RECONSTRUCTING THE SELF FOLLOWING MINDFULNESS TRAINING: A BEHAVIORAL MEASURE OF SELF AS STORY, PROCESS AND PERSPECTIVE

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ABSTRACT

There are increasing pressures upon individuals to be self-determining. Within workplaces, employees are increasingly expected to demonstrate leadership that is proactive, empowered, intrinsically motivated and goal-directed. This paper explores how individuals think about themselves in response to these demands. We explore how individuals must increasingly see themselves less in terms of a set of identity labels and characteristics and more in terms of a process of ongoing self-construction. We call the ongoing behavior of constructing and reconstructing the self 'selfing'. We review relevant available measures and then propose a new, qualitative and behavioral measure of three forms of self: self-as-story, self-as-process and self-as-perspective. We conclude by presenting results demonstrating changes in selfing as a result of a brief mindfulness intervention (MBSR). Mindfulness courses appear to produce significant changes in the way that people think about themselves and this is likely to have substantial impacts upon their behavior in the workplace and elsewhere in their lives. Our measure appears to provide a relatively efficient way of measuring profound changes in self-understanding without relying upon self-report instruments.

In this paper we briefly describe a new qualitative measure of the way in which people construct a sense of self. The way we construct a sense of our own identity, understand and define ourselves, herein referred to as "selfing" behavior, has a substantial impact on every other aspect of our lives including our workplace effectiveness. But to date, selfing has been difficult to measure. Self-report approaches are prone to social desirability effects and often people are unaware of their own selfing behavior. Our approach is a behavioral measure based upon natural language interviews and thus could be applied to any context where people verbally describe themselves and their responses to situations.

The behavior of constructing a sense of self is at the center of much of psychology and indeed of much of Western culture. Most therapeutic approaches aim to develop comfort with the self while humanistic psychology and, more recently, positive psychology aim to help people develop a more authentic, actualized sense of self. Consumer culture also reinforces self-determination. There is a strong normative belief that more choice is always better and that we should be able to decide for ourselves between more and more alternatives (Schwartz, 2004). In parenting, therapy and even gender roles, we are asked to actively construct meaning, be comfortable in our own skin and decide for ourselves instead of relying upon tradition or authorities (Kegan, 1994).

The workplace makes identity demands that are at least as strong or stronger than other contexts because it contains strong and sustained reinforcers and punishers for particular ways of making meaning and deciding. Employees are increasingly expected to demonstrate leadership that is authentic to their 'core selves' (Avolio & Gardner, 2005), to be proactive (Parker, Bindl, & Strauss, 2010), empowered (Argyris, 1998; Campbell, 2000), autonomously motivated (Deci & Ryan, 2000) and agentic in pursuing their goals. In all these contexts, we are socially reinforced by being able to clearly state our

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preferences and values; and for being able to act assertively in the pursuit of those preferences even in the face of the social disapproval of others. Those who are unclear about who they are and what they stand for; or who rely upon the social approval of others in the workplace are often seen as less capable for leadership and management roles.

All these changes amount to a broad trend towards being socially reinforced for being able to articulate one's *own* preferences and act in ways to obtain those preferences. But some contexts make even more complex identity demands: People are asked to 'transcend their egos' (Ardelt, 2008; Bauer & Wayment, 2008; Niemiec, Ryan, & Brown, 2008) and be even more 'dialectical' (Basseches, 2005; Chirkov, 2011), 'postmodern' (Johnson & Cassell, 2001; Palmer & Dunford, 1996), and systemic (Atkins & Johnston, 2005; Johnston & Atkins, 2005) in their thinking – not just deciding for themselves but observing the processes of their unfolding sense-making (Kegan & Lahey, 2010). For example, in managing conflict, people are requested to hold their interests and beliefs in suspension while they deeply appreciate multiple alternative perspectives and meanings regarding the situations in which we find themselves (Isaacs, 1999; Jentz, 2007). And complex ethical dilemmas often demand that we transcend simple self-interest and have the capacity to understand the systemic interactions of self and other. Increasingly, self-awareness is defined less as having a fixed sense of identity and more as being able to observe one's own ongoing construction of self even when stressed or threatened.

In effect, this is about increasing self-awareness not just of broad preferences and characteristics but detailed responses to momentary changes in context. One way to understand these changes in epistemological demands is in terms of an evolution of different ways of knowing the self and its relationship to the world. In this paper, we explore different ways of understanding this evolving self in response to social reinforcers for being self-determining. These questions have been considered most

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actively in the field of adult development (e.g. Dawson-Tunik, Commons, Wilson, & Fischer, 2005; Kegan, 1994; Kegan & Lahey, 2010). We begin by briefly presenting a stage theory of adult development that describes the evolving self (Kegan, 1982, 1994) before describing how this approach is limited. We then present a behavioral perspective on the evolving self that informs the design of a qualitative measure that can be applied to natural language products to measure different ways of knowing and using the self. We conclude by piloting the use of this measure before and after an 8 week mindfulness training course (MBSR; Kabat-Zinn, 1990) and demonstrate how the measure is sensitive to significant changes in selfing behavior resulting from the course.

ORGANISMIC APPROACHES TO THE CONSTRUCTION OF SELF

One approach to understanding the evolution of a sense of self throughout adulthood is to hypothesize a series of epistemological stages. Stage theories of psychosocial development have been a part of psychology since its inception and a number of theories have addressed stages of ego (Loevinger, 1976) or identity development (Erikson, 1980) during adulthood. More recently there has been a flowering of neo-Piagetian theories of adult cognitive development ranging from those that emphasize cognitive skills (Commons, 2008; Dawson-Tunik, et al., 2005; Fischer, 1980) through to those that emphasize more the intersection of beliefs about the self with increasingly complex intrapersonal and interpersonal behaviors (Beck & Cowan, 1996; Kegan, 1994; Wilber, 2000).

However, while the former theories of the evolution of cognitive skills appear to have some empirical support (e.g. Dawson-Tunik, et al., 2005), work in psychosocial development appears to have often been more conceptual than empirical. In part, this is because of the difficulties associated with measuring increasingly complex epistemologies. Kegan's constructive-developmental theory emphasizes changed beliefs about the self and involves three main adult stages which he most recently

labels the socialized mind, the self-authoring mind and the self-transforming mind (Kegan & Lahey, 2009). Specifically, the move from being enmeshed in the opinions of others (socialized stage) to being relatively less dependent upon their opinions (self-authorship) is characterized by increasing internalization of a belief that one is an active agent in constructing one's experience (Kegan, 1994). This belief then in turn has intrapersonal and interpersonal consequences as illustrated in Figure 1a. Similarly, the move from the self-authoring stage of development towards the self-transforming stage is characterized by a belief in the self as both a product of experience and also a dynamic process of continuing co-creation and re-creation (Figure 1b).   In essence, since the self is the lens through which all stimuli are experienced, changes in self-concept impact upon all facets of experience including affective and inter-personal dynamics.

Insert Figure 1 about here

Kegan's primary contribution is to have described cultural and systemic reinforcers for becoming more self-authoring or self-transforming, at least in the West. However the mechanisms for growth in 'mental complexity' are inadequately specified within Kegan's theorizing. Kegan proposes that growth in mental complexity requires a 'subject-object shift' where "Any way of knowing can be described with respect to that which it can *look at* (object) and that which it *looks through* (the "filter" or "lens" to which it is subject)… A way of knowing becomes more complex when it is able to look *at* what before it could on *look through*" (Kegan & Lahey, 2009, p. 51; italics in original). In essence, the 'subject-object' metaphor is simply an elaboration of the visual metaphor embodied in the word 'insight'. It is a re-

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description of the way we appear to be able to learn to *see* more of our own mental processing. Our approach, described below, seeks to go beyond metaphorical re-description and ultimately describe insight into the self in terms of verbal behavior and fundamental theories of human learning.

Another limitation of all stage theories of adult development is that the multidimensional complexity of the stages creates great difficulties for operationalizing and testing these psychological constructs. For example, the "subject-object interview" (Lahey, Souvaine, Kegan, Goodman, & Felix, 1988) is a qualitative measure of Kegan's theory of epistemological development. The coding manual is 433 pages long and even after extensive practice and tuition, there are frequently wide disparities in coding. Dawson-Tunik (2006) has argued that these measures confound what is known with how it is known and that what is needed is a content-free measure of the complexity of cognitive skills. While this work is extremely promising, it fails to account for changes in the way that the self is understood and enacted across the adult lifespan. Our aim, therefore, is to create a measure of changes in selfing that can be readily and rapidly taught, and that produces more reliable scoring than the subject-object interview or the range of other approaches to measurement of epistemological stage based on self-report instruments.

A third major motivation behind our work is to create an approach to understanding changes in selfing that is behavioral rather than mentalistic. Stage theories essentially reify one's stage of development as an inner mental cause of behavior. This approach suffers from two main problems. First, it leads to a view of selfing as relatively insensitive to context. For example, Kegan argued that, irrespective of the context in which we find ourselves, we have "a center of gravity" that reflects a particular way of being in the world and to which we return independent of context (xxx check all this and possibly include quote from footnote). But such an idea appears to be based more on a striving for

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theoretical parsimony rather than any evidence. Even cursory examination of our own experience rapidly reveals that the degree to which we are dependent upon extrinsic and/or social reinforcers, or the degree to which we are able to observe our own thoughts and feelings, varies markedly depending upon context.

Finally, in addition to be inadequately sensitive to context, mentalistic stage theories are also tautological. The cause of behavior is postulated to be some inner mental quality (e.g. self-authorship) but the evidence for that inner mental quality is the very same behavior. So the question "why did the person behave that way" is greeted with "because they were self-authoring"; and the question "how do you know they are self-authoring" is greeted with the response "because they behaved that way" (Hayes & Brownstein, 1986).

So in summary so far, we have suggested that stage theories of the evolving self offer a rich description of changes in meaning making that *can occur* across the adult lifespan. Furthermore, theorists such as Kegan (1994) have identified reinforcers within the social community for being more self-determining and even more self-transcendent. However, Kegan's theory of the reasons for these changes is more descriptive than explanatory and distracts research from determining the effects of particular contexts and consequences upon specific selfing behaviors. As a result of these limitations, particularly limitations associated with measurement, Kegan's theory, while descriptively rich, has become relatively isolated from empirical work within psychology more broadly. Our aim in this paper is to describe a more contextual-behavioral approach to the developing self (Hayes & Gregg, 2000) and, more importantly, an approach to measuring the behaviors associated with talking about the self in different ways and in different contexts.

Self is such an important construct within psychology that there are of course numerous alternative theories that we might have examined in a longer paper. One such theory that is of particular interest to those working in organizations is self-determination theory (Ryan & Deci, 2002). Although there is insufficient space to examine this theory in detail here, we see nothing substantially inconsistent between our approach and that of self-determination theory. However we see our emphasis as slightly different. In self-determination theory, Deci, Ryan and their colleagues emphasize the extent to which actions are perceived to be autonomous and self-determination is defined as endorsing one's own actions (Ryan & Deci, 2006). We are emphasizing a capacity to both create and respond to the self flexibly and dynamically as opposed to with rigidity. In a sense, our emphasis is on the cognitive capabilities whereas theirs is on the motivational context in which action occurs.

A CONTEXTUAL BEHAVIORAL ACCOUNT OF CONSTRUCTING SELF

From a behavioral perspective, to "self" is to discriminate one's own behavior. A prototypical form of this behavior can be found in pigeons who are able to 'report' on their previous behavior by differentially pecking keys (Skinner, 1953) . But in humans, this capacity to discriminate and classify one's own behavior is vastly more complex because of our verbal capacity. As children we all receive multiple exemplar training in reporting our own behavior. We are continually reinforced for being able to appropriately report "I want …", "I am …", "I know …" and so on. According to Skinner (1976, p. 164), the self is "a repertoire of behavior imparted by an organized set of contingencies". That is, we construct a sense of self in response to the functional demands of social interactions. From Skinner's perspective, our 'knowing' is a function of environmental contingencies rather than any internal 'force', 'drive' or 'striving' towards self-actualization: "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. It is only when a person's private world becomes important to others that it is made important to him" (Skinner, 1976, p. 35). From this perspective, the increasing reinforcers for behaving autonomously (or at least reporting that one is behaving autonomously), effectively support and encourage more complex ways of knowing.

However, while Skinner's conceptualization of self relied entirely upon operant processes, a more recent contextual behavioral approach known as Relational Frame Theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001a) provides an account of the verbal behaviors associated with creating and maintaining a sense of self. Relational Frame Theory views all human cognition as the act of relating events or experiences (Hayes, et al., 2001a).   Language arises through learning and deriving relations between words and events, where 'events' are any experience of the world or of the self. The infinite generativity of human language arises from our capacity to infer relations between anything, even arbitrary symbols, and to make use of many different types of relation, such as evaluative (better/worse), hierarchical (part of/includes), conditional (causal/if … then) and temporal (before/after) relations. This unique human ability to relate arbitrary cues allows us to step outside the realm of direct sensory experience, formulate a past and a future, and use those formulations to create meaning and solve problems. However, this ability also creates human suffering because people, for example, remember unpleasant experiences, compare their situations to those who are better off, and fearfully anticipate possible futures.

From the perspective of Relational Frame Theory, the evolution of a sense of self corresponds to learning to appropriately use the relational terms I/YOU, HERE/THERE and NOW/THEN. Consistent with Skinner's account, these "deictic" (Y. Barnes-Holmes, McHugh, & Barnes-Holmes, 2004) frames are thought to be abstracted from multiple exemplar training responding to questions such as "What are

you doing now?", "Where are you going then?", "What do you want?" and so on. Unlike the other types of relating described in the previous paragraph, deictic relational frames must be abstracted from a particular point of view: The individual child must begin to notice and abstract the experience of the I/HERE reporting on experience that is distinct from YOU/THERE. THERE is anywhere other than HERE and HERE is always from this point of view (Hayes, 1984). It is easy to see how difficult it is to learn this sort of deictic relational framing by noticing how even young children frequently make errors of perspective taking. A young child might mistakenly report what they ate for breakfast when asked what their brother ate (Hayes, 1984) or may confuse left and right when looked at from across the table, or may mistakenly believe an absent observer would know where a hidden doll is located because they themselves know (Kegan, 1994). It takes repeated exposure to social contingencies to successfully apply the terms I and YOU.

Relational Frame Theory thus sees the evolving self as the process of bringing one's verbal constructions of self into increasingly complex verbal relations with other aspects of experience (D. Barnes-Holmes, Hayes, & Dymond, 2001). Critically for the measure we introduce next, RFT proposes three functional uses of the term "self": self-as-story, self-as-process and self-as-perspective (Torneke, 2010).

Self-as-Story

Self-as-story is the conceptualised self. During childhood we learn very quickly that it is helpful to be able to describe ourselves to others. The social environment provides numerous reinforcers for being able to consistently describe our characteristic preferences, capabilities and experiences. Being able to conceptualise and describe our qualities and characteristics allows others to predict our behaviour, and provides a concise and greatly simplified summary of our history of experience. Self-as-

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story is the sort of behaviour we engage in when we meet someone new and wish to describe ourselves. It is a description of our characteristic behaviours ranging from job roles to personality characteristics in particular contexts. Over time we learn to internalise our conceptualised selfing. The contextual behavioural approach sees this behaviour as functionally identical to talking about the self except that, once internalised, we can have a different private conceptualised self to that which we publicly display.

In order to allow ourselves and others to predict our behaviour it is critical that our conceptualised self is a) coherent and b) reasonably stable over time. A conceptualised self that is incoherent is less predictive. For example if a child says they don't like broccoli but they do like vegetables we are quick to point out that a broccoli is a vegetable and that their preferences (qualities of themselves) are inconsistent and unhelpful for the person providing a meal. Similarly, if at one meal the child says they like broccoli and at the next they say they don't, it is equally unhelpful in terms of predicting the child's behaviour. Verbal relating can easily support even such relatively simple behaviours becoming complex self-categorisations. For example, over time, parents may describe broad patterns of eating behaviour as either healthy or unhealthy and quite rapidly children learn to describe themselves as either healthy or unhealthy.

But while having a conceptualised self is extremely functional and reinforcing. It can also be very limiting. The internalisation of the need for coherence provides stability through time, but it also provides significant limits on what a person feels they can say or do. For example, a person who sees themselves as an introvert may avoid social situations that they believe they will find stressful, living in an increasingly insular world. Furthermore, our conceptualised self is just a tiny, abstracted remnant of the totality of our experience. As such, it tends to be vastly simplified and does not capture the full richness of who we are. It refers to the sense of self that a person has abstracted from their experience

over time either through noticing their own behavior or through listening to others' descriptions of their behavior. In the workplace, self-as-story might refer to our job attitudes, the things we characteristically like and dislike. It might refer to our roles and responsibilities and our place in a network of social relationships.

So in summary, our self-as-story is our verbal (private or public) description of who we are - our identity labels, memories, plans and descriptions that define us. As an abstraction of past experience, self-as-story is not about current experience but about the past. In RFT terms it is THERE-THEN rather than HERE-NOW. It is important to recognise that this sense of self refers to the content of our thinking and talking not the process of thinking and talking itself which is clearly HERE-NOW.

Self-as-Process

By contrast self-as-process refers to the experience of self in this present moment. It is the continuous unfolding dynamic of thoughts, feelings, sensations, memories, images occurring HERE-NOW. Self-as-process behaviour is also highly socially useful. Statements like "I am happy" or "I want an ice-cream" or "My stomach is hurting" provide useful and predictive information to others. Over time, such statements about the self also serve useful private functions. Being able to monitor our current state is the basis of successful self-regulation. For example, identifying how one feels in the present moment is predictive of the contextual changes that might produce desired changes in feeling.

Self-as-process descriptions refer to the HERE and NOW of experience. They are still verbal descriptions of experience rather than the experience itself, and are thus somewhat abstracted. But compared with self-as-story, self-as-process is less an abstraction of experience and response over multiple instances and contexts, and more about the particularities of experience within a particular context. As such, self-as-process descriptions are socially predictive but in a different way than self-as-

story. Self-as-process is more particular to a particular context and less abstracted but as contexts change it may not be predictive. To say "I am happy" may be highly predictive of what will happen in the next instance or in a very similar context in the future, but what about other contexts? To say "I am generally a happy person" abstracts across contexts.   So self-as-process descriptions are by definition sensitive to context because they describe one's current state in context. This makes them less rigid.

Self-as-Perspective

Unlike both self-as-story and self-as-process, self-as-perspective refers to the perspective from which experience is being observed rather than the content that is being observed. Within RFT, self-as-perspective is understood as that aspect of our 'selves' that has always been present despite all our changing experiences and stories of ourselves. It is the bare awareness, the context of our experiencing (Hayes, 1984) and the knowing that presumably exists even before we are verbal. Metaphorically, we can understand self-as-perspective as a torch, that shines a beam of light (self-as-process) on objects in our visual field (self-as-story) (Harris, 2009). In this metaphor, self-as-perspective is the source of light (i.e. awareness itself).

Torneke (Torneke, 2010, p. 107) provides a vivid description of the content-free nature of self-as-perspective: "We cannot observe this perspective in itself. It can never become an object for us to observe. We can talk or write about it, just as I am doing now, and we can observe the consequences of being able to take this perspective. We can make observations from a specific perspective or locus, but we can never observe this locus or perspective as such. Of course, this is rather obvious, because from which perspective would we observe it? All we have is I-here-now. And whatever we observe, it simply cannot be this locus, as that is the vantage from which we observe it." Self-as-perspective is difficult to talk about because it is not content that can be observed but the process of observing itself. It is the point

of view or perspective from which we view our experience. In ACT this is seen as the one aspect of ourselves that remains the same throughout our lifetimes. When I was five I witnessed experience from my point of view just as I do right now.

So we have described three senses in which we engage in 'selfing' behaviour. We describe our abstracted qualities and experiences as story, we describe our current here and now experience as process and we have a sense of the continuity of a point of view from which we experience the world. The contextual, behavioral perspective of RFT thus sees different forms of selfing behavior as functional responses to social contingencies. We learn to report our preferences, history and characteristics because the social world values predictability and coherence. For example, the first author of this manuscript remembers having to pretend to have particular opinions at the age of 12 because his father seemed to expect that he had a point of view on what he liked and did not like. Similarly, we learn to report out our current experience because it allows social communication and cooperation. And while most verbal environments (with the exception of meditation retreats and philosophy seminars) do not explicitly reinforce talking about ourselves as bare awareness or perspective, we *are* continuously reinforced for correctly discriminating our "own" experience (I/HERE) from that of others (YOU/THERE) and for having a stable perspective from which we view experience.

From this behavioral perspective, the epistemological beliefs underpinning Kegan's theory of the evolving self (Figures 1a and 1b) are just increasingly complex self-as-story. Self-as-story provides coherence and predictability, but it suffers from rigidity. Adopting an observing approach to self (self-as-process and self-as-perspective) increases contact with the direct contingencies of experience rather than one's verbal abstractions regarding experience and thus increases context-sensitivity and flexibility.

How might we describe the movement between self-as-story and more dynamic, context-sensitive modes of selfing? Defusion is "the recognition of thoughts, feelings and bodily sensations as passing events without buying into the literal content of the temporal and evaluative language that accompanies these experiences" (Fletcher, Schoendorff, & Hayes, 2010). Subjectively, the experience of defusion feels like 'having' thoughts and feelings rather than 'being' them. Metaphorically a gap is created between the thinker and the contents of thinking, and in this gap there is the possibility of more effective noticing and more deliberate choice of response. The opposite of defusion is fusion. "Fusion is the process whereby certain verbal functions of events exert strong stimulus control over responding to the exclusion of other directly and indirectly available psychological functions" (Wilson & Dufrene, 2008, p. 55). When a person is closely identified with a particular self-as-story (e.g. "I am not intelligent therefore I will not be able to do this") we can see a particularly destructive form of fusion. By contrast, when they are able to notice their moment to moment experience (self-as-process) or even notice themselves noticing (self-as-perspective), they are not under the control of verbal statements about themselves and are more likely to be able to respond functionally to the context.

In summary, from a contextual, behavioral point of view perspective taking is conceptualized in terms of deictic relating and an increasing ability to defuse from our thoughts and feelings is associated with increased flexibility of response. To do research in this area, and to promote psychological flexibility and perspective taking in clients, we must know how to measure these capabilities. A number of self-report inventories have been used to measure psychological flexibility (Bond et al., 2011) and defusion (Gillanders et al., 2010). Implicit attitudes towards the self have also been assessed using the implicit relational assessment procedure (Timko, England, Herbert, & Forman, 2010; Vahey, Barnes-Holmes, Barnes-Holmes, & Stewart, 2009). However to date no measures of selfing behavior exist.

Consistent with its origins in verbal relating, the qualitative measure described next was designed to provide a behavioral measure of talking about the self.

A CONTEXTUAL BEHAVIORAL MEASURE OF SELFING

The aim of this study was to develop a qualitative coding methodology designed to measure perspective taking in natural language interviews. In this section we describe the broad design of the measure. In the following section describing out pilot study, we elaborate the measure by providing a series of coding examples and results drawn from interviews prior to, and following, a Mindfulness Based Stress Reduction (MBSR) course.

Our measure currently codes natural language events for eight main verbal acts: self-as-story [ST], self-as-memory-of-process [SMP], self-as-process [SP] self-as-perspective [SX], other-as-story [OT], other-as-memory-of-process [OMP], other-as-process [OP] and other-as-perspective [OX]. In the remainder of this section we describe and give examples in italics for each of the codes that we use in our behavioral measure of selfing. This description is a substantial abbreviation of the coding manual we are currently developing (Styles & Atkins, in preparation).

[ST] = Self-as-Story

This code refers to descriptive statements about the self based upon experiences **not** located HERE and/or NOW. As described previously, all self-as-story statements involve abstractions from experience.

- The prototypical self-as-story statement is a self-categorization in terms of role or personal characteristics:

    o *"I am not that sort of person, I am more of an introvert [ST]."*

    o *"I find I'm not judgmental about it now either [ST]."*

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- Sometimes self-as-story shows up literally as a historical statement regarding the self:
    - *"I was very much brought up to just try to figure out how to make it alright around me [ST]"*
- Self-as-story can also refer to the future, as in descriptions of goals or purposes:
    - *"its not the meaning of life, focusing on yourself, for me it's a focus elsewhere [ST]."*
- Self-as-story statements do not always explicitly mention the self, but where the context clearly indicates that the person is saying something about how they see themselves, we can code for self-as-story:
    - *"I think this experience comes from beyond the mind [ST]. So I actually don't think that you can explain it or relate it to anything [ST]."*

[SMP] = Memory of Self as Process.

This code refers to 'dead' process. Much of the time we spend reflecting on past experiences. This seems somewhat less rigid and abstracted than self-as-story but is still part of the story of identity and is less dynamic than self-as-process. This code is extremely common in the sort of interviews we describe below. Some examples include:

- *"My experience has been that I really tend to over-react in those situations [SMP]."*
- *"Most of the time I like it when that happens [SMP]."*
- *"I would not have been able to do that before [SMP]."*

Another form of 'dead' process is statements like "I think" or "I feel" that are really idioms. For example, consider the statement "I think I like to avoid conflict." While the portion "I like to avoid conflict" piece is clearly ST, the "I think" portion of this statement is merely a linguistic convention not

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a description of current process. We have ignored these 'incidental' self-as-process statements as they are sufficiently numerous to slow down coding and do not appear to be related to epistemology at this stage. This is an assumption and we intend to explore whether interesting patterns emerge in this code at a later date.

[SP] = Self-as-Process

This refers to any description of current experience of the self. The standard form is a description of a current thought, feeling, image or sensation. For example,

- o *"I can't remember [SP]"*
- o *"I don't really know what I mean [SP]"*
- o *"I don't know if I'm answering your question [SP]"*
- o *"it's hard to describe [SP]"*
- o *"[Long pause] I'm just trying to think [SP]."*

[SX] = Self-as-Perspective

Technically, self-as-perspective is not observable in text because it refers to a point-of-view from which experience arises, rather than the content of the experience. Anything that we can describe is by definition *not* self-as-perspective but the content which that perspective observes. However, for the purposes of this measure, we have used this label to refer to points where we could reasonably infer awareness of a self that is able to witness experience.

- The most common example of this sort of noticing is when a person describes the different parts of themselves and the relationships between those parts:

- o *"... part of me has negative thoughts and gives me these, part of me is giving negative messages and another part of myself is criticising those and analysing [SX] that and saying, 'Well that can't be wholly true,'"*

- Sometimes this code represents instances where a person clearly recognizes they are not the same thing as their thoughts. This process of recognizing thoughts as passing mental events rather than literal truths is called 'defusion' in Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 2011):

  - o *"But what's happened is I have thought those things but then I've thought, "No hang on, why are you thinking that, you weren't thinking that at all before this person approached you out of the blue [SX]",*

  - o *"And sometimes I think 'Hang on, just take a step back from this, you're a person who's lying in bed, you [laughs] should be asleep and you're thinking this set of thoughts, you can't do anything about them right now [SX].'"*

[OT] = Other-as-Story

Although our measures is primarily directed towards understanding changes in relationship to the self, a significant strength of our approach is the potential to explore how changes selfing impact upon the way that we relate to the selves of others. It is well known, for example, that those who are highly judgmental and categorizing regarding themselves are also more likely to be judgmental and categorizing regarding others (Williams & Lynn, 2010). As our model of ourselves evolves to become more flexible, it seems highly likely that our thinking regarding the selves of others will also evolve. The point that our model of ourselves is highly correlated with our model of others is mentioned but not adequately highlighted in most of the adult development literature. Thus we constructed a set of 'other'

codes to parallel those for self described above. Other-as-story refers to relatively rigid judgments or categorizations regarding the other.

- Most times we have coded OT where a person describes another in terms of particular characteristics that are relatively stable (rigid) and abstracted

    o *"My father could only accept the so called angelic side of me [OT]."*

    o *"Its so inconsiderate of him... [OT]"*

- Another way in which the other-as-story sometimes shows up in interviews is by comparison to the self

    o *"No one else is going to go home and spend their night thinking about how poorly that music went tonight [OT])"*

- Sometimes the other's content can feel slightly more dynamic than a simple categorization and approaches being a remembered process. For example, the following quote discusses the characteristic of responsibility of the other and the self

    o *"I think they're in an awkward position and it's their problem [OT], it's not mine [ST] so we haven't actually resolved it yet.")*

- The other is not always an individual, sometimes it can be a group, role or class of people

    o *"I know that a lot of psychologist's think this is just a load of crap [OT]."*

[OMP]= Other-as-memory-of-process

It is not possible for anyone to directly know the process of another however we make inferences about another's experience all the time. Typically this code is used where a person describes their perception of the experience of another:

- o *"My sister's just started the course [laughs] it's really interesting talking to her about it, she's coming at it with a different history altogether and she's sort of going through that thing of feeling she's doing it well or not well and that sort of stuff [OMP]"*

- o *"This teacher hadn't, you know I had done all the things I could to follow up for him [SMP] and he hadn't done it [OMP]."*

[OP] = Other as Process

This code is rarely used in interviews. It refers to the person making a statement about another's process right now.

- It can involve present moment statements regarding people not in the room

  - o *"I know that it's not up to the teacher to give the answer [OP]."*

- Other times this can refer to a statement about the interviewer

  - o *"You don't look as though you approve [OP]"*

[OX] = Other as Perspective

These codes are relatively rare in the transcripts we have coded so far. This is where the person refers to another in a way that acknowledges the part of the other that is able to observe or witness their experience. There are few situations in which this sort of description is functional in natural language however it is entirely possible that as people come to think of themselves more in terms of an observing self, they might come to see others in the same way:

  - o *"He's stepped back and started to recognise these different ways of seeing things [OX]"*

In addition to the coding themes described above, we have developed a variety of rules to make coding more effective and efficient. For example, when one idea is repeated within a sentence, we code it only once to both save time and also reflect more accurately the number of self-referential statements in a text. However, if an idea is repeated in a different sentence we code it as a new thought. Originally this decision was driven by the practical consideration that it is impossible to remember all previous ideas that have been expressed while coding. However, we think that repeating an idea in a new sentence is often done to lend emphasis to the idea and thus deserves to be reflected in the frequency of the relevant code.

A PILOT STUDY USING THE MEASURE: CHANGES IN SELFING AFTER AN MBSR COURSE

To illustrate the potential usefulness of the measure, we applied it to a series of interviews conducted before and after a Mindfulness Based Stress Reduction (MBSR) course. This course emphasized learning the skills of mindfulness, and thus could be expected to have some impact upon the way in which people see themselves and discuss aspects of their experience. This section of the paper is very preliminary and clearly requires a more extensive sample. However, it provides a useful illustration of the potential application of this measure to understanding changes in selfing in a variety of contexts.

Our working hypotheses for the pilot were that the MBSR course would result in the following effects. With regard to talking about the self we hypothesized:

a) The frequency of talking about self-as-story will decline as people orient more towards the present moment and less towards relatively rigid classifications of themselves.

b) The frequency of talking about self-as-perspective will increase as people increasingly see themselves as observers of their experience.

With regard to others, we hypothesized the following on the basis that changes in understanding of the self would be mirrored in changes in understanding of others:

c)   The frequency of talking about self-as-story will decline.

d)   The frequency of talking about self-as-perspective or self-as-process will increase.

Participants

Seven participants in an MBSR course volunteered to participate in the research following a request by the course facilitator at an initial familiarization session. Participants were informed that the research would involve 1 hour interviews before and after the course. This was a community sample with a range of reasons for attending the course (discussed at length in the interviews). All but one of the participants were women. The average age was 40 (Min = 27, Max = 53). All participants had received education to at least senior high school level and all but one were university educated. Participants were interviewed either in their own homes or in the office of the first author.

Interviews

Interviewees were told the purpose of the study was to better understand their hopes and aims for the course and to gather examples of how they made sense of their experience. The interviewee was told that the interviewer would be doing a lot of reflective listening and that their aim would be to "stand in your shoes" and "see the world through your eyes". Interviewees started by describing their general aims and reasons for doing the course. The body of the interview was based on the subject-object interview technique (Lahey, et al., 1988). Questioning was semi-structured with the primary intention being to explore how the context was understood in relation to meaning, what consequences were perceived as influencing behavior and how the interviewee knew about and evaluated their experience. Typical sample questions included the following:

- **Context and Meaning**
  - o What is the hardest/most challenging part of this for you?
  - o what made you the angriest, happiest, most satisfied, …
  - o What did that mean for you
  - o What might the situation tell you about yourself?
- **Consequences**
  - o what was the most important thing about that for you?
  - o what if it turned out well / what if it had gone badly?
  - o "How would it have been different for you if [the situation had been reversed] …?"
  - o What would be the costs/losses of the event or action for you personally?
  - o What was most at stake for you?
  - o What would be the consequences of that for you or for others?
- **Knowing and Evaluating**
  - o How would you know …, How would you decide …, What would tell you …, How would you judge….

RESULTS

We first report quantitative tests of the hypotheses for the study. We then explore possible reasons for these results by examining differences in the qualitative responses before and after the MBSR course.

Quantitative Results

Although it is possible to use the raw frequency of occurrence of each of the codes, this does not equate for length of the interview. If people talk for longer, then the frequency of each code will naturally increase. To control for this effect, we divided the raw frequency of each score by the total number of sentences in the transcript. Thus the Y-axis refers to the proportion of sentences with a given code in the figures below. With such a small sample, power was clearly very poor and less emphasis is placed on p-values than effect sizes in the following.

Contrary to our expectations, the frequency of self-as-story statements slightly increased following the course relative to the pre-course measures ($F(1,6) = 1.1$, $p = $ ns, $\eta_p^2 = .17$; Figure 1) while the number of self-as-memory-of-process statements was virtually unchanged ($F(1,6) = .61$, $p = $ ns, $\eta_p^2 = $

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.09). Similarly, the frequency of other-as-story or other-as-memory-of-process statements did not alter ($F(1,6) = 0.8$, $p =$ ns, $\eta_p^2 = .11$; $F(1,6) = 0.06$, $p =$ ns, $\eta_p^2 = .01$ respectively). Figure 2 depicts the pattern of results for self-as-story for the seven participants.

Insert Figure 2 about here

However, our primary prediction was confirmed: The frequency of self-as-perspective statements increased markedly as a result of the course ($F(1,6) = 14.6$, $p = .009$, $\eta_p^2 = .70$). All but one of the participants made use of self-as-perspective statements more frequently in the followup interviews than in the initial interviews (Figure 3). Although, non-significant, this effect appeared to be somewhat mirrored in an increase in the frequency of other-as-perspective statements about others ($F(1,6) = 2.0$, $p = .20$, $\eta_p^2 = .25$).

Insert Figure 3 about here

Qualitative Results

In summary, while there was no decline in self-as-story or other-as-story statements, there was a substantial increase in self-as-perspective and other-as-perspective statements following the MBSR course. To explore the significant differences in self-as-perspective, we present two case studies of participants talking about the same or a similar issue before and after the MBSR course. These case

studies provide extensive quotations to give a sense of the richness of the material and the way in which the codes are used in context.

Interviewee BC (50 years old, female, Pastoral Care Coordinator in a High School)

At the time of the interview BC, had only been in a new job for a short period and she was very concerned about maintaining a good reputation with the other teachers. She had come to the MBSR course primarily to manage and reduce her stress. During the pre-course interview she explored what it was like for her to face an evaluative and potentially embarrassing situation at school. She had been talking about how her father had been a Protestant minister and she believed this created a need for perfection within her, what she referred to as her 'good-girl voice'. She continually evaluated whether others approved of what she was doing, whether she was accepted and the fear she felt that she might be rejected by others if she made a mistake. Her pre-course interview was characterized by a great deal of self-as-story or self-as-memory-of-process. Much of the interview was spent describing her anxiety regarding being observed by others at work:

So for me once I ... start to become accountable and visible, I really have a reaction of over reacting really negatively in terms of myself [SMP]. ... I could be going along fine managing something and if [I am perceived] by people is at all negative the impact is awful [SMP]... Both the physical feelings and the mental thoughts and sometimes it is all I can nearly do to try and keep going along when that happens [SMP]. And as I've got older, ... it's got a stronger reaction ... [SMP].

Later in the interview she explored how this fear of being evaluated negatively by others showed up in strong bodily reactions during a recent specific experience of being observed by others:

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"... the whole school community was observing that. So afterwards instead of thinking

oh good that's done, I just, and it's hard to tell your thoughts because when that gets

going it's such a strong body reaction and I can't even clearly decipher my thoughts

[SMP]. But it is along the lines of its fear [SMP] and it's a fear that everybody thinks

that was bad [OT]…"

After the course, BC reflected on how her perspective had changed on her fear of being

evaluated by others:

"... the good girl voice is there but I think there's [also] something ... much more

grown up too … if I had to act it out it would be sort of like patting … [the good-girl

voice] on the head and saying, "You're fine just sit over there and it's fine to go and sit

over there [SX]." … It is not that there's no reaction by that part of me to the external

environment, but what I'm finding is the very thing that I was really looking for, and

that is the ability to deal with that differently… So the voice … is there, it's just not

running the show anymore [SX]."

What is so fascinating about this quote is that it is not the content of her experience that has

changed but her own response to her automatic thoughts regarding how she ought to be. In Kegan's

(1994) terms, she knows her world differently. No longer do thoughts carry the same power to hurt, they

are relative, subsumed by a larger sense of self that can contain but not be constituted by the thoughts.

Interviewee OT (53 year old female solicitor and partner in a law firm)

OT came to the MBSR course wanting to handle her panic attacks more effectively. She

described some of her symptoms when she discovered that she had made a mistake for a client:

So I see it, I can feel myself going into this panic and then it's like a veil comes down in front of my eyes [SMP]. I can see stars and things [SMP]. It's like a whole physical reaction to the fear that I've made a mistake [SMP] and that it's going to cause problems for a client. And once I go into that state, I can stay in that place for three days, where I kind of can't really function [SMP]. If I have to come to work, I'll come in. I'll deal with my work, but every minute that I'm not having to deal with other things, I'll be dealing with it in my head, and at night it'll be raging, uncontrollable kind of anxiety [SMP].

For OT, making a mistake is not just a matter of failing, it is a threat to her very identity:

... that challenges my whole way I deal with my life [ST]. I think that there's - there's a fundamental belief [SX] that if I ... know how - if I can manage and control my life, then I'll be safe [SMP]. And if I don't manage and control my life, then I have a more catastrophic view of my - of how my life will be [SMP].... when that veil starts to come down, it seems like there's no control [SMP]... I think it's, If I've made that mistake, how do I trust myself to do what I do [SMP]? How can I be a lawyer [SMP]?

Once again, after the course, OT still experiences some of the same thoughts and feelings, but there is also the beginnings of a new way of understanding her identity in relation to those thoughts and feelings. She is clearly still grappling with this new way of seeing herself, but what is new in the following quote is a different way of identifying herself as something different to, and bigger than, the mistake she has made.

So I think I can recognise and observe, to some extent, and understand and investigate and analyse, work out what is really going on [SMP]. It is the non-identification that is

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always (the hard part) – I mean, I think that is why it is so deep, because I feel like it is

me [ST]. I feel like the mistake is me [ST]. I am the mistake [ST]… To me, it's not to

over sympathise with the event, and try to be a little bit more the outsider of it rather

than seeing myself as the event and being in it [SX]…

In summary, both case studies illustrate the way in which personal dilemmas that were held together by a particular way of viewing the self became less rigid as a result of the course. However, our main purpose here is not to evaluate the MBSR course but rather to provide an example of the way in which our coding scheme can be used to reveal qualitative, behavioral differences in the way that people construct a sense of themselves in the act of describing their experience.

DISCUSSION AND FURTHER RESEARCH

Overall the measure appears to provide an informative index of changes in selfing behaviour resulting. The pilot study revealed that, in most cases there was the expected increase in self-as-perspective references. This appeared to be paralleled overall with a similar change in references to others. Of course, we do not have a control group so it is not possible to rule out this change had something to do with timing. However, given the diverse backgrounds, occupations and family situations of the participants, there were no particular time of year effects that would have impacted upon these results. Also without a control group, it is difficult to estimate whether some component of these changes was a result of the measurement process itself. The first interview might have prompted people to think more deeply about the issues that they were bringing to the MBSR course. This possibility cannot be ruled out until a properly controlled study is conducted. However, the quotes provided above reflect the changes that participants identified were targeted at specific skills, suggesting

that, at least from the participants' point of view, the changes were not simply the result of thinking about the issues at greater length.

So assuming that the MBSR course itself had these impacts, why might these results have arisen? Mindfulness training involves extended practice with 'stepping back' and observing one's own moment to moment experience. By definition, this involves observing the self. The repeated experience of bringing attention back from memories about the past or plans for the future, to the present moment, is in essence an instruction to move from self-as-story to self-as-process or self-as-perspective. In the context of an interview, we observed a heightened tendency to engage in self-as-perspective related talking but not a reduced tendency to engage in self-as-story. It is possible that this latter result arose because the context of the interview provided some reinforcement for abstracted and general statements about the self. Put simply, many of the interview questions pull for retrospective accounts of experiences and/or abstracted understandings of the self. In this context, one might argue that increased flexibility of responding results in a functional increase in self-as-story statements.

The course appeared to substantially reduce negative or limiting self-judgments however there was a corresponding increase in more positive, but nonetheless abstracted, statements regarding the self. This is an interesting finding in itself and one which supports the idea that self-as-story behaviour is highly functional in social contexts. Future iterations of the instrument may need to differentiate between self-statements that are seen as functional or dysfunctional to appropriately detect these differences although this may introduce a level of subjective judgment in the coding that would be undesirable. More extended research with larger samples, different interventions and different prompts for self-reflection are required to explore the generality of these effects. For our purposes, the study has

been useful in helping develop a measure that appears to be sensitive enough to behaviourally measure changes in psychological constructs that are notoriously difficult to measure and investigate.

Mindfulness courses obviously involve a new way of talking about the self. Novice participants may never previously have even thought of talking about their mind or thoughts as something other than themselves (e.g. "notice your mind wandering"). And they may never have heard experience being referred to as process rather than content. For example, meditation instructions are sometimes given with gerunds ('ing) words rather than imperatives (e.g. 'noticing the breath' rather than 'notice the breath') to encourage a sense of choice and the flow of experience. The reader may be wondering if the participants simply learned new ways of *talking* about the self in the present moment rather than *truly* changing their fundamental perspective on themselves. This objection only makes sense if we assume that there is some sort of 'true' understanding of the self. From the perspective of Relational Frame Theory, the way we talk about the self either internally or publically *is* the process of constructing and maintaining a self. And if a more expansive way of talking is maintained over time, participants will continue to learn new ways of relating the self to other, more complex and abstract aspects of experience.

In summary, we have argued that the modern world, and in particular modern workplaces, make demands upon people to change their relationship to themselves such that they become more self-aware and able to witness their own process. We have presented our initial formulation of a behavioral measure of selfing that offers a more precise and contextually sensitive approach than alternatives relying upon self-report measures or excessively complex and metaphorical psychological constructs. The measure potentially offers a new way of researching and understanding the most fundamental of psychological constructs, the way in which we construct a sense of ourselves and of others. This in turn

provides a basis for better understanding a wide range of research topics within psychology and

management.

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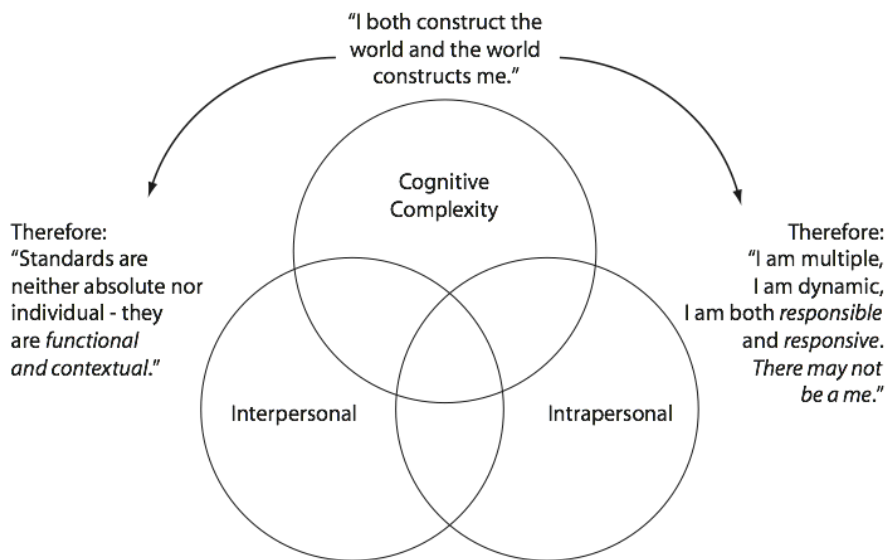Wilber, K. (2000). *Integral Psychology*. Boston, MA: Shambala.

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FIGURES
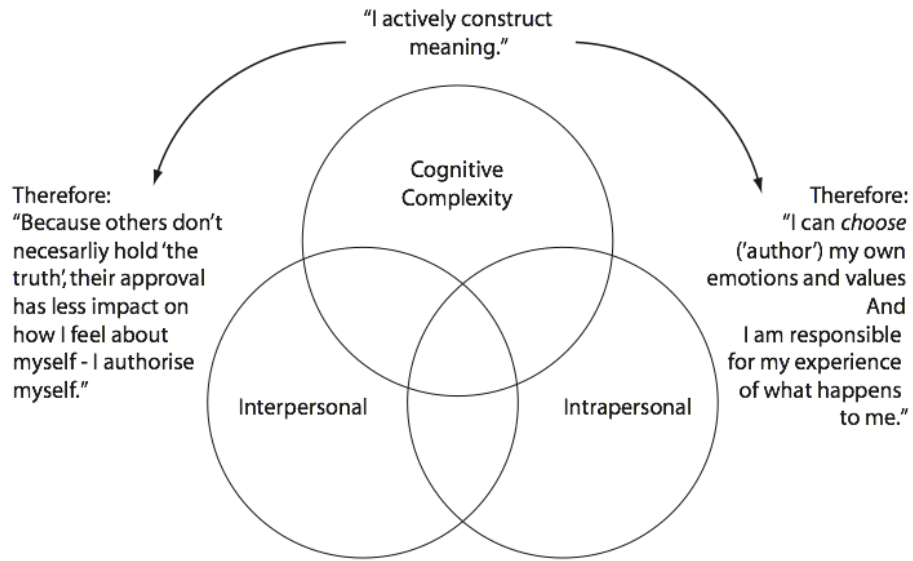
(a)

(b)

Figure 1: A diagrammatic interpretation of the a) "Self-authoring mind" and b) "Self-transforming mind" (Kegan, 1994) as beliefs that influence intra-personal and interpersonal behavior.
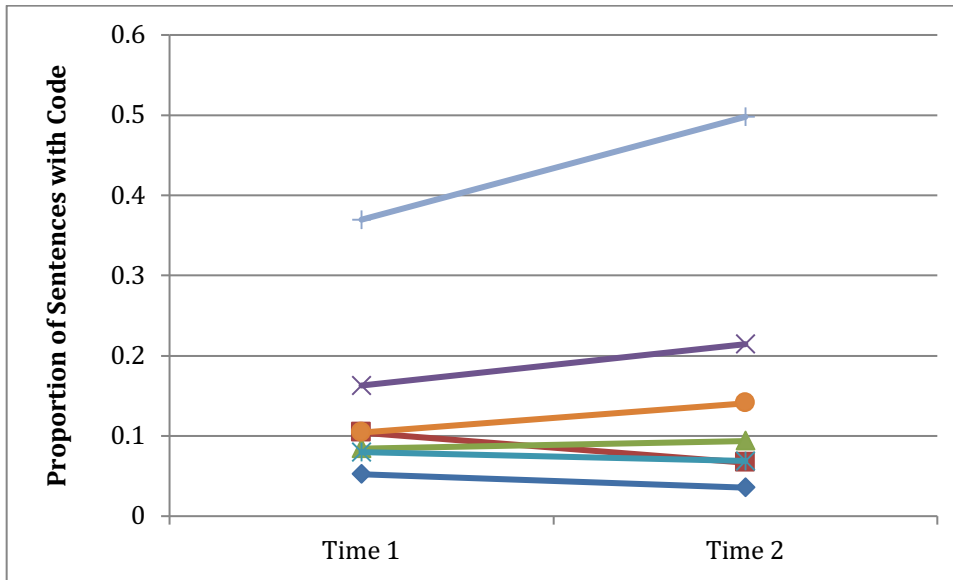
Figure 2: Self-as-story pre and post the MBSR course for the seven participants (xxx – move these to end along with earlier figures).
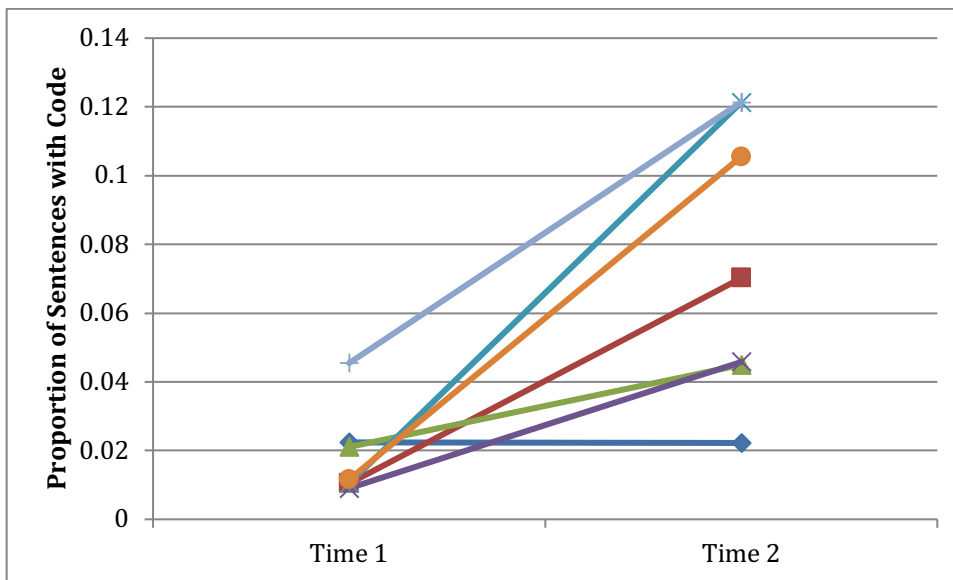

Figure 3: Self-as-perspective pre and post the MBSR course for the seven participants.