Chapter 3: A Contextual Behavioural Approach to Pathological Altruism
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Key concepts:
- In the same way the process of natural evolution selects features of the human species, the cultural environment selects for patterns of behaviors during the lifetime of an individual or a group.
- One particular form of human behavior, language, is of great survival value. But language also amplifies the way we experience both the positive and negative aspects of the world. This can reinforce behaviors that are damaging for individuals and groups.
- Some behaviors that may play a role in pathological altruism are experiential avoidance, a conceptualized self, perspective-taking and values-based action.
- *Acceptance and Commitment Therapy* and *Relational Frame Theory* lay forth a scientific framework and provide tools to modify such behaviors, which points to their potential utility to reduce pathological altruism.

The concept of altruism has intrigued researchers and philosophers over the centuries (Batson, 1991a); it seems central for the understanding of human relationships and the organization of societies. The degree of cooperation and altruism among humans, as shown by their varied organizations and other social units (e.g., universities, governments, religious groups, business corporations, etc.), far exceeds other social animals. The survival of the human species in an astonishing array of ecosystems on earth is arguably due in part to these varied forms of behavior[1] (Fehr & Fischbacher, 2003).

Altruism has been described as a voluntary act that is an end in itself—it does some good to the other, is not directed toward self-gain (Leeds, 1963), and generally implies some sense of self-sacrifice (Krebs, 1970). In a more fundamental way, altruism has also been described as "costly acts that confer economic benefits on other individuals" (Fehr et al., 2003, p.785).

Pathological altruism, as a special case of altruistic behavior, is the subject of consideration of this volume. As the chapters themselves show, the concept has a variety of interpretations. This is not surprising. Lay terms such as altruism, although quite frequent in scientific writing, cannot be clearly defined scientifically. Such terms are vague and hard to define for the very same reason they are widely adopted and highly accepted—that is, because they can be used in a variety of settings and with a variety of connotations.

Our understanding of the term "pathological altruism" suggests it is generally used to refer to:

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[1] In this chapter we will use the term behavior to refer to an organism' activity, which includes external actions but also private events, such as thoughts, emotions or physical perceptions.

(a) the actions of individuals with the intention of promoting the welfare of others that cause needless harm to themselves or others,

(b) an excess of the "self-sacrificing" aspect of altruism implicit in most common definitions of altruism itself and

(c) a repetitive pattern of this feature that makes the pattern of action more pervasive and more problematic.

In other words, we take as the domain of our analysis socially well meaning but harmful and excessive forms of self-sacrifice that becomes more pervasive and problematic over time. Examples of pathological altruism might include workaholism (e.g., Scott, Moore, & Miceli, 1997), excessive ascetics or helping behavior (e.g., Fallon & Horwath, 1993), or the damage of maintaining a relationship with a physical or sexual abuser (e.g., Campbell, 2002).

In this chapter we will develop a more precise account of these three aspects of pathological altruism on the basis of a contextual behavioral science approach (CBS; Hayes, Levin, Plumb, Boulanger, & Pistorello, 2008; Vilardaga, Hayes, Levin, & Muto, 2009). CBS refers to a set of analytic assumptions and strategic choices regarding scientific development that have emerged from behavior analysis but have been applied in the creation of an approach to human language and cognition called Relational Frame Theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001). In addition, an applied model of intervention emerged based on RFT called Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999). We will provide an interpretation of pathological altruism from within that perspective.

Contextual Behavioral Science and Pathological Altruism

The cultural/verbal environment can select human behaviors in very specific ways, but it would be unscientific to just refer to the "influence" of cultural factors without further analysis. For this reason, in this section we will introduce Relational Frame Theory or RFT (Hayes et al., 2001) which is a theory that explains the interactions between the cultural/verbal environment and human behavior. We will also introduce key concepts of this approach that are relevant to the organization of human beings into groups and to the topic of pathological altruism. This will require explaining some of the technical terms in RFT.

Relational Frame Theory and the Importance of Language Contexts

Relational Frame Theory is a contextual behavioral account of language and cognition that argues verbal stimuli have their impact on human behavior because of their participation in what we call *relational frames*. All complex organisms learn to respond relationally to the environment. For example, a primate learning to choose the larger of two small piles of food will abandon the large pile if the choice of an even larger pile is now available.

But human beings with the right kind of learning histories seem to be able to bring such *relational responding* under the control of arbitrary cues and then to respond relationally to events as specified by these cues. For example, a three year old may prefer a nickel over a dime because it is larger (based upon the formal property, its size); but a six year old will prefer a dime over a nickel because *it is larger* (based upon its arbitrary property, its value). Specific forms of this kind of arbitrary applicable responding[1] are termed relational frames.

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[1] Arbitrary applicable relational responding (AARR) is a technical term in RFT that refers to the abstraction of patterns of responding among set of stimuli that are brought under the control of an arbitrary contextual cue. A more

Relational frames have three distinct features: *mutual entailment*, *combinatorial entailment* and *transformation of stimulus functions*. Mutual entailment occurs when a human organism learns a relation between event "A" and "B" and then derives the relation between "B" and "A." For example a person who learns that the French word "secours" is the same as the word "help," may derive that "help" is the same as "secours." The same individual told that the word "help" is the same as the word Spanish word "ayuda," may derive that the word "ayuda" is the same than the word "secours." This quality of relational frames is referred to as combinatorial entailment. If this person is now walking on the street in France and hears "Ayuda! Ayuda!" new behavioral functions may emerge, such as feelings of fear in the presence of those words, or seeking help by shouting "Secours! Secours!" This is an example of transformation of stimulus functions (the word "ayuda!" acquires the functions of the word "help!"), which is a change in the functions of related events based on specific functional cues and the mutual and combinatorial relations among them. In this case calling "Help!" and feeling fear in response to that call from others is now available in other functional contexts with regard to "secours" and "ayuda." What is learned is not necessarily the relations among a series of events, but rather a response frame.

Relational framing is readily demonstrable in human infants (Lipkens, Hayes, & Hayes, 1993) and a variety of studies have shown that a history of multiple exemplars seems to be needed to learn relational frames (e.g., Luciano, Becerra, & Valverde, 2007; Berens & Hayes, 2007). The advantage of relational responding occurred even before elaborate forms of language evolved culturally (e.g., metaphor, logic, storytelling). A human ancestor would be able to communicate with others by pronouncing "food" upon seeing food and to search for food upon being told the word "food." From an RFT point of view, the small step forward evolutionarily speaking, of regulating relational responses by arbitrary contextual cues, provides a profound way to analyze language and cognition.

If human beings are advantaged in their ability to walk on two feet, that evolutionary step was not intentional. It was merely selected. The same is true within the lifetime of individuals. The core unit in language responding, relational framing, develops ontogenetically[1] due to the selective process performed by the social and cultural environment. The same applies to the elaboration of language functions that are built on the foundation of relational framing.

Language contexts provide many advantages to the human species. They further the organism's ability to manipulate long-term events and have a more effective control over the environment. Relational responding transforms the way learning normally occurs. It both produces and constrains behavioral variability, which ultimately leads to an accelerated process of adaptive behavior. If a person is told "you will have food next winter if you plant seeds now," this person can learn the value of the specified action based on consequences experienced months later. This restricts variability in one sense (e.g., to effective forms of food production) but in another sense expands it (e.g., to include forms of behavior that would be difficult to be arrived at by trial and error). As will be seen later, an organisms' ability to predict and control is a key feature that helps explain some of the advantages and disadvantages of relational responding.

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detailed description of this process along with the experimental preparations that lead to the development of this concept can be found in Section 2.1.3 (p.25) of Hayes, Barnes-Holmes and Roche (2001).

[1] Ontogeny refers to the development or course of development of an individual organism. This is as opposed to phylogeny—the development of species as they slowly emerge over time.

Relational responding also increases the ability of humans to interact with one other in specific ways at the group level, increasingly overcoming the limits of physical and temporal proximity. This has been expanded enormously by human inventions (i.e., written language, printing presses, Morse code, radio, television, cellular phones, satellite transmission, the internet, text messaging), themselves based in part on these same relational abilities. The ability of these inventions to organize group behavior is obvious. For example, during the 2009 elections in Iran, Twitter allowed protesters to organize themselves and to coordinate their behavior to avoid been caught by government officials (Morozov, 2009).

Furthermore, because derived relations are arbitrarily applicable, the group can regulate behavior in increasingly fine-grained ways. Highly precise and arbitrary cultural practices, rituals, and distinctions can be readily made via human language. Language contexts seem to function virtually as a kind of behavioral "organ" at the level of the group. This "organ" is transmitted from generation to generation regardless of the survival of specific individuals.

The evolutionary and social/cultural contingencies that have selected the ability to acquire relational responding do not ensure that life is "better" for those with these responses. Language contexts can be both harmful and helpful.

The Dark and Light Sides of Human Language

Experiential avoidance. Verbal stimuli are regulated by context, but in the social world these contexts become so over-extended that language begins to harm human functioning in certain domains. For example, human language can increase the pervasiveness of aversive events. If an individual's relational ability leads to establishing a relation between the name of certain flower and the loss of a previous romantic relationship, this in turn can lead to experiencing the sadness associated with this original upon hearing the name of the flower. This process of aversive conditioning may generalize via relational framing, perhaps leading the person to avoid any verbal reference to such flowers. Because framing is not mere association, even wildly different contexts can have the same effect if they are related to flowers in ways such as opposition, distinction, or hierarchy: Even a desert landscape could evoke "no flowers could grow there" and sadness might now show up in the context of barren landscapes.

A natural result is experiential avoidance: the attempt to suppress, change and alter the form, frequency or intensity of uncomfortable thoughts, feelings and memories (Hayes, Wilson, Gifford, & Follette, 1996). Experiential avoidance has a paradoxical and pervasive negative effect in human's functioning, often narrowing an individual's options or choices. Numerous studies showed that this process is related to depression, anxiety, trauma and low quality of life (Hayes et al., 2004b; Hayes, Luoma, Bond, Masuda, & Lillis, 2006) among others.

The Conceptualized Self. "Self" from a behavioral perspective (e.g., Skinner, 1974) refers to an organism's ability to discriminate its own behavior and respond to a current situation on that basis. Among humans this process is in part verbal (Dymond & Barnes, 1995; Dymond & Barnes, 1997; Hayes & Wilson, 1993). When people describe themselves or hear others them, they form a self-concept. In a sense "who they are" can become a coordinated list of central evaluative and descriptive relations.

This natural process can also become repertoire narrowing. The terms used to characterize people are easily over-extended, both positively and negatively. A person may be "stupid" because they do not have skills in just a few areas, or "kind" despite the fact that in

some contexts they are not. Further, people can easily become excessively dependent on the views (or perspectives) of others. Children who receive too strong, aversive, or inconsistent training linked to self-conceptualizations from others, may become hypersensitive to cues of this kind[1]. Experiential avoidance and entanglement with a conceptualized self are examples of the repertoire narrowing effects of language. Other language processes are more helpful as they apply to the topic of this chapter.

Deictic Framing. From an RFT point of view, *deictic framing* is a form of relational responding that establishes a specific relation based on the perspective of a speaker such as I-you, here-there, and now-then. What is unique about deictic frames is that they can only be taught via demonstration since there are no parallel relations defined by the formal properties of the objects that are related. For other relational frames, (i.e., comparison) there is a non-arbitrary relationship (i.e., this object is bigger than that one), which later can be abstracted and be verbally applied (i.e., "a nickel is smaller than a dime"). Deictic frames are not like that. For example, "here" versus "there" is defined only with regard to a perspective or point of view.

What training in deictic framing skills establishes is what is commonly known as "perspective-taking." As children learn deictic relational responses they learn to adopt different perspectives in order to disambiguate these relations. They learn there is a perspective of "I/here/now" but that it is different from the perspective of others, or of themselves at another time and place.

Despite their complexity, these skills are fundamental to the use of language in several areas. Storytelling, for example, requires a listener with perspective taking skills (the ability to imagine how the story unfolds from the perspective of various characters) or a great deal of the story will be missed.

RFT researchers have found that deictic framing emerges developmentally over time (McHugh, Barnes-Holmes, & Barnes-Holmes, 2004a) and can be trained (Weil, 2007). Further, lack of deictic framing is associated with such key social phenomena as social anhedonia (Villatte, Monestes, McHugh, Freixa i Baqué, & Loas, 2008), empathy and stigma (Vilardaga et al., 2008), schizophrenia (Villatte, Monestes, McHugh, Freixa i Baqué, & Loas, 2009), theory of mind (Weil, 2007), sense of self (Rehfeldt, Dillen, Ziomek, & Kowalchuk, 2007b), and false belief and deception (McHugh, Barnes-Holmes, & Barnes-Holmes, 2004b).

Values-based actions. Values have been defined within a CBS approach as "freely chosen, verbally constructed consequences of ongoing, dynamic, evolving patterns of activity, which establish predominant reinforcers for that activity that are intrinsic in engagement in the valued behavioral pattern itself" (Wilson & DuFrene, 2009, p.66). We call these behaviors *values-based actions*, that is, behaviors selected by positive relational contingencies (see Dahl, Plumb, Stewart, & Lundgren, 2009, for a book length presentation of values).

Relational responding can establish appetitive functions even in difficult current environments. Consider the work of a scientist. Even if the research has so far failed to yield important results, and extrinsic rewards are few, the work can be intensely meaningful. Every day can be a joyful exploration, because it is about something relationally construed as valuable (i.e., contributing to a "better world"). Values-based actions are more likely to promote and sustain constructive patterns of behavior over time than experientially avoidant actions, and have
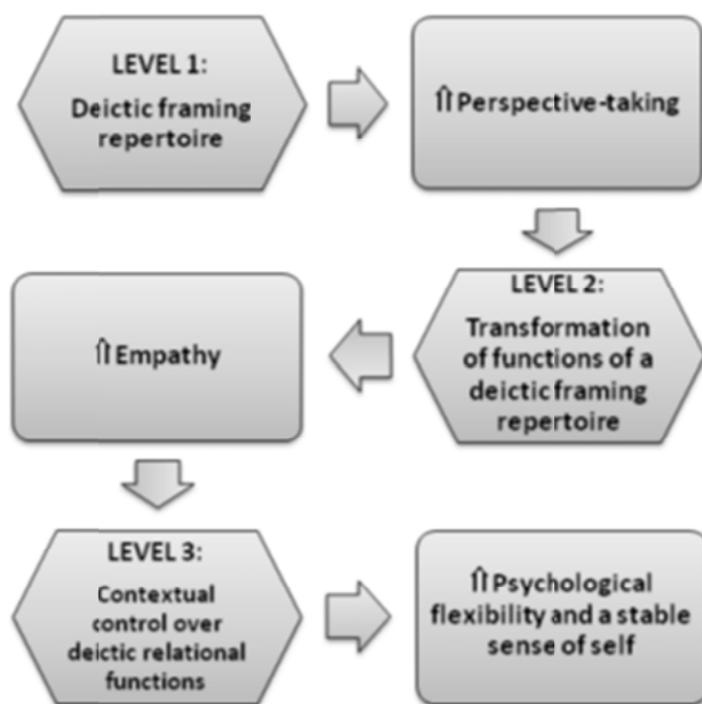
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[1] See Chapter 26, by Carolyn Zahn-Waxler & Carol Van Hulle, for a more extended description of this clinical presentation.

been linked to a variety of positive outcomes (e.g., Elliot, Sheldon, & Church, 1997; Sheldon & Elliot, 1999; Sheldon, Kasser, Smith, & Share, 2002).

Redefining Pathological Altruism from a Contextual Behavioral Approach

The verbal processes just described can go a long way toward explaining the three aspects of pathological altruism described earlier. Pathological altruism, we argue, may be a form of experiential avoidance, made more likely by weaknesses in a deictic framing repertoire and entanglement with a conceptualized self, in combination with a specific set of ongoing values. Generally healthy pro-social processes, such as empathy and values-based action, are harnessed by this avoidant process, which self-amplifies due to its rule-governed and avoidant nature. In the sections below we briefly walk through each of these claims following the model presented in Figure 1. We will use clinical examples to facilitate our presentation of the model throughout.

In this model, deictic framing has a central role, since it has a theoretical link to both the dysfunctional side of language (e.g., the formation of experiential avoidance and a conceptualized self), the mediation of our social interactions, as well as in the undermining of such effects through the development of a more stable sense of self (see Vilardaga & Hayes, 2009 for a presentation of this model in the context of the therapeutic relationship). The ultimate utility of such model is not to represent the "reality" of the phenomena, but to aid the researcher in thinking about the subject matter in a more effective way.

Figure 1. A three level perspective taking model to account for psychological flexibility and a stable sense of self.

A Deictic Framing Repertoire

According to this model, deictic framing allows the individual take multiple perspectives. This basic ability could account for an individual's tendency to acknowledge other individual's needs. The ability to take multiple perspectives can have both a positive and negative impact at the level of the group as we will later see.
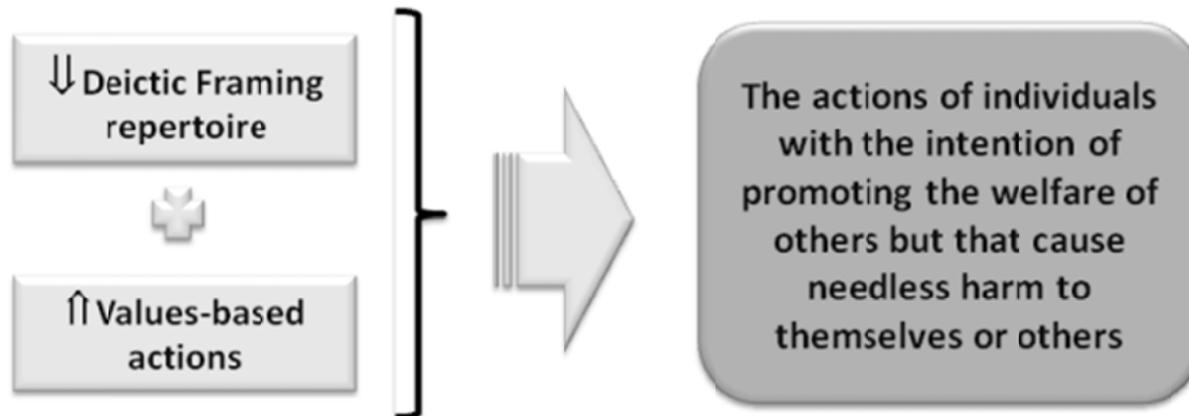
Figure 2. First level: Pathological altruism and deictic framing.

Deictic framing may be essential for an optimal psychological functioning and for establishing healthy human interactions. Research has shown that perspective-taking is related to pro-sociality (Underwood & Moore, 1982), reduced delinquency (Chandler, 1973), and increased social competence and knowledge (Silvern, Waterman, Sobesky, & Ryan, 1979) among others[1]. In addition, lack of perspective-taking has been noted in eating disorders, schizophrenia and social phobia (Imura, 2002; Rupp & Jurkovic, 1996; Schiffman et al., 2004; Wells, Clark, & Ahmad, 1998).

Deictic framing may be an essential skill for social functioning, but its effects are not always positive. Sometimes adults who have acquired complex perspective-taking abilities do not use them in their social interactions (Keysar, Lin, & Barr, 2003). There are also circumstances under which perspective-taking does not lead to pro-social outcomes, such as when people dislike the individuals for whom they are induced to take perspective (McPherson Frantz & Janoff-Bulman, 2000), when there is limited social contact or cultural exposure to others (Aberson & Haag, 2007; Lee & Quintana, 2005), or in competitive situations (Epley, Caruso, & Bazerman, 2006; Tjosvold, Johnson, & Johnson, 1984).

Pathological altruism may occur due to a lack of a deictic framing repertoire or its failure to be evoked in a given situation. For example, consider a doctor who insists on trying to save the life of a terminal patient despite the patient's requests. Help may be designed to accomplish a verbally framed outcome of helping others (it is a values-based action) but if the doctor fails to view the helping behavior from the point of view of the person being "helped" it can cause more harm than good. This exemplifies the first aspect of our definition of pathological altruism, that

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[1] See also the benefits of perspective-taking in the development of children (e.g., Charlop-Christy & Daneshvar, 2003; Rehfeldt, Dillen, Ziomek, & Kowalchuk, 2007a; LeBlanc et al., 2003; Baron-Cohen, Leslie, & Frith, 1985; Blacher-Dixon & Simeonsson, 1981) conflict resolution (Corcoran & Mallinckrodt, 2000; Drolet, Larrick, & Morris, 1998), stigma (Galinsky & Ku, 2004; Vescio, Sechrist, & Paolucci, 2003) and marital adjustment (Long, 1993).

is to say, the actions of individuals with the intention of promoting the welfare of others but that cause needless harm to themselves or others.

However, strong deictic framing repertoires can also be used to exploit others from within another set of values that is less pro-social. "Opportunists" in a social environment may appreciate the perspective of others and use that knowledge against them—as with the psychopath who uses knowledge of how his actions induce terror to increase his victim's terror even further. Thus, a deictic framing repertoire is a necessary but not sufficient step towards healthy altruism.

The Transformation of Functions of a Deictic Framing Repertoire

Some verbal contexts cue a relational response – others cue specific functions that are transformed by those same relational repertoires. A person may know that a hurricane is more dangerous than a mosquito – it is another matter to feel that difference emotionally. In the same way, once the individual has taken another individual's perspective, it is another matter to respond to the aversive (interpersonal distress) or appetitive (empathic concern or sympathy) states of others. This is the issue of *empathy*.
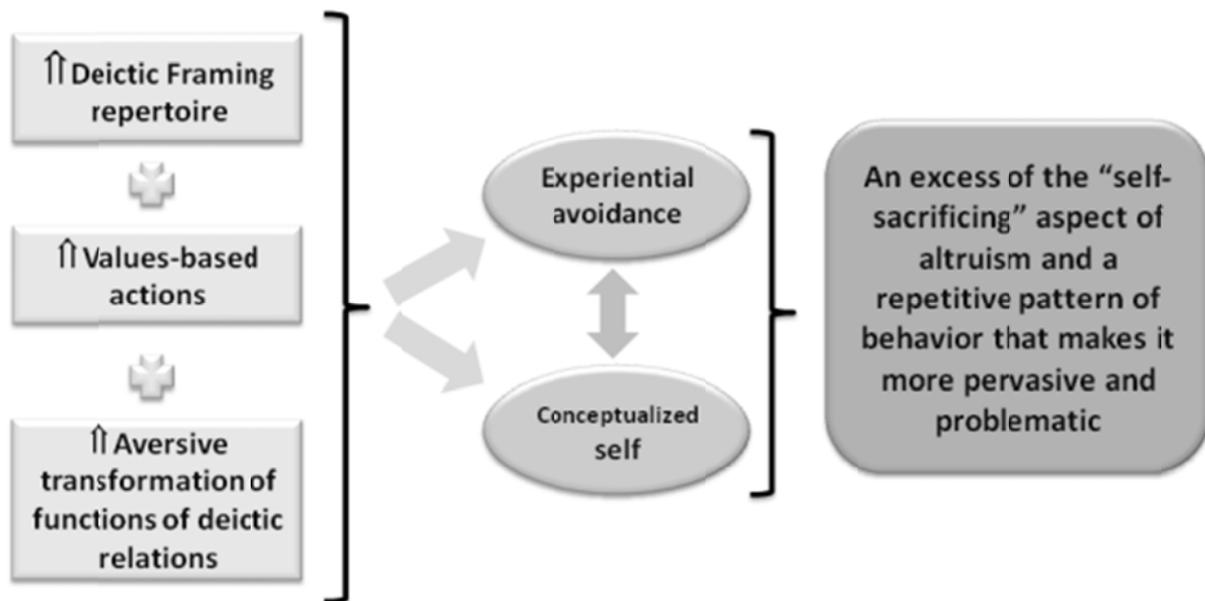

Figure 3. Second level: Pathological altruism, experiential avoidance and the conceptualized self.

Empathy has been related to a variety of healthy outcomes (Eisenberg, 2000; Batson, 1991b). It is worth noting that this second level of the model implies a relational repertoire and is not the same process functionally speaking as the empathic responses commonly observed in other mammals (de Waal, 2008) and in very young children (Decety & Meyer, 2008) in the absence of verbal (relational) repertoires. More primal forms of empathy require the presence of specific stimuli (i.e., witnessing an actual individual being attacked) whereas verbal repertoires

can elicit the same response in almost any circumstance (i.e., looking at the snow through a window and feeling sad for those who do not have a home). Others have noted that these more primal forms of empathy can later be integrated with higher cognition in what psychologists have referred to as "empathic concern" (e.g., Decety, Michalska, & Akitsuki, 2008; de Waal, 2008; Moriguchi et al., 2007). This second aspect of the model characterizes individuals who not only perceive the point of view of others as in the first level of the model, they also tend to be *affected* by it.

Arousal of this kind has been discussed as a motivator for pro-social behavior (e.g., Krebs, 1970; Hornstein, 1991; Preston & de Waal, 2002) but negative arousal can be difficult to cope with effectively for some individuals, and may lead to attempts to suppress, reject or undermine the impact of such functions by engaging in a process of experiential avoidance. Excessive altruistic acts hold out hope of removing some forms of discomfort such as acknowledgement of the finite nature or inherent pain of life. Threats to a conceptualized self are especially likely to give rise to negative arousal; individuals will fight to retain their self-image even at the cost to others or themselves in order to avoid this kind of discomfort (i.e., "if I don't help I'm a bad person, so I will help even if it is unwelcome or harmful"). These two processes, experiential avoidance and a conceptualized self, are repertoire narrowing, and can inhibit the individual's ability to successfully engage in values-based actions. They seemingly can account for the remaining two aspects of our definition of pathological altruism, (1) a pattern of behavior that is based in part on an excess of the "self-sacrificing" aspect of altruism implicit in most common definitions of altruism itself, and (2) a repetitive pattern of this feature that makes the pattern of action more pervasive and more problematic.

By conceptualizing pathological altruism as a form of experiential avoidance we can make sense of the repetitive pattern of behavior implied by the word "pathological." Experiential avoidance is negatively reinforced, meaning that once an individual successfully reduces contact with the relationally framed interpersonal suffering or distress, this action will be evoked when future signals of personal distress from others arise. These signals in combination with other biological predispositions can promptly elicit the same pattern, again and again, even if it is unhelpful or even harmful.

Although we do not yet possess specific data that link pathological altruism to experiential avoidance, there is an increasing body of literature indicating the negative impact of experiential avoidance in a variety of areas. Experiential avoidance seems to be a toxic process that has been linked to several clinical problems[1]. More specific components of experiential avoidance have also been explored by other researchers[2].

The experiential avoidance aspect of pathological altruism seems clear in most extended examples of it. Some individuals tend to find it difficult to disengage from certain patterns of behavior that cause persistent psychological suffering. The doctor who insists on trying to save the life of a terminal patient despite the patient's and family's requests may be under the control of an avoidance pattern established by the dominance of aversive relational contingencies such as "I can't let any of my patients die" which would be reinforced by any action in that direction.

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[1] These problems include sexual victimization (Polusny, Rosenthal, Aban, & Follette, 2004), post-traumatic stress disorder (Marx & Sloan, 2005; Plumb, Orsillo, & Luterek, 2004), self-harm behaviors (Chapman, Gratz, & Brown, 2006), and parental distress (Greco et al., 2005)

[2] For example, emotional suppression has been related to depression (Degenova, Patton, Jurich, & Macdermid, 1994), substance abuse (Malow et al., 1994) and difficulties in recovery from distress (Cioffi & Holloway, 1993; Masedo & Esteve, 2007).

Or take the example of a devoted religious man who fasts and self-flagellates to save humanity from its sins at a cost of irreparable damage to his health. Note that in this case, the arbitrary quality of the individuals' belief is far more obvious (e.g., "God will forgive humanity's sins if I act this way").

In the previous two levels of the model we have seen how perspective taking can be a process that fosters both positive and negative outcomes. In the next section we will address some of the contextual factors that can help reduce the impact of experiential avoidance.

Extended Contextual Control over the Transformation of Functions of a Deictic Framing Repertoire

A third level of perspective taking, the emergence of a stable sense of self, is important to further adaptability with respect to the individual and the group. A stable sense of self is more likely when an individual has been exposed to enough variations of verbal contexts. Most psychotherapy situations can be characterized by a continuum exposure to verbal contexts such as "what are YOU feeling NOW?", "what were YOU feeling THEN?", "what are YOU thinking HERE?", "what were YOU thinking THERE?", etc. This iterative process does not suggest that simple exposure to enough variations of verbal contexts can make for an integrated sense of self; it simply suggests that it is more *likely* to occur. Experiencing self as the only invariant across a myriad of cognitive and emotional experiences has been conceptualized as the core of "spirituality" and a sense of transcendence (Hayes, 1984), which we argue allows healthy self-control and provides well being.
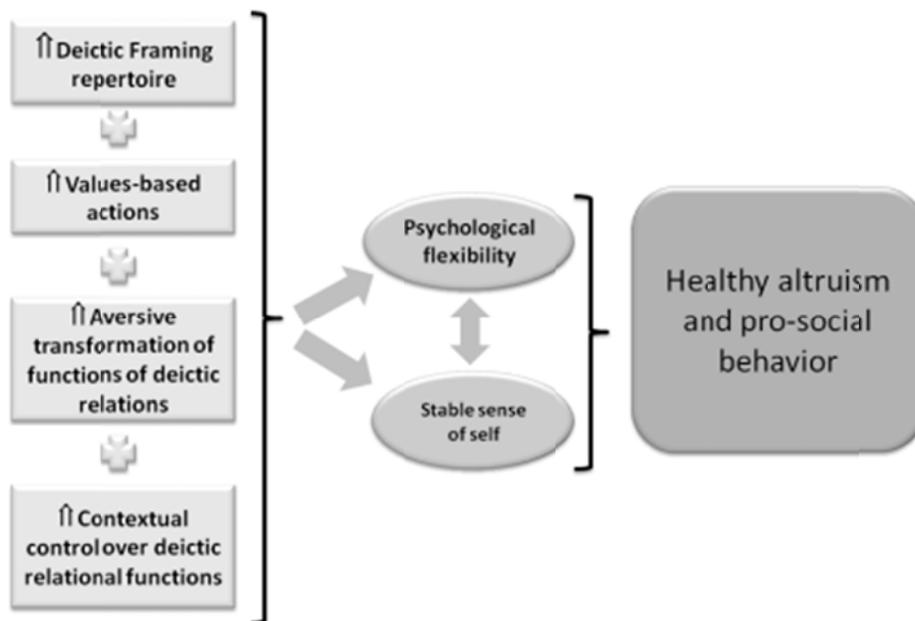

Figure 4. Third level: Healthy altruism, psychological flexibility and a stable sense of self.

Additionally, a more integrated sense of self ameliorates the aversive functions of some deictic frames, since it contextualizes them and therefore it allows for more effective behaviors to arise. Contextual control is crucial and it relates to the notion of *psychological flexibility* or

"the ability to *engage* or *disengage* in behavior in the service of chosen values, and to contact the present moment as a fully conscious being" (Hayes, Levin, & Vilardaga, 2010).

 This integrated sense of self increases individuals' self-awareness and enables them to respond to the current environment in a more effective manner given their set of core values. It does not really imply a disconnection from the individuals' perspective-taking ability; on the contrary, it implies that the individuals' responses are under the control of this ability *and* additional sources of influence (for example, a specific perspective and some sort of values).

 This process of awareness has been defined as *self-as-context* by ACT proponents (Hayes et al., 1999). It contributes to a reduction of the individuals' psychological inflexibility and allows more healthy and fluid interactions with the group. This kind of sense of self allows a given individual to not only take perspective regarding the other person, but also to take perspective regarding his own private experiences and therefore make room for more effective values-based actions.

Final Remarks

 Although there is no specific data supporting the interpretative account of pathological altruism laid out here, there are data in support of the three levels model just described in the context of social anhedonia, which is a subclinical behavioral pattern that is predictive of schizophrenia (Chapman, Chapman, Kwapil, Eckblad, & Zinser, 1994). Because social anhedonia and pathological altruism are within a sociality proneness continuum, and this model provides a framework for considering healthy and pathological forms of social functioning, a brief description seems warranted. In a recent study (Estévez, Vilardaga, Levin, & Hayes, 2009), 110 colleges students completed a battery of questions that evaluated their deictic framing ability (DFT; Vilardaga et al., 2009), empathic concern (IRI; Davis, 1980), experiential avoidance (AAQ; Hayes et al., 2004a) and social anhedonia (rSAS; Eckblad, Chapman, Chapman, & Mishlove, 1982). Analyses revealed that deictic framing, empathy, and experiential avoidance had a medium size effect on social anhedonia after taking into consideration family education, age, gender and social support. Each of the three elements in the model were significantly related to social anhedonia after accounting for each other. This preliminary data is promising, particularly in light of a growing body of evidence that interventions such as ACT can target the processes of experiential avoidance, conceptualized self and effective values-actions across multiple problems (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). The evidence also shows that changes in these processes mediate outcomes (Hayes et al., 2006). In other words, these processes can be manipulated; when they are changed, changes in outcome follow. This fact suggests that this model could be a promising line of investigation with regard to pathological altruism at a behavioral level.

Conclusions

 Behavior analysis, at least the variant from which the CBS approach has emerged, is poorly understood. Although Skinner's behaviorism deviated from the black box paradigm of Stimulus-Response psychology and opened the door to the behavioral analysis of emotion and cognition and the world within (Skinner, 1945), errors in the analysis of language and cognition led behavior analysts to conclude that an analysis of cognition and emotion was not essential to

the understanding of overt behavior (Hayes, 1989)[1]. Unfortunately, many forms of complex human phenomena would not yield to a direct contingency account alone. Furthermore, behaviorists applied a narrow range of methodologies, which made it difficult to analyze more complex forms of behavior and to an excessive reliance on interpretation when dealing with behaviors beyond the reach of a direct contingency analysis (Hayes, 1987). An additional problem might be that the technical terms developed by behavior analysts did not refer to "internal causes" with "weight and volume," (e.g., structural aspects of the brain) but instead to ecological and systemic aspects of the environment in interaction with the organisms' behavior (which are entirely physical as well, although less intuitive and acceptable in traditional views of science such as in the medical model).

By defining what "cognition" is via derived relational responding, a contextual behavioral approach can proceed in a more effective way. From an RFT point of view, there are two ontogenetic contingency streams at the psychological level of analysis. One is composed of the direct contingencies which impact behavior in the organism/environment interaction. The other is composed of events, actions, and consequences involved in derived relational responses. These two streams interact, and are in turn embedded in contingency streams at the cultural and biological level. The meta-theory involved in this approach is evolutionary science, with variation and selection operating simultaneously at all of these levels.

The CBS approach to pathological altruism does not put emphasis on the individual's "intent" to help or to be selfish. The focus instead is on the verbal contexts that select deictic framing repertoires, make experiential avoidance possible, and also put it under more appropriate contextual control. Pathological altruism can be conceptualized at the psychological level of analysis as a form of behavior that is influenced and maintained by the cultural/verbal environment (e.g., the context of an individual's history and current circumstances). Certain forms of behavior such as experiential avoidance and entanglement with a conceptualized self can lead to pathological altruism given the proper conditions. Instead, healthy forms of altruism tend to be the result of values-based action and a strong deictic framing repertoire which involves not only being aware of one's own suffering and that of others, but also of developing a stable sense of self with high psychological flexibility.

Since there has been little direct research on pathological altruism from a CBS perspective, the present analysis is designed more to guide subsequent investigation than to prove the adequacy or applicability of the present account. We hope the current chapter provides preliminary guidance and encourages other researchers to consider the value of a contextual behavioral strategy.

Reference List

Aberson, C. L. & Haag, S. C. (2007). Contact, perspective taking, and anxiety as predictors of stereotype endorsement, explicit attitudes, and implicit attitudes. *Group Processes & Intergroup Relations, 10,* 179-201.

Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a 'theory of mind'? *Cognition, 21,* 37-46.

Batson, C. D. (1991a). *The altruism question: toward a social psychological answer*. New Jersey: Lawrence Erlbaum.

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[1] An extended presentation of the conceptual problems of traditional behavioral accounts of language can be found in Chapter 5 of this volume.

Batson, C. D. (1991b). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.

Berens, N. M. & Hayes, S. C. (2007). Arbitrarily applicable comparative relations: Experimental evidence for a relational operant. *Journal of Applied Behavior Analysis, 40,* 45-71.

Blacher-Dixon, J. & Simeonsson, R. J. (1981). Perspective-taking by mentally retarded children: A one-year follow-up. *American Journal of Mental Deficiency, 85,* 648-651.

Campbell, J. C. (2002). Health consequences of intimate partner violence. *Lancet, 359,* 1331-1336.

Chandler, M. J. (1973). Egocentrism and antisocial behavior: The assessment and training of social perspective-taking skills. *Developmental Psychology, 9,* 326-332.

Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour Research and Therapy, 44,* 371-394.

Chapman, L. J., Chapman, J. P., Kwapil, T. R., Eckblad, M., & Zinser, M. C. (1994). Putatively Psychosis-Prone Subjects 10 Years Later. *Journal of Abnormal Psychology, 103,* 171-183.

Charlop-Christy, M. H. & Daneshvar, S. (2003). Using video modeling to teach perspective taking to children with autism. *Journal of Positive Behavior Interventions, 5,* 12-21.

Cioffi, D. & Holloway, J. (1993). Delayed Costs of Suppressed Pain. *Journal of Personality and Social Psychology, 64,* 274-282.

Corcoran, K. O. & Mallinckrodt, B. (2000). Adult attachment, self-efficacy, perspective taking, and conflict resolution. *Journal of Counseling & Development, 78,* 473-483.

Dahl, J., Plumb, J. C., Stewart, I., & Lundgren, T. (2009). *The Art and Science of Valuing in Psychotherapy*. Oakland: New Harbinger.

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *Catalog of Selected Documents in Psychology, 10,* 1-17.

de Waal, F. B. M. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology, 59,* 279-300.

Decety, J. & Meyer, M. (2008). From emotion resonance to empathic understanding: A social developmental neuroscience account. *Development and Psychopathology, 20,* 1053-1080.

Decety, J., Michalska, K. J., & Akitsuki, Y. (2008). Who caused the pain? An fMRI investigation of empathy and intentionality in children. *Neuropsychologia, 46,* 2607-2614.

Degenova, M. K., Patton, D. M., Jurich, J. A., & Macdermid, S. M. (1994). Ways of Coping Among Hiv-Infected Individuals. *Journal of Social Psychology, 134,* 655-663.

Drolet, A., Larrick, R., & Morris, M. W. (1998). Thinking of others: How perspective taking changes negotiators' aspirations and fairness perceptions as a function of negotiator relationships. *Basic and Applied Social Psychology, 20,* 23-31.

Dymond, S. & Barnes, D. (1995). A transformation of self-discrimination response functions in accordance with the arbitrarily applicable relations of sameness, more than, and less than. *Journal of the Experimental Analysis of Behavior, 64,* 163-184.

Dymond, S. & Barnes, D. (1997). Behavior-analytic approaches to self-awareness. *Psychological Record, 47,* 181-200.

Eckblad, M. L., Chapman, L. J., Chapman, J. P., & Mishlove, M. (1982). The revised social anhedonia scales. (Available from T. Kwapil at t_kwapil@uncg.edu or write him at Department of Psychology University of North Carolina at Greensboro, 281 Bruce M. Eberhart Bldg., Greensboro, NC 27410).

Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology, 51,* 665-697.

Elliot, A. J., Sheldon, K. M., & Church, M. A. (1997). Avoidance personal goals and subjective well-being. *Personality and Social Psychology Bulletin, 23,* 915-927.

Epley, N., Caruso, E., & Bazerman, M. H. (2006). When Perspective Taking Increases Taking: Reactive Egoism in Social Interaction. *Journal of Personality and Social Psychology, 91,* 872-889.

Estévez, A., Vilardaga, R., Levin, M. E., & Hayes, S. C. (2009, June). Conducta relacional deíctica, empatía y evitación experiencial como predictores de anhedonia social en estudiantes universitarios. In Poster session presented at the 2nd meeting of the "Emotions and Well Being" Conference organized by the Spanish Society for the Study of Anxiety and Stress, Madrid, Spain.

Fallon, B. A. & Horwath, E. (1993). Asceticism - Creative Spiritual Practice Or Pathological Pursuit. *Psychiatry-Interpersonal and Biological Processes, 56,* 310-316.

Fehr, E. & Fischbacher, U. (2003). The nature of human altruism. *Nature, 425,* 785-791.

Galinsky, A. D. & Ku, G. (2004). The Effects of Perspective-Taking on Prejudice: The Moderating Role of Self-Evaluation. *Personality and Social Psychology Bulletin, 30,* 594-604.

Greco, L. A., Heffner, M., Poe, S., Ritchie, S., Polak, M., & Lynch, S. K. (2005). Maternal Adjustment Following Preterm Birth: Contributions of Experiential Avoidance. *Behavior Therapy, 36,* 177-184.

Hayes, S. C. (1987). Language and the incompatibility of evolutionary and psychological continuity. *Behavior Analysis, 22,* 49-54.

Hayes, S. C. (1989). *Rule-governed behavior: Cognition, contingencies, and instructional control.* New York: Plenum Press.

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (2001). *Relational Frame Theory. A Post-Skinnerian account of human language and cognition.* New York: Kluwer Academic.

Hayes, S. C., Levin, M. E., Plumb, J., Boulanger, J., & Pistorello, J. Acceptance and Commitment Therapy and Contextual Behavioral Science: Examining the Progress of a Distinctive Model of Behavioral and Cognitive Therapy. *Behavior Therapy,* (in press).

Hayes, S. C., Levin, M. E., & Vilardaga, R. Acceptance and Commitment Therapy: Applying a Iterative Translational Research Strategy in Behavior Analysis. In *APA Handbook of Behavior Analysis,* (in press).

Hayes, S. C. (1984). Making sense of spirituality. *Behaviorism, 12,* 99-110.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44,* 1-25.

Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D. et al. (2004a). Measuring Experiential Avoidance: A Preliminary Test of a Working Model. *Psychological Record, 54,* 553-578.

Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D. et al. (2004b). Measuring Experiential Avoidance: A Preliminary Test of a Working Model. *Psychological Record, 54,* 553-578.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change.* New York: Guilford Press.

Hayes, S. C. & Wilson, K. G. (1993). Some applied implications of a contemporary behavior-analytic account of verbal events. *Behavior Analyst, 16,* 283-301.

Hayes, S. C., Wilson, K. G., Gifford, E. V., & Follette, V. M. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64,* 1152-1168.

Hornstein, H. A. (1991). Empathic distress and altruism: Still inseparable. *Psychological Inquiry, 2,* 133-135.

Imura, O. (2002). Schizophrenia and perspective taking: A comparison of schizophrenic and transient psychotic disorder patients. *Japanese Journal of Psychology, 73,* 383-390.

Keysar, B., Lin, S., & Barr, D. J. (2003). Limits on theory of mind use in adults. *Cognition, 89,* 25-41.

Krebs, D. L. (1970). Altruism - Examination of Concept and A Review of Literature. *Psychological Bulletin, 73,* 258-302.

LeBlanc, L. A., Coates, A. M., Daneshvar, S., Charlop-Christy, M. H., Morris, C., & Lancaster, B. M. (2003). Using video modeling and reinforcement to teach perspective-taking skills to children with autism. *Journal of Applied Behavior Analysis, 36,* 253-257.

Lee, D. C. & Quintana, S. M. (2005). Benefits of Cultural Exposure and Development of Korean Perspective-Taking Ability for Transracially Adopted Korean Children. *Cultural Diversity & Ethnic Minority Psychology, 11,* 130-143.

Leeds, R. (1963). Altruism and the norm of giving. *Merrill-Palmer Quaterly, 9,* 229-232.

Lipkens, R., Hayes, S. C., & Hayes, L. J. (1993). Longitudinal study of the development of derived relations in an infant. *Journal of Experimental Child Psychology, 56,* 201-239.

Long, E. C. J. (1993). Maintaining a stable marriage: Perspective taking as a predictor of a propensity to divorce. *Journal of Divorce & Remarriage, 21,* 121-138.

Luciano, C., Becerra, I. G., & Valverde, M. R. (2007). The role of multiple-exemplar training and naming in establishing derived equivalence in an infant. *Journal of the Experimental Analysis of Behavior, 87,* 349-365.

Malow, R. M., Ireland, S. J., Halpert, E. S., Szapocznik, J., Mcmahon, R. C., & Haber, L. (1994). A Description of the Maternal Addiction Program of the University-Of-Miami, Jackson Memorial Medical-Center. *Journal of Substance Abuse Treatment, 11,* 55-60.

Marx, B. P. & Sloan, D. M. (2005). Peritraumatic dissociation and experiential avoidance as predictors of posttraumatic stress symptomatology. *Behaviour Research and Therapy, 43,* 569-583.

Masedo, A. I. & Esteve, M. R. (2007). Effects of suppression, acceptance and spontaneous coping on pain tolerance, pain intensity and distress. *Behaviour Research and Therapy, 45,* 199-209.

McHugh, L., Barnes-Holmes, Y., & Barnes-Holmes, D. (2004a). Perspective-Taking as Relational Responding: A Developmental Profile. *Psychological Record, 54,* 115-144.

McHugh, L., Barnes-Holmes, Y., & Barnes-Holmes, D. (2004b). Relational Frame Account of the Development of Complex Cognitive Phenomena: Perspective-taking, False Belief Understanding, and Deception. *International Journal of Psychology & Psychological Therapy, 4,* 303-324.

McPherson Frantz, C. & Janoff-Bulman, R. (2000). Considering both sides: The limits of perspective taking. *Basic and Applied Social Psychology, 22,* 31-42.

Moriguchi, Y., Decety, J., Ohnishi, T., Maeda, M., Mori, T., Nemoto, K. et al. (2007). Empathy and judging other's pain: An fMRI study of alexithymia. *Cerebral Cortex, 17,* 2223-2234.

Morozov, Evgeny (2009, June 17). Iran Elections: A Twitter Revolution? *The Washington Post*.

Plumb, J. C., Orsillo, S. M., & Luterek, J. A. (2004). A preliminary test of the role of experiential avoidance in post-event functioning. *Journal of Behavior Therapy and Experimental Psychiatry, 35,* 245-257.

Polusny, M. A., Rosenthal, M. Z., Aban, I., & Follette, V. M. (2004). Experiential Avoidance as a Mediator of the Effects of Adolescent Sexual Victimization on Negative Adult Outcomes. *Violence and Victims, 19,* 109-120.

Preston, S. D. & de Waal, F. B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and Brain Sciences, 25,* 1-2.

Rehfeldt, R. A., Dillen, J. E., Ziomek, M. M., & Kowalchuk, R. K. (2007a). Assessing Relational Learning Deficits in Perspective-Taking in Children with High-Functioning Autism Spectrum Disorder. *Psychological Record, 57,* 23-47.

Rehfeldt, R. A., Dillen, J. E., Ziomek, M. M., & Kowalchuk, R. K. (2007b). Assessing relational learning deficits in perspective-taking in children with high-functioning autism spectrum disorder. *Psychological Record, 57,* 23-47.

Rupp, G. L. & Jurkovic, G. J. (1996). Familial and individual perspective-taking processes in adolescent females with bulimic symptomatology. *American Journal of Family Therapy, 24,* 75-82.

Schiffman, J., Lam, C. W., Jiwatram, T., Ekstrom, M., Sorensen, H., & Mednick, S. (2004). Perspective-taking deficits in people with schizophrenia spectrum disorders: A prospective investigation. *Psychological Medicine, 34,* 1581-1586.

Scott, K. S., Moore, K. S., & Miceli, M. P. (1997). An exploration of the meaning and consequences of workaholism. *Human Relations, 50,* 287-314.

Sheldon, K. M. & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76,* 482-497.

Sheldon, K. M., Kasser, T., Smith, K., & Share, T. (2002). Personal goals and psychological growth: Testing an intervention to enhance goal attainment and personality integration. *Journal of Personality, 70,* 5-31.

Silvern, L. E., Waterman, J. M., Sobesky, W. E., & Ryan, V. L. (1979). Effects of a developmental model of perspective taking training. *Child Development, 50,* 243-246.

Skinner, B. F. (1945). The operational analysis of psychological terms. *Psychological Review, 52,* 270-277.

Skinner, B. F. (1974). *About Behaviorism*. New York: Knopf.

Tjosvold, D., Johnson, D. W., & Johnson, R. (1984). Influence strategy, perspective-taking, and relationships between high- and low-power individuals in cooperative and competitive contexts. *Journal of Psychology: Interdisciplinary and Applied, 116,* 187-202.

Underwood, B. & Moore, B. (1982). Perspective-taking and altruism. *Psychological Bulletin, 91,* 143-173.

Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective taking and prejudice reduction: The mediational role of empathy arousal and situational attributions. *European Journal of Social Psychology, 33,* 455-472.

Vilardaga, R. & Hayes, S. C. Acceptance and Commitment Therapy and the therapeutic relationship stance. *European Psychotherapy,* (in press).

Vilardaga, R., Hayes, S. C., Levin, M. E., & Muto, T. (2009). Creating a strategy for progress: A Contextual Behavioral Science approach. *Behavior Analyst, 32,* 133.

Vilardaga, R., Levin, M. E., Waltz, T., Hayes, S. C., Long, D., & Muto, T. (2008, May). Testing a new pespective-taking procedure in the context of attitudes, emotional reactions and behaviors towards different cultural groups. In R. Vilardaga (chair): *Recent applications of Relational Frame Theory using Deictic Framing Procedures*, Symposium to be conducted at the 34rd Annual Convention of the Association for Behavior Analysis International, Chicago, IL.

Vilardaga, R., Waltz, T., Levin, M. E., Hayes, S. C., Stromberg, C., & Amador, K. (2009, July). Deictic Relational Framing and Connectedness among College Students: A Small Analog Study. In L. McHugh (Chair), *Applications of deictic relational framing*. Symposium to be conducted at the Third World Conference on ACT, RFT, and Contextual Behavioral Science, Enschede, The Netherlands.

Villatte, M., Monestes, J. L., McHugh, L., Freixa i Baqué, E., & Loas, G. (2008). Assessing deictic relational responding in social anhedonia: A functional approach to the development of Theory of Mind impairments. *International Journal of Behavioral Consultation and Therapy, 4,* 360-373.

Villatte, M., Monestes, J. L., McHugh, L., Freixa i Baqué, E., & Loas, G. Assessing perspective taking in schizophrenia using relational frame theory. *The Psychological Record,* (in press).

Weil, T. M. (2007). *The impact of training deictic frames on perspective taking with young children: A relational frame approach to theory of mind.* ProQuest Information & Learning.

Wells, A., Clark, D. M., & Ahmad, S. (1998). How do I look with my minds eye: Perspective taking in social phobic imagery. *Behaviour Research and Therapy, 36,* 631-634.

Wilson, K. G. & DuFrene, T. (2009). *Mindfulness for two: An acceptance and commitment therapy approach to mindfulness in psychotherapy.* Oakland, CA: New Harbinger.

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Steve has four children, ages 40, 21, 18, and 4. If he survives this he will have had minor children in the home for 55 years before the youngest goes to college. His favorite music is trance, techno, and chill—he is the oldest raver in the place when trance DJs come to town.