Psychological Flexibility, ACT, and Organizational Behavior

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Abstract

This paper offers organizational behavior management (OBM) a behavior analytically consistent way to expand its analysis of, and methods for changing, organizational behavior. It shows how Relational Frame Theory (RFT) suggests that common, problematic, psychological processes emerge from language itself, and they produce psychological inflexibility. Research suggests that an applied extension of RFT, Acceptance and Commitment Therapy, has led to new interventions that increase psychological flexibility and, thereby enhance, organizational behavior and health.

Key terms: Relational Frame Theory, organizational behavior, organizational development, psychological inflexibility, Acceptance and Commitment Therapy, individual differences

Psychological Flexibility, ACT, and Organizational Behavior

Organizational behavior (OB) is the study of human behavior within an organizational setting. Organizational behavior can be thought of as a function of three domains: Organizational characteristics and contingencies (e.g., structure, processes, strategy, and culture), job characteristics and contingencies (e.g., job autonomy, skill variety, team working), and the larger set of individual characteristics and history brought to bear on the work situation (e.g., "personality," mental health, social repertoire). The aim of OB is to obtain and/or apply knowledge of these different types of characteristics, in order to make an organization more effective (Robbins, 2005).

The focus of this paper is on the individual repertoire and history that impacts on work performance, as seen from a modern behavior analytic account of human language and cognition. Such an emphasis is fairly novel for organizational behavior management (OBM), as OBM has historically avoided private events as a useful target for intervention (e.g., Daniels, 2000). Other psychological perspectives have had a different view, however, and they have developed widely used strategies that attempt to manipulate such events, in order to make people, groups, and hence organizations, more effective (see DeBoard, 1978). In discussing individual characteristics derived from behavior analysis, we hope to suggest a way in which OBM can expand its reach into the cognitive and emotional world of humans but in a way that fits with behavior analysis as an applied and research tradition.

The wider discipline of organizational behavior has always emphasized the importance of individual characteristics to organizational effectiveness, but they have

often approached these events mentalistically. Beginning in the 1940s, Wilfred Bion and colleagues used psychodynamic theories of unconscious processes (particularly repression and projective identification) to suggest structural and procedural characteristics that might bear on organizational effectiveness (see De Board, 1978). As a result of their early start and popularity, psychodynamic theories became central in shaping OB theory and, hence, the design of organizational development (OD) interventions that are still widely used today. Consistent with a psychodynamic perspective, a primary purpose of these interventions was to make people's unconscious behaviors, feelings, and observations conscious (De Board, 1978). For example, training groups (or T-groups, encounter groups, sensitivity training) were one of the original OD interventions rooted in psychodynamic theory. Their aim is to make participants more skillful in identifying and carrying out the behaviors needed to do their job, by increasing participants' awareness of how they react to others and how their reactions affect other people.

Many of the well-known OD interventions even today (e.g., T-groups, survey feedback, process consultation, team building) are based on the idea of helping workers to bring their internal processes into consciousness: be they perceptions, attitudes, the interpersonal effects of behavior, or the impact of workplace events. The psychodynamic principles that generated these interventions may no longer be mentioned in most OB textbooks, but the techniques that they inspired still remain firmly entrenched (e.g., Moorhead & Griffin, 2001; Robbins, 2005).

Not surprisingly, the applied behavior analysis (ABA) and OBM literatures do not commonly deal with OD interventions of this kind and do not advocate their use (e.g.,

Daniels, 2000). These intervention techniques are difficult to interpret from the point of view of direct contingency management, which is the bedrock of OBM (e.g., Daniels, 2000; Rummler & Brache, 1995). However, as is noted in Hayes et al. and Stewart et al. (this issue), Relational Frame Theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001) makes ABA and OBM better able to address such techniques and furthermore specifies manipulable events that can be used to alter the functions of these verbal processes. In doing so, RFT is not suggesting that cognition, emotion, or other private actions are causal (Hayes & Brownstein, 1986), rather, it is maintaining that the historical and current contextual events that regulate verbal behavior need to be considered, in order to understand and influence overt human action. Such a view leads to unexpected and empirically testable predictions, which in turn open pathways for OBM to expand its influence in OB and OD. The early research, based upon RFT, suggests that by effectively manipulating these historical and contextual processes, people may be more amenable to the contingency management applications that OBM has identified, which could serve to enhance the successes of those strategies.

The Nature of Psychological Flexibility

In previous articles, in this issue, we argued that RFT suggests that common, problematic, psychological processes are built into language itself. In this article, we will describe in more detail the elements of this unhelpful, contextually controlled pattern of behavior, and we will illustrate more useful behavioral patterns that are promoted through Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999). ACT is one of the primary interventions that is designed to undermine those problematic processes and to establish healthier and more effective ones.

A model of human effectiveness and ineffectiveness is shown graphically in Figure 1. The nexus of this model is *psychological flexibility*, which is defined as contacting the present moment as a conscious human being, and, based on what that situation affords, acting in accordance with one's chosen values (Hayes, Strosahl, Bunting, Twohig, & Wilson, 2004). We will unpack this definition behaviorally in the sections that follow. As we will discuss, flexibility guides people in persisting with *or* changing their actions, in accordance with the values-based contingencies that they contact, when they are willing to experience the present moment. To examine this concept, we now discuss the six key processes that are involved in psychological flexibility or inflexibility.

Cognitive Defusion

As was described in the introductory article for this issue (Hayes et al.), the general utility, relational nature, and arbitrary applicability of human language tends to strengthen and broaden the behavior regulatory role of language and cognition in too many contexts. The social verbal community arranges contexts of literal meaning by treating relata as if they "stand for" related events. This has complex effects. For example, we can refer to events one the one hand, but on the other, fearful thoughts can elicit fear. These literal contexts are further strengthened by demands for verbal reasons, by the language of emotional and internal control, by the ubiquity of contingencies that support say-do correspondence, by the importance of coherence and "being right" as a generalized reinforcer for verbal and cognitive actions, and by the general utility of relational framing, especially temporal (e.g., if…then relationships) and evaluative (e.g., "that is bad") frames in problem solving, among other factors. Cognitive fusion is the

result. *Cognitive fusion* refers to the domination of verbal stimuli in the regulation of behavior, to the detriment of other needed sources of behavioral regulation, based on the failure to notice the on-going, contextually controlled relational processes that give rise to these dominant verbal stimuli.

The inverse of cognitive fusion is cognitive defusion. In RFT terms, this involves altering the functional context (C_{func}) of verbal events so that an ongoing relational process (e.g., the relational actions that establish the verbal meaning of events) is noted in the moment and C_{func} control is altered or diminished. For example, in the context of defusion, people may notice their thoughts or feelings and evaluate them as negative (a relational process), but these thoughts and feelings no longer evoke life restricting avoidance (i.e., the function of that relational network has changed). Cognitive defusion is a key component of a behavioral interpretation of what is usually termed "mindfulness" (Fletcher & Hayes, in press). In essence, defusion involves techniques that increase one's observation of relational operants (e.g., temporal or evaluative relations), as they occur in the moment, as a method of diminishing the behavior regulatory impact of stimulus events as structured by that relational action.

In part, as a result of cognitive fusion, private experiences become entangled in temporal and evaluative relational networks and are needlessly targeted for change. Because various thoughts, feelings, bodily sensations, memories and so on can be predicted and evaluated, these behavioral bystanders to effective action themselves become the central targets for change. The resulting pattern of experiential avoidance (Hayes et al., 1996) means that needless time and energy is put towards trying to think, feel, remember, and sense the "right" or "good" things as opposed to the "wrong" or

"bad" things. Unfortunately, this very effort is rule-governed (e.g., "if I do this, then I will not think that") which means that the process regulating change efforts in this area contain stimuli (e.g., verbal descriptions of feared consequences, descriptions of difficult feelings) that tend to relationally evoke the very events that the rule is meant to eliminate or reduce.

Thus, for most people, the internal events that most profoundly constrain our psychological flexibility are ones that we do not want to experience: unhappy memories, unpleasant thoughts, scary feelings. These often rapidly, comprehensively, and automatically divert our responding away from the present moment and towards getting rid of, changing, or minimizing these unwanted internal events. Such inflexible responding to these types of experiences is unlikely to promote values based action in a situation, as it cannot come under sufficient control of the current situation. To act more flexibly with regards to these unwanted psychological events (i.e., to "let them go" *or* delve into them, depending upon what best serves one's values in the situation), people can respond to them with acceptance, which interacts with defusion to help undermine the domination of verbal stimuli in determining behavior.

Acceptance

Another of the six processes of flexibility, acceptance involves contacting the automatic stimulus functions of psychological events, without acting to alter (e.g., change, minimize, avoid) those functions (Hayes, 1994). In promoting acceptance, ACT argues that no matter how toxic one's private experiences might be (e.g., "I can't cope with this"; "I'm useless at my job," panic attacks), it will not directly lead to mental illness and poor performance. Rather, it is only when people hold this unhelpful content

in a specific context that it will have harmful emotional, physiological, behavioral, and cognitive effects. This harmful context is one in which people (1) are *cognitively fused* with, or (as just discussed) completely buy into, the literal meaning of their cognitive content (e.g., "if I have the thought , 'I am a fool', then I am really a fool"); that is, they cannot see this content as an essentially automatic, idiosyncratic reaction to certain types of events; and, (2) they *avoid the experiences* that are occasioned by their relational actions (e.g., anxiety) (Bond & Hayes, 2002).

A key aim of ACT is to break down this context of cognitive fusion and experiential avoidance so that people's actions are not primarily regulated by inflexible derived relational responding, but more by contact with ongoing, direct contingencies of reinforcement linked to human values (Hayes et al., 1999). To this end, ACT shows people how to contact their psychological content in a context of defusion and acceptance: wherein, people merely notice (i.e., do not engage in an attempt to control) their thoughts and feelings as a continuous flow of psychological material; and, they are willing to observe even their painful material without needless escape or avoidance. In this context of defusion and acceptance, people treat their thoughts, feelings, memories, and physiological sensations as automatic chatter, or more technically, as the ongoing classically and operantly conditioned responses that they are.

The two processes of psychological flexibility discussed so far involve undermining the behavior regulatory domination of human language and cognition. The next two processes involve changes in how events are known.

Contact with the Present Moment

Cognitive fusion does not merely lead to inflexibility and avoidance. It also entangles people in temporal and evaluative relational frames. This makes sense, as relating conceptual events in these ways are central to all forms of human verbal problem solving; but, on the downside, it means that humans increasingly lose contact with the present moment: both in terms of flexible contact with the immediate physical and social environment, as well as contact with one's own psychological reactions. Defusion and acceptance help to foster such contact, and they are aided to this end by procedures that expand the range, sensitivity, depth, and purposive regulation of stimulus control processes so that people can better "attend" to broad or narrow ranges of stimulus events, as the current context demands. This increase in contact with the present moment is the third key feature of psychological flexibility.

Self-as-Context

The fourth aspect involves contact with a transcendent sense of self. ACT and RFT are both based on the idea of expanding the meaning of self-awareness from a behavior analytic perspective (Hayes, 1984). Skinner defined self-awareness in terms of a kind of behavioral reflexivity:

> There is a ... difference between behaving and reporting that one is behaving or reporting the causes of one's behavior. In arranging conditions under which a person describes the public or private world in which he lives, a community generates that very special form of behavior called knowing... Self-knowledge is of social origin. (1974, p. 30)

In Hayes (1984), it was argued that reports of behavior (e.g., stating what one sees, hears, does) must be from a consistent viewpoint (e.g., one's own perspective or

another person's perspective) in order to be useful to the social / verbal community. Several sets of contingencies were described to account for the emergence of this consistent perspective:

> First, words such as "here" and "there" are acquired which do not refer to a specific thing but to a relation to the child's point of view. … Second, children are taught to distinguish their perspective from that of others. … and finally… a sense of locus emerges by a process of elimination or by metaphorical extension. Suppose a child can give correct answers to the question "what did you x?" where "x" is a wide variety of events such as eat, feel, watch, and so on. The events constantly change. In our terms, the seeing and the seeing seeing change. Only the locus does not. Thus, the one consistency between the word "you" in such questions and behavior is not seeing or seeing seeing but the behavior of seeing that you see from a particular locus or perspective. Thus, in some real sense, "you" *are* the perspective. (pp. 102-103).

This analysis clearly anticipated the development of the concept of deictic frames (those based on demonstration from the point of view of a speaker such as I/You or Here/There) in RFT research. Deictic relational frames lead to "I/HERE/NOW" as an important sense of self. Conceptual and empirical work on deictic frames and sense of self has expanded both in RFT and ACT laboratories (Barnes-Holmes, Hayes, & Dymond, 2001; Barnes-Holmes, Hayes, & Gregg, 2001; McHugh, Barnes-Holmes, & Barnes-Holmes, 2004). In the definition of psychological flexibility given earlier, "consciously contacting" the present moment refers to contact made in the context of "I/HERE/NOW."

This sense of self is important for acceptance and defusion, because it is a perspective that is stable, and such stability and security can help people willingly to experience difficult cognitive content (e.g., fear). This stable sense of self can be experienced as "transcendent" or "spiritual", because the limits of this deictic repertoire can not be consciously contacted by the individual engaging in it (Barnes-Holmes, Hayes, & Dymond, 2001; Barnes-Holmes, Hayes, & Gregg, 2001; Hayes, 1984; Hayes, Wilson, & Gifford, 1999). Thus, this sense of self makes moments of psychological flexibility (e.g., persisting even when doing so creates discomfort) less aversive and threatening, and thus more likely.

Conversely, inflexibility is fostered by attachment to a conceptualized self: the rigid network of verbal relations that are *about* an individual, particularly those events that are evaluative, dispositional, or predictive. A conceptualized self is something to be right about and so the verbal network must change before flexibility is possible. Unfortunately, many of the events in a network of self conceptualization are not changeable. For example, the thought, "I was victimized by my mother and I'll be damned if I will let my boss do it again", suggests that a resolution requires either a new boss or a new childhood. Neither of which is likely.

The purpose of psychological flexibility is to allow individuals to contact, take in, and evaluate their current circumstance, so as to act *effectively* in that situation. We must define "effective" from an ACT perspective and in doing so, we specify the two remaining key processes that constitute psychological flexibility.

Values

In ACT / RFT, values are defined (Hayes, Strosahl, Bunting et al., 2004) as chosen qualities of action patterns (e.g., being a good manager and partner) that people can work toward, but that they cannot arrive at once-and-for-all (i.e., people have to work constantly at being a good worker and partner or they cease to be one). As such, values involve verbally constructed contingencies that function as formative and motivative augmentals (Hayes et al., 1999). To the extent that people act according to *their* chosen values, they are living an effective life, *for them*. Thus, in accord with the functional contextual philosophy of science that underlies both ACT and RFT (Hayes, 1993), judgments regarding personal workability and effectiveness need to be made against *a priori* statements of values.

As suggested by the inter-relations among the six processes (as shown in Figure 1 and discussed below), defusion, acceptance, and so on are not ends in themselves. Rather, they appear to help people to see situations more clearly and to be more flexible in acting in accordance with their values. Thus, living a valued life provides the raison d'etre for defusing, accepting and contacting the present moment as a conscious person. All of these processes are mutually facilitative: they are aspects of a larger behavioral pattern, namely, psychological flexibility.

In the absence of values, purposive action tends to be dominated by pliance and counter pliance (e.g., being right or looking good in the eyes of others), or by avoidant tracking and seeking primary reinforcers, even if doing so is not in one's long term interests. Such contingencies contribute to psychological rigidity and inflexibility, and they are more likely to guide people's actions, when their values are vague and poorly articulated (Bond, 2004). An important goal of ACT, therefore, is not only to promote

acceptance and defusion and, hence, contact with the present moment as a conscious person; but, it is also to have individuals, and indeed organizations, clarify and specify their values. When people do not behave according to their values, they risk denying themselves contact with positive reinforcers that foster good mental health, and effective action in a given context, such as work (Bond, this volume). Reinforcement deprivation often results when people avoid difficult psychological experiences and the values-consistent actions that occasion them (Wilson & Blackledge, 1999), and thus once again all aspects of this model interrelate.

Committed action

Finally, ACT encourages the development of larger and larger patterns of values-driven action, since it is only as larger units are developed that self-control emerges (Rachlin, 2002). Generally this is done through processes that are familiar to those in OBM: the development of concrete goals in specific areas and behavior linked to those goals that are more involved, broader, and longer term. The goal is to construct behavioral patterns that begin to work for individuals, not against them.

Each of these six processes relates to, and interacts with, all of the other processes, as is represented by the lines connecting all points in Figure 1. Some of these relations involve shared functional properties: the three vertical lines are all of that kind. Acceptance and defusion both undermine destructive language processes; self as context and contact with the present moment both involve increasing effective contact with the here and now; values and committed action both involve building out the positive aspects of language into patterns of behavior change. These six processes can also be chunked into two larger groups: Acceptance and mindfulness processes involve the four processes

to the left of Figure 1, while commitment and behavior change processes involve the four to the right.

Psychological Flexibility and ACT at Work

Psychological flexibility, and its promotion through ACT, has primarily been discussed in terms of mental health (see Hayes & Strosahl, 2004); however, the implication that flexibility may help people be sensitive to, and contact, contingencies of reinforcement that bear on chosen values makes its usefulness to the work setting clear. If people value doing well at work (even if it is just to get paid), then greater psychological flexibility increases their sensitivity to performance-related contingencies of reinforcement in their work context, since they have more responses available for contacting these contingencies. Put more succinctly, in the context of work, flexibility allows people to learn how to do their job more effectively and to have better mental health (in particular, through greater contact with values-centered contingencies of positive reinforcement) (Bond, this volume). As we now discuss, research is beginning to examine, and its findings support, the hypothesis that this individual characteristic can inform organizational behavior.

In the introductory article of the present issue, we summarized the positive results from a worksite-based randomized study on the impact of ACT on stress, mental health, and worker innovation (Bond & Bunce, 2000), as compared both to a wait-list control group and a behavioral training program that taught workers how to reduce stressors at work. Consistent with the ACT model, process analyses demonstrated that ACT produced its improvements by increasing psychological flexibility, not by changing the content of people's thoughts (i.e., from "I'm worthless" to "I am a capable person").

Indeed, there was no significant pre-test/post-test change for the ACT group in terms of cognitive content. We also reported similar results for a randomized controlled trial that targeted burnout in drug and alcohol counselors (Hayes, Strosahl et al., 2004), and for other studies in occupational health (Dahl et al., 2004; Folke & Parling, 2004).

We have conducted a number of additional ACT-related trials that are relevant to OBM interests. None is yet published, and some are not even presented, but given the purposes of the present special issue it seems worth summarizing what has been found.

In one study, 60 drug and alcohol counselors were randomly assigned either to a six-hour ACT workshop or to six hours of training on current policies in employee assistance programs (Varra, Hayes et al., 2005). The next day, both groups were put into a six hour workshop on evidence-based treatment practices in drug addiction, focusing particularly on advances in pharmacotherapy. At the end of the second day, those in the ACT group admitted to significantly *more* barriers to implementing these treatments (e.g., co-workers would not approve), but they literally believed these barriers to a significantly lesser degree, and they were significantly more willing to try the new procedures. At a three month follow up, those in the ACT condition reported a large increase in referrals of their clients for treatment by empirically-supported pharmacotherapy while the control subjects did not. In other words, ACT made these workers more willing to learn and in fact later to use what they had learned.

In a second study (Gifford et al., 2005), the same approach was taken for training drug and alcohol counselors in Motivational Interviewing (MI). In this study, all participants received a day long MI workshop, but it was preceded by one of three courses: a half day ACT workshop, a workshop designed to increase therapists'

motivation, or by a control course focused on recent developments in the treatment of substance abuse. In this study, actual behavioral measures were taken of the learners' ability to competently conduct an MI interview, pre, post, and at a three month follow up. Relative to the control condition, those in the ACT group conducted such an interview more competently at post and follow up, and further, they did not do so by allowing ACT concepts to slip into their MI intervention (Pierson et al. 2005).

A study by Bond (this issue), discussed briefly below, also showed that workers higher in psychological flexibility were subsequently better able to learn; in this case, a new computer program that was important in carrying out their job. In addition, those people higher in flexibility had better mental health and more often met or exceeded their work performance targets.

In another study, drug and alcohol counselors were given a continuing education workshop on an empirically supported group therapy approach and then were randomly assigned to an acceptance-focused supervision condition to help participants overcome emotional barriers to using the newly learned method, or to a no treatment control group (Luoma et al., 2005). Those in the acceptance-focused supervision condition showed significantly higher levels of adoption of the new treatment method at a three month follow up than did those in the control condition.

To investigate further how ACT may produce benefits such as these, Bond and Flaxman (2005) compared the effectiveness of two worksite interventions against a waitlist control group. One of the interventions was an ACT program and the other was a cognitive-behavior therapy (CBT) program that attempted to change the form and frequency of people's unwanted or negative cognitive content. Three month follow-up

results indicated that both ACT and CBT significantly improved people's mental health, but, consistent with these distinct approaches, they did so principally through different mechanisms: by improving psychological flexibility and reducing negative cognitive content, respectively. This study, along with one by Flaxman and Bond (2005), found evidence that, from post-test to a three month follow-up, ACT also reduced the frequency of negative cognitions. However, this reduction in frequency did not function as a meaningful mechanism of change (which would be predicted by ACT and RFT).

Taken together, all of these studies suggest that worksite ACT interventions make employees not only more healthy but more willing and able to learn and perform effectively. It does not seem to matter whether or not what is learned is, itself, similar to ACT. Motivational Interviewing seems somewhat similar, but group therapy, learning a new computer program, and referring for pharmacotherapy are not. Furthermore, ACT appears to produce its beneficial effects, as a result of increasing psychological flexibility and not by reducing negative cognitive content (even though this does decrease, as a byproduct).

There is also evidence from panel studies for the importance of acceptance and values-based action in the workplace. Using the Acceptance and Action Questionnaire (AAQ; Hayes, Strosahl, et al., 2004) as a measure of psychological flexibility, Bond and Bunce (2003) showed that higher levels of this individual characteristic predict, one year later, better mental health (using self-report) and improved job performance (using objective, behavioral measures) among telephone call-center operators in a UK financial organization. This effect was seen even after controlling for three other variables that are

traditionally linked to work-related mental health and performance: locus of control, negative affectivity (Jex, 1998), and job control (Terry & Jimmieson, 1999).

Theories of occupational health and performance (e.g., Emery & Trist, 1960; Frese & Zapf, 1994; Hackman & Lawler, 1971; Karasek, 1979), and the research that investigates them (see Terry & Jimmieson, 1999, for a review), identify the importance of job control in encouraging effective performance and health. Job control is defined, herein, as a perceived ability to exert some influence over one's work environment in order to make it more rewarding and less threatening (Ganster, 1989). Findings from this study (i.e., Bond & Bunce, 2003) suggested that greater levels of psychological flexibility at Time 1 increase the association between higher levels of job control at Time 1 and better mental health and performance one year later at Time 2.

This strengthening effect for flexibility is consistent with our hypothesis that this behavioral pattern increases performance, learning, and mental health (Bond, this volume). Workers with more flexibility may be better able to notice the degree to which they have control in a given situation (i.e., be more sensitive to such contingencies of reinforcement); this greater defusion and acceptance also mean that they have more responses available for contacting these contingencies, because they are not very avoidant; thus, psychological flexibility helps people to use the job control that they have to enhance their performance, mental health, and ability to learn at work.

A longitudinal study by Bond (this issue), mentioned above, tests more directly the hypothesis that psychological flexibility enhances both performance and learning. In particular, job control and flexibility (measured using the AAQ) were assessed immediately preceding a one week training program (Time 1) that taught call centre

employees how to use an entirely new software system that they would, thereafter, need to use to accomplish their work: processing customer applications, requests, and accounts. How well they mastered this software was assessed one month after the training program (Time 2) when they had to use it, in a formal testing environment, to solve a complicated, mock customer account problem. Results at Time 2 showed that employees with greater levels of psychological flexibility and job control at Time 1: learnt to use the software more successfully (as assessed by the test); more often met or exceeded their performance targets over the previous month; and, had better levels of mental health. In addition to these main effects, these two variables significantly interacted; such that, higher levels of flexibility enhanced the learning, performance, and mental health benefits that greater levels of job control produced.

Findings from the studies just discussed suggest that psychological flexibility is linked to important aspects of organizational behavior (e.g., job performance, mental health, learning). Given this, it is encouraging to know that we can enhance this behavioral pattern in a work environment, and it will have beneficial impacts on organizational behavior (Bond & Bunce, 2000; Bond & Flaxman, 2005; Flaxman & Bond, 2005; Hayes, Bissett, et al., 2004). How we can do this is discussed below. First, however, we want to distinguish flexibility from other individual difference variables that are often mentioned in the OB canon.

Psychological Flexibility and Other OB Relevant Individual Characteristics

There are a number of individual characteristics that are far more established in the OB literature than is psychological flexibility. Even the relatively recent concept of emotional intelligence can already be found in key OB text books (e.g., Robbins; 2005).

There are two reasons, though, why we believe that flexibility informs OB, over and above these more recognized variables.

First, there is a growing amount of research that shows its ability to predict outcomes after controlling other individual characteristics that are relevant to the health and success of organizations. Second (and perhaps most importantly), its roots in functional contextualism and behavior analysis, which emphasize the prediction *and* influence of behavior, make it particularly useful for developing OB interventions. We discuss both reasons, in turn.

Incremental Validity of Psychological Flexibility

A plethora of individual characteristics are thought to impact people's ability to work effectively. Some of the most ubiquitous ones are type-A behavior pattern, locus of control, negative affectivity, emotional intelligence and the proposed five factors of personality, amongst others (see Chamorro-Premuzic & Furnham, 2005). If psychological flexibility is an important determinant of health and productivity at work, it must be shown to have incremental validity over these stalwarts of OB.

Although research has only just begun to examine this issue, the initial research is promising. For example, Bond and Bunce (2003) showed, in the two-wave full panel study mentioned above, that the AAQ longitudinally predicted mental health and an objective measure of job performance, over and above, and more effectively than, negative affectivity (Watson & Pennebaker, 1989) and locus of control (Rotter, 1966; Spector, 1988).

Donaldson and Bond (2004) compared the relative ability of psychological flexibility and emotional intelligence to predict mental health, physical ill-health

symptoms, and job satisfaction. Mayer and Salovey (1997; Mayer et al ., 2000, p. 401) define EI as 'the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in self and others'. As can be seen, EI is similar to psychological flexibility in that it emphasizes people's sensitivity to, and contact with, their internal events. The similarities end there, though, as EI maintains that experiential awareness is a means for more effectively controlling one's emotions, and those of other people (Donaldson & Bond, 2004); for psychological flexibility, experiential awareness is, of course, a means for acting in a more values-directed manner and for that to happen most effectively, internal events need to be accepted and not controlled.

Given this important distinction between flexibility and EI, it is interesting to note that Donaldson and Bond (2004) found that both constructs showed significant bivariate correlations with mental and physical health symptoms; however, when one was controlled when the other served as a predictor (in a path analysis), only psychological flexibility (as assessed with the AAQ) significantly predicted these two outcomes; EI [assessed by the Trait Meta-Mood Scale (TMMS; Salovey et al ., 1995] no longer did. These findings indicate that flexibility accounts for the relationship that EI has with these health outcomes (presumably as a result of being psychologically present and able to notice one's internal events); but, whether or not people accepted these internal events (as advocated by flexibility) appears to be more closely related to these health outcomes than does understanding, regulating, and reasoning with them (as EI advocates).

The five factor model of personality, or the Big Five, (Goldberg, 1990) attempts to identify the most important aspects of personality (Judge, Heller, & Mount, 2002), and

these are hypothesized to be: openness to experience, conscientiousness, extraversion, and neuroticism (known by the acronym, OCEAN). Research indicates that the Big Five are significantly related to both job performance (see Barrick & Mount, 1991) and job satisfaction (see Judge et al., 2002). We are aware of only one study that has examined whether or not psychological flexibility predicts OB outcomes, over and above the Big Five. This was a cross-sectional study conducted by Bond (2005), and it showed that flexibility predicts mental health, job satisfaction, turnover intention, and absenteeism (over the past year), after controlling each of the five factors of personality specified by Goldberg (1990). Although a causal relationship cannot be inferred from these data, they do show, most importantly for our argument here, that psychological flexibility accounts for significant variance in important OB outcomes, and this variance is distinct from what is captured by the Big Five. These data increase in importance when the intervention research is considered, because unlike the Big Five, psychological flexibility is readily modifiable.

Though in its relative infancy, research is showing that psychological flexibility, with its emphasis on both acceptance and values-driven actions, is a unique and important individual difference construct that significantly predicts outcomes that are relevant to OB: job performance, absenteeism, mental health, and physical health symptoms.

Psychological Flexibility as Operant Behavior

The second reason we believe that flexibility is applicable to OB is that it is a concept that stems from functional contextualism and behavior analysis, which emphasize the prediction and *influence* of behavior (Hayes & Brownstein, 1986). From a behavior analytic perspective, a useful individual difference variable is not just one that

predicts overt and covert behavior, it must also be one that a) can be controlled by manipulable contextual variables, and b) that maintains a reliable relationship to other dependent variables when that is done. We believe that all of the elements that constitute psychological flexibility are actions that can be controlled by contextual antecedents and consequences, while maintaining a positive relationship to applied outcomes.

Typically, individual differences discussed in the OB literature are not entirely viewed as contextually regulated actions. Instead they are viewed as traits, mental states, dispositions, personality variables, and the like. They are often identified purely by correlational evidence and the contextual features that regulate these events are unspecified. As a result, it is not clear how to modify, say, locus of control, negative affectivity, or type A behavior patterns; nor is it clear that were you to do so the pre-existing correlations with other events would continue. Generally, OB views these variables as mere predictors of ability and person-job or person-organization fit. Used as such, these variables have been relatively successful in advancing the areas of selection and assessment; however, we are none the wiser as to how to *improve* those variables in an attempt to enhance organizational effectiveness.

In contrast, psychological flexibility constitutes an individual characteristic that OB professionals can actually influence, and the model specifies how to do so. As the brief, group-based, worksite training programs described above show, you can enhance flexibility by increasing defusion, acceptance, mindful contact with the present moment and values-directed action. Furthermore, when that occurs you see improvements in mental health, likelihood of innovation, burnout or other outcomes that were correlated with psychological flexibility during baseline. As a result, process analyses indicate that

these programs produce these beneficial effects in a fashion that fits the ACT / RFT model. These mediation results are also consistent with evidence from the clinical literature, which shows that interventions aimed at increasing psychological flexibility, improve mental health and behavioral effectiveness, because they improve acceptance and values-based action [see Hayes, Luoma, Bond, Masuda, & Lillis (2006) for a review].

We acknowledge that there are only a limited number of published studies that demonstrate that, by manipulating flexibility, one can improve behaviors that enhance organizational effectiveness. Nevertheless, limited although the studies may be, we are not aware of research that shows rigorously that *any* other specific individual characteristic intervention can be reliably and successfully targeted by specific interventions and as a result improve OB outcomes. As a result, even in this early stage of the research programs there are empirical reasons to contend that it may be useful for organizations to enhance psychological flexibility, in order to improve effectiveness at the individual, group, and organizational level. We now briefly discuss the way that they can accomplish this.

Enhancing Psychological Flexibility through ACT

At the individual level, flexibility has been successfully promoted through Acceptance and Commitment Training in the Workplace (ACT at Work; Bond & Hayes, 2002), which is a slightly modified version of ACT as used in the psychotherapeutic context (Hayes et al., 1999). Consistent with its use in clinical settings, the aim of ACT in the workplace is to teach people the following psychologically flexible strategies: cognitive defusion (i.e., observing the arbitrary, automatic and programmed nature of

thinking); the acceptance of, rather than the avoidance of, challenging events and the private experiences (e.g., anxiety) they stimulate; mindfulness and conscious contact with the present moment; and, the ability to define values and engage in actions that are consistent with those values. These skills are taught (and have been evaluated) in a group setting, in the workplace. In our usual implementation of the technology, trainees receive three, three-hour sessions: two on consecutive weeks, and a third three months later. This format allows people to practice ACT techniques in their work environments and troubleshoot problems in the final session.

ACT at Work uses a variety of methods to improve psychological flexibility, and these involve the use of metaphors, acceptance (or mindfulness) exercises, problem solving, and promoting 'values driven action'. [Protocols detailing these techniques, the order they are used, and their rationales can be found in Bond (2004), Bond and Hayes (2002), and Flaxman and Bond (2006).] Here, we will briefly describe three such techniques, and in doing so, we further clarify what is meant by terms such as 'cognitive defusion', and we show the action-oriented nature of psychological flexibility.

Promoting Cognitive Defusion and Acceptance through Metaphor

The following is a defusion/acceptance exercise that is adapted from Bond (2004).

> "How would you finish the phrase, 'blondes have more…'? (Most trainees will invariably say '…fun'.) That's right! Most all of us will have heard this statement many times before. So much so, in fact, that it is practically impossible not to finish the statement, once I, for example, have begun it. It comes to mind automatically, without effort. Now, raise your hands if you really believe this statement to be true. Okay, let's try another one. How would you finish the

phrase, ‘Jack and the…’? (Again, most participants would say ‘…beanstalk’). Absolutely, again, we’ve heard this statement so many times before, we could hardly not complete it, once someone has begun it. So, raise your hands if you believe that there was a chap called Jack who really planted a bean, which became a giant beanstalk that he climbed up? Okay none of you believed both of these statements, but you could all finish them.

This phenomenon provides two important insights into our thoughts. The first is that, given our own unique histories, we can’t help but to think certain thoughts in particular situations; for example, ‘blondes have more…*fun*’! You can’t help it: the word just appears from out of nowhere, as if by magic. The second insight is that just because thoughts pop into our heads, it doesn’t then mean we have to *believe* them; indeed, we don’t even have to *not believe* them, in fact, we don’t even have to give them much consideration. The reason is that thoughts pop into our head due to our past training and experiences, and not necessarily due to important particulars of the current situation, and it is these particulars that we should really attend to and let guide our actions: not the same broken record that our mind plays on certain occasions.

Our parents, siblings, films, TV, books, and the rest of society can teach us that blondes have more fun, and jack had a giant beanstalk, and we will never forget these ridiculous statements: they will instantly enter our minds in certain situations; likewise, because of our own unique histories, more personally relevant statements will enter our head in certain situations. For example, you might always think: ‘I can’t cope with this!’ when faced with certain types of

problems; but, as with ‘blondes have more fun’ and ‘Jack and the beanstalk’, we don’t have to believe them to be true; and, because we don’t have to believe them (or not believe them), we don’t have to try to change them, or get rid of them, either.”

Enhancing Defusion and Acceptance through Mindfulness

Metaphors, such as the one just described, constitute important arrows in ACT’s therapeutic quiver. There are other, powerful ways in which defusion and acceptance are promoted, and perhaps one of the most central (and difficult) ones is an experiential exercise called “leaves on the stream.” In this core exercise, participants are asked to sit comfortably, close their eyes, and spend a few minutes merely noticing (without trying to change) their breathing, as they inhale and exhale; they are then invited to become aware of any bodily sensations that they have and to observe these without trying to change them. If they notice their minds wandering away, they are asked to return their attention gently to just observing their breathing (or their bodily sensations). Trainees are then asked to imagine themselves sitting next to a gentle stream in a beautiful valley, with a line of leaves floating continuously down the stream. They are instructed to notice when thoughts or images come into their awareness and to imagine placing each one on a leaf and watching it float down the stream.

After this exercise, we ask trainees what their experiences of it were, and they inevitably report that they repeatedly noticed that their mind had wandered off. In response, we emphasize that bringing oneself back to the present moment (i.e., by noticing and letting go of one’s thoughts and images) is an important aspect of this mindfulness exercise. In addition, we note that, with practice, it should allow them to

develop a tool that they can use to prevent "unhelpful" thoughts from interfering with behaving effectively. As discussed above, how an individual defines effectiveness depends upon their values, and the following technique allows people to identify those values, and their associated goals.

Values Clarification

Towards the end of the second training session, the trainer distributes the *Values Assessment Ratings Form* (see Figure 2) and reads the instructions at the top of it. After discussing it, participants are given approximately 15 minutes to begin completing this form. We find that this is often a powerful exercise for people, as more than a few have not sat down and explicated the values that they have, and many have not considered the relative importance of each value, never mind their rank order. On a number of occasions, we have found that this exercise, perhaps more than any other in our protocol, has had the greatest impact on changing the way that people prioritize their lives.

Enhancing Psychological Flexibility In Order To Improve Organizational Development

Organizational development is a term that is used to describe a collection of planned-change interventions, based upon behavioral science principles, for improving organizational effectiveness (French & Bell, 1999). We believe that one such principle, psychological flexibility, can meaningfully inform this process. Whether the OD intervention is aimed at the team, inter-group, or organizational level, successful change involves *identifying valued directions* towards which to move (e.g., trust and openness amongst team members), and being *willing to experience the psychological events* that

could function as barriers along the way (e.g., fear of failure, dislike of other team members).

It may be fairly readily apparent how ACT techniques, described above, could be used in team building and sensitivity training, in order to change attitudes, stereotypes, trust, and openness. This is, in part, what the Hayes, Bissett, et al. (2004) experiment, noted above, accomplished. They showed that an ACT group intervention reduces the stigma and prejudice of drug abuse counselors towards their patients; and, this improvement occurred because the training decreased the impact that thoughts and feelings had on their believability and behavior regulatory functions. Likewise, it may be easy to see how training psychological flexibility can improve leadership and management skills that then improve team productivity. What may be more difficult to comprehend is how enhancing psychological flexibility can improve 'harder', or less employee focused, OD interventions that attempt structural, strategic, and process changes. As a result, we briefly describe how it may enhance these types of interventions, and we do so in the context of a financial organization that was assessing its distinctive competencies, in order to define its core business and, thereby, increase its overall success.

Even though this OD intervention targets an organization's strategy, it is verbal human beings who are taking the strategic decisions and then implementing the necessary changes. As a result, the processes of values identification and defusion that define psychological flexibility are crucial to this OD program, and so it would be helpful to train them for use in that context. To this end, we integrated elements of ACT into the early stages of this intervention. Specifically, during a three day retreat, the

organization's management team heard their analysts' reports on various aspects of their business and of the UK banking industry. These managers were then invited to discuss and identify the shared ethical, business, and human resources values that they wanted their organization to stand for, using a specially tailored version of the values assessment rating form shown in Figure 2. One of the shared values that they identified was the expansion of their retail banking portfolio so that it focused not just on their traditional product of mortgages but grew to include a wider share of the UK's current (or bank) accounts that are aimed at individual customers. In addition to this value, they also specified "valuing people". Operationally, this meant that they would respect their employees, which would be demonstrated through providing better work organization (e.g., more job control and workplace support), and by recognizing employee achievements more comprehensively (e.g., not only financially but also through training and development opportunities).

It is not terribly unusual for organizations to identify their values. What may be more unique is that ACT-based OD encourages top managers to rank their values in order of importance. This, in itself, is something we find that managers do not usually do; instead, they are often driven by the unarticulated assumption that all values are of equal importance. Such a view, though, presents them with a situation that is unrealistic and unworkable and, which can result in the organization successfully living few, if any of its values. Also fairly distinctive to an ACT change program is that managers are asked to specify goals that move the organization towards its values (e.g., training managers how to provide job control to their subordinates).

Most uniquely, however, an ACT OD intervention teaches managers to distinguish between external barriers to accomplishing their values-based goals (e.g., developing banking products that attract people) and internal barriers. OBM has developed very effective strategies for overcoming the former barriers (e.g., see Rummler & Brache, 1995). It has not focused, however, on addressing the latter, verbal barriers to change. This is where ACT can assist; and, to this end, managers are taught various acceptance and defusion exercises and are shown how they can use these to move through internal events that may get in the way of pursuing their organization's values and goals. In essence there are always two sets of contingencies running in parallel: one direct and one verbally sustained. ACT and RFT allows OBM to expand to address both.

We normally spend three hours training managers how to overcome these internal barriers to organizational change. To begin with, we invite them to recognize from their own experience how engaging with or mulling over their worries and fears prevents them from problem solving and performing as successfully as they can. Importantly, we teach ACT techniques to help them to identify their worries and fears so that they can distinguish engaging with those thoughts from problem solving. In particular, we have found that the mindfulness exercise, *soldiers in the parade* or its variant *leaves on the stream* (see Hayes et al. 1999, pp. 158-162 for details), is helpful for training managers how to defuse from their thoughts, feelings, images, and memories and thus not struggle, control, or analyze them. In this way, their problem solving behaviors can come under more effective control of the situation that requires analysis. We have also found that the *blondes have more…* exercise, described above, is useful for promoting defusion.

In order clearly to show how defusion skills promote values-based action, we have found that the *passengers on the bus* metaphor (Hayes et al., 1999, pp. 157-158) is particularly helpful. In this one, managers are asked to imagine that they are the driver of a bus that is full of passengers (some of whom are scary looking). They represent the driver's thoughts, emotions, memories, urges, etc. The idea is that the scary looking passengers will often try to commandeer the bus and demand that the driver takes the bus in directions that may not serve the driver's valued directions. Our attempts to struggle with, or placate, these passengers tend to be counterproductive, in that to do so, we must either hand over control of the bus to the passengers or stop the bus to struggle with them. Participants are encouraged to view the direction of the bus as representing their (and their organization's) chosen values, and the "unhelpful" passengers as the psychological barriers that are inevitably encountered along the way.

Whereas data are beginning to show that it may be beneficial to enhance psychological flexibility through individual-directed interventions, we do not yet have data as to the degree to which this individual characteristic can improve the effectiveness of OD programs (e.g., in the way just described). We suggest, though, that this variable, which stems from modern behavior analysis, may offer a theoretical approach that is consistent with the values of OBM and which it can use to develop an empirically-based account of, and interventions targeting, these internal events. In this way, OBM may become even more effective than it is already, by ensuring that complex verbal repertoires do not adversely moderate (and indeed help to enhance) the effects of its traditional intervention strategies.

ACT, RFT, and Behavior Analysis

RFT is one of the most researched basic theories in behavior analysis over the past decade (Hayes et al., 2001). ACT is one of the most influential and successful (Hayes, Masuda et al., 2004) forms of clinical behavior analysis. Despite that fact, the breadth of the data in support of these developments, and the many years this research program has been underway, it has to be admitted that the mainstream of behavior analysis has been extremely tentative in its embrace of these new developments. As one reviewer of the RFT book noted, this is "not your father's behavior analysis."

It isn't. This is one way that behavior analysis looks when a) functional contextual assumptions are taken to be the philosophical bed rock of behavior analysis, as indeed was arguably the case with B. F. Skinner himself (Biglan & Hayes, 1996; Hayes & Brownstein, 1986; Hayes, Hayes, & Reese, 1988; Hayes, Hayes, Reese, & Sarbin, 1993), and b) the implications of a modern behavior analytic approach to language and cognition are allowed to work down to the ground floor of psychological interventions.

It seems ironic that the wheel is still in spin as to whether OBM would rather expand by embracing traditional mentalistic concepts that are already thoroughly ingrained in organizational psychology (Wiegand & Geller, 2005) or to do so by turning to modern behavior analysis itself. In some ways, there is already more scientific evidence in support of the latter than the former approach. Superficially, it should be an easy decision. Only time will tell whether the sense of strangeness that is felt when ACT and RFT are encountered by traditional behavior analysts prevents OBM from embracing what behavior analysis itself has produced.

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Figure 1. The ACT / RFT model of psychological flexibility and inflexibility.