

The Ontological Representation of Death: A Scale to Measure the Idea of Annihilation Versus Passage

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Abstract

Since the borders between natural life and death have been blurred by technique, in Western societies discussions and practices regarding death have become infinite. The studies in this area include all the most important topics of psychology, sociology, and philosophy. From a psychological point of view, the research has created many instruments for measuring death anxiety, fear, threat, depression, meaning of life, and among them, the profiles on death attitude are innumerable. This research presents the validation of a new attitude scale, which conjoins psychological dimensions and philosophical ones. This scale may be useful because the ontological idea of death has not yet been considered in research. The hypothesis is that it is different to believe that death is absolute annihilation than to be sure that it is a passage or a transformation of one's personal identity. The hypothetical difference results in a greater inner suffering caused by the former idea. In order to measure this possibility, we analyzed the correlation between Testoni Death Representation Scale and Beck Hopelessness Scale, Suicide Resilience Inventory-25, and Reasons for Living Inventory. The results confirm the hypothesis, showing that the representation of death as total annihilation is positively correlated to hopelessness and negatively correlated to resilience.

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Representation and Attitude on Death Between Anxiety and Hope

In Western societies with advanced medicine, the discussions about the conceptualization and the practices inherent to death and dying are getting more and more numerous because the borders between natural life and death have been blurred by medical technique (Machado, 2005; Fonseca & Testoni, 2011). Today, the thanatological studies on the representation of death are innumerable. They include researches from individual to social dimensions: attitudes toward the cycle of life and their assessment (i.e., Gesser, Wong, & Reker, 1987; Neimeyer, Moser, & Wittkowski, 2003); ideation—especially in the risk of suicide (i.e., Oravec & Moore, 2006; Wong, 2004)—and cognitions connected to the awareness of death (i.e., Taubman-Ben-Ari & Noy, 2010); the role of cultural frame in social relationships (i.e., Terror Management Theory [TMT]; Kastenbaum, 2001) and the moral conception of “good death” (i.e., Kim, Lee, & Kim, 2003; Long, 2004); mind–brain identity conceptions and social determination of death (see Kellehear, 2008); the relationship between conceptualization and normative regulations (i.e., Machado, 2005) relating to the bioethical dilemma at the end-of-life (i.e., Center for Bioethics, 2005), about organ donation (i.e., Bresnahan & Mahler, 2009; Verheijde, Rady, & McGregor, 2009), suicide (i.e., Lester, 2003; Feldman, 2006), and euthanasia (i.e., Lesser, 2010; Onwuteaka-Philipsen, Rurup, Pasma, & Van Der Heide, 2010); the management of after death of next-of-kin (i.e., Becvar, 2001; Williams, Woodby, Bailey, & Burgio, 2008) or bereavement and mourning (i.e., Boerner, 2003; Stroebe, Gergen, Gergen, & Stroebe, 1992; Thomson, 2010); and so on.

In the last 50 years of research in death representations and attitudes, many scales aimed at the measurement of death concerns and competencies have been validated, and their use has improved the field of thanatological studies. A systematic review of a great part of this field has been realized by Neimeyer et al. (2003), who analyzed the most important instruments for measuring death anxiety, fear, threat, depression, and acceptance; among other tests, we point out the following because they are related to the variables we consider in this research (anxiety, hope, meaning of life, and death): Templer’s Death Anxiety Scale (Templer, 1970); Revised Death Anxiety Scale developed by Thorson and Powell (1994); Collett-Lester Fear of Death Scale (Collett & Lester, 1969); the Threat Index, a structured interview procedure edited by Krieger, Epting, and Leitner (1974); the Multidimensional Fear of Death Scale

(Hoelter, 1979); Fear of Personal Death Scale formulated by Florian and Kravetz (1983); Death Attitude Profile introduced by Gesser et al. (1987); the Multidimensional Orientation toward Dying and Death Inventory of Wittkowski (2001); the Revised Twenty Statements Test devised by Durlak, Horn, and Kass (1990) to assess the meanings that individuals attribute to their own mortality.

This research presents the validation of a new attitude scale: the Testoni Death Representation Scale (TDRS), which conjoins psychological and philosophical dimensions. This scale may be useful because no reliable and valid measure exists with which researchers can assess the attitudes of individuals toward the ontological idea of death. In fact, many other scales consider the different representations of death, but none analyses the ontological dimension. The hypothesis is that it is different to believe that death is absolute annihilation than to be sure that it is a passage or a transformation of one's own personal identity. The hypothetical difference is that there is a greater suffering caused by the former idea.

Death Anxiety and Hope in Afterlife: To Be or Not to Be

The scale considers the importance of anxiety, on one hand, and of the protective factors such as the ability of coping, among which religiosity and hope are particularly weighty, on the other. The relationship between these two dimensions began to give empirical evidence in the 1990s, that is, the research of Alvarado, Templer, Bresler, and Thomas-Dobson (1995) showed how people with lower death depression had greater belief in afterlife, while immediately later Florian and Mikulincer (1998) were studying the connection between idea of immortality and the management of the terror of death in relation to the attachment style. Since then, many other researches have shown the relationship between hope in afterlife and death anxiety; in particular, this theme is getting more and more important in the end-of-life field (i.e., Corr, Nabe, & Corr, 2009; Elliott & Olver, 2010). After the historical overview realized by Kelsey (1982), an essay on beliefs about afterlife in the most important religions in human culture has been realized by Walker (2000). The mainstay of his reasoning is the dichotomy indicated by DeSpelder and Strickland (1996, p. 585): "Is the death experience a wall or a door?" which means that if it is a wall, then death represents total extinction because we are biological entities with beginning, duration, and end points, with no soul; if it is a door, death represents a passage. Similarly, the analysis of Skelton (2003) about death in literature ends up mentioning Hamlet, whose notoriety is indissolubly linked to the fundamental question: "To be or not to be." The pivot of the terror of death proceeds from this crucial point which corresponds to the fundamental ontological problem.

Terror of Death and Ontological Representation

In the last two decades, one of the most important areas of study on death is the TMT, which considers the awareness of mortality a fundamental factor in all forms of human behaviors (Burke, Martens, & Faucher, 2010). In TMT view, individuals and society remove death thoughts from focal attention through a defensive Dual Process Model, articulated by “proximal defences” and “distal defences.” The first ones include reactions such as avoiding self-focused attention or engaging in cognitive and motivational biases that are vulnerability-denying defensive distortions; the second ones converge at symbolic cultural systems that sustain, signify, and give value to one’s own world when the thoughts of death become exorbitant (“mortality salience”): The cultural worldview manages ways in which individual and social groups keep death anguish unconscious.

According to the idea of “Darwinian human,” this psychosocial approach is founded on the belief that immortality is a myth and human is only an animal destined to die, whose self-awareness is simply a brain function (Solomon, Greenberg, & Pyszczynski, 2004, p. 16). But this is the scientific point of view which is radically different from metaphysical and religious perspectives, whose convictions do not define awareness as a brain secretion, but as the identity of a human, remaining even after death: soul, spirit, mana. . . The Hamletic dilemma is to establish whether the metaphysical definition is true or illusory. The radical question we ask ourselves stays inside the difference between, on one hand, the certainty that immortality is an illusion and certainty corresponding to reality (scientific knowledge) versus, on the other hand, “true knowledge” (scientific knowledge does not correspond with true knowledge, because it is hypothetical). The clarification of this contraposition permits to explain the importance of the fundamental interrogation about death: door or wall—passage or absolute annihilation?

Both positions belong to Western reasoning and manifest the stratification of different phases of the history of rational thought, where, in the end, the begged question is inherent to the opposition between metaphysical (incontrovertible-knowledge about “Absolute Being”) and epistemological (meaning: scientific-hypothetical knowledge about “contingent being,” where furthermore, everything is considered contingent).

Western thought is different from mythological culture because it is founded on ontological and logical reasoning (Severino, 1985, 2008). The idea has also been considered by Nisbett’s and Masuda’s psychosocial research groups (Ji, Nisbett, & Su, 2001; Larrick, Nisbett, & Morgan, 1993; Masuda & Nisbett, 2001; Nisbett, 1992, 1993; Nisbett, Fong, Lehman, & Cheng, 1987; Nisbett, Peng, Choi, & Norenzayan, 2001), who have considered the theoretical structure of Western “laws of logical thought.” These investigations, supported by

empirical evidence, highlight how Western logic systems are used by both profane thinker (common sense) and scientist and are erected on a tripartite logical axis:

1. *The Principle of Identity* ($A \equiv A$; every being is identical with itself, or $(\forall x)(x = x)$, in which \forall means *for every*; or simply that x is x [another formulation of the principle of identity, derived from the basic form just defined, asserts: “if a propositional function F is true of an individual variable x , then F is indeed true of x , or symbolically $F(x) \supset F(x)$, in which \supset means *formally implies*”]);
2. *The Principle of Non-Contradiction* (or law of contradiction) (Aristotle PNC: for all propositions p , it is impossible for both p and not p to be true, or symbolically $\sim(p \cdot \sim p)$, in which \sim means *not* and \cdot means *and*: without the PNC, we could not know anything that we do know—*Metaphysics* IV, Gamma, 3–6);
3. *The Principle of Excluded Middle (or Third)* (PEM: either p or $\sim p$ must be true, there being no third or middle true proposition between them, or symbolically $p \vee \sim p$, in which \vee means *or*).

The difference between mythological conviction and rational demonstration about the representation of death as passage-or-end consists in the distance between illogical and logical reasoning about what is *being*. Western thought is different from any other form of thought thanks to the tripartite system of reasoning: any worldview, not corresponding with such regulations, is mythological. But the logical contents along the history of Western thought have undergone a persevering transformation. After Logical positivism, the scientific point of view is considered strongly logical and “realistic,” because this epistemology uses formal logical tools to justify every empiricist account of knowledge and is antithetical to all metaphysics, considered not as wrong but as having no meaning.

Despite that, metaphysics was the thought system that founded Western logic. To understand the problem, it is necessary to consider the historical structure of ontology and its relationship with logic, because from this conjunction the Platonic opposition “truth” (incontrovertible knowledge about Absolute being) versus “opinion” (hypothetical knowledge on contingent things) takes form and persists at the present time—meanwhile our problem remains the same: Is it true or false to consider death as *the* passage?

Ontology arose through Parmenides’ speculations. In the poem “On nature,” the contraposition truth versus opinions of mortals, which are said to be false because ambiguous, appears, for the first time, linked to the opposition being/nothing: Truth versus myth (opinion) is about Being (as “*einaí*”—*εἶναι*) versus Nonbeing/nothing (as “*me ón*”—*μὴ ὄν*). The absolute being does not change

and the “true way” asserts that reality is, and must be, a “unity” where any change is impossible: There is no before or after, and the becoming is impossible and illusory.

The true knowledge (that truly saves from death because it is opposed to mythological convictions) was named *Epistêmê* by Plato and Aristotle (as “first philosophy”). In fact, *Epistêmê*, as Aristotle affirms, in the *IV Book of Metaphysics*, is “what saves because it is the truth”: what saves is knowledge that cannot be denied. Truth is what results incontrovertible through *elenchos* (ἐλεγχος) in the dialectic of *pólemos* (πόλεμος), that is the *elenchic argumentation* showing the autocontradiction of the confutation of the true thesis. The denier of a true thesis results a denier of his/her own confutation, *Elenchos* is the fundamental basis of the logical argumentation.

The previous mythological way to consider the ultramundane existence lost its consolatory power when the contraposition truth versus myth appeared and at the same time, for the first time in the history of human thought, the absolute nothing appeared turning the conception of death into the falling in the absolute nothing (*nihil*—annihilation). The first attempt to find a solution was introduced by Plato, who, in order to save the phenomena (the “transformations,” the sense of life and the human conditions, that Parmenides had indicated as “illusions”) introduced the “relative Nonbeing/nothing” defining the “multiplicity of beings” as the *énantíon* (ἐναντίον), which is the oscillation between Being and Nonbeing/nothing of everything that is changing (Severino, 1985, 2008). This solution is called *Platonic parricide*, because it is considered a dramatic overcoming of Parmenides’ teaching. Later on, Aristotle systematized the difference between metaphysical or Absolute Being (God), as “first cause” versus “physical being,” consisting of the infinite dimensions composed by finite and contingent “determinations” which are oscillating between being and nothing and subject to the power of time and space. Platonic and Aristotelian *Epistêmê* marks the safest remedy to define what constitutes the truth: The relationship between absolute being (Zeus or God) and contingent beings, where the first determines (causes) the destiny of the second and assures them eternity (Severino, 2008).

This epistemic solution was taken up by Judaism, Christianity, and Islamism, which translated the metaphysical principle of the eternal Absolute Being in the concept of Jhwh, God, and Allah. In this prospect, the “essence of human” was defined as “soul” and “spirit” (*psyché*—ψυχή/“nous”—νοῦς), which leaves the physical dimension after death and reaches Jhwh/God/Allah. The problem of death regarding the issue of the identity of man was supposedly solved: Epistemical–metaphysical–monotheistical religions tried to demonstrate existence after death, with ontological/logical and nonmythological discourses.

Actually, Severino (1982) indicates that *Epistêmê* was the “greatest attempt” and at the same time also the most important “failure” to solve the radical problem of the oscillation between Being and Nonbeing/nothing, to guarantee a “true” and “nonillusory” idea of salvation after death. Traditional Western

thought would have wanted to maintain the difference between indubitable and mythological remedy, considering the first as a true/logical discourse versus the second, inscribed in the universe of opinions and illusions. But with Neo-positivism, Utilitarianism, Materialism, and Nietzsche's confutation of any absolute knowledge, the security guaranteed by the incontestable knowledge was overwhelmed by the total contingency of Being: Every Being springs from and returns to Nonbeing/nothing and no absolute Being awaits it after death. The knowledge, that this form of thought guarantees, does not use the Aristotelian elenctic method to prove the incontrovertible truth (syllogism and deduction) but uses the positive method (induction and abduction) to prove the validity of every assertion. Any world and being are composed of mathematical (numerable) objects. This is the death of the rational God. Who in this way returns to be a doubtful myth, linked to the irrationalism of faith.

Nowadays, we live in a "numerable world" where on one hand, there is the metaphysical idea of truth still linked to the idea of God and promoted by traditional religions stratified in the widest common sense thanks to their consolatory power, and, on the other hand, there are the contemporary epistemologies sprung from Materialism, Logical positivism, and Hypothesis which show the illusory structure of metaphysical remedy against absolute annihilation. So we can imagine that we are in a very anguishing historical period, because we know the greatest attempt to save from absolute annihilation has failed.

Ontological Representations of Death, Resilience, and Suicide

From a psychological point of view, we think the question that begs asking is the following: The anguish of death is different if an individual believes that the Aristotelian point of view is logical because it indicates the beginning and the end of human destiny, or if he/she thinks it is a mythology that has been definitively confuted. Following the indication of Emanuele Severino, in our opinion, the anguish of death is linked to this wide cultural horizon, and it is aphoristic to define solved the problem about "ontological Being" and its destinies.

The contrast between the two historical worldviews is manifest in the present times and this evidence shows the most important remedy to the anguish of death in human history (the incontrovertible demonstration of God's existence), and its decline (the Death of God, indicated by Nietzsche, Carnap, Feigl, Wittgenstein, etc.). In this way, Western culture is constructed on the strong desire of eternity whilst nowadays it displays the fallibility of this remedy. In this sense, in our opinion, it is possible that the anguish of death is extremely severe, especially for he/she who believes that God is Dead, because he/she represents the end-of-life as absolute annihilation. In fact, since Western social culture is erected on the Christian worldview, it is possible that the disillusion is particularly painful, because all the reasons for living were held in check by this worldview.

In order to measure the different forms that testify the current presence of the stratification of historical representations of death, several focus groups composed by university students were carried out for 10 years (from 2001 to 2010, a total of about 100 students). The sense of death was the topic discussed at these meetings. At the end of each conversation, an outline was extrapolated to identify emerging categories. Year after year, these categories become more precise, able to define six ways of thinking about death. Lastly, the fundamental category extrapolated is inherent to the idea of individual identity, which undergoes various transformations after death. When death is annihilation, identity is completely lost, and when it is passage, identity is impoverished and can be of two types: loss of personal psychological component of identity (the person goes through a transformation subtracting individual memory and intentionality) and loss of body with maintenance of psychological identity (breakdown of biological matter and survival of memory and individual intentionality).

In this article, we begin to present the first of a series of studies showing how the representations of death influence the management of the meaning of life. For this reason, we have created the TDRS, which permits us to see how the image of annihilation versus passage affects the answer to why live, given that life is always hard. Based on what we have said above, we can say that Western society was formed on the belief that the reward of happiness is guaranteed beyond death. In this way, fatigue and pain have a meaning which lays the foundations for reasons for living in spite of sufferance: The more you suffer in life, the more you enjoy in the afterlife glory. Western culture has found the sense of any merit on this idea, but now the doubt is spreading, and so opposite representations appear. In order to analyze how the reasons for living and the ability to face fatigue of this choice change as a function of the different forms of representation of death, we used three specific instruments: The Reasons for Living Inventory analyzes why choose to live rather than choose to die; the Suicide Resilience Inventory-25 (SRI-25) permits to consider if there are relations between these reasons and the resilience which helps to overcome the lack of hope, in turn measured by the Beck Hopelessness Scale (BHS).

The Research

Purpose

All the tools and studies we have considered on the representation and ideation of death, and the attitude toward it, take into account many important factors and their relationships with terror, anguish, hopelessness, depression, violence, individual and personal identity, suicide, and so on. But there is not yet a scale that considers radically how people represent death from an ontological point of view. This is why we have constructed and validated a simple Likert scale composed of six items.

The purposes of this research were to validate the psychometric properties of a self-report measure of the ontological representations of death. The present research was designed, also, to explore further the association among death representations, hopelessness, resilience, and reasons for living in an Italian sample and to examine differences by gender and religiousness. We hypothesize that on the basis of the ontological representation of death—as a passage or as annihilation—the level of resilience, the degree of hopelessness, and the reasons for living change.

Participants

The participants were 299 university students (229 women, 70 men), recruited from three different faculties: Psychology, Educational Science, and Sanitary Educators, with a mean age of 21.68 ($SD = 4.55$). Most of the participants were only students (87%), and some were working students (13%); 72% were religious (36% of them practicing, 64% only believers), of which 96% were Christian; the participants were also divided in three groups by religiosity: believers and practicing, believers but not practicing, and not believers. The participants were contacted in their departments during the regular academic year and completed the questionnaire anonymously.

Measures and Procedure

Each participant completed a brief demographic questionnaire, the TDRS, and the Italian versions of three psychological measures of hopelessness, resilience, and reasons for living.

Testoni Death Representations Scale (TDRS) is a 6-item self-report prepared through many researches done over a 10-year period and is finally designed to assess how people represent death from an ontological point of view. The items were conceived within focus-group activities, and each one has a 5-point format, from 1 (*strongly disagree*) to 5 (*strongly agree*). Lower scores indicate that the individual represents death as a passage, whereas people with higher scores represent death as total annihilation. The matrix was used in the various fields of self-harm behavior: drug addiction (Testoni & Zamperini, 1998), anorexia (Testoni, 2001; Testoni et al. 2008), suicide attitudes and euthanasia (Testoni, Bettoni, & Ronconi, 2004; Ronconi et al., 2009; Testoni et al., 2013, 2014). At the same time, following the point-of-view of TMT, according to which the management of social relations derives from representations of death, these aspects were also researched with regards to the mafia (Testoni, Ronconi, & Boccher, 2006) and the dependency of youth on their family (Codato et al. 2011). At the same time, following the point-of-view of TMT, according to which the management of social relations derives from representations of death, these aspects were also researched with regard to the mafia (Testoni,

Ronconi, & Boccher, 2006; Testoni, Pogliani, & Cemin, 2009) and the dependency of youth on their family (Codato, Shaver, Testoni, & Ronconi, 2011).

Beck Hopelessness Scale (BHS) (Beck, Weissman, Lester, & Trexler, 2000; Pompili et al., 2009; Pompili, Tatarelli, Rogers, & Lester, 2007) is a 20-item self-report tool with a true-false response format designed to measure hope about the future. The dimension of hopelessness is present in many mental disorders and is highly correlated with measures of depression, suicidal intent, and suicidal ideation. The BHS has high internal consistency rating among both clinical and nonclinical youth samples and an adequate 1-week and 3-week test-retest reliability (Beck et al., 2000). In Beck sample $\alpha = .93$; in our sample $\alpha = .78$.

Suicide Resilience Inventory-25 (SRI-25) (Osman et al., 2004) explores protective factors through three subscales: Internal Protective Scale (nine items), External Protective Scale (eight items), and Emotional Stability Scale (eight items). Each item has a 6-point format, from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicate less suicide risk (Rutter, Freedenthal, & Osman, 2008). Osman et al. (2004) operationalized *suicide resilience* as the perceived ability, resources, or competence to regulate suicide-related thoughts, feelings, and attitudes. The SRI-25 displayed good reliability in a nonclinical sample ($\alpha = .96$) for the following scales, respectively: Internal Protective ($\alpha = .94$), Emotional Stability ($\alpha = .93$), and External Protective ($\alpha = .90$). In our study, the values of each scale are similar: Internal Protective scale ($\alpha = .88$), Emotional Stability ($\alpha = .90$), and External Protective ($\alpha = .81$).

Reasons for Living Inventory for Young Adults (RFL-YA; Gutierrez et al., 2002) is a 32-item self-report inventory designed to assess reasons for living (protective factors) in young adults aged 17 to 30 years. Each item has a 6-point format, from 1 (*not an important reason at all*) to 6 (*an extremely important reason*). The RFL-YA, similar to the RFL-A (Osman et al., 1998) and Linehan's RFL (Linehan, Goodstein, Nielsen, & Chiles, 1983), is based on the cognitive-behavioral approach, which considers the dimensions of the scale as protective factors mediating suicidal ideation (Gutierrez et al., 2002). Cronbach's alpha were high for all five RFL-YA scales: Family Relations ($\alpha = .94$), Peer Relations ($\alpha = .90$), Coping Beliefs ($\alpha = .88$), Future Expectations ($\alpha = .89$), Positive Self-Evaluation ($\alpha = .88$). In our study, Cronbach's alpha were .94, .91, .78, .74, and .81, respectively.

Results

Statistical analysis was performed by SPSS (SPSS, 1999) and LISREL 8.71 (Jöreskog & Sörbom, 2004).

TDRS factor structure. An exploratory factor analysis with principal component extraction method was conducted on the TDRS scale in order to define the factors most implicated in defining the construct.

Through the screeplot examination, the percentage of variance explained by each factor, the internal coherence of the factors (expressed by the Cronbach's alpha coefficient), and the contribution of each item to the factor has brought to the definition of the meaning of the corresponding construct, we accept one-factor solution (Table 1). The factor Death Representation accounted for 61% of the total variance. On one side, death representation shows as a passage (items: 1, 5, 6) and, on the other side, death representation shows as annihilation (items: 2, 3, 4). The items with negative loading reversed to compute the total score, and the total reliability are good ($\alpha = .86$).

Means and standard deviations. The means, standard deviations, and correlation for each measure are presented in Table 2.

The average of the total TDRS score expresses a level of indifference, which means that a preference between a view of the representation of death as passage or annihilation did not emerge.

Higher scores on BHS are indicative of higher hopelessness. In this study, the participants, on average, did not show a high level of hopelessness ($M = 5.32$, $SD = 3.62$).

High SRI scores suggest stronger resilience and consequently lower suicidal risk. In our sample, there is a high level of resilience and low suicidal risk ($M = 4.60$, $SD = 0.65$).

Table 1. Factor Structure of TRDS.

Item	Factor loadings
1. Death is only a passage After I die, I will continue to exist and will remember this life's experiences.	-.86
2. Death is a definitive annihilation. After I die I will not exist anymore, so I will not experience anything.	.89
3. Death is a radical change. After I die I won't be aware of my own self anymore.	.67
4. Death is a definitive annihilation. After I die, even though others will remember me I won't remember anything.	.86
5. Death is only a passage. After I die, I will continue to exist and therefore to have new experiences.	-.83
6. Death is a radical change. After I die I will experience things that have nothing to do with my present life.	-.42

Table 2. Correlation Matrix. Means and Standard Deviations.

	1	2	3	4	5	6	7	8	9	10
1 BHS	—									
2 SRI—Internal Protective Factors	-.60**	—								
3 SRI—Emotional Stability	-.37**	.43**	—							
4 SRI—External Protective Factors	-.26**	.37**	.48**	—						
5 RFL-YA—Family Relations	-.26**	.27**	.21**	.35**	—					
6 RFL-YA—Peer Relations	-.22**	.29**	.31**	.49**	.41**	—				
7 RFL-YA—Coping Beliefs	-.36**	.39**	.52**	.36**	.32**	.38**	—			
8 RFL-YA—Positive Self-Evaluation	-.37**	.54**	.32**	.28**	.34**	.35**	.44**	—		
9 RFL-YA—Future Expectations	-.45**	.43**	.31**	.38**	.43**	.38**	.49**	.54**	—	
10 TDRS	.25**	-.16**	-.12*	-.09	-.16**	-.10	-.23**	-.09	-.19**	—
Means	5.32	4.05	5.06	4.60	4.69	4.64	4.88	4.54	4.53	17.98
SD	3.62	0.79	0.84	0.85	1.10	0.99	0.75	0.89	0.72	6.05

Abbreviations: BHA, Beck Hopelessness Scale; SRI, Suicide Resilience Inventory; RFL-YA, Reasons for Living Inventory for Young Adults; TDRS, Testoni Death Representation Scale.

* $p < .05$; ** $p < .01$.

According to Linehan's et al. (1983), high RFL scores reveal a significant presence of reasons for living and so a higher protection from suicide risk. The average for our sample was on a higher level for reasons for living.

Correlations. The analysis of the correlations between all variables, with Pearson's coefficient of correlation, showed several significant correlations (Table 2).

All factors correlate with each other, both interscale and intrascale, with the exception of External Protective Factors (SRI-24), Peer-Relations (RFL-YA), and Positive Self-Evaluation (RFL-YA), which did not show correlation with the Death Representation factor of the TDRS.

BHS shows a very strong relationship with the Internal Protective Factors of the SRI-24 ($r = -.60, p < .01$); a weaker correlation is found with Peer-Relations of the RFL-YA ($r = -.22, p < .01$).

All factors of the other scales correlate with all SRI factors except External Protective Factors, which did not show a significant relationship with the TDRS. The intensity of the relationship between Internal Protective Factors (SRI) and factors Positive Self-Evaluation ($r = .54, p < .01$) and Future Expectation ($r = .43, p < .01$) of the RFL-YA is very strong. Emotional Stability (SRI) correlates strongly with Coping Belief (RFL-YA) ($r = .52, p < .01$); noticeable, also, is the strong relationship between External Protective Factors (SRI) and Peer-Relations (RFL-YA) ($r = .49, p < .01$).

The TDRS does not have any relationship with External Protective Factors (SRI), Peer Relations (RFL-YA), and Positive Self-Evaluation (RFL-YA), while the relationships with BHS ($r = .25, p < .01$) and the RFL-YA's factor of Coping Beliefs ($r = -.23, p < .01$) are strong. These results show that people who possess a representation of death as annihilation will have, on the one hand, higher scores of hopelessness and, on the other, a lower score in the factor of Coping Beliefs.

Weaker, but significant, are the relationships between TRDS and SRI's Internal Protective Factors ($r = -.16, p < .01$), RFL-YA's Family Relations ($r = -.16, p < 0.01$), and RFL-YA's Future Expectations ($r = -.19, p < .01$).

Differences by gender and religiousness. In order to examine the role differences in gender and religiousness on the TDRS scores (believes and participates, $n = 106$; believes and does not participate, $n = 103$; does not believe, $n = 83$), we conducted 2×3 univariate analysis of variance (ANOVA).

A gender effect was not found ($F < 1$); that is, being female ($M = 17.71, SD = 5.863$) or male ($M = 18.9, SD = 6.607$) does not influence the death representation of the subject. On the contrary, a significant religious effect was found [$F(2,283) = 55.74; p < .001$]. The analysis of the average values shows that those who did not believe have a death representation more as annihilation than those who believe and, among believers, those who participate in religious activities have a death representation more as a passage than as annihilation (Figure 1).

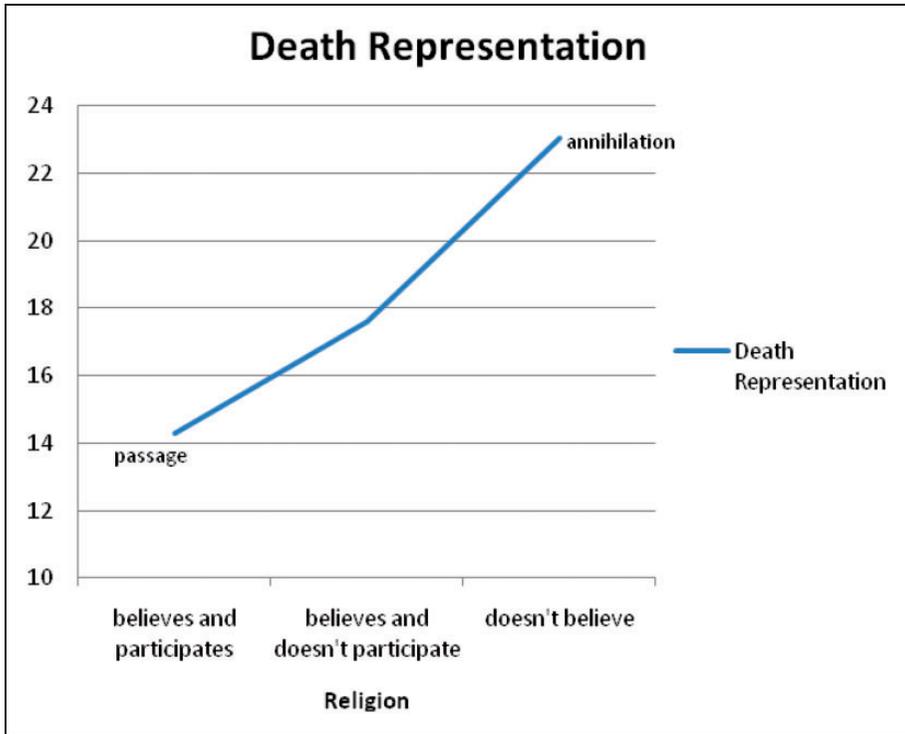


Figure 1. Effect of religiosity on death representation.

The interaction found was not significant ($F < 1$). The analysis of the average values of the BHS shows that there are no gender effects on hopelessness. However, we have found a religious effect: Those who do not believe have higher scores of hopelessness than those who believe [$F(2,284) = 5.63$; $p = .004$]. The interaction found was not significant ($F < 1$).

We did not find any significant effect of gender and religion on the SRI-24. A gender effect was found on the Family Relations factor of the RFL-YA; females have higher scores than males [$F(1,285) = 7.12$; $p = .008$]. These results show that females consider family relationships a protective factor more than males.

Path analyses. Two path analyses were done taking into consideration the relationship between death representation and hopelessness, mediated first by resilience then by reasons for living.

We hypothesized that representing death as annihilation is predictive of a higher probability that the subject will have higher hopelessness, and that those who represent death as a passage will have higher resilience, more reasons for living, and more hope for the future.

By using the LiSRel (Linear Structural Relationship) software developed by Jöreskog in the 1970s, we estimate, through maximum likelihood method, the path coefficients of two theoretical models (Jöreskog & Sörbom, 2004).

Resilience as mediator. Resilience is composite from three factors: Internal Protective Factors, Emotional Stability, and External Protective Factors.

A full model results indicates that there is no significant effect of death representations on External Protective Factors, and also no mediating effect of External Protective Factors on hopelessness. The External Protective Factors were then removed, and a new path analysis was conducted.

The final model presents all parameters significant ($p < .05$) and explains the 40% of the variance of the dependent variable *hopelessness* (Figure 2).

As we can see from Figure 2, Death Representations of the subject have a direct and indirect effect on Hopelessness. In other words, a person who represents death as annihilation (higher scores on TDRS) will have a lower degree of resilience (lower scores on SRI-25) and a higher degree of negative attitudes toward the future (higher scores on BHS). On the contrary, a person who represents death as a passage (lower scores on TDRS) will possess a higher degree of resilience and therefore a higher protection from suicidal thoughts and will be less inclined to have negative attitudes toward the future.

Death Representations can be considered predictive of the level of Hopelessness, and an important mediator within this relationship is the construct of resilience, with a major relevance of Internal Protective Factors [the DR's indirect effect on H through IPF are $\beta = (-.16) \cdot (-.52) = .08$], which are the set of positive beliefs about oneself and satisfaction with life.

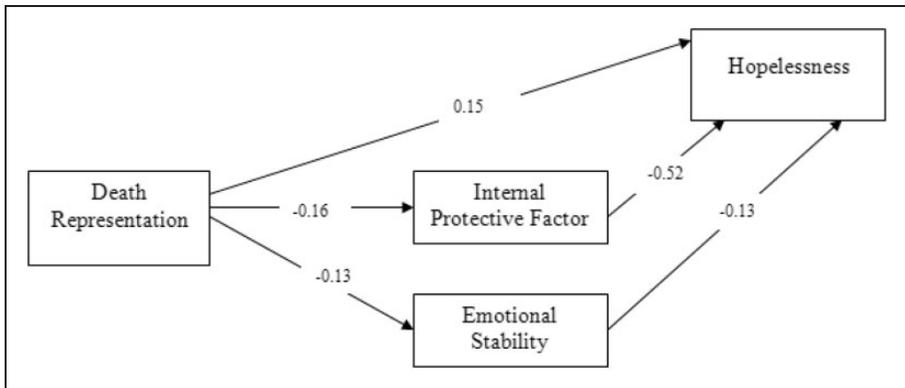


Figure 2. Results of path model with resilience as mediator.

Reasons for living as mediator. Factors of RFL are Family Relations, Peer Relations, Coping Beliefs, Positive Self-Evaluation, and Future Expectation.

In the full model, several nonsignificant effects emerged: No significant mediation effect of Family Relations, Peer Relations, and Coping Beliefs was detected on Hopelessness. These variables were consequently removed, and another path analysis was conducted (Figure 3).

The final model explains the 25% of the variance of the dependent variable *hopelessness*.

As we can see from Figure 3, Death Representations influence both Hopelessness—directly and indirectly—and the RFL factors Coping Beliefs and Future Expectation. The direct effect of Death Representations on Coping Beliefs is stronger than the effect on Future Expectations. On the other hand, the effect on Hopelessness of Future Expectations is stronger than the one of Coping Beliefs.

A person who represents death as annihilation (higher scores on TDRS) will have a higher degree of negative attitudes toward the future (higher scores on BHS).

A person who represents death as a passage (lower scores on TDRS) will be less inclined to have negative attitudes toward the future (lower scores on BHS).

The more one represents death as annihilation, the lesser the degree of Coping Beliefs will be (although these do not mediate, in a relevant way, the relationship between TDRS and BHS).

The more one represents death as a passage, the higher the ability of the subject will be to create positive expectations on the future, and the levels of hopelessness will be lower [the DR’s indirect effect on H through FE are $\beta = (-.19) \cdot (-.35) = .07$].

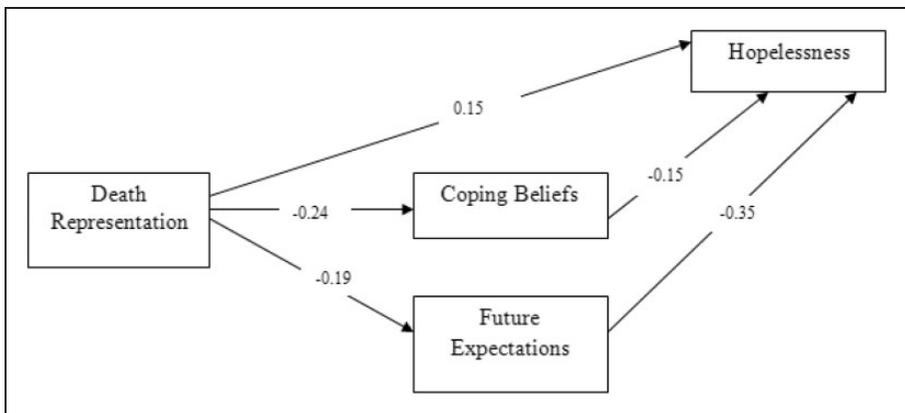


Figure 3. Results of path model with reasons for living as mediator.

In both models, our results indicate that even though death representation is directly predictive of levels of hopelessness, there is also a significant quote of variability of hopelessness accounted by resilience and reasons for living.

Conclusions

The validation of TDRS shows that it is a monofactorial scale which may define a significant difference among different groups of variables inherent to psychological suffering. In fact, in this research, the TDRS ontological representation of death—considered as persuasion that death means either absolute annihilation (items: 2, 3, 4) or partial change that occurs in the passage between different dimensions of existence—shows the relationships among death representations, hopelessness, and lower ability of coping.

In fact, the analysis illustrates how persons who believe that death is the total annihilation of the individual and personal self-identity lose hope for the future and lose the abilities of resilience more than whoever is persuaded that death is only a great existential passage (existence does not correspond with life).

The relationship between hope and the ability of coping with difficulties is important, because the reasons for living in Western culture, since Aristotle, are related to the “final cause” (transcendental dimension) that influences the present as “motivation,” which gives humans the strength to bear sufferings and frustrations. In this sense, hope is determined by the projection of the self-representation of one’s own identity beyond death, and—as it is widely considered by TMT—this conviction permits to maintain firmly the present cultural frame through which it is possible to provide everyday life with a sense.

According to TMT, religions are the most important cultural frame able to orientate this universe of reflections. In Western culture, Judaism, Muslim, and Christianity offer the fundamental structure of reasons for living as values, through which it is possible to motivate attitudes and behaviors, reducing in this way, the anguish caused by mortality salience. Moreover, it is possible that individuals assume uncritical religious or laic attitudes; in this case, they are not aware of the ontological implications of their persuasions. In our opinion, it would be really important to consider better the relationship between personal faith and ontological conviction about death, whose possible contrast may be the basis of a deep cognitive dissonance (Festinger, 1957), and therefore of many important psychological sufferings. In this sense, TDRS may be the instrument that permits to consider this dimension in the crucial field of representations/attitudes/ideations about death.

A possible limitation of the results of this research is that the sample we worked with comprises young adult students of humanistic university courses, so we cannot draw general conclusions regarding the general population. In the future, we plan to conduct this research with different population samples.

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