

Understanding and Treating Loss of Sense of Self Following Brain Injury: A Behavior Analytic Approach

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ABSTRACT

Loss of sense of self is a common experience among acquired brain injury survivors. It involves conscious awareness on the part of the survivor that she is somehow not the same person as pre-injury, and is associated with emotionally distressing negative self-evaluations of post-injury changes in functioning. Denial of changes is a relatively common response among survivors who begin to experience loss of sense of self. Relational Frame Theory (RFT) is a modern behavioral approach to language and cognition. From an RFT perspective, there exist three senses of self that are directly knowable by humans: the conceptualized self, self as an ongoing process of verbal knowing, and self as context. Loss of sense of self may be understood as a crisis of the conceptualized self. Treatment involves guiding the survivor both to adjust to post-injury changes in functioning and to develop a new self-concept. Acceptance is the critical factor in this process. Contact with self as context can facilitate acceptance by providing the survivor with an enduring sense of self that is distinct from her psychological content. From self as context, the survivor may know the changes in her functioning and self-concept without fear of psychological annihilation.

Key words: Acquired brain injury; loss of sense of self, denial, Relational Frame Theory, acceptance, self as context.

RESUMEN

Análisis y tratamiento de la pérdida del sentido de uno mismo tras daños cerebrales: una aproximación analítica-conductual. La pérdida del sentido de uno mismo es una experiencia común entre personas que han sobrevivido a daños cerebrales. Implica la experiencia consciente, por parte de estas personas, de que ya no son las mismas que eran antes del daño cerebral, y está asociada a la presencia de auto-evaluaciones negativas acerca de cambios en el propio funcionamiento personal tras el daño cerebral. La negación de estos cambios es una reacción común entre supervivientes a daño cerebral que comienzan a experimentar la pérdida del sentido de sí mismo. La Teoría de los Marcos Relacionales (RFT) es una moderna aproximación conductual al estudio del lenguaje y la cognición. Desde la perspectiva de la RFT, existen tres sentidos del sí mismo que son directamente accesibles al conocimiento para los humanos: el sí mismo conceptualizado, el sí mismo como proceso activo de conocimiento verbal y el sí mismo como contexto. La pérdida del sentido de uno mismo puede ser entendida como una crisis del yo conceptualizado. El tratamiento de este problema implica guiar a la persona tanto a ajustarse a los

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cambios en su funcionamiento tras el daño cerebral como al desarrollo de un nuevo auto-concepto. La aceptación es el factor crítico en todo este proceso. El contacto con el yo como contexto puede facilitar la aceptación al proporcionar al superviviente un sentido perdurable del sí mismo diferenciado frente a sus contenidos psicológicos. Desde el yo como contexto, el superviviente al daño cerebral puede ser consciente de los cambios en su funcionamiento y de su auto-concepto sin miedo a la aniquilación psicológica

Palabras clave: Daño cerebral adquirido, pérdida del sentido de uno mismo, negación, Teoría de los Marcos Relacionales, yo/sí mismo como contexto.

*I realized that I was no longer the person I used to be.
But could that be true? Where had that person gone?
And who was I now?*
(Schell-Word, 1999, p. 347).

Traumatic brain injury is a major public health problem. It is estimated that approximately 100-150 persons per 100,000 of the general population of the United Kingdom are disabled following traumatic brain injury (British Society of Rehabilitation Medicine, 1998). Brain injuries typically have serious consequences for survivors, in terms of impairments of their physical, cognitive, emotional, and/or social functioning. Common effects of mild brain injuries include headaches and dizziness, attention/concentration and memory deficits, emotional lability, and irritability. These problems typically last for a number of months, but may persist for longer. More severe brain injuries tend to have more serious consequences, some of which may be chronic. Examples include epilepsy and hemiplegia, amnesia and executive dysfunction, anxiety and depression, and personality change. The consequences of brain injury are discussed in depth in Lezak (1995) and Walsh and Darby (1999).

Loss of sense of self is a commonly reported experience among survivors of brain injuries (e.g., Cicerone, 1989; Frey, 1994; Groswasser & Stern, 1998; Judd & Wilson, 1999; O'Shanick & O'Shanick, 1994). It is so common, in fact, that it has been described as being "almost the sine qua non of brain injury" (Jackson & Manchester, 2001, p. 27). There is agreement within the field that loss of sense of self is often an important issue to address in the rehabilitation of brain injury survivors (e.g., Block, 1987; Folzer, 2001; Kinney, 2001; Miller, 1989; Nochi, 1998a).

The current paper is roughly divided into two parts. In the first part, the characteristic features of loss of sense of self following brain injury are described, including a sense of self-estrangement, negative self-evaluations, emotional distress, and denial of changes in functioning. An interpretation of these symptoms is then provided using the core concepts of *Relational Frame Theory* (RFT)- a modern behavioral approach to language and cognition. In the second part of the paper, the now established clinical application of RFT, know as *Acceptance and Commitment Therapy* (ACT), is used to form the basis of a suggested approach to the treatment of loss of sense of self

following brain injury. This approach involves guiding the survivor to contact *self as context*—an enduring, stable, sense of self that is distinct from her ongoing flow of psychological content.

While the main focus of the paper is on loss of sense of self among survivors of traumatic brain injuries, the approach described is equally applicable to survivors of other forms of acquired brain injury (including, but not limited to, cerebro-vascular accidents, brain infections, and tumors).

THE MEANING OF LOSS OF SENSE OF SELF WITHIN THE BRAIN INJURY LITERATURE

There is no single, widely accepted definition of loss of sense of self within the brain injury literature. However, there exist a number of points of apparent consensus among authors in regard to its characteristic features. First, loss of sense of self involves conscious awareness on the part the survivor that she is somehow “not the same person” as pre-injury (e.g., Bennett, 1989; Dubois & Persinger, 1996; Miller, 1993; Nochi, 1998b; Pollack, 1994b). Among survivors, this sense of not being the same person “can range from feelings of differentness or estrangement to a total disconnection from the person’s past identity” (Pollack, 1994a, pp. 673-674). When survivors are asked to describe the ways in which they are different, they typically report changes in aspects of their physical, cognitive, emotional, or social functioning (e.g., Bennett, 1987; Groswasser & Stern, 1998; Nochi, 1997; Schell-Word, 1999). For example, Nochi (1998b) described a survivor who considered that she no longer knew herself because she was less competent and reliable at work than pre-injury.

Second, loss of sense of self typically involves the survivor making negative evaluations about post-injury changes in her functioning (e.g., Judd & Wilson, 1999; Parker, 1998; Persinger, 1993; Pollack, 1989; Tyerman & Humphrey, 1984). The pre-injury personality type of the survivor seems to be an important factor in this process. Miller (1993) suggested that survivors who, pre-injury, had very positive perceptions of their functioning were particularly likely to make negative self-evaluations, post injury:

A type of patient I’m seeing more and more often is a pre-morbidly high-achieving, almost compulsively successful “Type A” executive or professional... Several such patients have described to me, in almost identical words, how the effects of the brain injury have dulled their “edge.” To the extent that maintaining this edge is vital to the patient’s peak performance and self-image, even a minor brain injury can produce a gaping narcissistic wound. (pp. 64-65)

Prigatano (1986b) described the case of a female physician who suffered a brain haemorrhage. Following her return to work, she found that she could no longer read x-rays as well as previously. Awareness of this change in functioning led her to evaluate herself as being “totally incompetent”, and to drop out of her residency program.

Third, loss of sense of self is typically associated with emotional distress, which can manifest itself in a variety of emotional states, including anger, anxiety, depression, and grief (e.g., Ciccerone, 1989; Harrell & O’Hara, 1991; Judd & Wilson, 1999; Lewis & Rosenberg, 1990; Miller, 1993). Such distress can be extreme. Persinger (1993)

described the case of a survivor who committed suicide shortly after being told that he had lost his driving license.

Fourth, denial of changes in functioning is a relatively common response among survivors who begin to experience the emotional distress that accompanies awareness of negatively evaluated changes (e.g., Nochi, 1998b; Prigatano, 1986a; Tyerman & Humphrey, 1984). It is typically considered to be a “protective response in the face of increasing recognition of disability and emotional distress” (Cicerone, 1989, p. 107). As such, denial in the context of loss of sense of self is distinct from denial that results from deficits of self-awareness, which are a common consequence of some types of brain injury (Prigatano, 1999). Typically, in the case of the survivor with loss of sense of self it is not that she is unaware of changes in her functioning, but rather that she is avoidant of the emotional distress that accompanies awareness of them.

While loss of sense of self is very common following brain injury, it is not experienced by all survivors. The reasons for this are unclear. However, as noted above, pre-injury personality type seems to be an important factor. The survivor who, pre-injury, held dear a very positive self-image seems to be particularly at risk.

It seems reasonable to assume that such an individual would be at risk of developing loss of sense of self, at least to some extent, after any type of event that resulted in a self-perceived worsening in her functioning (e.g., a chronic illness or the loss of a limb). Brain injury is particularly likely to lead to loss of sense of self because it can result in impairments in any and all areas of functioning (physical, cognitive, emotional, and social). Even relatively mild brain injuries often result in cognitive impairments, such as slowed speed of information processing, which can make functioning at pre-injury levels impossible.

The following section describes a relatively new behavioral account of language and cognition. This account is subsequently used to offer a conceptualization of three distinct senses of self that is relevant to understanding and treating loss of sense of self following brain injury.

A RELATIONAL ACCOUNT OF LANGUAGE AND COGNITION

In recent years, a new account of language and cognition- Relational Frame Theory -has been developed within the field of behavior analysis (e.g., Hayes, 1994b; Hayes, Barnes-Holmes, & Roche, 2001a; Hayes, Gifford, & Wilson, 1996). According to this account, human language and cognition consist of the ability to derive (i.e., acquire without direct training) novel stimulus relations among events. From this perspective, human verbal abilities constitute complex repertoires of *derived arbitrarily applicable relational responding*. A brief summary of the core processes involved in this account is provided below.

Relational responding is responding to one event in the terms of another (Hayes, Barnes-Holmes, & Roche, 2001b). Most complex organisms are capable of responding to the nonarbitrary relations that exist between stimuli (Reese, 1968). For example, monkeys can be trained to reliably select the ‘taller’ of two stimuli over multiple trials in which the height of the stimuli is systematically varied (Harmon, Strong, & Pasnak,

1982). ‘Tallness’ is a nonarbitrary, or formal, property of the stimuli- that is to say, in each trial one stimulus really is ‘taller’ than the other one. Arbitrary relations are not determined by the formal properties of the stimuli involved (e.g., height, shape, level of illumination), but rather by socially mediated cues. Many non-human organisms can be trained to respond to one arbitrary stimulus in the terms of another (Wilson & Blackledge, 1999). For example, in a matching-to-sample paradigm that involves nonsense stimuli which share no formal properties, a monkey can be trained to reliably select one stimulus from a range of three different comparison stimuli when presented with a fourth, also different, sample stimulus. Only humans, however, have been conclusively shown to demonstrate derived arbitrarily applicable relational responding (responding to the arbitrary relations that exist between stimuli without direct training in regard to those relations) (Hayes et al., 2001b).

There are three main properties of derived arbitrarily applicable relational responding. These are *mutual entailment*, *combinatorial entailment*, and the *transformation of stimulus functions*. If a language-able human is taught a unidirectional relation between two arbitrarily-related stimuli she will derive a bidirectional relation between them. For example, if trained in the presence of stimulus A to select stimulus B she will, without additional training, in the presence of B select A. This is known as mutual entailment- the relation of A to B entails the relation of B to A. If two relations between three stimuli are trained (e.g., given A select B, and given B select C), she will derive another four (given B select A, given C select B, given A select C, and given C select A). This is known as combinatorial entailment- the relations between A and B and B and C combine to entail a mutual relation between A and C. The emergence of such mutually and combinatorially entailed bidirectional stimulus relations has been demonstrated in children as young as two years old and appears to correlate with the development of language, as traditionally defined (Lipkens, Hayes, & Hayes, 1993).

A critical feature of the RFT account of language and cognition is its emphasis on multiple stimulus relations, or different patterns of derived relational responding. Humans readily derive many different types of relations among arbitrarily-related stimuli (e.g., same, opposite, and different) (Steele & Hayes, 1991). These different patterns of arbitrary relational responding are referred to as *relational frames*. Relational frames are said to be controlled by specific contextual cues, including particular words (such as the actual words “same” or “opposite”), other words that serve the same function (e.g., the word “is” often functions as synonymous to “same” as in the example “The Welsh word for brain is ymennydd”), types of intonation, and even facial gestures.

RFT employs the term transformation of stimulus functions to account for what happens to the psychological functions attached to stimuli that participate in derived relational frames. For example, if A has avoidant functions for a person and she is told that B is stronger than A, then B is likely to have even stronger avoidant functions for her, even though it has no direct history with the events to be avoided. A range of psychological functions have been found to be transformed as a result of the participation of particular stimuli in derived relational frames (e.g., Dymond & Barnes, 1996; Hayes & Hayes, 1992; Hayes, Kohlenberg, & Hayes, 1991). These include both respondent (eliciting) and operant (reinforcing) functions.

According to RFT, private experiences such as emotions, thoughts, memories, and bodily sensations can participate in derived relational frames, and the functions attached to these events may be transformed as a result of their participation (e.g., Hayes & Bissett, 2000; Hayes, Strosahl, & Wilson, 1999). For example, a person who is involved in a serious car accident is likely to derive relations of equivalence between this event and a variety of private experiences (e.g., feelings of anxiety, self-talk about the “car crash”, images of the car crashing, etc.). Given contextual cues to do so, stimulus functions can be transformed across these relations (e.g., images of cars crashing and the term “car crash” can acquire some of the anxiety eliciting functions of the actual accident).

The processes involved in derived arbitrarily applicable relational responding enable self-awareness to be useful (Hayes, 2002; Hayes & Gifford, 1997; Hayes, et al. 2002). Through bidirectionality and the transformation of stimulus functions, humans can experience the functions of events that are not currently physically present in their environment. The functions of such events can be transformed through derived networks of related events, enabling humans to have knowledge of situations that they have never directly experienced. Among other things, this ability enables humans to “imagine” desirable and undesirable futures (e.g., obtaining a college degree and being fined for speeding) and to change their current behaviors in order to influence the probabilities of these futures occurring (e.g., study harder and drive slower). However, these processes also mean that self-awareness can be painful (Friman, Hayes, & Wilson, 1998; Hayes & Wilson, 1995; Wilson & Hayes, 2000). Continuing the example of the car crash survivor, talking about what happened, either to herself or others, is very likely to be painful, because of the participation of the words involved and the actual accident in relations of equivalence, across which some of the aversive functions of the accident are transferred. Derived arbitrary relational responding enables humans to experience pain when there is no direct source currently present in their environment (Hayes et al., 2002).

In the following section, an RFT-based conceptualization of three distinct senses of self that is relevant to understanding and treating loss of sense of self following brain injury is offered.

A RELATIONAL ACCOUNT OF SENSES OF SELF

From the perspective of Relational Frame Theory, there exist three distinct senses of self that can be directly experienced by humans (Hayes, 1995; Hayes et al., 1999). These are: the *conceptualized self*, *self as an ongoing process of verbal knowing*, and *self as context*. Each of these is described below.

Conceptualized Self

Once derived arbitrarily applicable relational responding emerges in early childhood, a person can derive relations between her ongoing stream of behaviors and a wide range of verbal categorical concepts (Hayes, 1994a; Hayes & Gregg, 2001; Hayes et

al., 1999). This ability enables humans to, among others things, evaluate, explain, and predict their own behaviors (Hayes, 1995). The network of verbal self-relations that develops as a person repeatedly applies such categorical concepts to her behaviors is known as the conceptualized self.

The verbal cultures in which people function typically expect correspondence between what they say about who they are and what they do. As a result of a history of social consequences for such correspondence, a person will typically act to defend her conceptualized self by distorting her experiences of the world to fit consistently with the existing relational network (Hayes, 1995; Hayes et al., 1999). For example, a person who evaluates herself as being kind may distort experiences of her own behavior that do not fit with this self-relation (e.g., by overlooking or rationalizing instances of meanness).

Self as an Ongoing Process of Verbal Knowing

The second sense of self available to direct experience is self as a process of verbal knowing (ongoing self-awareness). What a person may verbally know (i.e., what she may discriminate the presence of and label) are the emotions, thoughts, memories, and other private experiences that comprise her psychological content. This sense of self is “a fluid, dynamic process of knowing one’s own flow of experiences” (Hayes, 2002, p. 64).

Typically, children are taught from an early age to discriminate and label their emotions, thoughts, and other private experiences by the verbal cultures in which they develop (e.g., family, teachers, peers) (Hayes, 1995). Their skill in doing so is largely a function of the quality of training that they receive. A person who develops in a deviant verbal culture (e.g., an abusive family in which the accurate discrimination and labeling of emotions is subverted or punished) is likely to have impaired self-awareness. She may literally not know what she is feeling.

Self as Context

The third sense of self is self as the context for verbal knowing. At around three or four years of age, a child who is exposed to a normal verbal culture will develop a sense of perspective; a point of view that is unique to her. This sense of self as context, which allows a person to distinguish her perspective from that of others, is necessary for the ability to be able to report events in a sophisticated manner (Hayes & Gregg, 2001).

If I ask many, many questions of a person, the only thing that will be consistent is not the *content* of the answer, but the context from which the answer occurs. “I” in some meaningful sense is the location that is left behind when all of the content differences are subtracted out....When you close your eyes, this enculturation produces a sense of location behind your eyes....It is a kind of pure consciousness- a place from which events are known independently of the specific content of events. (Hayes, 1994a p. 23)

Once it has emerged, this sense of self as context—the place from which the person experiences the world—never changes and is never lost, while consciousness remains. It is a stable, enduring sense of self that is not dependent on the nature of the content that comprises one’s ongoing flow of psychological experience (Hayes & Gregg, 2001).

Typically, the conceptualized self dominates, obscuring self as context. That is to say, under normal circumstances, people identify with their psychological content rather than the context from which they experience it. Under certain circumstances, however (e.g., some forms of meditation), they can become aware of, and identify with, self as context. Contact with self as context is often described as being a spiritual or transcendent experience (Hayes, 1995).

In the following section, the above described RFT-based conceptualization of senses of self is used to offer an understanding of the characteristic features of loss of sense of self following brain injury.

UNDERSTANDING LOSS OF SENSE OF SELF FOLLOWING BRAIN INJURY FROM THE PERSPECTIVE OF RELATIONAL FRAME THEORY

A Crisis of the Conceptualized Self

The characteristic features of loss of sense of self following brain injury may be understood as the effects of a “crisis of the conceptualized self”. From this perspective, loss of sense of self is largely a verbal (relational) process.

“I’m not the same person”

Post-injury, a survivor is likely to find herself, at least for some time, either unable or less able to do many of the things that she did pre-injury (e.g., work, drive a car, remember recent events). She may also find herself behaving in ways that are unfamiliar to her (e.g., being aggressive toward others, acting impulsively).

The commonly reported sense of not being “the same person” seems to result from conscious awareness on the part of the survivor of inconsistencies between her post-injury functioning and her pre-injury conceptualized self. For example, the survivor who, pre-injury, conceptualized herself as being a gentle and kind person (i.e., who derived relations of equivalence between the self-referential term “me” and the descriptive terms “gentle” and “kind”) and who, post-injury, often acts aggressively toward others, is likely to conclude that she is no longer the same person.

Barnes-Holmes, Stewart, Dymond, & Roche (1999) described from a Relational Frame Theory perspective what seems to be loss of sense of self in a non-brain injured man, following the breakdown of his marriage. Pre-breakdown, he conceptualized himself as a “family man”. Within this verbal category, he derived relations of equivalence between “me” and a variety of descriptive terms, including “hopeless romantic” and “my partner’s husband”. Also derived were relations of opposition between “me” and other terms, such as “independent” and “single”. Barnes-Holmes et al. described the

effects of the man's wife leaving him on his network of self-relations:

(...) many of these relations are in jeopardy. Not only does her leaving make it impossible for this man to be a family man, but all of the equivalent terms at once also fail to apply (e.g., married, hopeless romantic)... with his wife's departure this man's family identity is lost and so too is a plethora of other terms in relation to which he defines himself. (p. 61)

It is straightforward, from a Relational Frame Theory perspective, to understand how a brain injury can lead a survivor to conclude that she is "not the same person". For example, a survivor who, pre-injury, placed much importance on her worklife is very likely to have derived many relations between "me" and a variety of descriptive terms within the verbal category of "work". Relations of equivalence may have been derived between "me" and terms such as "hard working", "competent", "professional", and "creative". If such relations of equivalence have been derived, it is almost inevitable that relations of opposition will also have been derived between "me" and "lazy", "incompetent", "unprofessional", and "uncreative". Post-injury impairments to the survivor's work functioning may make it impossible, at least for some time, for her to equate "me" with "hard-working" or "creative". In such a situation, she will likely derive new relations between "me" and "lazy" and "uncreative". This will almost certainly lead to the derivation of a relation of equivalence between "I" and "not the same".

Consistent with this relational account of a "crisis of the conceptualized self", a number of authors in the brain injury field have suggested that an important factor in the development of loss of sense of self is a perceived inconsistency between the survivor's post-injury functioning and her pre-injury "self-concept" or "identity" (e.g., Harrell & O'Hara, 1991; Kravetz et al., 1995; Laatsch, 1999; Powell, 1994; Tyerman & Humphrey, 1984).

Negative self-evaluations of changes in functioning

Humans readily derive relations between their ongoing stream of behaviors and evaluative concepts. If the survivor's pre-injury self-concept is positively evaluated by her, any post-injury changes in functioning that are inconsistent with it will very likely lead to negative evaluations, both of those changes and of the resulting new self-concept.

Continuing the previous example, pre-injury the survivor is likely to have derived equivalence relations between descriptive terms such as "hard working" and "creative" and the evaluative concept "good" (and, similarly, between the terms "lazy" and "uncreative" and the evaluative concept "bad"). In accordance with this network of relations, post-injury changes in functioning that result in the derivation of relations of equivalence between "me" and the terms "lazy" and "uncreative" (which are in equivalence relations with "bad") will very likely result in the derivation of an equivalence relation between "me" and "bad".

Emotional distress

As noted above, bidirectionality and the transformation of stimulus functions give rise to painful self-awareness. The emotional distress that typically accompanies loss of sense of self may be understood as resulting from these processes.

Continuing the example, as the survivor derives equivalence relations between “me” and the descriptive terms “lazy” and “uncreative” she will very likely experience the aversive functions that these terms carry due to their participation in equivalence relations with the evaluative concept “bad”. Most humans have experienced histories in which “bad” has been paired with punishing consequences. When relations are derived between “me” and descriptive terms that are evaluated as being “bad”, some of those punishing consequences are typically experienced.

This description of how a brain injury survivor comes to experience emotional distress is, of course, a simplification of what happens in reality. In a real case, very many different relations, involving multiple transformations of stimulus functions, are likely to be derived. The description serves to explain, in principle, how normal verbal processes can lead to suffering.

Denial

Denial may be understood as an attempt by the brain injury survivor to protect the integrity of the network of relations that comprise her pre-injury conceptualized self, by rejecting knowledge of changes in functioning that are inconsistent with those relations. Denial is attempted in the service of avoiding the emotional distress that is contacted as conscious awareness of changes results in the derivation of new, negatively evaluated, self-relations.

Continuing the example, the survivor may attempt to protect her pre-injury self concept by avoiding knowledge of changes in functioning that are inconsistent with her being “hard-working” and “creative”. If she becomes aware that she is less able to concentrate at work than she used to be, she may purposefully “forget” to complete productivity records that would reflect this. If she finds it more difficult to solve problems, she may blame colleagues for being uncooperative.

As a long-term coping strategy, denial is unworkable, for two main reasons. First, an increasing body of evidence from a variety of sources, including basic experimental research, coping strategies research, and research into the relationship between process and outcome variables in psychotherapy, indicates that efforts to avoid emotions and thoughts typically result in increases in their frequencies and intensities, particularly in the situational and emotional contexts in which the avoidance efforts took place (e.g., Hayes et al., 1999; Hayes, et al., 1996; Wilson, Hayes, Gregg, & Zettle, 2001). These increases can lead to a sense of loss of control and, subsequently, further psychological distress. Over the long-term, denial of negatively evaluated changes in functioning seems likely to increase rather than decrease the distress of survivors. It is unsurprising that this should be the case, as purposeful attempts to avoid private experiences necessarily involve following a rule that, through the relational nature of language,

automatically brings contact with those experiences (e.g., “Don’t think about x”) (Hayes et al., 1999). The more a person attempts to follow the rule, and checks that she is doing so, the more she will, paradoxically, contact those experiences.

Second, in order to attempt to avoid knowledge of negatively evaluated changes in functioning, survivors are likely to have to increasingly constrict their lives. To avoid feedback from colleagues that would indicate that her work functioning is impaired, the survivor may have to distance herself from them. This might initially involve opting to work on solo projects, but is likely to soon extend to avoiding socializing with them. The increasing constriction of the survivor’s life, in the service of avoiding distress in the short-term, is likely to result in even more distress in the long-term.

Developing Self as an Ongoing Process of Verbal Knowing as an Alternative to Avoidance

A workable alternative to the unworkable avoidance efforts involved in denial is acceptance. Acceptance of psychological content involves willingly experiencing it without avoidance efforts. An increasing body of evidence indicates that acceptance-based approaches are efficacious in the treatment of a variety of topographically defined psychological problems (Hayes, Jacobson, Follette, & Dougher, 1994; Hayes et al., 1996; Hayes et al., 1999).

In order to accept, one must first know (i.e., be consciously aware of) that which is to be accepted. Acceptance-based therapies typically involve therapists guiding clients to attain greater knowledge of their private experiences, with the purpose of facilitating acceptance (Hayes, 1995). Such therapeutic work helps clients to develop their sense of self as an ongoing process of verbal knowing.

In the case of a brain injury survivor who is experiencing loss of sense of self, an acceptance-based approach would likely involve guiding her to know both the changes in her functioning that have occurred and the new self-relations that have resulted from them, without efforts to avoid this knowledge or the emotional distress that accompanies it. Acceptance would be promoted not for its own sake, but rather because it is more workable, in terms of the survivor’s long-term functioning, than avoidance.

Self as Context as a Safe Place from Which to Know

The new self-relations that a brain injury survivor derives post-injury can be so radically different from her pre-injury conceptualized self that it can seem that her whole identity is at risk of annihilation. In a psychological context in which she identifies strongly with her conceptualized self, there may seem to be no other possible course of action available to her but to avoid knowledge of post-injury changes. In such a context of literality (in which thoughts are responded to as if they are facts), acceptance of difficult private experiences can be extremely difficult, and may, in fact, seem like suicide.

Experiential contact with self as context can greatly facilitate acceptance of difficult private experiences (Hayes, et al., 2002; Hayes et al., 1999). By definition, self

as context is a sense of self not based on psychological content. It is not comprised of emotions, thoughts, and other private experiences, but rather is the “place” from which they are known. As noted above, it is a stable, enduring sense of self that remains unchanged for as long as consciousness is present. As such, it should be available to all but the most profoundly damaged brain injury survivors.

A person who is in contact with self as context experiences herself as being distinct from her psychological content. From this perspective, she can know her content, however difficult or painful it might be, without threat of psychological annihilation. Contact with self as context enables a way of interacting with one’s psychological content that is non-literal. Thoughts can be experienced as what they are- the products of the ongoing process of deriving verbal relations -rather than what they often seem to be; facts.

In the following section, a treatment approach- Acceptance and Commitment Therapy -that utilizes self as context is described. Acceptance and Commitment Therapy is explicitly based on Relational Frame Theory; it applies a relational understanding of the role of verbal processes to the conceptualization and treatment of psychopathology.

UTILIZING SELF AS CONTEXT IN THERAPY: ACCEPTANCE AND COMMITMENT THERAPY

Acceptance and Commitment Therapy (ACT) is a treatment approach for experiential avoidance (pathological efforts to avoid difficult private experiences) (Hayes et al., 1999). ACT is used to help clients to willingly accept the difficult private experiences that arise in the pursuit of their key life values. It has been demonstrated to be an efficacious treatment for a variety of topographically defined problems in which experiential avoidance is considered to be an important functional factor, including: anxiety, depression, psychosis, and heroin addiction (Hayes et al., 2002). For a book-length treatment of ACT, the interested reader is directed to Hayes et al. (1999).

ACT therapists guide their clients to contact self as context in order to facilitate acceptance. Two main approaches to this are taken; metaphors and experiential exercises (Hayes & Wilson, 1994; Hayes et al., 1999). Therapists use a variety of metaphors to guide clients to verbally know that there exists a sense of self that is stable over time and which is distinct from their private experiences, however apparently frightening or terrible those experiences might seem to be.

It seems less threatening to clients to face depression and other types of psychological pain in life if they know that no matter what happens, the “I”, in at least one important sense of that word, will not be at risk. (Zettle & Hayes, 2002, p. 46)

One example of a metaphor used to guide clients to understand that this sense of self exists is that of the “house and furniture”:

It’s as if you were a house, filled with furniture. The furniture is not, and can never be, the house. Furniture is the content of the house, or what’s inside it. The house merely holds or contains the furniture and is the context in which furniture can be furniture. Whether the furniture is thought to be good or bad says nothing

about the value of the house. Suppose you are more like the house than the furniture. Just as the furniture is not the house, suppose in some deep sense that your thoughts and feelings are not you. (Wilson et al., 2001, p. 235)

Another example is the “chessboard” metaphor, in which the therapist guides the client to view herself as a limitless chessboard, which holds both black and white pieces (Hayes et al., 1999; Hayes & Wilson, 1994). The pieces are said to represent thoughts and emotions, both those that are positively valued (one team of pieces) and those that are negatively valued (the other team). The client is guided to verbally understand that if she identifies with one or other of the teams (i.e., if she identifies with her conceptualized self) it becomes necessary to fight the other team, in order to win the game. Identification with one team automatically brings the client into a battle with herself that is impossible to win. However, identification with the board (self as context) both avoids this conflict and leads to increased self-knowledge. To the board, it matters not which team is winning. The board holds and knows all the pieces equally, whatever their nature. Freed from engaging in unnecessary, pointless conflict, the board is free to move in any chosen direction (e.g., toward valued life goals), carrying all the pieces with it.

Guiding a client to verbally know self as context through the use of metaphors is sometimes sufficient to “loosen” her identification with her conceptualized self enough to enable willing acceptance of difficult private experiences. More typically, however, direct experiential contact with self as context is also necessary.

The “observer” exercise is used to guide clients to directly experience self as context. This eyes-closed exercise begins with a few minutes of therapist directed relaxation and focussing. The therapist then asks the client to contact a memory from the recent past (e.g., the previous summer). She is asked to remember the details of the event (e.g., the sights and sounds of what happened) and her private responses to it (what she felt and thought). As the client does so, the therapist guides her to become aware that some part of her was observing these things (both the actual event and her responses to it).

See if you can catch the person behind your eyes who saw, and heard, and felt. You were there then, and you are here now. I’m not asking you to believe this. I’m not making a logic point. I am just asking you to note the experience of being aware and see if it isn’t so that in some deep sense the ‘you’ that is here now was there then. The person aware of what you are aware of is here now and was there then. (Hayes, 2002, p. 61)

The therapist then asks the client to contact memories from a number of other ages of her life (e.g., from a few years previously and from childhood), and, again, to notice that she was there, noticing what she noticed. Following this, the therapist guides her to notice that, over time, her body, roles, emotions, and thoughts have all changed. All of these things are very different at different times, and the client is guided to experience that while they change, “you” (the client) remains “you”, in the sense of being the place from where all these things are known. She is guided to understand, as

a matter of experience rather than belief, that she is the enduring, stable context within which her memories, emotions, and thoughts come and go. As this sense of self as context is contacted, she is guided to notice that the psychological content that she has been attempting to avoid (in the dysfunctional ways that constitute her presenting problem) is distinct from her, and as such, need not be avoided. The observer exercise can be a powerfully liberating experience for clients, in that it can provide them with a sense of self that frees them from unnecessary struggle with their own content, enabling them instead, to focus their efforts on taking valued actions.

Self as context can be directly experienced through a great variety of different exercises. Many of these have been developed by the practitioners of mystical and spiritual traditions (Deikman, 1982). Hayes (1984) identifies the repetition of mantras, the practice of mindfulness, the elimination or restriction of public talk, and rhythmic chanting as examples of experiential exercises used by such traditions to promote contact with self as context.

Guiding Brain Injury Survivors to Contact Self-as-Context

Psychotherapy can be helpful in the rehabilitation of survivors of brain injuries. It is typically most helpful in the post-acute phase, with survivors who have at least some awareness of changes in their functioning (Ben-Yishay, 2000; Prigatano, 1999).

There is apparent consensus that therapy for a brain injury survivor who experiences loss of sense of self should typically involve helping her both to adjust to changes in her post-injury functioning and, in light of those changes, to develop a new self-concept (e.g., Bennett, 1987; Groswasser & Stern, 1998; Harrell & O'Hara, 1991; Kinney, 2001; Tyerman & Humphrey, 1984). Acceptance is commonly considered to be the critical psychological factor involved in successful adjustment and development (e.g., Ben-Yishay, 2000; Bennett, 1989; Bennett & Raymond, 1997; Harrell & O'Hara, 1991; Powell, 1994). Contact with self as context may provide the survivor with a safe place from which to know and accept the changes in her functioning and self-concept that she experiences post-injury, thus facilitating adjustment and development.

Contact with self as context has been used as a key component of a successful ACT intervention with a traumatic brain injury survivor who experienced severe post-injury anxiety (Myles, Roberts, & Coetzer, in preparation). The survivor's anxiety was conceptualized as being largely a product of unsuccessful attempts on his part to defend his pre-injury self-concept, in the face of awareness of changes in his functioning that were inconsistent with it. Therapy involved guiding him to know and accept his post-injury functioning and new self-concept, from the safe place of self as context, in the service of helping him to better pursue his key life values.

Therapists who use acceptance-focussed approaches other than ACT with brain injury survivors may also find guiding clients to contact self as context to be useful. As in all psychotherapy with brain injury survivors, the techniques used should be adapted to suit the abilities of the individual client who is being worked with (Prigatano, 1986b, 1999). For example, in working with a client who has an impairment of her abstract thinking abilities, metaphors could be made more concrete (e.g., an actual

chessboard and game pieces, or a jug containing liquid, could be used to help her understand that she is the “place” from which emotions, thoughts, and memories can be safely known).

ACT offers some suggestions about how to guide clients to contact self as context; many others are offered by the mystical and spiritual traditions that have, over centuries, recognized the value of contacting self as context, in terms of promoting individual human development.

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