The relationship between defusion and self-defense in deontological and utilitarian moral dilemmas.

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Abstract Defusion is a metacognitive ability that enables to separate oneself from thoughts, and to see them as events of the mind rather than as real parts of the self or of reality. When a person feels defused with a construct, there is not a perceived identity with the thoughts, and as a result, the thought of the treat The Self decrease, as well as, a defensive behaviour occasioned by the scare to die. That may cause people more compassionate when they choose an answer on deontological or utilitarian situations.By provoking defusion in the participants, one become more conscious of the identification of the self with the thoughts, and this awareness promotes the disidentification. The disidentification facilitates that the values, beliefs or ideas that formed the *conceptual self* (thought) lose the importance in the Self. Thus, if the person are threatened, the disidentification doesn´t cause a feeling identified with values, beliefs or ideas and one does not feel as threatened. The goal of this investigation is to study what effect the technique defusion has about the self-defense in moral dilemmas. One hundred fifty one participants were selected randomly from the student population of Universitat Jaume I. Eighty-three of the population answered Experimental test and sixty-eight of the population answered Control test. Defusion produces a change of the point of view in utilitarian thought making one answer more compassionate in moral dilemmas. The previous experience in Meditation helps defusion in terms of reinforcing answers to be more compassionate in deontological dilemmas but not in utilitarian dilemmas. Making defusion, focusing on positive characteristics, make cause distance about positive feature about one´s personality and as consequence of making one focus on the negative characteristics, which can increase the feeling of guilty as well as low self-esteem, cause a desire to conform to the social norm.These results contribute science to understand better the mechanisms of defusion in compassion.

Resumen La defusión es una habilidad metacognitiva que permite separarse de los pensamientos y verlos como eventos de la mente en lugar de partes reales de uno mismo o de la realidad. Cuando la persona siente defusión, no se perciben los pensamientos como parte de la identidad, y como resultado, el pensamiento de la amenaza al Yo disminuye,así como el comportamiento defensivo ocasionado por el miedo a la muerte. Dicha defusión puede causar más compasión en las personas cuando eligen una respuesta en las situaciones deontológicas o utilitaristas. Al provocar defusión en los participantes hacemos más consciente la identificación del yo con los pensamientos, y esta conciencia promueve la desidentificación. La desidentificación facilita que los valores, creencias o ideas que conformaban el yo conceptual (pensado) pierdan importancia para el sujeto, lo que implica que, si son amenazados, la persona, al no sentirse identificada con ellos, no se siente tan amenazada como si mantuviera esa identificación. El objetivo de esta investigación es estudiar qué efecto tiene la técnica de la defusión sobre la defensa del yo en los dilemas morales. Ciento cincuenta y uno de los participantes fueron seleccionados al azar de la población estudiantil de la Universitat Jaume I. Ochenta y tres de la población respondieron a la prueba experimental y sesenta y ocho de la población respondieron la prueba de control. La defusión genera un cambio de punto de vista en el pensamiento utilitarista produciendo una respuesta más compasiva en los dilemas morales. La defusión, en personas familiarizadas con la meditación, facilita la toma de decisiones de forma más compasiva en los dilemas deontológicos, pero no en los dilemas utilitaristas. Cuando hay un centramiento en las cualidades positivas y nos distanciamos de ellas, puede ocasionar una focalización en las características negativas del individuo. Al centrarnos en las características negativas puede ocasionar un aumento en el sentimiento de culpa, así como de la baja autoestima, provocando así un deseo de ajustarse a la norma social. Estos resultados contribuyen a comprender los mecanismos de defusión en la defensa del yo.

Introduction.

Ruminative and negative thoughts, stressful and many different types of daily life events can cause decrease the well-being. Cognitive behavior therapy (CBT) had been considered one of the most prominent therapy to reduce the frequency, intensity, or situational sensitivity in negative thoughts. In the 1990s, a series of therapies move away from cognitivism and back toward behaviorism. (Pérez-Álvarez, 2012). It was designed as «third-generation behavior therapies» by Steven Hayes (Hayes, 2004).

The term «third-generation behavior therapies» is a designation coined by Steven Hayes, the author of one such therapy, in an article from 2004 (Hayes, 2004). As a designation, it refers to a series of therapies that emerge in the 1990s and establish themselves as a new generation in the first ten years of the new century. This movement is called «clinical behavior analysis» because it represents a move away from cognitivism and back toward behaviorism. The new therapies include: Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, and Wilson, 1999), Functional Analytic Psychotherapy (FAP; Kohlenberg and Tsai, 1991), Dialectical Behavioral Therapy (DBT; Linehan, 1993), Behavioral Activation (BA; Jacobson, Martell, and Dimidjian, 2001), Integrative Behavioral Couples Therapy (IBCT; Jacobson, Christensen, Prince, Cordova, and Eldridge, 2000), and Mindfulness Based Therapy (MBT; Segal, Williams, and Teasdale, 2002).

In these methods there is an emphasis "...the emphasis is on changing *awareness of* and *relationship to* thoughts" (Segal, Teasdale, & Williams, in press:p. 13; emphasis in the original).

The elements of acceptance and commitment therapy (ACT) lend themselves to such investigation. ACT is an experiential therapy that is based on clinical behavior analysis.(Hayes, Strosahl, and Wilson, 1999) The environment, behavior, history, and outcome of the behavior are all parts of the context. ACT views language as the primary root of human suffering, particularly due to its creation of experiential avoidance and cognitive fusion.(Hayes & Pierson,2005). That therapy transform relation among events by controlling contextual features to improve psychological flexibility and, likewise, the adaptation and the well-being.

ACT describe six basic processes: Being Present, Acceptance, Cognitive Defusion, Values, Committed Action, Self as Context.

Being Present is where the others processes take place. Mindfulness is characterized as present-centered non-evaluative awareness of one´s thoughts, emotions and others experiences in the

moment (bishop et al., 2004; kabat-Zinn, 1990). Mindfulness has different benefits on well-being, reductions in perceived stress, stress symptoms, rumination, negative thought avoidance, and emotional reactivity, couple with enhance attention and emotion regulation (Franquesa, 2018)

Acceptance is the voluntary adoption of a position intentionally open, receptive, flexible and exempt from value judgments about the present moment (Hayes, Strosahl, y Wilson, 2014). The experience of acceptance add to exposition of emotions, thoughts and feelings decrease discomfort.

Cognitive Defusion or decentering is a metacognitive ability that enables to separate oneself from thoughts, and see them as events of the mind rather than as real parts of the self or of reality. (Segal, Williams, & Teasdale, 2002). Decentering propose focus, intentionally, the attention on the contents of consciousness without judging them, or appropriating them. See the thoughts as they are, thoughts.

Values are (a) concepts or beliefs, (b) about desirable end states or behaviours, (c) that transcend specific situations, (d) guide selection or evaluation of behaviour and events, and (e) are ordered by relative importance (Schwartz y Bilsky, 1987).

Committed Action is not a projection in the future, it is the expression in the present of personal values.

Self as Contex is the simple experience of being aware that we are the only possessors and observers of our internal experiences (Hayes, 2014).

As mentioned above, mindfulness is a technique based on focusing, with intention, on here and now; used for modificating the perception of threat about The Self as well as reducing the self-defensive reaction and reducing the interest about defend The Self. Mindfulness makes use of decentering to support and contribute about decrease the thought of the treat The Self and about how to reduce the defensive behaviour because of the scare to die. The identification with The Self may involve selfish bias because it is one form to consider having the maxim benefit to oneself; because you feel in your personality the thought that your life is in danger like if this thought was one more part of you (It is called Fusion). If you are fusion about the feeling that your life is in danger, your behaviour can be racional. Altruism is not expected in rational people. However, there are situations that the own-benefit is not a rational or practical choose.

Mindfulness, specifically the disidentification of thoughts (decentering), contributes to the person feels less separated from the other, not perceived as a threat, make more ethical and / or prosocial responses and reduce their emotional responses. (Franquesa, 2018).

Nowadays, there are two views of self; ′I′Self and ′me′Self. ′I′ self, is the self as a subject of experience, as a knower and actor.′Me′ Self is the self as object of knowledge. This Me self involves an identification with particular attributes, roles, group memberships and belief systems (e.g., Gilbert,2005). This personal identify is a mental model, formed from ongoing life experiences and cognitive elborations on those experiences and inseparable from the larger social and cultural contexts. Different types of personal identification and internalized make people regard themselves as substantial (individual, unique, indivisible) or and as essential (relative constant ot the same over time) (Metzinger,2003). Humans treat their mental self-representations if they were real.

To conclude, mindfulness reduces defensive responses to the existential threat as well as those arising in social interaction and promotes more prosocial responses (Pinazo,--------). However, can decentering (like technique without doing mindfulness) contribute to one feel less separated from the other, less scared to die, less fusion with objects, thoughts and goals, more compassive? This investigation proposed study decentering and fusion with the Self, and their effects about the sensibility in the suffering of others. The hypothesis that the study sets out if the technique decentering can cause the people to be more compasive. Therefore, the people who are more utilitarian, are usually more practical and less compasive, and by using decentering technique they can be more compassive.

Method.

Participants

One hundred fifty one participants were selected randomly from the student population of Universitat Jaume I. Eighty-three of the population answered Experimental test and sixty-eight of the population answered Control test.

Design

Firstly, we designed a pilot test, which consisted in answering 7 moral dilemmas on a Likert scale from 1 to 6. Each of the seven moral dilemmas have 3 different versions, in total the pilot test consists of 21 versions of moral dilemmas.

Moral dilemmas can be deontological and utilitarian. People who tend to have a more deontological point of view try to conform to moral standards, without thinking about the consequences of their choice

involves; positive or negative. The most utilitarian people are not based on moral standards, they are based on the consequences of that choice may entail,in other words, they choose an answer in a more practical way. Moral dilemmas (deontological or utilitarian) are created in Likert Scale, where one part of the scale indicates less disidentification with values, beliefs or ideas (focus in the Ego) and the other part indicates more disidentification with values, beliefs or ideas (focus on the others, be more compassionate).The goal is research if The different moral situations are based on compassion. After the screening in the pilot test, 6 moral dilemmas; 3 deontological and 3 utilitarian were chosen. These dilemmas have been separated both in the control group test (through two texts and some questions about the texts) and in the experimental group test (using the defusion technique). In all tests the dilemmas have been randomized to avoid learning biases.

The control test consists of six different sections. The test begins with a test about *I am / I act* that tells us how much of a difference there is in thoughts and values with the Self. *I am* means that there is less defusion and *I act* means that there is more defusion of the values and thoughts with the Self. Second, the test consists of 11 questions on a Likert scale from 1 to 7, which indicates the degree of self-centeret (from question 1 to question 5) and self-enhancement (from question 6 to question 11) that the person can have. When the answer approaches 7 it means that there is more fusion with the values as well as greater protection about the Self. Third, three questions have been added that tell us how much mental flexibility or intuition the person can have. The greater the number of successful answers, the greater the flexibility. The fourth part consists of six dilemmas divided into three by two texts and a series of questions based on the texts. Fifth, I have added the scale *I am / and I act* to see if there are differences before and after reading the texts. And finally, the sixth part consists of the EQ2 test, which measures the degree of defusion between the values of the Self.

The test of the experimental group consists of seven sections. First of all, there is the test *I am / I act*, as I explained, that tells us how much there is a defusion of the thoughts and values with the Self.. Second, different types of variables have been added; study, gender, age and the practice of mindfulness. Third, the test consists of a test of 11 questions on a Likert scale of 1 to 7, which indicates the degree of self-centered (from question 1 to question 5) and self-enhancement (of the question 6 to question 11) that the person can have. Fourth, three questions have been added that tell us how much mental flexibility or intuition that person can have. The fifth part consists of six dilemmas divided three by three through a defusion exercise that consists of closing the eyes, focus on the breathing and think of a positive quality in which the person feels identified. The participants has to observe the quality and feel that it is becoming more defined. Then they have to write that quality and more positive qualities in case they want it. Once written,they must cross out the writing and look the qualites in distance without

judge them and trying to see what they are, thoughts. In sixth place, the scale *I am / I act*. And finally, the seventh part consists of the EQ2 test, which measures the degree of defusion between the values of the Self.

 Procedure

The data analyzes were carried out using the IBM SPSS 25 statistical package. These include homogeneity of variance and univariate analysis

ANOVA of the utilitarian dilemmas between the experimental and control groups.

Estadísticos descriptivos

Variable dependiente: POSTMENOSPREUTIL2i5Y6

GRUPO	Media	Desv. Desviación	N
EXPERIMENTAL	-,6928	1,88031	83
CONTROL	,0074	2,33163	68
Total	-,3775	2,11736	151

Pruebas de efectos inter-sujetos

Variable dependiente: POSTMENOSPREUTIL2i5Y6

Origen	Tipo III de suma de cuadrados	gl	Media cuadrática	F	Sig.	Eta parcial al cuadrado
Modelo corregido	18,321[a]	1	18,321	4,173	,043	,027
Intersección	17,560	1	17,560	4,000	,047	,026
GRUPO	18,321	1	18,321	4,173	,043	,027
Error	654,162	149	4,390			
Total	694,000	151				
Total corregido	672,483	150				

a. R al cuadrado = ,027 (R al cuadrado ajustada = ,021)

There are significant differences between the experimental group and control in relation to the utilitarian dilemmas (0.043 *). Experimental group obtained an average of -0.6928 and an control group 0.0074. The experimental average of the utilitarian dilemmas has shifted towards the deontological side 0.6854 points.

ANOVA of the deontological dilemmas between the experimental and control groups.

Estadísticos descriptivos

Variable dependiente: POSTMENOSPREDEONT13Y4

GRUPO	Media	Desv. Desviación	N
EXPERIMENTAL	,2771	2,27560	83
CONTROL	,2647	1,88567	68
Total	,2715	2,10217	151

Pruebas de efectos inter-sujetos

Variable dependiente: POSTMENOSPREDEONT13Y4

Origen	Tipo III de suma de cuadrados	gl	Media cuadrática	F	Sig.	Eta parcial al cuadrado
Modelo corregido	,006[a]	1	,006	,001	,971	,000
Intersección	10,973	1	10,973	2,466	,118	,016
GRUPO	,006	1	,006	,001	,971	,000
Error	662,862	149	4,449			
Total	674,000	151				
Total corregido	662,868	150				

a. R al cuadrado = ,000 (R al cuadrado ajustada = -,007)

There is not significant difference.

ANOVA of the measure of change in deontological dilemmas and the variable meditation

Estadísticos descriptivos

Variable dependiente: POSTMENOSPREDEONT13Y4

meditacion si/no	Media	Desv. Desviación	N
0	1,0000	2,38048	37
1	-,3043	2,03163	46
Total	,2771	2,27560	83

Pruebas de efectos inter-sujetos

Variable dependiente: POSTMENOSPREDEONT13Y4

Origen	Tipo III de suma de cuadrados	gl	Media cuadrática	F	Sig.	Eta parcial al cuadrado
Modelo corregido	34,887[a]	1	34,887	7,251	,009	,082
Intersección	9,924	1	9,924	2,062	,155	,025
meditacionsino	34,887	1	34,887	7,251	,009	,082
Error	389,739	81	4,812			
Total	431,000	83				
Total corregido	424,627	82				

a. R al cuadrado = ,082 (R al cuadrado ajustada = ,071)

There is a significant difference of 0.009 in the variable mindfulness regarding deontological dilemmas.

ANOVA of the change between the utilitarian dilemmas and the variable mindfulness

Estadísticos descriptivos

Variable dependiente: POSTMENOSPREUTIL2i5Y6

meditacion si/no	Media	Desv. Desviación	N
0	-,3108	1,86842	37
1	-1,0000	1,85293	46
Total	-,6928	1,88031	83

Pruebas de efectos inter-sujetos

Variable dependiente: POSTMENOSPREUTIL2i5Y6

Origen	Tipo III de suma de cuadrados	gl	Media cuadrática	F	Sig.	Eta parcial al cuadrado
Modelo corregido	9,740[a]	1	9,740	2,816	,097	,034
Intersección	35,234	1	35,234	10,186	,002	,112
meditacionsino	9,740	1	9,740	2,816	,097	,034
Error	280,176	81	3,459			
Total	329,750	83				
Total corregido	289,916	82				

a. R al cuadrado = ,034 (R al cuadrado ajustada = ,022)

There is not significant difference.

ANOVA of the test EQ dilemmas between the experimental and control groups.

Descriptivos

eqpost

	N	Media	Desv. Desviación	Desv. Error	95% del intervalo de confianza para la media		Mínimo	Máximo
					Límite inferior	Límite superior		
EXPERIMENTAL	78	3,3438	,54735	,06198	3,2204	3,4672	1,91	4,55
CONTROL	68	4,6217	,78763	,09551	4,4310	4,8123	2,27	5,82
Total	146	3,9390	,92458	,07652	3,7877	4,0902	1,91	5,82

Prueba de homogeneidad de varianzas

		Estadístico de Levene	gl1	gl2	Sig.
eqpost	Se basa en la media	7,810	1	144	,006
	Se basa en la mediana	6,807	1	144	,010
	Se basa en la mediana y con gl ajustado	6,807	1	123,595	,010
	Se basa en la media recortada	7,313	1	144	,008

ANOVA

eqpost

	Suma de cuadrados	gl	Media cuadrática	F	Sig.
Entre grupos	59,320	1	59,320	132,164	,000
Dentro de grupos	64,632	144	,449		
Total	123,952	145			

Anova between control and experimental groups in relation to the EQ questionnaire shows a significance of 0.000 (4.13394×10^{-22}). We observe that the average in the experimental group, whose value is 3.3438, is lower than the average of the control group, whose value is 4.6217

Discusión

There are significant differences between the experimental group and control in relation to the utilitarian dilemmas (0.043 *). As can be seen in the experimental group, it is obtained an average of -0.6928 and in the control 0.0074. It indicates that the experimental average of the utilitarian dilemmas has shifted towards the deontological side 0.6854 points, thus shows a change in the tendency of response of the participants after the defusion. Otherwise, the same analysis in deontological dilemmas has not produced significant results. Thus, this may mean that defusion technique produces a change in response on how to observe

utilitarian thinking producing a more compassionate and less practical response. On the other hand, it does not produce a change of response on deontological thinking.

The Anova of the measure of change between the deontological dilemmas in the relationship with meditation practice has a significance of 0.009 *. This may mean that previous experience in meditation facilitates the definition by reinforcing the more compassionate response tendency. This relationship, between the previous meditation and defusion, is not reflected with the utilitarian dilemmas (0.097). These results confirm the alternative hypothesis in deontological dilemmas. Therefore, the defusion, in people who are familiar with meditation, make decisions more compassionate in deontological dilemmas, but not in the utilitarian dilemmas.

In the EQ analysis, the null hypothesis is not accepted, because although there is significance, the averages show the opposite direction to the expected one.
Making defusion, focusing on positive characteristics, make cause distance about positive feature about one´s personality and as consequence of making one focus on the negative characteristics, which can increase the feeling of guilty as well as low self-esteem, cause a desire to conform to the social norm.

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