary quite dramatically depending on the context in which cognitive demands are made. "Context" here can refer both to different physical situations (the office, a date, the classroom) and to different psychological situations (pursuing an achievement goal versus an affiliative goal). The accessibility or likelihood of activation of a particular belief or expectation varies from individual to individual, but also within the same individual from one time to another based on mood, motivational factors, and situational demands (Higgins, King, & Mavin, 1982).

In therapy, these contextual variables would be an important part of ongoing assessment. For example, a depressed person may attribute her own failure on an exam to global, stable, internal causes (the classic depressogenic attributional style), such as being stupid or incompetent, while she attributes her friend's failure on the same exam to lack of preparation or exam difficulty. This "self" versus "other" contextual variation in attributions is an important tool for the CBT therapist in challenging the patient's assumptions and beliefs. Therefore, person × context interactions, which are of interest from the standpoint of personality theory, also are particularly relevant in cognitive-behavioral therapy. Knowing that certain beliefs or behaviors are activated in some types of situations but not others (i.e., situational variation in accessibility) gives the patient and therapist insight into the idiosyncratic meanings of the situations and suggests targets for intervention.

We hope that this section has illustrated the potential utility of integrating the concept of a social-cognitive personality system into research on, and the practice of, cognitive-behavioral therapy. The various components that form personality--including information processing variables, motivation, emotional tendencies, and physiology--may provide important information to guide treatment matching, therapeutic techniques, and evaluation of treatment outcome. Cognitive and behavioral therapists are always concerned with the overall functioning of the individual and his interaction with the environment. However, with a solid research base on the structure and function of personality, CBT therapists can have a more comprehensive framework within which to make use of the detailed information they can gather.

Conclusions

Personality has played a limited role in cognitive-behavioral therapies to date. Research has focused primarily on personality pathology, including the development of treatment approaches for personality disorders and evaluation of their effects on treatment outcome for Axis I disorders. Trait-based approaches to personality have not provided a useful model for enhancing the understanding of processes and outcomes in cognitive-behavioral therapies. However, more recent social-cognitive approaches to personality could potentially be quite informative. The goals and assessment approaches described in the social-cognitive personality literature have a number of parallels with the goals and assessment approaches in cognitive-behavioral therapies. Therefore, it seems appropriate and mutually beneficial that CBT researchers and personality researchers become aware of these similarities and that the two fields be integrated in future research.

First, little attention has been paid to personality change processes within CBT. Naturally, in exploring this topic there must be some agreement as to what constitutes personality change and how to measure it. However, even if one simply uses standard questionnaires, it would be possible to test hypotheses regarding the effect of successful treatment on patient-rated and/or therapist-rated measures of personality. Second, since the focus of personality studies in the CBT literature has been on maladaptive personality, there has been almost no research on the role of *adaptive* personality processes in CBT. For example, are there certain aspects of personality functioning, as viewed from a social-cognitive perspective, that predict a more favorable outcome in therapy? Identification of such personality "strengths" or targets may be helpful in designing interventions or deciding on appropriate strategies.

Third, as noted previously, therapists and researchers often observe that personality-related factors complicate treatment, but, to our knowledge, few studies have looked at the effect of personality on treatment process in CBTs. Studies documenting a less favorable outcome in CBT for individuals with personality disorder have not been followed by in-depth process-focused research exploring the nature of this effect. This is particularly surprising, given both the behavioral roots of CBT and the acknowledged importance of identifying specific antecedents, cognitive concomitants, and consequences of maladaptive behaviors within cognitive-behavioral therapies. Single-case studies examining therapy process across individual sessions of a course of treatment with an individual characterized by an Axis II disorder would be especially helpful to both researchers and clinicians and would represent a valuable starting point for more systematic study of personality processes as they influence the course of CBT.

The purpose of this article was to summarize the literature on the role of personality in cognitive-behavioral therapies and to draw attention to the possibility of expanding this role in light of shared interests in the prediction of behavior. The view of personality as a coherent processing system, consisting of numerous biopsychosocial components, is one that is compatible with both recent personality approaches and cognitive-behavioral approaches to therapy. Hopefully, by bridging these two areas of research, future studies will provide new insight into the basic structure and function of normal personality, which in turn will be applied to psychopathology and change processes in therapy.

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