Boredom and Psychotic Disorders: Cognitive and Motivational Issues

McWelling Todman

CHRONIC BOREDOM and the conditions that induce boredom are associated with a host of undesirable outcomes. It is proposed that the course and treatment of schizophrenia and other severe mental illnesses (SMI) that require extended care in community-based treatment facilities are often complicated by such outcomes. Brief case studies are used to illustrate how sustained boredom can contribute to (1) postpsychotic mood disturbances, (2) increased risk-taking and substance-seeking behaviors in the residual phases of the illness, (3) the exacerbation of positive symptoms such as paranoia and hallucinations, (4) changes in distractibility and overall cognitive efficiency, and (5) a hypodemonic state of highly generalized uninterest. The observation is made that despite the potential value of boredom as a prodomal marker, few, if any, of the instruments commonly used to assess clinical change include a measure of boredom. It is suggested that training in covert boredom coping skills should be integrated into the social skills training and rehabilitation strategies currently employed with individuals with severe and persistent mental disorders.

Despite its prominence in studies of human performance in industrial settings (e.g., Hitchcock, Dember, Warm, Moroney and Sec 1999), the construct of boredom continues to be ignored by most clinicians. Even in the field of substance abuse, a field for which there has been no shortage of anecdotal and speculative commentary on boredom's motivational role in the addictive cycle, there has been surprisingly little in the way of empirical scrutiny (e.g., Iso-Ahola and Crowley 1991; Orcutt, 1984; Samuels and Samuels 1974; Serman, Zinser, Sideroff, and Baker 1989). This oversight has been even more evident in the research and practices associated with the long-term care of schizophrenia and other chronic and severe forms of mental disorder (Berkke and Tost 1992; Heinssen, Liberman, and Kopelowicz 2000; Lehman, Steinwachs, and Co-Investigators of the PORT project 1998; McEvoy, Sheifler, and Francis 1999; Mueser, Bond, Drake, and Resnick 1998).

In this article, with help of several illustrative case studies, I would like to make the case that there is a convergence of theoretical insights, clinical observations, and empirical findings from psychiatric and nonpsychiatric populations that support the view that boredom (and the conditions that are conducive to boredom induction) might both complicate and inform the long-term management of psychotic disorders. Before getting to that discussion, however, I would like to establish what I mean by the term “boredom” by briefly reviewing some of the relevant theoretical and empirical literature associated with the construct.

DEFINITIONS OF BOREDOM AND BOREDOM PRONENESS

The requirement that attributions of environmental invariance (monotony) or under-stimulation somehow inhere to the subjective
state we call “boredom” is reflected in almost all of the definitions found in the literature (e.g., Leong and Schneller 1993; Mikulas and Vodanoivich 1993; O’Hanlon 1981a, 1981b). Hence, on a purely descriptive level, boredom could be defined as an unpleasant state that is invariably accompanied by attributions of environmental sameness. Prominently absent from this bare-bones definition, however, is an explanation of the nature and direction of the causal relationship between the attribution process and the experience of boredom. (e.g., London and Monello 1974; Neu 1998).

In other words, does the attribution of environmental sameness always precede the feelings of boredom, or can feelings of boredom also prime the appraisal process, leading us to perceive the world as being just a little more repetitive than normal? The answers that have been offered in response to this question have tended to vary fairly predictably with theoretical and professional biases. As a result, two non-mutually exclusive conceptions of boredom and boredom proneness can be discerned in the literature: situation-dependent boredom (SDB) and situation-independent boredom (SIB).

**Situation-Dependent Boredom (SDB)**

Situation-dependent boredom emphasizes a central role for environmental conditions. It is a perspective and type of boredom that has also been referred to as “reactive boredom” (e.g., Neu 1998) and is characterized as the natural response to external stimulus conditions that are understimulating and/or repetitive. Once these stimulus conditions are removed, it is assumed that the feelings of boredom will also dissipate. Integral to this line of research is the additional assumption that individual differences in boredom-proneness reflect a continuum of vulnerability to monotonous environmental conditions (Farmer and Sundburg 1986). The research in this area has therefore focused on both high-risk environments (e.g., air traffic control, assembly-line work, and so on) and high-risk individuals (i.e., the situation-dependent boredom prone [SDBP]).

**High-Risk Environments.** Much of the research on high-risk environments can be traced back to World War II, during which there was a concern about the extent to which flight controllers were capable of monitoring radar screens for extended periods of time. Since then, there have been literally thousands of studies, under laboratory conditions and in the field, that have attempted to delineate the boundary conditions of vigilance performance (e.g., Fiske and Maddi 1961; Scerbo 1998; Smith 1981; Swain and Scerbo 1995). Although there have been many claims of a causal relationship between the observed decrements and perceived monotony, a number of researchers have noted that the decrements typically found in ecologically valid studies have been considerably smaller than those obtained in the laboratory (e.g., Pigeau, Angus, O’Neill, and Mack 1995; Weiner 1987). Among other things, this discrepancy suggests that laboratory conditions may have a limiting effect on some of the coping strategies that are typically employed during the performance of real-world tasks.

**High-Risk Individuals.** Research on high-risk individuals has focused on the relationships between psychometrically defined boredom proneness and other individual and group differences. (e.g., Sundberg, Lutkin, Farmer, and Saoud 1991; Watt and Vodanoivich 1992a). The findings from these studies have confirmed that there is a broad distribution in the susceptibility to boredom and that most of the behaviors and traits that are associated with higher levels of SDBP tend to be more maladaptive and/or less socially desirable than the traits associated with low levels of boredom proneness (see Table 1).

**Situation-Independent Boredom.** The second strand in the boredom literature involves what is sometimes referred to as “endogenous” boredom (Neu 1998) or, less frequently, “alysis,” from the Greek word for boredom, alys (Bergler 1945). However, I prefer the more neutral term of situation-independent boredom (SIB). Included in this category is a grabbag of other conceptualizations of the phenomenon that have in common the claim that in addition to the reactive type of boredom (i.e., SDB), there is another form of boredom.
<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Examples of Maladaptation and/or Dysfunction for Which There Is Some Evidence of an Association with Boredom, Monotonous Environments, and/or Boredom Proneness</th>
</tr>
</thead>
</table>
| 1. Cognitive/Attentional Dysfunction | - Boredom/monotony and boredom proneness are associated with heightened levels of distractibility (Ahmed 1990; Farmer and Sundberg 1986; Leong and Schneller 1993; Mikulas and Vodanovich 1993; Sceber 1998; Smith 1955, 1981; Wyatt, Fraser, and Stock 1929; Zukerman 1979).\(^1\)  
- Boredom proneness is inversely related to the level enjoyment that is derived from engaging in effortful cognitive activities (Barmark 1937; Leong and Schneller 1993; Watt and Blanchard 1994).\(^1\)  
- Boredom severity and boredom proneness are mitigated by the ability to use covert processes to keep oneself entertained or stimulated (Barmark 1937; Davies 1926; Farmer and Sundberg 1986; Seib and Vodanovich 1998; Singer 1975; Vodanovich and Kass 1990; Watt and Blanchard 1994).\(^1\) |
| 2. Emotional/Motivational Dysfunction | - Boredom proneness and boredom severity are associated with higher levels of negative affect, including depression and hostility (Farmer and Sundberg 1986; Gordon, Wilkinson, McGown and Jovanoska 1997; Seib and Vodanovich 1998; Sommers and Vodanovich 2000; Vodanovich, Verner and Gilbride 1991; Wink and Donahue 1997).\(^1\)  
- Boredom/monotony and boredom proneness are associated with higher levels of decreased persistence (Leong and Schneller 1993; Watt and Blanchard 1994).\(^1\)  
- Boredom/monotony and boredom proneness are associated with higher levels of restlessness and a need for a change or excitement in some people (Berlyne 1970; Farmer and Sundberg 1986; Wyatt et al. 1929; Wyatt, Langdon, and Stock 1937; Zukerman 1979).\(^1\)  
- Boredom/monotony and boredom proneness are associated with reduced motivation and feelings of apathy in some individuals (Ahmed 1990; Blunt and Pychyl 1998; Farmer and Sundberg 1986; Leong and Schneller 1993; Watt and Blanchard 1994; Wyatt et al. 1929; Wyatt et al. 1937; Vodanovich and Rupp 1999).\(^1\) |
| 3. Social/Interpersonal Dysfunction | - Boredom proneness is associated with reduced sociability in some individuals (Leong and Schneller 1993).\(^1\)  
- Boredom proneness is associated with poorer peer relationships in adolescents (Watt and Vodanovich 1999).\(^1\)  
- Boredom proneness is associated with increased interpersonal sensitivity in some individuals (Sommers and Vodanovich 2000).\(^1\) |
| 4. Impulse Control Dysfunction | - Boredom proneness is associated with reduced impulse control in some individuals (Farmer and Sundberg 1986; Leong and Schneller 1993; Mikulas and Vodanovich 1993; Watt and Vodanovich 1992b; Zukerman 1979).\(^2\)\(^3\)\(^4\)  
- Boredom proneness is correlated with alcohol dependence in men (Orcutt 1984; Wiesbeck et al. 1996).\(^2\)\(^3\)\(^4\)  
- Boredom proneness is associated with pathological gambling (Blaszczynski, McConaghy and Frankova 1990) and susceptibility to heroin use (Serman et al. 1989). |
| 5. Neurotransmitter Dysfunction | - Boredom susceptibility, a trait of the Sensation Seeking trait, is associated with dopamine receptor sensitivity in alcohol-dependent men (Wiesbeck et al. 1996).\(^4\)  
- Monotony avoidance is associated with novelty seeking, dopamine activation, and polymorphisms at dopamine genes (Cloninger 1987). |
| 6. Arousal | - Boredom is believed by most researchers to be associated with less than optimal levels of autonomic arousal. However, what levels of arousal are assumed to be optimal is contingent upon a host of factors that include the complexity of the task, its intrinsic value to the individual, skill levels, and so forth. (Berlyne 1960; Csikszentmihalyi 2000; Walker 1980). |

\(^1\)Relationship with boredom proneness established with the use of the Boredom Proneness Scale (BPS) (Farmer and Sundberg 1986).  
\(^2\)Relationship with boredom proneness established with the use of the Boredom Susceptibility Scale (BSS) (Zukerman, Eysenck and Eysenck 1978).
that is neither triggered nor maintained by specific environmental conditions (Neu 1998).

Theoretical justification for this type of situation-independent boredom proneness (SIBP) is frequently found in the writings of psychoanalytically oriented (e.g., Bernstein 1975; Fenichel 1934; Wangh 1975) and existential theorists (e.g., Frankl 1969). A full review of this literature is beyond the scope of this article, and the reader is referred to Esmark (1979) and Frankl (1969) for more extensive discussions of the relevant literature. However, for the purposes of the arguments that will be presented later, it is important to appreciate that the observations and claims that have emerged from the SIBP perspective appear to converge on the following two points: (1) Chronic boredom results from an inability to utilize the coping mechanisms needed to provide escape from monotony and to give perspective and meaning to the routine activities of life (i.e., fantasy, anticipation, etc.), and (2) many of the concomitants of this type of boredom proneness—such as depression, a constricted fantasy life, distorted time perception—are maladaptive, if not pathological.

Mikulas and Vodanovich (1993) define boredom as “a state of relatively low arousal and dissatisfaction, which is attributed to an inadequately stimulating environment” (p. 3). Although this definition clearly espouses a SDB view of the phenomena, it does allow for the possibility that the attribution process may not be veridical. For the purposes of this article, I would like to subscribe to this definition—but with some slight modifications. First, I would like to include the experiential component of attentional constraint, which I believe is necessary on phenomenological and logical grounds. Specifically, if attention is experienced as being unconstrained, as Mikulas and Vodanovich seem to suggest, it must be assumed that that a bored individual chooses to remain fully attentive to a monotonous environment for no other reason than it is satisfying to do so. However, such a conclusion would effectively negate Mikulas and Vodanovich’s own definition of boredom. Additionally, attentional constraint is also important as a means of explaining why the covert cognitive coping mechanisms that are normally brought to bear in monotonous environments (e.g., self-distraction through fantasy) are effectively neutralized in states of boredom. In this regard, I would offer that boredom is somewhat analogous to the disease state that results when an individual with a compromised immune system (attentional constraint) is infected with a normally innocuous strain of bacteria (a monotonous environment).

The second change to the Mikulas and Vodanovich definition that I would like to propose is that we replace the term “understimulation,” the meaning of which I believe is too broad, with the construct of “uninteresting environments.” The rationale for this change is also relatively straightforward. Most individuals begin to experience a waning of what we call “interest” in a particular environment before becoming acutely bored; and if attention is truly free of constraints, it is promptly shifted elsewhere. Hence, the concept of interest (commonly assumed to share an experiential continuum with boredom) is a critical one, as it allows for the anticipation of boredom based on changes in an individual’s feeling state. More importantly, unlike the concept of inadequate stimulation, which connotes a passive reactivity to an environmental stimulus, interest invokes a more active stance in which stimulation is as much a product of our manipulation and exploration of the environment (via physical action and ideation) as it is a property of the stimulus itself (Csikszentmihalyi 2000; Sansone 1986, 1989). I would therefore argue that the dissatisfying elements invoked in Mikulas and Vodanovich’s definition of boredom emanate from a very specific conflictual source: the psychological injunction to allocate attentional resources (which are necessary for both physical and ideational forms exploration) to a stimulus environment that is no longer interesting versus the natural tendency to reallocate attentional resources to the exploration of new environments.

In sum, the studies and clinical observations from both the SDB and the SIB strains in the literature appear to suggest that the traits and behaviors associated with elevated levels of boredom proneness are predomin—
nantly maladaptive in nature. Unresolved, however, is the question of directionality. Does sustained boredom precipitate greater dysfunction, or vice versa? Alternatively, is the relationship reciprocal in nature, or perhaps nothing more than an artifact of a common underlying factor (e.g., environmental invariance)? What is intriguing about all of these possibilities, however, is that, regardless of which model is correct, they all point to at least one potentially important role for sustained boredom in clinical settings: as a marker for increases in a much broader array of dysfunctional attributes and behaviors. With this promise of clinical utility in hand, I would therefore like to turn the discussion to the role of boredom in the community-based treatment environments that are commonly established for the treatment of individuals with schizophrenia and other psychotic disorders.

**Boredom Proneness and Community-Based Treatment**

Although it should come as no surprise, there is currently no data available on the prevalence of boredom of any type among individuals with schizophrenia and other psychotic disorders. Nonetheless, I would like to propose that there are at least four factors that suggest that boredom and boredom proneness probably play a greater role in the course and treatment response of the chronically and severely mentally ill than is typically assumed. The following is a brief discussion of each of these points.

**The Monotonous Conditions of Long-term Community-based Treatment**

Most individuals with a serious and persistent mental illness, especially if they lack the resources necessary to obtain highly individualized care, will eventually be referred to a community-based treatment facility for case management, rehabilitation services, and comprehensive follow-up psychiatric care. The types of programs included in this level of care include such entities as psychosocial clubs, community day-treatment programs, partial hospital programs, psychiatric rehabilitation programs, and so on. Although all of these programs and their respective approaches embrace the ultimate goal of helping the individual attain the highest level of functioning possible, without substantial amounts of continuous support and protection from environmental stressors many individuals will be prone to relapse. Consequently, two types of strategies have been typically employed to ensure that patients are afforded maximum protection from potential stressors. One strategy, which is particularly common in psychosocial clubhouses and drop-in lounges, is to place almost no requirements on the patient, and to allow the patient the freedom to determine when, if, and at what level he or she wishes to become engaged in the activities of the program (Beard, Propst, and Malamud 1982). The second approach, which is more prevalent in programs where vocational and psychiatric rehabilitation might be found, attempts to minimize stress by routinizing, parsing, and simplifying the prescribed activities of the program (e.g., Spaulding, Stroms, Goodrich, and Sullivan 1986). In short, both of these approaches foster environmental conditions that would probably induce boredom in the average mentally ill individual.

In many respects, the rationale for these approaches is based on the widely accepted vulnerability-stress-coping models that have been developed to describe both the etiology (e.g., Meehl 1962, 1989; Spring and Coons 1982; Zubin and Spring 1977) and the course of schizophrenia (e.g., Liberman 1988; Nuechterlein and Dawson 1984a, 1984b; Nuechterlein et al. 1992). A governing assumption of these models is that stress emerges from, and also exacerbates, indirectly and directly, a traitlike deficiency in processing capacity. Hence, the individual with schizophrenia is considered to be at constant risk of being overwhelmed by otherwise normal amounts of stimulation/information. The prescription that logically follows from this model is, of course, to reduce extraneous stimulation and com-
plexity while increasing predictability and redundancy (Spaulding et al. 1986). However, implicit in this solution is the questionable assumption that stimulation has a positive, linear relationship to distress and performance impairment. In fact, it is an assumption that is very much at odds with the inverted U relationship that is typically found with nonpsychiatric subjects (Berlyne 1960, 1970; Kahneman 1973). If the reality is that there is a similar relationship to be found among psychotic patients, then it is possible that in addition to the patients who are motivated to avoid excessive stimulation, there may be some patients (especially in partial and completely remitted states) who are as motivated to avoid environments that foster understimulation.

*The Heterogeneity of the Long-term Community-based Treatment Population*

The composition of the category of individuals who constitute the seriously and persistently mentally ill (SPMI)—the population most often served by long-term community-based treatment facilities—has been described as consisting of a mixture of individuals with schizophrenia, other psychotic disorders, mood disorders, organic disorders, and co-occurring disorders, including substance-related disorders (Goldman, Gattozzi, and Taube 1981; Liberman 1988). Although it has been well established that individuals with schizophrenia are more likely to have a disabling and chronic course than patients with other disorders, Summers and Hersch (1983), among others, have been able to show that once patients become chronic (i.e., SPMI), it becomes extremely difficult to discriminate between diagnostic groups on the basis of symptomatology and level of disability. This may not be the case, however, with certain information-processing and attentional deficits. Nuechterlein, Dawson, Ventura, Miklowitz, and Konishi (1991), for example, found that during the acute stages of illness, individuals with schizophrenia and bipolar illness, manic type, tended to be equally impaired on the Continuous Performance Task (CPT), a measure of working memory and vigilance performance. However, during periods of partial and complete remission, the individuals with bipolar illness demonstrated considerably more improvement and performed at levels that were indistinguishable from those of nonpsychiatric controls. Patients with schizophrenia, on the other hand, despite some improvement, continued to perform below the levels of nonpsychiatric controls. These differences in cognitive recovery among chronic patients, coupled with the possibility that other clinical and functional features may become more similar with time, suggests that the degree of homogeneity in the typical treatment setting may be illusory and may mask differential sensitivities to the monotony of the treatment environment. In short, the typical treatment environment for the chronically mentally ill can be construed as an attempt to accommodate what are assumed to be relatively permanent and universal limits on processing capacity. Yet, for those for whom this assumption does not apply (or ceases to apply over time), this accommodation may not only be unnecessary, it may also be experienced as a form of attentional constraint.

*Heterogeneity among Individuals with Schizophrenia: The Restitution of Processing Capacity in Individuals with Schizophrenia*

Based on the performance of individuals with schizophrenia on the memory-load CPT (i.e., a version of the CPT that places an extra burden on working memory) and similar tasks, there is reason to believe that within the schizophrenic population there is some recovery of working memory and attentional capacity in the residual or remitted states (Nuechterlein et al. 1991, 1992). Although it is probably the case that most of these individuals do not ever regain levels of performance that are comparable to that of nonpsychiatric controls, it seems important to acknowledge that the range of recovery is not known and may be quite broad indeed. Consequently, many of the same reservations raised above with regard to the heterogeneity of the chronic
population also apply to the heterogeneity of the schizophrenic subpopulation.

**Low Levels of Autonomic Responsiveness**

It is estimated that approximately 40–50% of individuals with schizophrenia are electrophysiologically nonresponsive (Dawson, Nuechterlein, and Schell 1992; Dawson and Nuechterlein 1984). Moreover, the nonresponsive pattern appears to be associated with predominantly negative symptomatology. Although there is evidence to indicate that nonresponsivity is found in a number of individuals with recent-onset schizophrenia (e.g., Dawson et al. 1992), some researchers have suggested that in the case of at least some chronic patients, it may also reflect the endpoint of a progression from an initial state of hyperresponsivity and positive symptomatology to one that is dominated by negative symptoms and nonresponsivity. It is also suggested that this development represents an adaptive or self-protective mechanism that is designed to mitigate the effects of potentially stressful stimulation (Bernstein 1987; Dawson and Nuechterlein 1984; Ohman 1981; Straube 1980; Straube and Ohman 1990). This proposal is strengthened by recent findings from animal models, which suggest that stress-induced anhedonia (i.e., the inability to experience pleasure and one of the more common and disabling negative symptoms) may be partly accounted for by alterations in endogenous opiate mechanisms (Zarita, Murua, and Molina 1996).

The suggestion that some of the observed hyporesponsivity might be a homeostatic response to overstimulation is intuitively appealing because it suggests that by restricting the range of stimulus variation that can elicit orienting responses, the amount of information that the individual is required to process is reduced by several factors. This is precisely the kind of adjustment that would be of benefit to an individual with a reduced amount of processing capacity. One of the obvious costs of this rather drastic adaptation, however, is that the world becomes a far less interesting place. Another consequence is that with fewer environments available to elicit “interest” in such individuals, they are invariably perceived as being affectively flat and hypohedonic (e.g., Blanchard, Mueser, and Bellack 1998; Myin-Germeys, Delespaul, and DeVries 2000).

**BOREDOM, BOREDOM PRONENESS, AND THE COURSE OF PSYCHOTIC DISORDERS**

It has been noted that sustained boredom and/or its environmental or internal correlates are associated with a number of dysfunctional attributes and traits (at least in nonpsychiatric populations), and I have suggested that there may be good reasons to believe that at least some of the SPMI who receive long-term care in a typical community-based treatment setting are probably at risk for experiencing periods of sustained boredom during the course of their illness. However, it is important to acknowledge at this juncture that in recent years there have been a number of psychosocial interventions that have been shown to be effective in improving patients’ competencies across a broad spectrum of cognitive and psychosocial domains (e.g., Benton and Schroder 1990; Berkke and Long 2000; Fenton and Schoeller 2000; Mojtahdi, Nicholson, and Carpenter 1998). For example, it is well documented that social skills training (SST) approaches are capable of effecting positive changes in a broad range of complex competencies, including conversational skills and medication self-management (Heinssen et al. 2000). Similarly, there is growing evidence to suggest that interventions that target the cognitive skills deficits underlying (or at least accompanying) the more molar deficits and symptoms of schizophrenia may have an additive effect with social skills training (Brenner et al., 1994; Corrigan, Wallace, Schade, and Green 1994; Spaulding, Reed, Sullivan, Richardson, and Weiler 1999). Nonetheless, there are at least three reasons for suspecting that these innovations have had less of an impact on the prevalence and consequences of boredom in the typical community.
treatment setting than one would hope. First, there is almost universal agreement that most of these interventions are not routinely employed in the typical treatment facility (Lehman 2000; Lehman, Carpenter, Goldman, and Steinwachs 1995; Lehman, Steinwachs, and Survey Co-Investigators of the PORT project 1998a, 1998b; Young, Sullivan, Burman, and Brook 1998). Second, even if it were the case that these interventions were widely disseminated, boredom would most likely remain a hidden variable, mistakenly subsumed under attributions of negative symptoms or depression. Third, the very manner in which social and cognitive skills are taught (i.e., through repetitive practice and repetitive observation of others during practice) could be construed as part of the problem, rather than a solution. Interestingly, Hogarty and Flesher (1999a, 1999b) have developed an intervention that they refer to as “cognitive enhancement therapy” (CET), which is notable for its departure from the traditional emphasis “on practiced performance of contrived roles that are perfected by instruction, modeling, role play and rehearsal” (Hogarty and Flesher, 1999b, p. 693). However, given the relatively recent vintage of the CET approach, it is safe to assume that it is probably used even less widely than the approaches mentioned earlier.

Consequently, the following discussion of how boredom might figure in shaping the course of chronic schizophrenia or another psychotic disorder is directed toward community-based treatment as it is typically practiced. I do not pretend to have definitive evidence to support any of the proposed hypotheses; rather, I offer some conjectures. I attempt to demonstrate that there are several interconnected roles that boredom might play in the life of the typical individual with chronic schizophrenia or some other chronic psychotic condition. I have tried to concretize each of these putative roles with a brief case example that I believe typifies the dynamic that I am trying to explicate (see Table 2 for a summary). I hope that most of the cases will seem familiar to anyone who has worked with the chronically mentally ill in a community clinic or some other outpatient treatment setting. (Note: Actual names are not used in any of the cases discussed in this article.)

Case 1: Hallucinations

William is a 37-year-old man with a history of auditory hallucinations who has been a patient at a local community day clinic for the last 5 years. He was recently hospitalized for 2 weeks following an acute psychotic episode but returned to the clinic with little or no evidence of residual psychotic symptoms. Like many clinics in the area, William’s clinic has a long-standing policy that allows patients to select the level of involvement in the milieu that they desire. An introverted, shy man, William quickly opted to do what he had done before his last hospitalization, which was to watch television or videos for most of the day. Consequently, he often sat through programs that did not interest him, either because he had seen them many times before or because they involved subject matter that he did not fully understand. After a month or so, William indicated that he was bored and would prefer to stay home, a complaint that was taken as a pretext for him to isolate himself even further and to eventually slide back into a psychotic episode. He was therefore encouraged to attend several of the daily groups, an invitation that he repeatedly and respectfully declined. Nonetheless, as a compromise, he agreed to continue attending on a regular basis. Gradually, William’s complaints of boredom began to subside, but the staff also noticed that William had begun to mumble to himself, especially during his protracted periods of television watching. Unnoticed, however, was the fact that the muttering decreased significantly during the one activity in which William was willing to participate: bingo. Unfortunately, bingo occurred only once a week and lasted for only 60 minutes of the 6-hour day. Eight months after his discharge from the hospital, the two staff members who normally ran the bingo group became unavailable for 3 consecutive weeks (due to conferences, illnesses, etc.). Predictably, William’s auditory hallucinations became significantly more pronounced. Although William had been attending regularly,
<table>
<thead>
<tr>
<th>Case Example</th>
<th>Presenting Symptom/Behavior</th>
<th>Relationship of Symptom to Boredom</th>
<th>Potential Risks When Role of Boredom not Recognized</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. William</td>
<td>Hallucinations</td>
<td>Hallucinations are a coping response: When hallucinations increase, boredom levels decrease.</td>
<td>Risk of inappropriate increase in antipsychotic medication levels based on incorrect assumption that hallucinations represent deterioration. Risk of noncompliance or disengagement from treatment.</td>
</tr>
<tr>
<td>2. Marcel</td>
<td>Paranoia</td>
<td>Boredom is the result of competition between novel tasks and the objects of hypervigilance for limited attentional resources. Also misattribution of source of distractibility.</td>
<td>Risk of providing overly novel and complex experience in response to frequent complaints of boredom. Can lead to disengagement from treatment. Note: Boredom actually decreases during highly familiar tasks due to greater competence.</td>
</tr>
<tr>
<td>3. Victor</td>
<td>Postpsychotic mood disturbance</td>
<td>Boredom is sought out: Boredom is the result of an attempt to preserve temporarily limited amounts of processing capacity and avoid overextension during recovery. Accomplished by selecting safe but monotonous environments.</td>
<td>Complaints of boredom may prompt premature placement in potentially stressful activities. Risk of overextension and possible decompensation.</td>
</tr>
<tr>
<td>4. Frank</td>
<td>Postpsychotic mood disturbance</td>
<td>Boredom is avoided: Rapid recovery of processing capacity in an understimulating treatment environment, coupled with limited covert boredom-coping skills.</td>
<td>Unheeded complaints of boredom may result in premature departure from treatment. Lack of competencies needed to regulate and balance stress and stimulation in extratreatment environments increases risk of overextension and decompensation.</td>
</tr>
<tr>
<td>5. Alice</td>
<td>Hypochondria</td>
<td>Adaptation to boredom: Diminished processing capacity and competency results in reduced sensitivity to change and misattribution of sameness to internal, stable, global factors.</td>
<td>Risk of accepting and reinforcing patient’s conviction that all potential activities and environments are uninteresting, rather than encouraging exploration.</td>
</tr>
</tbody>
</table>
the staff decided to confront him about his hallucinatory behavior and urged him to take a larger dose of his prescribed medication. William insisted that the voices did not bother him and therefore actively resisted all attempts to modify his medication regimen. Eventually, fed up with the constant badgering of the staff, William broke his promise and decided to cease coming to the program on a regular basis. Several weeks later he was readmitted to the hospital on an involuntary basis with the assistance of his family members.

William’s case is not unusual. As a staff member of a clinic where there is a well-intentioned policy of letting the patient decide the level of involvement that he or she desires, one might be inclined to assert that rather than a condition of attentional constraint, William was given a level of freedom that few of us enjoy. Hence, a possible answer to the question of what triggered the return of William’s hallucinations might be that he was never very stable to begin with, he was prematurely released from the hospital, and he was probably not receiving the right amount or type of medication. This may all be true, but I would like to suggest that it is probably more than an intriguing coincidence that hallucinations, like boredom, appear to occur more readily in environments where attributions of monotony or unyielding sameness are likely to be made (Berlyne 1960). For example, Margo, Hemsley, and Slade (1981) studied the effects of manipulating the structure and attention-demanding properties of auditory input (delivered via headphones) in a sample of hallucination-prone individuals with schizophrenia. They found that the conditions that were arguably the most conducive to attributions of monotony and the least compatible with ideational exploration (i.e., foreign speech, irregular electronic blips, sensory restriction, and white noise) were also the conditions in which louder, clearer and longer-lasting hallucinations were observed.

Also consistent with the Margo et al. (1981) finding is the assumed boredom-coping capacity of daydreams through self-entertainment and self-stimulation (Berlyne 1960; Davies 1926; Farmer and Sundberg 1986; Singer 1975). If, as has been suggested by researchers such as Slade and Bentall (1988), hallucinations are in part a consequence of source discrimination errors in which internally generated thoughts and images are attributed to external sources, then it makes sense that hallucination-prone individuals should be at increased risk for hallucinatory behavior when day-dreaming activity is ratcheted up in an attempt to cope with monotony.

Returning to the case of William, a fair criticism of my attempt to link William’s boredom to the return of his hallucinations would be the issue of how we know that his hallucinations would not have gotten worse regardless of whatever steps were taken to deal with the boredom. My response is, of course, that we do not know. However, I would contend that, at a minimum, the co-occurrence of boredom complaints and the rise in hallucinatory behavior suggests that boredom may be a useful marker for imminent increases in hallucinatory behavior in at-risk individuals. Furthermore, the type of intervention that this model would suggest (i.e., a reduction in exposure to the offending environments) would not be costly or complicated, but for some patients it could conceivably preclude the need for more aggressive somatic interventions. Whether this approach, which runs counter to the stimulation-reduction strategy that is prescribed by the vulnerability-stress model, is a valid one, is of course an empirical question. But even in absence of direct empirical support, it seems prudent to remain open to the possibility that boredom, especially among the hallucination-prone, may be useful in the case of some patients as an early warning sign or marker for an exacerbation of hallucinatory behavior. Boredom as a prodromal sign is discussed further in relation to the putative role of boredom in motivation and sensation seeking later in this article. Here I focus on another positive symptom, paranoia, in the case of Marcel.

Case 2: Situation Independent Boredom—Paranoia

Marcel, a devoutly paranoid man of 43 years of age, is highly distractible and ever
vigilant at home and at his day clinic. He seldom speaks, and almost never about his personal feelings and fears. However, he is adamant that his unwillingness to persist in any of the program activities is because they are inherently boring. It is curious that despite his protestations and the fact that he is often distracted by his omnipresent preoccupations with potential threats in the environment, Marcel is always willing to try something new. Moreover, this pattern of initial enthusiasm followed by a rapid decline in interest can be further accelerated if Marcel lacks the skills necessary to perform competently. For example, he was invited to join the carpentry group, which meets regularly to work on small projects such as bookcases, storage containers, magazine racks, and so on. Early on in the process, however, like many novice carpenters, Marcel had difficulty attaining the level of precision needed to assure the correct alignment of the component pieces. Consequently, he often required that he redo many of the steps several times. After a while, and despite valiant efforts on the part of the staff and other patients to help him improve his carpentry skills, he became apathetic and uninterested in participating in the group.

Although he is clearly an anxious person, he seldom admits to being fearful, preferring to express his distrust and anticipation of hostility by acts of preemptive aggressiveness and hostility of his own. Owing to his belligerence and unsociable behavior, he has no close friends, and his family members are loath to interact with him. Moreover, as the options for new activities dwindle, this behavior appears to grow worse, as do his complaints of being deprived of the opportunity to engage in activities that would be of interest to someone with his superior abilities. Eventually Marcel is returned to the hospital after an altercation with the security guard, and like all of his previous hospitalizations, it is an involuntary admission.

It is possible to characterize Marcel’s boredom as no more than an epiphenomenon, or even a convenient fabrication designed to rationalize his incompetencies, with no real relationship to a boredom feeling-state. However, there are three things are particularly notable about Marcel’s situation. First, like most individuals with paranoia, he finds himself under considerable attentional constraint. He is compelled to sustain his attention to tasks that are always placed in direct competition for attentional resources with perceived, recalled, and anticipated threats in the environment. Hence, in a peculiar way, individuals with paranoia (as well as probably many of those whom David Shapiro [1965] refers to as “rigid characters”), satisfy one of my major criteria for boredom induction: attentional constraint. The second observation about Marcel that I would like to highlight is that constraint appears to interact with perceived competence. The fewer the skills at his disposal to render an activity interesting, the quicker the activity becomes monotonous, and the quicker it is supplanted by attention-demanding paranoid threats. Third, and perhaps the most interesting feature about Marcel, is his general distractibility. Earlier I posed the question of whether it is possible that some of the dysfunctional attributes that appear to be associated with boredom and boredom proneness might in some way trigger feelings of boredom. The results of a study by Damrad-Frye and Laird (1989) provide a hint of how heightened distractibility, clearly a maladaptive attribute, could do just that. Damrad-Frye and Laird (1989) reasoned that, like other feeling states, the experience of boredom is contingent upon the processing of cues from our own behavior and the context in which it occurs. They therefore hypothesized that when subjects were required to perform an attention-demanding task while concurrently exposed to other irrelevant, attention-demanding stimuli, they would be more inclined to describe the focal task as boring if they failed to recognize the nonfocal stimuli as a source of distraction. To test this hypothesis, Damrad-Frye and Laird asked subjects to listen to a tape of an article from the magazine *Psychology Today* while assigned to one of three experimental conditions: (1) a high-distraction condition in which subjects were simultaneously subjected to a very loud and noticeable television program coming from a television set.
in the adjoining room; (2) a moderate-distraction condition in which subjects were exposed to the same television program, but at a volume setting that was just noticeable; and (3) a no-distraction condition in which there were no sounds coming from the adjoining room. Subjects were then asked to rate their interest in the material, report what they could remember in terms of content, and state whether anything had interfered with their performance. Consistent with the hypothesis of Damrad-Frye and Laird, the subjects in the moderate-distraction condition were found to attribute higher levels of monotony to the focal task and reported significantly higher levels of boredom than subjects in the other two conditions.

If the Damrad-Frye and Laird findings are reliable, they have important implications for patients like Marcel. They suggest that when (1) the processing of noncritical, idiosyncratic elements in the environment and long-term memory are placed in competition with critical/focal stimuli for processing capacity and (2) the noncritical stimuli are not experienced as being distracting, there is a greater likelihood that important focal activities (including many of the chores of daily living and social commerce) will be experienced as boring. Consequently, on one level, complaints of boredom by some patients probably represent the subjective sense that greater amounts of cognitive effort are required to maintain the necessary allocation of resources to the focal task. On another level, they may also represent a subjective expression of the patient’s growing inability to control and allocate attentional resources in ways that are compatible with personal, social, and cultural expectations. Hence, in contrast to the case of William, forcing or constraining Marcel to participate in other novel activities would have merely exacerbated the feelings of boredom. Marcel felt bored because he was constrained by the competing demands of the program and unacknowledged distractions associated with the objects of his hypervigilance. William is also constrained, but his constraints emanate from the absence of suitable social and cognitive demands. In both cases, the feelings of attentional constraint are coupled with an absence of the skills needed to generate interest in the majority of activities and environments that are available. In both cases, boredom signals a possible turn for the worse in terms of clinical status. Importantly, however, whereas William’s boredom is expected to lessen as his hallucinations become more prominent, boredom in patients like Marcel probably will remain fixed until hypervigilance abates or there is a withdrawal from the environments and tasks that require a substantial investment of processing resources. Interestingly, the latter solution suggests that the paranoid individual may be actually less bored in environments where many of the focal tasks have become highly automated, thereby liberating sufficient amounts of capacity for vigilance-related processing.

The case of Marcel represents a situation in which processing capacity is assumed to be relatively static, hence the level of irrelevant, external stimulation necessary to provoke attributions of monotony on a focal task is also assumed to be relatively stable. However, in the case of the psychotic patient who is in the process of recompensating, processing capacity may actually increase during recovery (especially in individuals who have a psychotic disorder other than schizophrenia), thereby increasing the amount distraction needed to induce attributions of boredom. The point to be made here is that to the extent that heightened boredom proneness may be characteristic of the prodromal phase that precedes an acute psychotic episode, so too might it be expected to appear again during the individual’s reconstitutive transition from the active to the residual phase of the illness. A good example of this type of postpsychotic boredom is Victor, the case that is described next.

Case 3: Situation-Independent

Boredom—Boredom and Postpsychotic Mood Disturbance I

Victor, a 25-year-old African American male, was recently discharged after his second psychotic break. At his community clinic, he presents with what looks at first blush to be
postpsychotic depressive symptoms. However, on further investigation, the only depressive symptom that can be reliably identified is his inability to derive pleasure from either new or preexisting social relationships, and a markedly diminished interest in any form of leisure activity. On evaluation, there are no signs of newly developed social anxieties or phobias or any preoccupations with specific delusional thoughts. There are fears among the treatment staff that he may have been prematurely discharged, and they brace themselves for the onset of an active psychotic episode. However, after a month Victor’s interest in other clients begins to increase. This interest is sporadic and inconsistent, as evidenced by short bursts of seemingly pleasurable social engagement that quickly wane into obvious signs of uninterest and indifference. Although he begins to smile easily and more often, he also complains about the lack of interesting things to do and expresses a desire to study for his General Equivalency Diploma (GED). However, when provided with the opportunity to receive help with his GED, he quickly becomes disenchanted with the amount of effort involved and drops out of the classes. Shortly thereafter he resumes his complaint that there is nothing of interest to him at the clinic. Gradually over the next few months, he becomes even more socially integrated into the social milieu, venturing into activities and interactions for increasingly longer periods of time before becoming distracted, irritable, and tense. Eventually he becomes romantically involved with another client and resumes his primary passion prior to his last hospitalization, playing cards.

The structure, processes, and styles of recovery from a psychotic episode have received a considerable amount of attention from theorists and researchers (e.g., Apter 1975; Carr 1983; Docherty, Van Kammen, Siris, and Marder 1978; Herz and McVilie 1980; Kayton, Beck, and Koh 1976; Mass 2000). Docherty et al. (1978), for example, in an early and well-regarded descriptive model of symptomatic recovery in patients with schizophrenia, proposed a series of six stages that include Psychotic Restitution, Psychotic Disorganization, Disinhibition, Restricted Consciousness, Overextension, and Equilibrium (full remission). Of most relevance to this discussion are the stages of Restricted Consciousness and Overextension, both of which correspond to the residual phase of schizophrenia. Overextension, the closest of the two stages to full remission, is marked by feelings of overstimulation, low performance efficiency, anxiety, irritability, and distractibility. Restricted Consciousness, on the other hand, the stage that precedes Overextension on the path to recovery, is characterized by a variety of symptoms that include restricted range of thought, boredom, apathy, and dissatisfaction. Assuming that the observations of Docherty et al. and others (e.g., Carr 1983) are correct, the phenomenological similarity between their characterization of the residual and near-residual phases of schizophrenia and a heightened state of boredom proneness is quite striking. It is therefore worth asking whether there are mechanisms that might be at play in the recovery process that could account for this increase in boredom in the residual phase of recovery.

One possible answer to this question may be that there is a dimensional component, not of symptoms, but rather of processing capacity, that underlies the categorical stagelike changes described by Docherty et al. (1978). With this in mind, two non–mutually exclusive possibilities present themselves. The first, which is perhaps more characteristic of Docherty’s Restricted Consciousness stage, is the possibility that the observed boredom and its concomitants are the result of an attempt by the individual to conserve his or her limited processing capacity. Hence, in order to avoid the overwhelming stimulation of the Overextension phase, the range of external activity and environments is restricted, social isolation is pursued, and ideational activity is curtailed. The net effect of this adaptive strategy is to impose an attentional curfew of sorts on the cognitive life of the individual, which also necessarily increases the probability of boredom and its associated affective states and behaviors. The second possibility, which is probably more applicable to the Overextension stage, is based on what has been said thus far about the relationship between moderate distraction.
and the tendency to misattribute monotony to a focal task. With attentional resources still insufficiently restored (i.e., from the constriction and disruption associated with decompensation), it would be expected that otherwise mildly distracting stimuli would now occupy the ambiguous mid-range of distraction where misattributions of monotony are more likely to occur. For individuals recovering from schizophrenia, this would render many of the environments and social conventions that have been created to minimize distraction during the performance of various types of attention-demanding activities (e.g., libraries, classrooms, private offices) potent mechanisms for boredom induction. By the same token, with this lowered threshold for distraction, normal, unshielded environments would be expected to promote a higher incidence of unambiguous distraction, leading to the feelings of being overwhelmed that Docherty et al. claim is characteristic of the Overextension stage.

Consequently, for many patients in the midst of recovery from a psychotic episode, there is a tendency to adopt coping strategies that are designed to limit the effects of environments that may overwhelm still suboptimal levels of processing capacity. By and large, treatment environments for the SPMI are designed to enhance and supplement this natural defensive response. In the case of Victor, this strategy appears to have worked precisely as intended. He was provided with the time and freedom to reestablish much of the processing capacity that was apparently lost during decompensation, and thus was successfully reintegrated back into the milieu of his clinic. Although I suspect that this is typical of most long-term clients who are treated in clinics where the staff has had an opportunity to observe each patient’s typical pattern of recovery over several rehospitalizations, some patients, especially those new to the system, may not be so fortunate. In those instances, the initial complaints of boredom and apparent signs of hypochondria might not be seen for what they are (i.e., artifacts of a coping strategy to protect diminished processing capacity) and may result in clients’ premature placement into the very activities and environments that they are trying to avoid.

Although Victor recovered his prerelease levels of processing efficiency, it is doubtful that it was restored to levels that were comparable to those of the typical individual in the nonpsychiatric population. Hence, he continued to derive benefit from the protective environment of the clinic. Moreover, his apparent competence at card games seemed to provide him with a means of deriving interest and pleasure from the environment on a schedule that met his hedonic needs. However, what if he had recovered substantially more processing capacity, enough to place him on par with the average individual in the nonpsychiatric population? Could we then expect the kind of stable resolution that characterized his recovery? Indeed, as discussed in an earlier section of this article, the diagnostic heterogeneity of the population served by the typical treatment facility makes the normalization of processing capacity in some patients a real possibility. In the case of these individuals I suggest that boredom eventually assumes a motivational role in triggering attempts to find alternative environments outside of the treatment milieu. Frank, the next case described, illustrates this dynamic. The case should also be familiar in the sense that it is yet another version of what has come to be known as the “revolving door” patient (e.g., Liberman 1986).

Case 4: Boredom and Postpsychotic Mood Disturbance II

Frank, a 30ish, college-educated man returns to a community-based clinic after being hospitalized for the fifth time in the span of 3 years. Over the next 2 months he embarks upon a familiar course of recompensation. In the first 2 weeks of his return he is studiously compliant, eager to please, gregarious, and determined not to return to the hospital ever again. His insight into his illness is at times startling. By the second month, still relatively symptom-free and even more self-confident, he gradually begins to complain about having to participate in what he describes as boring
activities. He also complains about having to comply with the program rules and the requirement that he attend the program on a regular basis. He flits from one program activity to another, briefly participating in the scheduled groups before becoming restless and leaving to go outside to smoke. Convinced that he is ready for a “real job,” he canvases the neighborhood on his own looking for odd jobs in restaurants, retail stores, garages, and so on. To his credit, he receives two offers—one at a church and the other at a fish store—but considers the pay to be insufficient and declines the offers. Although he has a substance abuse history, periodic unannounced screenings for drugs and alcohol do not indicate that he has relapsed. Within the next month, his attendance drops off and he becomes increasingly secretive about his activities away from the program. Next, his medication compliance becomes doubtful. Finally, he begins to exhibit signs that he is hearing voices, he becomes more disheveled, and his urine tests reveal substance use for the first time. Shortly thereafter, he decompenses completely, forcing his readmission to the hospital.

The course of Frank’s recovery following his return to the program could be characterized as the mirror image of the preceding case, Victor. Unlike Victor, Frank returned to the program with blazing optimism and a desire to fully engage the prescribed routines and structure of the program. After a period of time, however (a time that I believe corresponds to the nearly complete restoration of processing capacity), it appears that the slow, repetitive, minimally complex environment began to be experienced as monotonous. In the case of Victor, however, even this level of stimulation was difficult to cope with in the initial stages of his return. It was only later in his tenure that he was able to recover sufficient processing capacity to enable him to readapt to the treatment milieu. Frank, on the other hand, has, at least in respect to his processing capacity, outgrown the program, and therefore takes things into his own hands. (Granted, there are hints of hypomania evident in the manner in which he conducted his job hunt, but the start of this spiraling out of control seems to have been marked by his earlier complaints of boredom and dissatisfaction.) Unfortunately for Frank, he is a relatively unskilled individual with few areas of occupational or recreational competence. Consequently, once outside of the protective confines of the treatment milieu, he has few options with respect to employment, social affiliation, recreational diversion, and other important sources of stimulation. He is therefore faced with two choices: (1) Return to the few environments, many of them high risk or maladaptive (e.g., drug-using social networks), where he has some proven competence, or (2) despite his lack of competence in most other environments, attempt to derive interest from those environments and risk higher levels of conflict and stress. Unfortunately, both of these outcomes will almost certainly result in a reversal of the processing capacity increases that prompted his departure from the clinic environment.

Psychotic patients like Frank are probably no different than nonpsychotic individuals in the sense that, under appropriate circumstances, they will seek out novelty and avoid familiar environments. This tendency for some patients to avoid familiar (albeit safe) environments and seek out more novel (albeit risky) environments is one way of explaining how and why some patients like Frank actively expose themselves to environments that are potentially beyond their capacity to manage. It is important to appreciate, however, that their instincts are correct as far as capacity needs are concerned. The problem for patients like Frank resides not in the fact that they choose to leave the monotony of the clinic. Rather, it is that once they find themselves in stimulation-rich, extra-clinic environments, they are often ill-prepared to engage and manipulate these environments in ways that generate interest without also increasing the risk of being overwhelmed.

It should not go unnoticed that the proposal that boredom serves to motivate some patients to venture into potentially stressful environments is not inconsistent with what Lukoff, Snyder, Ventura, and Nuechterlein
(1984) and others have referred to as “stress-prone living.” The term refers to the observation that some patients, as in the case of Frank, actively create potentially stressful “life events” that ultimately lead to decompensation. Lukoff et al. (1984), for example, have suggested that the often observed increase in geographic relocations prior to rehospitalization is motivated by the pursuit for social isolation and probably contributes to decompensation by disrupting existing social support systems.

I now turn to the final case example—one that offers a glimpse of entirely different type of response to boredom. Rather than feverish attempts to escape, such as Frank’s, there is the possibility of adaptation in the next case.

Case 5: Situation-Independent Boredom—Boredom and Hypohedonia

Alice is 42 years of age. When not required to sit in one of the scheduled groups, she spends most of her day in the day room of the community clinic, smoking and passively watching the other clients. She used to be a prolific reader, even after her initial psychotic break in her early 20s. However, after her fourth break at about age 30, she began to have difficulty reading. She described the problem as an inability to keep her attention focused on anything for very long. She could read the sentences, remember the words, but it was the larger themes, the interweaving of the various subplots that left her lost, forcing her to read and reread passages (often to no avail). Invariably she became frustrated and lost interest altogether. With a little effort she can still read well enough to meet the demands of her daily life, but it is no longer fun—in fact, for a period of time after she entered the current phase of her illness, she would describe it as “boring,” a quality that she also attributed to all of the activities of the program and the chores of her daily life. With time, however, she appeared to develop a tolerance for the monotony associated with her generalized lack of interest, and now insists that she is “never really bored.”

Most notable is Alice’s flat affect and generally hypohedonic state. While there is some evidence of mild to moderate cognitive deficits, they have not detracted from her ability to live independently for the last 15 years, and she has not been hospitalized since the age of 33. Overall, she shows no signs of pronounced positive symptoms, but there is absolutely nothing about her behavior that is spontaneous. One could almost say that she is a slave to the program’s routine. At times she looks depressed, but aside from the apparent hypohedonia and amotivational state, there is no guilt, sadness, overt tearfulness, or any other symptom that would suggest that major depression or dysthymia might be underlying her residual psychotic state.

In a way, the case of Alice and those like her represent what might be the most controversial claim that I make with regard to the role of boredom in chronic psychotic conditions. I propose that adaptation to chronic experiences of boredom can occur when the attribution of boredom is shifted from an external source to an internal one that is stable and highly general in its application. We see that unlike Victor, who recovered some of his premorbid processing capacity, Alice represents an example of an individual whose processing capacity is not reclaimed. Consequently, with successive decompensations and the passage of time there is an adaptive reconfiguration of arousal levels and hedonic systems that occurs on two levels. First, in an effort to conserve her limited attentional resources she develops the ability to “ignore” all but the most significant alterations in her environment. In essence, her environment is cognitively simplified to match her limited processing capacity. Consequently, there is little or no attentional constraint to color the feelings of sameness. Her world has become deprived of the positive reinforcement of novelty and exploration, but it is not distressing (e.g., Myin-Germeys et al. 2000; Selten, Wiersma, and van den Bosch 2000). The second part of this adaptive process is Alice’s apparent commitment to the belief that the source of her uninteresting experiences is internal, stable, and generalizable to all current and future environmental transactions. By
contrast, Frank has no such misconceptions about the source of his perceived monotony. He considers it very specific to the program and its structure, and truly believes that he contributes nothing to his experience of boredom. He therefore considers himself to be fully capable of generating interest from even the most modestly stimulating conditions that lay outside of the clinic. Alice believes that there are no new skills that she can master that will allow her to derive interest from most environments. Frank believes that he has all the skills he needs; with processing capacity to spare, he feels compelled by dysphoria to confirm his self-diagnosis.

While it is tempting to speculate that Alice has become depressed, presumably triggered by, among other things, the real and symbolic loss of her ability to read, I would argue that Alice’s apparent hypohedonic state is simply that and nothing more. Although both boredom and depression are dysphoric and seem to be conceptually related, I would propose that an important distinction lies in the fact that generalized, stable boredom is based on the false belief that positive reinforcement is forever unsustainable, if not unattainable, regardless of one’s efforts. In contrast, depression, or learned helplessness, embodies the false belief that negative reinforcement is forever unpredictable, and thus uncontrollable and inescapable. Interestingly, a parallel distinction exists with regard to substance dependence, which is generally assumed to consist of at least two types of motivational components: (1) primary psychological dependence, which is based on the positively reinforcing properties (e.g., euphoria) of a drug and mediated by the dopamine-rich, meso-limbic pathway, and (2) secondary psychological dependence, which involves the negatively reinforcing effects of disagreeable withdrawal symptoms and appears to be mediated by a variety of sites that vary with the type of substance involved (e.g., Wise 1988; Wise and Bozarth 1987).

It is worth noting that more recent thinking and research on the function of the meso-limbic pathway suggests that it may be associated with unanticipated positive reinforcer and novelty seeking in general, rather than reinforcement per se (Leshner 1997; Neese and Berridge 1997). This is precisely the kind of function that would predict the feelings of boredom and hypohedonia that have been reported by cocaine-dependent individuals during the weeks following a binge episode (Gawin and Kleber 1986). Indeed, this neurologically based reduction in sensitivity to novelty is found not only in chronic substance users, but also in individuals that Zuckerman (1979) refers to as “sensation seekers” (Wiesbeck et al. 1996). (Not surprisingly, a trait that has been repeatedly identified as being characteristic of the sensation-seeking personality style is that of “boredom susceptibility.”) Moreover, the meso-corticolimbic dopamine systems are also implicated in most etiological theories of psychotic disorders, especially schizophrenia (e.g., Schatzberg and Rothschild 1988; Weinberger, Berman, and Chase 1988), a convergence that may be coincidental, but at the very least adds fuel to the argument that there is a need for a more serious exploration of boredom as a mediating variable in the study and clinical management of the seriously and persistently mentally ill.

CONCLUSION

In many respects it could be argued that there is an unspoken assumption in the rehabilitation community that for SPMI patients, understimulation and the experience of boredom is demotivating at worst and has relatively little impact on relapse rates and the exacerbation of positive symptoms. It is therefore surprising to learn that there is almost no empirical evidence to support this assumption. It would appear that this tacit view is a prescription that follows not from empirical data or even extensive clinical observation, but rather from the manner in which the vulnerability-stress model is customarily conceptualized. I hope that the preceding review and discussion has contributed in some small way to illustrating why this oversight is neither unimportant nor desirable.

In the absence of any real, direct empir-
edical evidence for much of what I have proposed, much of what is claimed may turn out to be quite inaccurate. However, many of my proposals are nothing more than a set of theoretically informed hypotheses that, if wrong, should be proven so through empirical investigation. What is indisputable is that heretofore even these relatively modest hypotheses have been ignored by both empirical researchers and theoreticians, perhaps overshadowed by the more florid states of panic, anxiety, and terror that accompany many acute psychotic conditions.

There are two final points that need to be underscored. First, it is important to note that items and subscales pertaining to boredom are generally not included in any of the instruments and rating scales that are commonly used to assess and monitor change in treatment settings (e.g., the Brief Psychiatric Rating Scale; Overall and Gorham 1962; 1988). An important and possibly costly consequence of this omission is the loss of potentially valuable prodromal information that could be used to anticipate and prevent relapse.

The second point to be made is that it might be possible to improve the boredom-coping skills of some boredom-prone individuals with adequate training and the appropriate clinical technology. Indeed, even under circumstances where training in leisure-seeking skills is undertaken as part of a more general social skills training curriculum (e.g., Liberman 1988), these skills will probably not be engaged appropriately unless there is some awareness on the part of the patient of the significance of his or her sustained boredom. If patients are convinced that the alternative to boredom is almost always unmanageable levels of stimulation and anxiety, then boredom becomes a preferred feeling-state. Alternatively, some patients may come to believe that because of an endogenous deficit of some kind, all environments are incapable of provoking interest. Yet another group of patients may be convinced that leisure seeking and novelty seeking should be given priority over the skills necessary to integrate these activities into the routines of daily living. In all of these instances, the treating clinician is faced with a set of maladaptive beliefs forged in response to sustained boredom, beliefs that either inhibit leisure seeking, as in the first two cases, or inhibit its regulation, as in the latter. It is, I contend, the individual’s beliefs about why he or she is constantly bored and uninterested as well as his or her beliefs about processing capacity, resource allocation strategies, and the consequences of sustained boredom that must be modified before macrolevel leisure-skills training can begin. The focused cognitive-behavioral therapy approach of Garvey and her colleagues has been shown to be effective in modifying the underlying beliefs associated with delusional thinking and hallucinatory behavior and may be helpful in this regard (e.g., Garvey and Freeman 1999). In any event, regardless of the strategy employed, it seems clear that the challenge for treating clinician is to convince the patient to become interested in his or her boredom.

REFERENCES


BERK, J. S., and LONG, J. D. Community-based psychosocial rehabilitation and prospective change in functional, clinical and subjective experi-


McWelling Todman


Overall, J. E., and Gorham, D. R. The
Boredom and Psychotic Disorders


WEINBERGER, D. R., BERTMAN, K. E., and CHASE, T. N. Mesocortical dopaminergic function


