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A proposal for synthesizing verbal contexts in Experiential Avoidance Disorder and Acceptance and Commitment Therapy

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ABSTRACT

The present paper offers a proposal of how the natural bidirectionality and function-altering properties of language or verbal behavior may give rise to the pathogenic verbal contexts proposed within the framework of Acceptance and Commitment Therapy as responsible for Experiential Avoidance Disorder (EAD). Specifically, it is argued that these four contexts (literality, evaluation, reason-giving and the verbal regulation of the control of private events) are all of them part of a process where the last of them (verbal regulation of the control of private events) is the main one that encloses and gives rise to the other three, by virtue of the fact that it is the only context that involves effective actions and, subsequently, that has contingencies. Accordingly, for the other three contexts become a limitation, it is necessary that the person initiates avoidance attempts that, although reinforcing in the short run, necessarily involve a loss in long-term contingencies (going against personal values). An explanation in RFT terms is offered of how aversive private events increase or decrease their aversiveness (by transformation of functions) depending on how they are experienced in regard to personal values: either when the person behaves as if negatively evaluated private events were in opposition to valuable actions, or when the person behaves as if private events were in coordination to valuable actions. The paper also focuses in the RFT analysis of the verbal processes under which some ACT clinical methods might be operating, either in altering both the context of value in which experiential avoidance becomes a problem and in altering cognitive defusion. Clinical and preliminary experimental preparations are presented to make these points, emphasizing the need of basic research parallel to clinical one.

Key words: Experiential avoidance disorder, Acceptance and Commitment Therapy, relational frame theory, verbal contexts, control of private events, verbal regulation, contingencies.

RESUMEN

Una propuesta de síntesis de los contextos verbales en el Trastorno de Evitación Experiential y en la Terapia de Aceptación y Compromiso. El artículo se centra en una propuesta en torno a cómo las propiedades naturales de la bidirección y la alteración de funciones del lenguaje o de la conducta verbal, pueden dar razón de los contextos verbales patogénicos señalados en el marco de la Terapia de Aceptación y Compromiso (ACT) como responsables del Trastorno de Evitación Experiential (TEE). Específicamente, se plantea que

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estos cuatro contextos verbales (literalidad, evaluación, dar razones y la regulación verbal para el control de los eventos privados) son todos parte de un proceso donde el último de ellos es el principal ya que engloba, conforma y potencia los restantes. Esto se debe al hecho de que es el único contexto que implica acciones efectivas y consecuentemente tiene contingencias. Según esto, para que los tres contextos verbales se conviertan en limitantes, es necesario que la persona se inicie en la evitación de los eventos privados que, aunque con dividendos a la corta, necesariamente implica una pérdida a la larga (supone ir en contra de los valores personales). Se presenta una explicación, en términos de la Teoría del Marco Relacional (RFT), de cómo los eventos privados aumentan o disminuyen en aversividad (a través de un proceso de transformación de funciones), dependiendo de cómo se experimenten con respecto a los valores personales: bien cuando la persona se comporta como si los eventos privados se opusieran a poder hacer acciones valiosas, bien cuando estos eventos se coordinan o no se viven como barreras para emprender acciones personalmente valiosas. La segunda parte del artículo plantea, en términos de la RFT, un análisis de algunos de los métodos clínicos de ACT empleados para: (1) alterar el contexto de valor en el que la evitación experiencial es un problema y, (2) alterar la fusión cognitiva o la actuación centrada en la literalidad patológica. Se presentan una muestra de preparaciones clínicas y datos preliminares en el ámbito experimental que se dirigen al análisis de estos aspectos.

Palabras Clave: Trastorno de Evitación Experiencial, Terapia de Aceptación y Compromiso, Teoría del Marco Relacional, contextos verbales, control de eventos privados, regulación verbal, contingencias.

EXPERIENTIAL AVOIDANCE DISORDER

An obvious feature at the basis of most psychological disorders is the presence of a generalized pattern of deliberate actions to remove or avoid a state of suffering or distress that constrains personal functioning and finally does not fulfil the expectations of distress reduction, but instead has the effect of increasing the very suffering that the person wants to remove. This suffering can show up in many different forms, and the strategies employed in order to reduce it are manifold. These particular forms and strategies constitute the criteria employed in the definition and classification of different psychological disorders according to the formal diagnostic taxonomies currently employed in mental health systems (DSM and ICD). However, a functional analysis of the different disorders shows that many of them share a common functional "stem" that has been termed destructive experiential avoidance (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Luciano & Hayes, 2001), and that they can be conceptualized as topographically different instances of the experiential avoidance disorder (EAD).

EAD can be understood as an ineffective generalized behavioral class of verbally regulated avoidance that can be described according to the classical paradigm of self-control, with the addition of more recent formulations on verbal behavior and derived relational responding (see Hayes, Barnes-Holmes, & Roche, 2001). Functionally, self-control abilities constitute an operant class established through individual history as a repertoire of choice between incompatible contingencies signalled by different (verbal)

discriminative stimuli. According to this, the person undertakes actions that involve the loss of reinforcing contingencies in the short run. However, the consequences of these very actions have a symbolic positive value due to their relationship with probable positive results in the long run. EAD can be thought of as a special instance of a lack of self-control where the person has come, through personal history, to value "the need of feeling well" as an absolute priority in order to embark on committed valued actions. For someone behaving in accordance with such pattern, personal performance is mainly determined by attempts to remove and avoid immediate distress, even though it may be costly in the long run, with a general impairment in personal life. Paradoxically, the person behaving under this schedule is deeply convinced that the plan followed with their actions is totally correct and necessary in order to live. For example, following the rule "I can't live with these terribly painful thoughts. Have to do something to remove them". This behavioral pattern is controlled both by an immediate (and tricky) reduction of pain and distress (negative reinforcement) and by the extraordinary power of "being right" or being coherent with one's own thinking (positive reinforcement); in other words, feeling that one's actions are correct in order to go towards one's valued goals (Luciano & Hayes, 2001). A person acting according to such plan hardly has any real possibility of choosing a different direction.

This pattern of destructive experiential avoidance can be explained appealing to an individual history where multiple longitudinal interactions, either accidentally or deliberately, promote the control of private events as if they were causes for actions. This promotion is, first of all, culturally given for human organisms whose verbal repertoires are characterized by the fundamental features of bidirectionality (mutual and combinatorial entailment) and transformation of functions (Hayes, Barnes-Holmes, & Roche, 2001; Hayes, Strosahl, & Wilson, 1999). However in the present paper we argue that specific contingencies have to be involved for this sort of rigid, ineffective verbal regulation to become the predominant repertoire in a particular individual where the natural characteristics of verbal behavior become a trap. In the next section we analyze the conditions responsible for the emergence of those verbal traps.

VERBAL CONTEXTS THAT DEFINE PATHOLOGIC EXPERIENTIAL AVOIDANCE

Experiential avoidance, per se, is a normal part of being verbal, and it is not necessarily a pathogenic process except when it becomes a pattern against valued action. Moreover, EA is under the umbrella of the more generalized repertoire of avoidance, a basic and highly adaptive repertoire where the organism escapes from potentially harmful aversive events. The picture is a little more complex when aversive properties are present by verbal means and the actions taken to avoid these functions could be either effective or not depending on the context of personal values. That is, as naturally as we tend to approach whatever signal of reinforcement and to avoid whatever aversive signal, psychological distress could emerge when avoidance attempts are not effective because they prevent the very actions that could render in positive results (personally valuable actions).

The inherent/natural properties of verbal behavior (mutual and combinatorial

entailment and transformation of functions) along with the early social interactions that lead humans to discriminate and name private events imply that humans learn not only to think, to remember, to discriminate emotions and so with other private events (Skinner, 1945) but, in turn, that they will experience some of them as positive and some others as negative (Hayes, 1984). The very nature of human language necessarily involves that, as soon as something is evaluated as positive, this very event will imply the emergence, sooner or later, of an event evaluated as negative (e.g. the absence of the positive event; the comparison of one's own current state with that previous positively evaluated event) (see Hayes, Barnes-Holmes, & Roche, 2001; Hayes et al., 1999). Given this evaluative process of private events, the conferment of one role or another (in terms of causality) to such private events is at the basis of destructive patterns of behaving.

A radical analysis of EAD has to specify the conditions under which natural distress grows to the point of increasing its intensity and becomes a barrier to living a valued life, despite of repeated attempts to get rid of it. EAD is maintained by the person's behavior in accordance with the verbal contexts of literality, evaluation, reason giving, and the verbal regulation to control private events (Hayes et al. 1996, 1999; Hayes et al., 2001; Luciano & Hayes, 2001; Wilson & Luciano, 2002), all these contexts occurring in the more general overarching context of the culture which provides "rules for life" that focus in "first, feel well and, then, behave" (Dougher, 1994; Hayes et al., 1999; Pérez, 1999). Let's see these verbal contexts in further detail.

The verbal context of *literality* involves responding to an event in terms of another by virtue of the properties of derived relational responding: mutual and combinatorial entailment and the transformation of functions. It implies the difficulty (1) to differentiate between words-thoughts and their functions as contextual relations and (2) to differentiate the socially construed dimensions of self with flexibility according to one's values (e.g., behaving according to thoughts, memories or feelings without or with perspective in values). The verbal context of *evaluation* involves a failure to distinguish between the intrinsic (non-arbitrary) and arbitrary properties of whatever stimuli, specially words and private events. The verbal context of *reason giving* supports the cultural view (extremely potentiated by mainstream psychology) of emotion and cognition as good reasons or causes of behavior (e.g., "I cannot do what I want because I'm feeling depressed"). Finally, the context of *verbal regulation* (the "coherent solution" to the problems of reason-giving) refers to acting towards controlling the presumed causes of behavior.

Although this differentiation among the four contexts apparently shows that each one refers to a particular aspect of personal functioning, in this article *we will explicitly assert that all of them are part of a process where the last of these four contexts (verbal regulation) is the only one that involves effective contingencies. Consequently, it encloses the other three and enhances the mutual relations among them by providing the functional significance that defines EAD. This is so because verbally-regulated acting is the only verbal context that involves actions (oriented or planned to cognitive control/avoidance) and, subsequently, that involves contingencies.* We will briefly present an outline of the formation of these contexts, with special interest in pointing to the *essential role played*

by experiential avoidance actions and their contingencies in first generating and then maintaining the so frequent cognitive fusion, as well as in potentiating the cultural-given “superstitious” relations of private events as causes of behaving.

Development of EAD

The verbal community provides the conditions responsible for the transformation of an infant in a verbal being capable of responding relationally and following rules. This process has an early onset, with the emergence of bidirectional behavior (mutual and combinatorial entailment) involving transformation of functions (see Hayes, Barnes-Holmes, & Roche, 2001; Lipkens, Hayes, & Hayes, 1993; Luciano, Gómez, & Rodríguez, 2002). This emergent relational repertoire soon widens and extends, with the necessary interactions to learn to name bodily states, as well as verbally constructed events as sensations, thoughts, etc., and, at the same time, to evaluate all of them as positive or negative, and to discriminate one's own behavior (differentiating thinking from remembering, saying, doing and so on). Consequently this early learning process includes the abstraction of perceptions about oneself and their evaluation and classification as good or bad, as well as their specific (but arbitrary and not causal) function in (dis)regulating life. For instance, consider the case of a child with a well established verbal repertoire with coordination and opposition, comparative, sameness and difference frames, hierarchical frames, etc (that is, having learned the autoclitics or contextual cues “is, is not, better/worse than, bigger/smaller than, closer to, different to, same to, etc.). When the infant is praised with such expressions as “You are a very clever boy”, those words (themselves only sounds) carry with them a “verbal poisonous germ”, in the sense that under different circumstances (like being told “No, you're wrong”) he could “feel bad”, and more importantly, he could perceive himself as non-intelligent, dull, retarded, etc., always depending on the pre-existing relational networks actualized by that situation (e.g. let's presume that along the infant's socio-verbal history “being intelligent” is in equivalence with “being right”, “no mistakes”, etc.). However, this process of transformation of functions (which itself is unavoidable) need not always be limiting. For it to become a constraint, the infant has to be taught to respond to it in a limiting way. That is, if the infant is taught that such descriptions and evaluations (e.g. feeling bad because you do not perceive yourself as intelligent) need to be avoided or removed before doing anything else, and that something has to be done on his part for that to occur and, in turn, perceive himself positively again, he will soon embark on avoidance attempts. The consequences of trying to remove them will reinforce the actions planned and undertaken for such purpose. If multiple interactions like this take place, the infant will learn that those feelings are a barrier, something that must disappear in order to continue with whatever he was doing, and he will learn a strategy (that he will assume to be correct and effective) to remove distress. It is for sure that the consequences derived from that sort of verbal regulation increase the aversive and discriminative roles of private events, turning them into growing and relevant barriers for living.

The occurrence of multiple interactions functionally equivalent to the one we

have just described (without any other interference to compete with this process), could end up in the formation of a rigid and generalized functional class of experiential avoidance which can be very limiting in the long run. The child will have learned that “feeling well” is equivalent to an absence of whatever form of distress or pain, and more importantly, that it is necessary to control one’s own state in order to feel well as a necessary step for carrying out the important actions in life.

In contrast, the child could be taught to respond to derived negative descriptions of him in a flexible way, which would have very different consequences. For instance, teaching the child that those negative descriptions are not the relevant issue in order to undertake whatever action but that the relevance lies in the actions themselves (because of the direction in which those actions take him), would result in experiencing those private events either as reinforcing (e.g., when perceiving oneself as intelligent) or aversive (e.g., when perceiving oneself as dull), but not in subsequently organizing life actions around those descriptions and evaluations. They would not acquire a causal role for acting even in spite of the presence of mainstream control rules. This sort of flexibility may be obtained by trying to give the least possible relevance (whenever this were valuable) to distress feelings derived from certain contingencies and evaluations, that is, by giving them the least possible discriminative role for whatever action, encouraging the child to experience those sensations merely as another part of life, as something that will necessarily take place under certain conditions and that does not necessarily have a relevant role for subsequent actions. In other words, by teaching him to respond “dispassionately” to his private events, with his actions focused in the things that are really important to him (Hayes et al., 1999; Luciano, Gómez-Becerra, & Valdivia, 2002). In other words, by teaching him to act, to undertake and keep in valuable actions. These primary interactions would prevent the natural features of language to give rise to the pathogenic verbal contexts of evaluation, reason-giving and literality, so preventing the emergence of a pattern of destructive fusion. Say it other way, *they would prevent rigid cognitive fusion by promoting, instead, a flexible pattern of fusion and defusion behavior according to private events depending on whether it would be valuable.*

AN ANALYSIS OF THE VERBAL CONTEXTS DEFINING EAD

As we have pointed out before, the thesis we are defending is that although the inherent features of verbal behavior (the unavoidable derivation of functions under certain conditions) place verbal events in a context of literality (i.e. private events are negatively valued as a natural result of deriving functions) these events only become problematic as a result of planned actions oriented to controlling them. In other words, in spite of the fact that private events acquire verbal aversive functions by virtue of a derivation process (which is common to all verbal subjects) and the fact that people generally “regard” private events as causes that account for their behavior, these verbal contexts can only be relevant when the person experiences the contingencies of verbally regulated actions coherent with them, that is, actions oriented to controlling distressing private events as a necessary step in order to go towards a valued direction in life.

Therefore, the immediate contingencies of distress reduction (only effective in the short run) that give coherence to cognitive control rationales, end up conferring an extraordinarily important role to private events as fundamental determinants/causes of behavior despite they are not but psychological reactions (Skinner, 1969) that have to be explained as much as any other behavior or behavioral function (Hayes & Brownstein, 1986). The enhancement of literality or cognitive fusion resulting from actions directed to controlling negatively evaluated private events precludes the election of any alternative action, as apparently the only possible reaction under cognitive fusion with aversive contents is to escape from “threatening” private events as if they were real dangers. Those actions (and the contingencies engendered by them) directed to controlling the presumed causes of behavior are the ones which transform the language features of bidirectionality and transformation of functions into literality or cognitive fusion. This, in turn, strengthens the formulation of negative evaluations (as shown with the rebound effect in the literature on thought suppression: see Wegner, 1994; Wegner & Zanakos, 1994; Wenzlaff & Wegner, 2000), and enhances explanations of behavior based on private events. This constitutes an endogamic circle with its main focus in the contingencies of planned (verbally regulated) attempts to control aversive private events as a necessary step for effective functioning in life. Having extended the class of aversive events, the outcome of this process is a narrowing of effective repertoires which precludes contacting with valuable contingencies, with the subsequent addition of new aversive events and extended attempts of distress reduction.

Right to this point, our proposal is that the formation of destructive verbal contexts of literality, evaluation and reason giving is somehow the outcome of actions directed to such cognitive control. The contingencies engendered by those planned actions provide the feedback that generates a strong frame of coherence between all verbal contexts. According to this, it is not strange that clinical operations intended to altering reason-giving rationales may have an effect over the actions directed to breaking the discriminative avoidance function of private events which constitute the essential change. That is, significant clinical changes are the case specially when clients act in a valued direction and not as a result of cognitive understanding of the therapy (see series of cases exposed Hayes, Masuda, Bissett, Luoma, & Guerrero, in press; also in Luciano, 2001).

The point is that when EAD is already constituted as a functional class, the verbal contexts of literality and evaluation are enclosed within the context of reason giving, and the three of them are framed in the verbal regulation operant of experiential avoidance which becomes destructive only because it is working against personal valued directions. For both the context of verbal regulation of behavior and the context of the causal role given to private events, personal values (as well as the plan to pursue them) are constantly present. Following the plan of getting rid of aversive private events in order to act to have a good life is the context that gives a sense of meaninglessness to their fight against private events, due to the fact that finally there are no positive consequences in the long run. For this to occur, the person must feel “compelled” to get rid of something really aversive to them, something that they also conceive as a cause for behavior. Thus, the verbal contexts of literality and evaluation are the ones

that “signal” the cognitive “requirement or obligation” to undertake actions to override distress. Private events, however, are not “actions” in the sense of producing relevant consequences. Of course, as a behaving organism, the person acts in some way each time a cognition (a verbal reaction) occurs, and this very action is what really has *important* consequences, considering that even when the person is said to be “not doing anything”, she/he is unavoidably acting in a particular direction with the corresponding consequences, whether s/he wants those consequences or not.

For example, an aversive thought related to traumatic past episodes may show up naturally in the course of interactions that contain some relevant cue for such emergence. However, it will likely have a different impact depending on what the person actually did when the traumatic interaction took place and in subsequent interactions of the same class. For example, a sexual victim might have negative private reactions when approaching an intimate relationship (due to the natural bidirectional and function-altering properties of language) but the impact (probably even the neuro/biological impact) of these cognitive events might depend on the actions taken in such moments and the ones taken from the very first time these memories emerged. Hence, when memories emerge and the person acts as if that event were a barrier to life, preventing her to act in valued direction, then the context of destructive literality or destructive cognitive fusion is set to establish. As defined (see, Hayes et al., 1996, 1999; Wilson & Luciano, 2002), the context of literality involves responding to an event in terms of another in such a way that there is no clear distinction between the event and its functions and, consequently, words or cognitive events with derived negative functions can be avoided as much as the events symbolically related to them. Furthermore behaving with fusion will be enhanced when there is not sufficient differentiation between the verbal events happening to the person and the person who is reacting to them, as well as when the person is able to make such differentiation, but has not enough practice in taking perspective when it is valuable.

Then, (1) given the relevance of the actions taken following the goal of solving the problem -that in EAD means getting rid of aversive private events to feel well as a requisite to behave according to what the person values- and, (2) given that cognitive fusion is the probable result of that pattern of avoidance behaving and that it frequently actualizes the need to avoid, we will analyze these two elements. First, the verbal frames in which personal values appear to be threatened and second, the cognitive fusion, especially focused in the relationship between oneself as the person who acts and one's private events which are experienced as increasingly “threatening” barriers to living a valued life.

Verbal frames where personal values are threatened. The context of reasoning and valued actions.

The “tricky” strategies (verbal traps) followed by EAD patients finally result in a threat to valued life (even when values are not explicitly stated, or when the patient claims to have no values, e.g.: “nothing matters, I don't mind myself”). There are several possible sorts of tricky rationales or verbal traps that the person might follow.

Some examples could be the following. First, when the person's values are defined in terms of actions and goals that are clearly incompatible with human life and nature, implying an unwillingness (in terms of effective actions) to accept the human condition (e.g.: a rejection of death or disease as natural parts of life; a desire of controlling all possible threats to one's life, being willing to have only good memories or good thoughts about oneself; or to have an intense but only positive social life, plenty of only positive social and intimate relationships, job opportunities and projects, and, so, rejecting being willing to experience any distress as a result of being hurt, rejected, or feeling vulnerable, etc). Second, when the person's values are defined by necessarily having to obtain certain consequences ("being loved, protected, understood, helped by others"). Similarly, when personal values are defined according to goals that are believed to be reachable quickly and without difficulty or without having to undergo stressing situations (e.g., wanting to get a job without preparing oneself to fulfil the requirements of the job; wanting to be in an intimate relationship without any problem). Given that, the person will not persist as soon as any difficulty appears in the way. These examples are some of the rationales that assume that it is possible to live only the good part of life without assuming the responsibility of the two sides of every choice, or without assuming the two sides of the human condition (good memories, thoughts and feelings, yes, but also the possibility of negative ones). Life is really not for free.

When people behaving according to such a concept of life employ strategies that they consider correct in going towards a valued direction, what occurs in the long run is that those strategies are useless to get what they want, although the results they occasion in the short run (immediate avoidance of distress and the social consequences of being right or being coherent with our own presumably good plan) prevail over long-term losses. Specifically, the verbal context of reason giving, which confers a causal role to private events, includes rules such as: "I can not go on with this", or, in other words, "you have to feel right in order to live, which means that, first of all, you have to control your anxiety, sadness, depression, pain, the voices in your head, ..., and then, you will do your life". Following this sort of rules heads the person to the verbal trap we have described, where control strategies provide immediate relief, which in turn strengthens the original rationale. Therefore, although in the long run people end up losing what really matters, these long-term aversive contingencies cannot compete with the immediate contingencies of control which, in turn, increase the need to follow the rule provided that private aversiveness extends and increases. This verbal trap (rule) specifies behavior-behavior relations (between thinking/feeling and acting) that can give us the key in order to understand why suffering increases with control strategies. In other words, the real trap is not private events (cognitions), but the actions taken in accordance with the "tricky rule or rationale of eliminating them for being able to act according to what one would like to do". As indicated previously, only what we do provides the contingencies that, in turn, are altered by the verbal function of the rationale and that finally shape the person's behavior for living.

In such rationales aversive private events are in a temporal relation of opposition with valued actions. That is, these events are experienced as a barrier to living, as something that is, by nature, incompatible with our goals in life and, subsequently, that

has to be removed or controlled before we undertake valuable actions. This temporal relation where the first element is painful and the second one is extremely valued, necessarily implies that the first element be experienced very aversively. This point has been observed in clinical research on protocols of values clarification aimed at breaking down problematic experiential avoidance. The values-clarification protocol was focused in changing the relation between private events and valued actions from opposition to coordination (Luciano, Páez, Valdivia, Molina, & Gutiérrez, 2003). Twelve sub-clinical subjects (19-23 years old) showing distress and limitation in several life-areas (for example, education, social, or family) for more than six months underwent a values-clarification intervention in one treatment session and three follow-up sessions. The protocol comprised several examples addressed to altering the unique relation between the client's behaving and her/his cognitive barriers (negatively evaluated private events) from one of opposition to valued actions to one of coordination. Interventions include: (1) the analysis of what s/he would like to do in areas where s/he is stuck, what s/he has been doing, the results of it, and the barriers to behave according to what s/he would like to do (the garden metaphor was used to realize his/her experience in resolving the problem, see Wilson & Luciano, 2002), (2) examples to become aware of what can be changed and what cannot, and the cost of what one chooses to change with the two sides of every action, (3) examples to realize that barriers and valued actions are not in confrontation but that the actions taken in the presence of barriers are finally a choice with different cost according to what the person values, and (4) examples to experience the loneliness of responding, as human beings, with the responsibility of every choice. Nine subjects out of 12 changed their actions in regard to the areas where they were stuck to actions towards what they valued, this experimental measure recorded one week after the single session of treatment (with more dramatic changes during follow up) to actions towards what they valued. This change occurred in the presence of barriers (aversive private events), however there was a global average slight reduction in the aversiveness of such events along weeks. This intervention is just one step in the direction of experimentally isolating part of the process of values clarification in therapy interactions that are focused in validating the subject for their efforts to resolve the problem and in encouraging him/her to take responsibility of their actions according to the human condition. The metaphor and examples given in the protocol were all focused in altering the reason-giving context by realizing that psychological barriers are part of the human condition and that responding to them might be a choice coordinated with valued actions instead of something against them.

RFT can offer an explanation of these clinical results as well as of other experimental outcomes of preparations directed to analyzing the effects of control and acceptance strategies that will be briefly described later. Our proposal is that control strategies can be conceptualized as temporal relations of opposition whereas acceptance strategies can be conceived as temporal relations of coordination. That is, when two elements, one of them A with an aversive value, and the other one B with a positive value, are placed in a temporal relationship of opposition, so that in order to get to B, first A must be absent or disappear, then if A is present its aversive value is increased by the simple fact that A is in opposition to positively evaluated B (i.e. as long as A

is present B is not reachable). This transformation of functions is determined by the temporal relation of opposition between A and B, so that the positive value of B transforms into negative for A, in accordance with the frame of opposition that determines the relation between both elements. This would serve to explain why acting in accordance with a temporal frame of opposition (where first you have to control/avoid/suppress some negative event in order to act in a positive direction) has the outcome of living current distress more aversively than if it were temporally coordinated with valuable actions. In other words, acting towards A (in order to control it) precludes acting towards B, and the symbolic loss of the positive value of B transforms (by increasing it) the (already) aversive value of A. Following such a rule facilitates cognitive fusion, in the sense that focusing one's actions in A allows only contacting with the contingencies associated to A, and in turn prevents the possibility of undertaking valuable actions (B) whose contingencies could compete with the aversive value of A. In contrast, if both elements were related according to a temporal frame of coordination, where going through (A) were just a step in the direction of (B), then the negative value of (A) would actually decrease. This would be analogue to the process of learning that "one doesn't necessarily have to stop valuable actions just because of aversive private events showing up". When aversive private events are not given special relevance, they will generate distress to a certain extent given the human condition (and according to each particular history), but they will not have the supplementary aversive value derived from taking them as barriers to what we value in life. This allows for living in spite of the relative distress occasioned by cognitive events.

Experimental research on the transfer and transformation of functions has yielded outcomes that seem to be supportive of this contention (see in Hayes, Barnes-Holmes, & Roche, 2001). More specifically, a study by Gutiérrez, Luciano, Rodríguez, and Fink (in press) study shows how the experience of pain had different roles depending on the functional temporal cues of coordination and opposition present at each moment, albeit in this study protocols also included defusion strategies in such verbal contexts. In this study, subjects went through a self-control task where they could earn points (to be changed later by prizes) by keeping in task as long as possible, although that implied receiving increasingly aversive shocks. In addition they were instructed that persistence in task would be an analogue of people suffering of chronic pain and that their participation would be very useful in order to gain information to help such people. Subjects treated with a verbal protocol that put the immediate shocks of whatever intensity in a frame of coordination with keeping in task, showed a significantly better performance than subjects treated with a protocol that placed the aversive experience of shock in a frame of opposition with the task. These data have been replicated and extended in recent controlled studies (Stewart, McHugh, Barnes-Holmes, Barnes-Holmes, Luciano, Wilson, & Cunningham, 2004; Paéz, Luciano, Rodríguez, Gutiérrez, & Ortega, 2004).

Although, more basic analogue studies are still needed to isolate the components involved in the different protocols, the present evidence points to the convenience of promoting rule-following in accordance with verbal formulae that specify actions that are coherent with the human condition, that is, rules that point to the experience of distress as a natural part of living for verbal organisms, with special care in giving

private events no relevance as determinants of subsequent actions, thus reducing the possibilities of artificially increasing distress and of establishing rigid patterns of personal functioning. Besides the evidence concerning the verbal relations in which values are threatened to the point of generating a destructive pattern of behaving, we now turn our attention to address the alteration of the aversive functions of private events, that is, to analyze cognitive fusion or the destructive context of literality. This is the focus of the last part of the paper.

Verbal relations regarding “oneself and their private events” that increase aversive and avoidance functions. Cognitive fusion and the context of literality.

Taking into account that human behaving is always done in a valued context (whether explicitly indicated or not) and that this constitutes the context in which suffering has a meaning, such a context is the primary basis to do the functional analysis of EAD and consequently the primary basis in treatment. According to this and to the fact that in EAD, clients frequently behave with cognitive fusion or under the literal meaning of words or reasons, our next proposal is focused *in the analysis of verbal processes under which defusion clinical methods might be operating*.

For people who show a pattern of destructive avoidance, ineffective rule-following oriented to controlling aversive private events is usually accompanied by a *frequent lack of differentiation between their self and their psychological contents*, both of them as discriminations abstracted along ontogenic development (Hayes, 1984), or by a *lack of flexibility in acting either with fusion or defused from cognitive events by acting towards values*. As we have previously explained, the contingencies of actions directed to cognitive avoidance turn the natural properties of language into the context of destructive literality, where the most frequent pattern of behaving is to act fused with cognitive evaluations (positive or negative), reasons or any other cognitive content. We will now focus in the relational frames that define these fusion processes with especial emphasis in the rigid pattern of acting fused with cognitive content (thoughts, memories, feelings, and the like).

The fusion between words (or private events), and their functions begins as a property of the natural characteristics of language (bidirectional and transformational), however it might become a destructive verbal context when the person frequently acts literally in accordance with such verbal events (frequent acts of fusion), without differentiating them by acting against a valued context. This might occur because of a history where those very events have not been related to several different functions and, hence, transformation of functions occurs only in one direction. Also, when conditions have not been prepared for the abstraction of the self due to the fact that the cognitive process (thinking, remembering, seeing, or any other behaving) has not been separated from their corresponding contents that are thought, felt, remembered, and so (see the abstraction process in Hayes, 1984 and Kohlenberg & Tsai, 1991) it is likely to act without differentiating between the dimensions of self; in other words, acting fused with the cognitive content instead of acting flexibly in regard to cognitive contents

depending on whatever be valuable at each time.

The separation between memories, sensations, feelings, etc. and oneself as the context in which all these take place (self as context and their content -or conceptualized self) might have not been fully established in accordance with the frames of difference or opposition and hierarchy (Barnes-Holmes, Stewart, Dymond, & Roche, 2000; Luciano, Dougher, et al., 2004). For example, this would involve to discriminate in part what Skinner (1969) described as self-knowledge, that is, that one is not only thoughts and other private events, one is much more than all of them, one is the person who is conscious of all them, who experiences feeling, thinking and so on. It also means that "if one is fused to cognitive events or processes, one can not be, by definition, at the same time, defused. However, one can act in a fused way (that is, "lost" in thoughts or any other cognitive content) and, a moment later, one can act in a defused way". When the person frequently behaves without differentiating from their thoughts, memories, body sensations and other private events, they can not accomplish a valued life because it is not possible from such position to choose which direction to take. Without such discrimination, or without having learned to change from being fused (lost in cognitive events) to acting being defused (with perspective from them), the relationship between oneself and their private events is one of equivalence or sameness where both psychological products are metaphorically placed at the same level. When the conditions for such discrimination have not been available, one would be functionally identical to their private events, that is, the person would behave without distinguishing a sensation they are momentarily experiencing from the person who is noticing it (him or herself) and might act with perspective from it. Thus, the negative value of the events would transfer to the person, provided that they act literally as if they and their thought were the same (see Barnes-Holmes, Stewart, Dymond, & Roche, 2000; Barnes-Holmes, Hayes, & Dymond, 2001). Furthermore, it is possible that the perspective of self has not been completely developed, so that numerous psychological disorders of the self will take place (Kohlenberg & Tsai, 1991).

The lack of frequent differentiation between both dimensions of the self implies frequent and dysfunctional acting being fused with cognitive content. This constitutes a single united dimension, necessarily meaning that for the person everything is in the "here and now". However, when the person has learned to defuse, s/he is able to put the verbal functions of private events in a different and opposition frame ("there, before or later as opposed to here and now") which, in turn, allows the person to take action with perspective of what would be valuable for him/her. When this is not the case, the person acts without distancing from their private events, as if those events were completely adhered to them, without a perspective of their distressing thoughts. In spite of the fact that the human being only lives the present moment, here and now (L.J. Hayes, 1992), it is possible (in the here and now) to psychologically place what we think or feel in a different symbolic place ("there") at a different time ("before or later"). This might constitute an advantage, but also a disadvantage. For example, when a person is living the symbolic past or the symbolic future in the "here and now", this person acts as if the past or the future were actually happening and, consequently, limiting his/her life. This apparently dualistic way of talking is not at odds with a functional-analytic position,

as both dimensions are psychological products abstracted through a history of socio-verbal contingencies provided by the verbal community along development (Biglan & Hayes, 1996; Bijou, 1976; Hayes, 1984; Hayes & Brownstein, 1986; Luciano & Hayes, 2001; Pérez, 1996, 1997; Skinner, 1945; 1953). Moreover, another social product similarly established is the capacity to change from acting in a fused way to acting in a defused way, that is, with the perspective focused in values.

Clinical methods on deliteralization and metaphors and exercises to differentiate the dimensions of the self point to that direction. At the same time, experimental studies might provide a first suggestion on the verbal processes under which these methods operate and make changes. For example, clinical methods of defusion employed in the non-behavioral therapies have been now incorporated in the new behavioral therapies. One example is the ancient defusion method incorporated as a deliteralization method in ACT (repeating the same word or sentence over and over until this change in context permits a loosening of its functions) which has recently been experimentally explored on the basis of RFT (Masuda, Hayes, Sackett, & Twohig, 2004). Another one is the experimental study in which the meaning of words was altered by changing the context and so producing motivational changes in children (Valdivia, Luciano, Molina Cobos, Cabello & Hernández, 2002) as it is the case in exercises where words with meaning are put together and the functions of the first collapse or are altered by incorporating another in a different or opposed frame (see the chocolate and liver exercise in Wilson & Luciano, 2002).

More specifically, concerning the differentiation of the dimensions of self as a part of ACT, clinical results point to metaphors and exercises in which the functions of negatively evaluated cognitive events become less aversive when in the context of values; the client experiences a differentiation between his/her private events (as there) and him/herself as the person who notices them and acts in a particular direction (as here). This is the case in the bus metaphor (Hayes et al., 1999, pp. 157-158) oriented both (1) to noticing when the person is driving against their values (fused with the passengers or without perspective from them) and (2) to change from driving under the orders of the passengers to driving with perspective from them and under the control of personal values. There are also exercises oriented to learn to change from being fused to defuse, that is, to psychologically moving private events from the contexts of here to there (Luciano & Cabello, 2001; see also Wilson & Luciano, 2002, pp. 243). For instance, let's see an exercise employed in order to have a client defused from his dramatic past in a moment in which he was behaving according to such dramatic event (death of his son). The client was invited to go over the past from the present (using a metaphor of disinfecting the parts of the wound still to be cicatrized). He was invited to close his eyes and "be here" with the therapist, to notice whatever showed up when he thought of him as a father with his son and the doctor telling them by the very first time that his son had cancer. Noticing all these thoughts and feelings in his head, in his body, he was invited to pick them up with his hands as if they were objects and to put them in the wall, from here (the therapist touched his head, his chest, while saying "here") to "there", in the wall ("they are part of you, what you are noticing right now, these are your thoughts and feelings when remembering all that has happened; it is not

happening now, but it is your thoughts, notice them now –pause- move from here - again in the head or the chest- to there, to the wall –pause-). This was done many times with the thoughts and feelings that showed up when “cleaning the wound still open” (in regard to the process of his son’s illness from the beginning until his death).

Based on clinical results with these methods where the clients behavior changes to acting towards values (as they used to say: “I am now choosing with freedom from my anxiety, memories and so. They are not the same when they are in the wall”), several experiments have been prepared to evaluate the effect of “symbolically moving” aversive content from “here” to “there” as opposition frames. In a clinical-experimental preparation, sixteen subclinical subjects followed a defusion protocol and four followed a control condition to change areas of their life that were stuck due to private events (evaluated with high aversive intensity) taken as barriers for acting in important directions. The defusion protocol, applied in a single session, incorporated several interventions designed to experience the psychological functions when they are placed in “here” as different to when they are placed in “there”. Ordinary examples were given and subjects were asked to realize such contrasts in order to shape the rule that when aversive events happen too close to you or in regard to the things you most love, their aversiveness is higher than when these very events happen far away or in regard to things that you are not attached to. Then, several exercises were incorporated to see the experience of trying to follow the same rule, however with one’s own behavior, with one’s own private events. Exposure to many exemplars of thoughts, memories, sensations were introduced to move from the “here” (the own chest, head) to a psychological opposite context (“there”: the wall or the computer screen, even though it was clear that those very contents were part of oneself) and in such conditions subjects were asked to expose to see what were their choices in regard to what they really valued. In a second session, 15 out of 16 subjects following this protocol had changed or broken the fused relationship with their private events, provided that they had realized that putting them “there” allowed them to choose which direction to take. Also, for many of them, these very private events were still aversive but to a lesser degree. The four subjects in the control condition did not change their way of reacting and the intensity of their barriers was equivalent to the first session. These preliminary results allow us to point to the verbal processes that might be responsible for the transformation of functions: the transformation of aversive function to less aversiveness when the subject actually behaved “moving” the aversive content from here to there (an opposite context). Specific experimental studies (Luciano, Dougher, Fink, et al., 2004) are actually being conducted concerning these basic verbal processes in order to isolate the transformation of aversiveness across frames of opposition and coordination as analogues of the here-there contexts. Preliminary results point to the same direction as those previously mentioned.

CONCLUSION

Research on EAD is still at an early stage to clarify the mechanisms that account for certain people’s proneness to fall in the verbal traps of life and develop an EAD,

showing an extremely low tolerance to distress in spite of the fact that this personal pattern implies a long-term generalized loss of valued actions and outcomes. Studies are needed to specify the conditions under which it is likely that the characteristics of verbal behavior as well as the cultural rules for living become destructive verbal contexts as the ones involved in the experiential avoidance disorder, that is, the magnification of the bidirectional and function-altering properties of language to the point of being fused to reasons, thoughts, memories, feelings and the like in order to control the own life and behavior. Concerning this point, our argument has been that these verbal destructive contexts of literality, evaluation, and reason-giving become destructive due to the undertaken actions which are coherent to such reason-giving control. The efforts initiated in such direction will provide useful tools for the prevention of EAD with our proposal deposited in attending to the contingencies in reacting to the properties of verbal behavior.

On the other hand, research to analyze the verbal processes involved in the mechanisms comprised in Acceptance and Commitment Therapy as a radical treatment to disrupt EAD is more than needed. ACT has proved useful in clinical cases, however it is necessary to extend the randomized trials across disorders (see Hayes et al, in press) to increase evidence of ACT as an effective treatment. Furthermore, experimental studies to analyze the mechanisms involved in the clinical methods to disrupt the verbal contexts that define Experiential Avoidance are just beginning to be published and known. In this paper, we have stated that in order to break the generalized functional class of destructive avoidance by generating a flexible reaction to private events according to values, it is necessary to identify the verbal processes involved in altering the verbal contexts of reason-giving and literality. Here we have proposed the frames in which values are threatened by placing negatively evaluated private events as something opposed to valued actions instead of as something coordinated with valued actions. Besides, we have analyzed a proposal of the frames in which literalization is broken down by defusion methods, that is, by changing cognitive content from here to there (as opposed contexts). Conversely to the case of EAD prevention, where attention has been pointed to actions and contingencies produced in the presence of aversive verbal functions, clinical methods in ACT are addressed to altering literality and reason-giving instead of changing behavior directly by manipulating contingencies. Finally, we would like to point out that the importance given in the behavioral tradition to contingencies is emphasized here under the umbrella of the research conducted in equivalence and non-equivalence relations and transformation of functions, as well as on rule-governance. This is a corpus of research that is, needless to say, complementary to enrich our comprehension of the conditions under which natural characteristics of language can come to generate a pattern of insensitivity to long-term contingencies and, at the same time, to understand the conditions under which this insensitivity can be changed not by changing the contingencies but by changing the verbal context of particular cognitive contents.

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