Traumas and Their Consequences According to Control-Mastery Theory

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Abstract: The aim of this article is to introduce the reader to how control-mastery theory (CMT; Gazzillo, 2016; Silberschatz, 2005; Weiss, 1993), an integrative relational cognitive-dynamic theory of mental functioning, psychopathology, and psychotherapeutic process, understands traumas, their consequences, and their mastery. In the first part of this article, we will present an overview of the debate about the definition of trauma within the different editions of the Diagnostic and Statistical Manual of Mental Disorders. Then, we will focus on the concept of complex traumas and on their consequences on mental health. Finally, we will discuss how CMT conceptualizes traumas and their pathological consequences. We will stress in particular how, according to CMT, in order for a painful experience to become a trauma, its victim has to come to believe that s/he caused it in the attempt to pursue a healthy and adaptive goal. In order to master traumas and disprove the pathogenic beliefs developed from them, people attempt to reexperience situations similar to the traumatic ones in safer conditions while giving them happier endings.

Keywords: traumas, complex traumas, control-mastery theory

Trauma may be conceived as an emotionally overwhelming experience that is difficult or impossible to predict and cope with without a significant alteration of the beliefs and functioning of its victims (Herman, 1992; Levine, 2005; Levine & Frederick, 1997; Van der Kolk, McFarlane, & van der Hart, 1996). Traumatic experiences, in fact, threaten the ordinary sense of continuity of the victims' subjective experience and disrupt the schemas that ordinarily help the person organize his/her self and the

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world (Janoff-Bulman, 1992). They imply a severe threat or a disruption of a person's basic sense of safety and are one of the more important risk factors for psychopathology. The term "trauma" is used to connotate both natural circumstances and human actions (Herman, 1992), and it may describe both acute, relatively brief, and macroscopic events and more subtle, microscopic, and long-lasting experiences (Cook, Blaustein, Spinazzola, & van der Kolk, 2003). Traumatic stressors, in fact, vary along a number of dimensions, including magnitude, complexity, frequency, duration, and controllability, and the impact of a trauma can vary according to its characteristics, the features of its victims and its perpetrators, the moment of life when it was suffered, and the availability of social support, understanding, and consolation (McFarlane & de Girolamo, 1996; McLaughlin & Lambert, 2017). It is easy to understand why, for a long time, the question of what exactly should be considered a trauma has been central in the field of mental health, and its conceptualization has changed significantly over the years.

THE "CRITERION A" PROBLEM

The introduction of the post-traumatic stress disorder (PTSD) diagnosis in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association [APA], 1980) enabled clinicians and researchers to identify and label the suffering of many patients who were victims of traumatic experiences. The accumulation of evidence supporting the existence of a discrete syndrome resulting from exposure to different types of traumatic events (e.g., post-Vietnam syndrome, prisoner-of-war syndrome, concentration camp syndrome, child abuse syndrome, rape trauma syndrome, battered women's syndrome) gave rise to the need of a diagnostic category that was able to grasp the core features of the devastating aftermath of psychological traumas (Friedman, Resick, Bryant, & Brewin, 2011; Friedman, Resick, & Keane, 2007). At that time, in fact, there were no useful diagnostic options to classify clinically significant and persistent reactions to catastrophic experiences. DSM-I (APA, 1952) "gross stress reaction" and DSM-II (APA, 1968) "situational reaction" were the only diagnostic categories for classifying individuals who had been psychologically hurt by the exposure to military or civilian traumatic experiences. However, being considered temporary and reversible clinical conditions, they were not suitable to capture the severe and long-term consequences of exposure to catastrophic events. Since its first introduction, the diagnosis of PTSD syndrome has been the focal point of studies on traumatic stress, although its formulation

has stirred up several controversies and its critics have questioned most of its core assumptions (Rosen, 2004). Because of the central role of trauma exposure as the presumptive primary etiological factor for PTSD, some of the most heated debate has involved Criterion A, the stressor criterion for PTSD (Brewin, Lanius, Novac, Schnyder, & Galea, 2009; Weathers & Keane, 2007). The Criterion A problem encompasses several fundamental issues regarding the nature of trauma and its relationship with PTSD.

The original Criterion A in DSM-III (APA, 1980) defines trauma quite narrowly as an event "generally outside the range of usual human experience" that "would evoke significant symptoms of distress in almost everyone" (p. 236). This definition implies that stressors should be considered traumatic primarily if they are rare, but epidemiologic studies have shown that traumatic events occur far more often than previously thought (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The DSM-III-R (APA, 1987) revision of Criterion A retained the core elements of the DSM-III definition but provided examples of prototypical traumatic events (i.e., "serious threat to one's life or physical integrity; serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence") (p. 250).

The main change of the DSM-IV (APA, 1994) revision of Criterion A was the creation of a two-part definition of a traumatic event. Criterion A1 specifies the type of exposure ("experienced, witnessed, or was confronted with") and the nature of the event ("actual or threatened death or serious injury, or a threat to the physical integrity of self or others"), and Criterion A2 requires that exposed individuals experience an intense emotional reaction involving "intense fear, helplessness, or horror" (p. 467). In DSM-IV, the definition of trauma was broadened to include a greater number of events as potential stressors (i.e., "being diagnosed with a life-threatening illness"; "developmentally inappropriate sexual experiences without threatened or actual violence or injury"; "learning about the sudden, unexpected death of a family member or a close friend"; and "learning that one's child has a lifethreatening disease"). Because of the conjunctive nature of the two parts of Criterion A, it was expected that the imposition of Criterion A2 would have minimized any inappropriate definition of PTSD favored by the broadening of Criterion A1.

The DSM-5 (APA, 2013) revision of Criterion A again significantly modified the definition of trauma by eliminating the ambiguous expression "threat to physical health" from Criterion A1 and the emotional component of Criterion A2. The choice to eliminate the subjective, emotional component of Criterion A relies on conflicting evidence about its ability to improve the diagnostic accuracy of PTSD (Bedard-Gilligan & Zoellner, 2008; Breslau & Kessler, 2001; Karam et al., 2010). Further, the elimination of Criterion A2 and the shift of PTSD syndrome from the anxiety disorders chapter into the new trauma and stressor-related disorders chapter also reflect a change in the theoretical conceptualization of the disorder. These changes contrast the traditional conceptualization of PTSD as a disorder of fear extinction (Foa & Kozak, 1986) and reflect the hypothesis that fear and anxiety are not the sole emotions driving the development and maintenance of the disorder. In fact, there is evidence that other post-traumatic emotional reactions (e.g., anger, shame, guilt) and diminished emotional responses also predict the disorder (Brewin, Andrews, & Rose, 2000; Brunet et al., 2001; Cahill & Foa, 2007; Resick & Miller, 2009). Therefore, "these changes imply that the definition of trauma perhaps needs not be restricted to only fearinducing events" (Larsen & Pacella, 2016, p. 39).

The debate on how to define trauma has basically concerned the question of how broadly or narrowly trauma should be defined. This debate has been fueled by empirical research reporting that PTSD may derive also from low-magnitude events (Rosen & Lilienfeld, 2008). Research specifically comparing PTSD based on traumatic events versus PTSD based on stressful events has shown conflicting evidence: some studies report similar levels of PTSD after traumas congruent with DSM Criterion A versus DSM-incongruent stressors (e.g., Bedard-Gilligan & Zoellner, 2008; Robinson & Larson, 2010; Wortmann, Park, & Edmondson, 2011); others report higher levels of PTSD after traumas that are congruent with DSM Criterion A (e.g., Hellmuth, Jaquier, Swan, & Sullivan, 2014; Stimmel, Cruise, Ford, & Weiss, 2014; Verlinden et al., 2013); and still others report higher levels of PTSD following stressors incongruent with DSM Criterion A (e.g., Dewey & Schuldberg, 2013; Roberts et al., 2012; Van Hooff, McFarlane, Baur, Abraham, & Barnes, 2009).

Regarding the relationship between the type of event and PTSD, the results of a recent meta-analysis (Larsen & Pacella, 2016) are consistent with the notion that DSM-congruent events are significantly more "traumatic" than DSM-incongruent events. However, the overall effect size of this difference is small (Hedge g = .18; p = .021), implying that the DSM definition of trauma is unable to provide a consistently generalizable and inclusive definition of the construct of trauma. These data need to be accounted for within any comprehensive definition of Criterion A specifically and PTSD more generally. Because of the lack of "crisp boundaries demarcating ordinary stressors from traumatic stressors" (Weathers & Keane, 2007, p. 108), several authors have advocated for a more inclusive definition of trauma (e.g., Avina & O'Donohue, 2002;

Butts, 2002) that encompasses both extreme events that are traditionally viewed as traumatic (e.g., combat, interpersonal violence, sudden death of a loved person) and events that are traditionally viewed as stressful life events (e.g., sexual harassment, divorce, chronic illness, racial discrimination; see Rosen & Lilienfeld, 2008); others have advocated for the complete elimination of any "objective" definition of what can be considered a traumatic event, allowing any event to be qualified as a precipitating stressor for PTSD as long as it triggers the characteristic PTSD syndrome (Brewin et al., 2009); and still others have advocated for a more restrictive definition of trauma (McNally, 2003; Rosen, 2004), being afraid that broadening Criterion A would obstruct the purpose of the original conceptualization of PTSD and "risk trivializing the suffering of those exposed to catastrophic life events" (Weathers & Keane, 2007, p. 114).

Regarding the link between trauma and PTSD, the DSM attributes an etiological significance to the traumatic event for the development of PTSD. However, as shown by the results of several studies, exposure to traumatic (Criterion A) events is not exclusively associated with PTSD. In fact, trauma is also associated with an increased prevalence of other disorders, most commonly depression, generalized anxiety disorder, panic disorder, and substance use (Fullerton & Ursano, 2005; Galea et al., 2002). Different kinds of incidents may also favor the development of adjustment disorders, agoraphobia, and specific phobias (e.g., Gabriel et al., 2007). Moreover, empirical research suggests that exposure to a traumatic event is a necessary but not sufficient condition for the subsequent development of PTSD. Although exposure to some events is associated with an increased likelihood to develop PTSD symptoms, people differ with regard to the risk of developing persistent PTSD, and most individuals exposed to traumas recover from them (Breslau, 2009). On the contrary, as shown by the studies previously reviewed, people may develop PTSD symptoms following DSM-incongruent stressors.

Research on risk factors suggests that differences in resilience/vulnerability may play a role in moderating the psychological impact of traumatic stressors (Lebens & Lauth, 2016). The most recognized *pretrauma risk factors* are gender, low educational level, history of childhood adversity, previous mental disorders, and previous traumatic experiences (Breslau, 2009; Iversen et al., 2008; Sareen et al., 2013; Tolin & Foa, 2006). Well-documented *peri-trauma risk factors* are the perceived trauma severity (Cox, Kenardy, & Hendrikz, 2008; Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012) and the overall degree of intentionality attributed to the perpetrator of the trauma: incidents with human contributions are associated with more negative consequences

and chronic courses of PTSD (Santiago et al., 2013). Regarding the risk associated with dissociative reactions shown during the traumatic event, the data are discrepant and yet inconclusive. While numerous studies have related peri-traumatic dissociation to negative PTSD outcomes (Gil, Weinberg, Or-Chen, & Harel, 2015), others were unable to detect a clinically meaningful effect and reported moderate associations at best (Van der Velden & Wittmann, 2008). Compared to other parameters, post-trauma risk factors are ranked as the most powerful predictor of the outcome of PTSD. The major post-traumatic factor is the presence of social support. Low social support and problematic intimate relationships are associated with an increased PTSD risk (Naeem et al., 2011; Sayed, Iacoviello, & Charney, 2015). By contrast, the availability of social support after the traumatic event is a strong protective factor because it helps the person feel comforted and gives coherent meaning to trauma (Carlson et al., 2016; Cordova, Walzer, Neff, & Ruzek, 2005). Finally, other findings suggest that the vulnerability to develop PTSD may be connected to genetic factors (Hariri et al., 2002) interacting with lifetime exposure to trauma (Stein, Schork, & Gelernter, 2008), or to epigenetic factors (Yehuda, Bell, Bierer, & Schmeidler, 2008).

To sum up, creating an all-purpose, general definition of trauma has proven extremely difficult, and it is unlikely that any definition of Criterion A may address all the problems and inconsistencies that research has identified so far. The definition of trauma cannot be based on objective indices, as there are no clear-cut boundaries differentiating ordinary stressors from traumatic stressors, and there is no direct or exclusive relationship between extreme stress and PTSD symptoms. These data suggest that the objective features of a traumatic event do not have, per se, the etiological status that was originally envisaged, and they underline the role of individual factors such as the subjective appraisal of the severity and meaning of an event, and the differences in individual vulnerability in moderating the relationship between traumatic exposure and outcome. Therefore, "specifying triggering events is not just difficult, but undesirable. An individual's symptomatic profile will always be shaped by their genetics, by their environmental history, and by the interaction of the two. To imagine that a single triggering event will always outweigh these runs contrary to contemporary thinking" (Brewin et al., 2009, p. 369).

COMPLEX TRAUMA AND ITS SEQUELAE

Another limitation of the DSM diagnostic criteria for PTSD is that they are unable to adequately account for the differential impact of acute and circumscribed traumas versus the detrimental effects of repeated and cumulative traumas (Chu & Lieberman, 2010; Courtois & Ford, 2009; Herman, 1992; van der Kolk, 2014). In other words, PTSD criteria emphasize psychological reaction to a single, relatively circumscribed traumatic event or a limited number of events occurring only over limited time periods. The DSM-5 PTSD syndrome (APA, 2013) is defined by four clusters of symptoms: 1) the presence of intrusion symptoms associated with the traumatic events; 2) avoidance of stimuli associated with the traumatic event; 3) negative alterations of thoughts and emotions; and 4) marked alterations of arousal and reactivity. Despite the efforts to capture the core elements of individuals' maladaptive responses to trauma, PTSD symptoms fail to characterize clinically significant problems often exhibited by individuals exposed to severe and protracted traumatic exposure, or the consequences of what has been called "complex trauma."

The concept of complex trauma, originally proposed by Judith Herman (1992), refers to the experience of long-lasting conditions of an emotionally overwhelming threat from which one cannot escape. Such chronic and prolonged experiences are typically of an interpersonal nature and include physical, sexual, and psychological abuse and/or physical and emotional neglect (Courtois & Ford, 2009; Herman, 1992; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). According to this formulation, these types of experiences are traumatic even if they do not necessarily confront the individual with the threat of death or violence as currently defined in Criterion A of the PTSD diagnosis in the DSM-5 (APA, 2013).

In a similar vein, developmental psychopathology research has documented the traumatic value of relational experiences that, although they do not confront the child with the threat to survival or physical integrity, nevertheless negatively impact and shape the child's development. Attachment and infant research studies help us understand how even micro-traumatic relational experiences, or "hidden traumas," connected to systematic errors and distortions in the early affective and communicative interactions between children and caregivers, may shape specific developmental trajectories that can favor the onset of pathological personality traits and may negatively affect identity, the schemas that the person uses to interpret and react to interpersonal exchanges, and the processes of affective and behavioral regulation (Beebe & Lachmann, 2013; Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006).

Such interpersonal traumas may produce serious consequences, especially if they occur during the developmental period, when self-definition and self-regulation are being formed and consolidated. These consequences are "complex" because they negatively affect

the development of several basic psychic functions, leaving the child unable to effectively self-regulate (i.e., to deliberately control his or her feelings, cognitions, beliefs, intentions, and actions), to achieve a sense of self-integrity (i.e., the feeling and belief that one is a unique, whole, coherent, and worthy individual), or to experience relationships as nurturing and reliable resources that can support self-regulation and self-integrity (Bifulco & Schimmenti, 2019; Cook et al., 2005; Courtois & Ford, 2009). A large body of research has highlighted the wide-ranging consequences that complex trauma has on psychobiological functioning, configuring a syndrome that can coexist but transcends the consequences described by the criteria of PTSD (Briere, Kaltman, & Green, 2008; Granieri, Guglielmucci, Costanzo, Caretti, & Schimmenti, 2018; Kubiak, 2005; Liotti & Farina, 2011). In fact, the victims of this type of trauma may present multiple symptoms affecting different domains, such as somatic, affective, cognitive, behavioral, and relational functioning (Courtois & Ford, 2009; Herman, 1992; van der Kolk et al., 2005), which can be read as attempts at adaptation to those traumatic environments affecting the overall personality development (Fonagy, Luyten, Allison, & Campbell, 2017).

Individuals with histories of traumatic development (Liotti & Farina, 2011) early in life often exhibit an *insecure* (especially disorganized) parent-child attachment relationship (Cook et al., 2005; Pearlman & Courtois, 2005); impairment of biological functioning, with chronic hyperactivation of the sympathetic nervous system and of the hypothalamicpituitary-adrenal (HPA) axis, which are crucial for dealing with dangerous situations and mediate the stress response (Pacella, Hruska, & Delahanty, 2013); deficits in regulating emotional distress (Cloitre, Koenen, Cohen, & Han, 2002; Van der Kolk, Pelcovitz, Roth, & Mandel, 1996); mood alterations, such as anxiety, depression, anger, or aggression (Gilboa-Schechtman & Foa, 2001; Heim & Nemeroff, 2001; Putnam, 2003); somatization (e.g., D'Andrea, Sharma, Zelechoski, & Spinazzola, 2011); cognitive alterations, such as difficulties in modulating attention/ concentration, as well as in executive functions like problem-solving, frustration tolerance, sustained attention, abstract reasoning, and memory (Golier & Yehuda, 2002; van der Kolk & Fisler, 1995), and negative appraisal, such as self-blame, hopelessness, expectations of rejection, and preoccupation with danger (e.g., Briere, 2000; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999; Janoff-Bulman, 1992; Vondra, Barnett, & Cicchetti, 1990); dissociation (e.g., Chu, Frey, Ganzel, & Matthews, 1999; Dorahy et al., 2013; Putnam, 1997); tension-reduction activities, such as compulsive sexual behavior, substance abuse, binge-purge eating, impulsive aggression, suicidality, and self-mutilation (e.g., Brennan & Shaver, 1995; Herpertz, Sass, & Favazza, 1997; Najavits, 2002); and chronic interpersonal difficulties (e.g., Cole & Putnam, 1992; Cook et al., 2005). Complex traumas may cause persistent personality and identity alterations which may include fragmentation of the experience of the self, sense of being contaminated, feelings of guilt, shame, self-criticism, low self-esteem and chronic feelings of ineffectiveness (e.g., Babcock & DePrince, 2012; Briere & Rickards, 2007; Cole & Putnam, 1992; Zepinic, 2016) and an elevated risk of repetition of violence, both self-inflicted and inflicted by others (Goodwin, McCarty, & Di Vasto, 1982; Hotaling & Sugarman, 1986; van der Kolk, 1989).

In order to describe the complex and fluctuating psychopathological effects of cumulative traumatic experiences in the life cycle, a series of diagnostic categories has been proposed. These include traumatic developmental disorder (TDD; van der Kolk, 2014), complex post-traumatic stress disorder (cPTSD; Herman, 1992) or disorder of extreme stress not otherwise specified (DESNOS; van der Kolk et al., 2005), and post-traumatic personality disorder (PTPD; Classen, Pain, Field, & Woods, 2006). However, DSM task forces, for a mix of methodological, conceptual, and measurement reasons (see, for example, Resick et al., 2012), so far have not accepted any of these diagnostic proposals, while the 11th edition of the International Classification of Diseases has accepted the category of cPTSD. This diagnostic category involves persistent alterations in seven aspects of self-regulation following exposure to traumatic stress: 1) affect and impulse regulation; 2) biological self-regulation; 3) attention or consciousness; 4) perception of perpetrator(s); 5) self-perception; 6) relationships (e.g., inability to trust, revictimization, victimizing others); and 7) systems of meaning or sustaining beliefs (e.g., hopelessness, loss of faith). The inclusion of this diagnostic category constitutes a significant step towards the recognition of the complex symptomatology exhibited by victims of cumulative interpersonal traumas, overcoming the risk of excessive comorbidity run if this kind of complex symptomatology should be described only with the existing DSM syndromes.

To sum up, trauma literature has long debated the nature of trauma and the characteristics of a stressful event that make it traumatic. Research has questioned the possibility to reach a definition of what constitutes a trauma based on the sole objective features of the stressful event, highlighting the importance of subjective, relational, and social risk and protection factors in determining whether a stressful event determines the development of a psychopathology. Moreover, research has shown that circumscribed catastrophic experiences may have a less pervasive impact on psychic and biological functioning than repeated or prolonged interpersonal traumas that do not necessarily imply an immediate threat to life or physical integrity.

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In the following part of this article, we will introduce the reader to the conception of trauma proposed by control-mastery theory (CMT; Gazzillo, 2016; Silberschatz, 2005; Weiss, 1993; Weiss, Sampson, & the Mount Zion Psychotherapy Research Group, 1986), an integrative relational-cognitive-dynamic theory of mental functioning, psychopathology, and psychotherapeutic process developed by Joseph Weiss and empirically validated by Weiss, Harold Sampson, and the San Francisco Psychotherapy Research Group in the last 50 years. The CMT conception of trauma takes into account the traumatic valence of both single, dramatic stressors and repeated or continuous, but less dramatic, interpersonal stressors. Moreover, in determining what is traumatic, it takes into account the developmental experiences of the victims of traumas and how these experiences shaped their subjective world of beliefs, affects, and relational patterns. Finally, CMT has proposed and empirically verified several hypotheses about the therapeutic process that may guide clinicians in helping their patients master their traumas and their consequences.

TRAUMA ACCORDING TO CONTROL-MASTERY THEORY

According to CMT, the main goal of human conscious and unconscious mental functioning is to adapt to reality, in particular to interpersonal reality, in order to pursue healthy developmental goals (Weiss, 1993). In line with recent developments in cognitive sciences (Bargh, 2017; Dijksterhuis & Aarts, 2010; Weinberger & Stoycheva, 2019), CMT assumes that we are able to perform unconsciously many of the same sophisticated mental activities that we are able to perform consciously, such as assessing reality and making inferences, establishing goals, and developing, testing, and modifying strategies and plans for achieving them (this is known as the unconscious higher mental functioning hypothesis, or HMF; Weiss, 1986). Moreover, CMT stresses that we are unconsciously able to control our conscious and unconscious mental functioning (Weiss, 1952), and we are intrinsically motivated to solve problems and master traumas or adverse experiences (Gassner, Sampson, Weiss, & Brumer, 1982). Finally, CMT research shows that we regulate our psychic functioning following a safety principle that is more fundamental than the pleasure principle (Weiss, 2005).

Beginning early in life, children need to establish and maintain "reasonable working relationships" (Weiss, 1993, p. 28) with their attachment figures as part of their efforts to adapt to reality. The child needs to establish and maintain "a relationship in which he is firmly connected

to them and can rely on them to meet his needs for care. His maintaining his ties to his parents is so important to him that he does whatever he believes he must do to accomplish this. He is powerfully motivated to comply with whatever he believes would please his parents, including behavior that manifestly is not pleasing" (ibidem).

The child's efforts to adapt to reality also require "reliable beliefs (knowledge) about himself and his world. He works through life to learn how he affects others and how others are likely to react to him. He begins in infancy to learn about these things both by inference from experience with his parents and siblings, and by their teachings. A person's beliefs about reality and morality are central to his conscious and unconscious mental life. These beliefs are endowed with awesome authority. They guide the all-important tasks of adaptation and self-preservation. They organize perception ... It is in accordance with these beliefs about reality and morality that a person shapes his striving, affects, and moods, and by doing so evolves his personality" (ibidem, p. 4).

The way children develop beliefs to make sense of their world is shaped by emotional, motivational, and cognitive features of their functioning, such as egocentricity, lack of knowledge, and a tendency to overgeneralize from limited experience. Children tend to "take responsibility for anything unfavorable that a parent does, and for anything unfortunate that happens to parent" (ibidem, p. 7), and because "his parents are so important to him, he is highly motivated to perceive them as all-powerful and wise... [and for this reason] when in conflict with his parents, he tends to perceive them as right and himself as wrong" (ibidem, p. 8). Moreover, children believe that the way parents treat them is the way they deserve to be treated.

According to CMT, psychopathology stems from frightening, compelling, and grim beliefs, called *pathogenic beliefs*, which associate the attempt to pursue healthy goals to a danger for the self, her/his important relationships, and important others. These dangers may be both internal (e.g., feelings of anxiety, guilt, and shame) and external (e.g., a serious disruption in an important relationship). Just as for any other belief, even pathogenic beliefs may be conscious/explicit or unconscious/implicit, may be formulated following an "if—then" format ("If I try to pursue the healthy goals X, the danger Y will occur"), and are originally developed in an effort of adaptation, even if they end up causing suffering, inhibitions, and symptoms.

Pathogenic beliefs are inferred from *traumatic experiences*. They stem from attempts to understand why these traumatic experiences happened, how the person contributed to their occurrence, and what the person should do in order to prevent similar traumas in the future. Pathogenic beliefs prescribe that, in order to prevent re-traumatization,

the person must renounce important developmental goals or has to suffer and punish her/himself if s/he tries to achieve them.

CMT considers two kinds of traumas: *shock traumas*, defined as "discrete catastrophic events such as the severe illness or death of a parent, family member or loved one," and *stress traumas*, defined as "recurrent and persistent traumatic experiences from which the child cannot escape and that force the child to renounce crucial developmental goals" (Silberschatz, 2005, p. 6). Weiss (1993) specifies that "a child incurs a strain trauma over a long period of time in a pathogenic relationship with a parent" (p. 9). So, the CMT view of trauma takes into account both categories of traumas investigated by other scholars and described in the previous sections of this article: simple traumas fall within shock trauma; complex (and hidden) traumas fall within stress traumas.

According to the CMT conception of trauma, in order for an adverse experience to be considered a trauma—that is, to have long-lasting consequences on psychic health—its victim has to come to believe, consciously or unconsciously, that s/he caused or contributed to its occurrence by attempting to pursue an adaptive goal (for a recent empirical study supporting this hypothesis, see Silberschatz & Aafjes-van Doorn, 2016). The link between what happened and how the person contributed to it may be inferred by the person while the situation is happening or retrospectively, and it is this link that is the core of pathogenic beliefs and the cause of feelings of fear, shame, and guilt that are pervasive in traumatized people. The more severe the trauma, the more intense are these feelings. And it is easy to understand how the immaturity of psychic functioning during the developmental period makes it easier for children than for adults to develop irrational pathogenic beliefs when confronted with adverse experiences.

The CMT conception of trauma, moreover, helps us understand the potential traumatic valence of experiences that, according to other theoretical perspectives (but not, for example, to an infant research-informed perspective), could not be considered traumatic. Weiss (1993) writes: "Since pathogenic beliefs develop in early childhood, they are concerned with the motivations of the young child in relation to his parents. These include the child's wish to depend on his parents, to trust them, to be able to be independent of them, to compete with them, and to identify with them. The child may infer and so come to believe that almost any important impulse, attitude, or goal, if experienced or acted upon, will put him in a situation of danger" (p. 7).

Although severe threats to the survival of the self and of loved ones, to self-esteem, and to fundamental attachment relationships are generally traumatic, these are not the sole experiences that can have a traumatic impact according to CMT. Among the potentially traumatic situations and the pathogenic beliefs investigated by CMT researchers and

clinicians, in fact, we find experiences of being rejected, abused, mistreated, humiliated, and neglected, which often give rise to the belief of deserving mistreatment (self-hate; see also Suffridge, 1991), but also experiences of parents or caregivers appearing to be hurt by the child separating, becoming autonomous, which give rise to the belief that separating, becoming an independent adult, or being different from loved ones causes them suffering (separation/disloyalty guilt); experiences where having success, good fortune, or desirable qualities seems to make important others feel hurt, inferior, or envious, which may give rise to the belief that being better off or happier than loved ones causes them to suffer (survivor guilt); experiences of caregivers appearing upset or overwhelmed by the child's needs, affects, and wishes, which can lead to the belief that expressing needs, wishes, and feelings means burdening other people (burdening guilt); and experiences of important others acting as if their happiness and well-being are in the child's hands, which may give rise to the belief that they are responsible for how loved ones feel and focusing on their own interests means that they are selfish and bad (omnipotent responsibility guilt) (Faccini, Gazzillo, De Luca, & Gorman, 2020; Gazzillo, Fimiani et al., 2019).

Finally, CMT scholars (Gazzillo, Dazzi, De Luca, Rodomonti, & Silberschatz, 2019; Pickles, 2007) recently deepened the understanding of the consequences of parent–child relationships characterized by multiple traumas, systematic communication errors, or systematically misatuned interactions, showing how these kinds of relationships may give rise to a multiplicity of reciprocally contradictory pathogenic beliefs. Many children traumatized by such problematic interactions develop a disorganized or cannot classify attachment style that obstructs the development of a coherent set of beliefs about themselves and others, and of a coherent strategy for preserving their own ties with attachment objects while at the same time pursuing other vital developmental goals. The belief of being bad, undeserving, and inadequate, and feelings of shame, guilt, powerlessness, and hopelessness, together with the use of dissociation, are often part of this picture.¹

^{1.} Quoting Weiss (1993): "If the child is sexually abused by a parent, he will blame himself for the abuse and develop a sense of shame. If the parent denies the abuse, the child will infer that he must not remember it. His sense of reality may be impaired with the following problem: in order to adapt to his world, he must both forget the abuse and remember it. He must forget the abuse in order to adapt to the members of his family, who insist on denying it, for he cannot be friendly and close to a parent who he knows is abusing him. However, he must remember the abuse in order to prepare for further abuse. If abused while quite young, he may deal with this problem by dissociating, or in certain instances by developing several personalities—one or more of which has no memory of the abuse, and one or more of which remembers it" (p. 77).

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Therefore, according to CMT, traumas are painful experiences that cause the victim to develop pathogenic beliefs or are experienced as strong confirmations of previously developed pathogenic beliefs. The development of such beliefs is influenced by the cognitive and emotional peculiarities of the victims, by the previously developed beliefs that shaped her/his way of making sense of those experiences, and by how relevant others reacted to those experiences and to the victim's reaction to them.

Within the CMT framework, the symptoms of post-traumatic disorders may be understood as 1) the expressions of the general state of alertness connected to the crisis in the basic sense of safety caused by the trauma and by the pathogenic beliefs connected to the trauma; 2) the attempts to avoid the possibility of being retraumatized by avoiding situations similar to the traumatic one; 3) the cognitive, affective, and relational consequences of the pathogenic beliefs developed from the trauma; and 4) the attempts to master the trauma and disprove the pathogenic beliefs derived from it.

As we have seen, according to CMT, human beings have an autonomous motivation to master their traumas and solve their problems. Mastering a trauma means finding conditions of safety that enable us to recover and integrate the memories of the trauma with a variety of other important memories with different affective valences, and to disprove the pathogenic beliefs developed to adapt to trauma. CMT stresses that, in mastering traumas, people often try to create traumatic-like situations and to rescript them, and they can do so by modifying them via new actual or imaginary experiences (see also Dimaggio, Popolo, Ottavi, & Salvatore, 2020). This may entail reliving the traumatic situation within a different affective context and giving it a better ending that can make the person feel safer, regulate her/his emotions, and disprove the pathogenic beliefs s/he inferred from the trauma (see also Sampson, 1994). When reliving a trauma, in both the therapeutic relationship and other relationships, people may assume the same role that they had in the original traumatic situation, or they may reverse roles and identify with the traumatizing other. CMT names these repetitions "tests" because their unconscious purpose is to master traumas by disproving the pathogenic beliefs developed from them. If the relational roles are the same as the original traumatic situation, they are called "transference tests"; if the roles are reversed, they are called "passive-into-active tests." Moreover, during these re-proposals of the traumatic situations, people can show attitudes and behaviors that manifest their compliance with the pathogenic beliefs inferred from them, or behaviors and attitudes that show their non-compliance with those pathogenic beliefs, so that we can have transference tests by compliance and by non-compliance, and passive-into-active tests by compliance and by non-compliance (for an overview, see Gazzillo, Genova, et al., 2019).

A patient who believes that she does not deserve protection and love because during childhood she had been physically abused and mistreated by her parents may, for example:

- 1. continue choosing abusive partners hoping that they, or some other person, will make her understand that she does not deserve to be abused (transference test by compliance);
- be hypervigilant and overreactive toward potential or real abuse or mistreatment, hoping that other people will not abuse her and allow her to feel that hypervigilance is no longer necessary (transference test by non-compliance);
- 3. become aggressive with other people, just as her parents were with her (identification), in the hope that these people will not be as upset as she was in childhood and will model how to protect oneself from abusive others (passive-into-active test by compliance);
- 4. overly protective and kind with other people (counter-identification), in the hope that the positive reactions of these people will show her that her needs to be protected were legitimate (passive-into-active test by non-compliance).

It should be noted that not all repetitions of traumatic situations are attempts at mastery, nor are they always successful. In some cases, for example, reliving the traumatic situations can be a way of punishing oneself out of powerful feelings of guilt often derived by traumas themselves. However, repetitions in search of a better outcome (corrective emotional experience; Alexander & French, 1946) are the principal way that traumatized people tend to master traumas and disprove their pathogenic beliefs (for empirical criteria that are of help for individuating patients' tests in psychotherapy, see Weiss, 1993, p. 95).

Post-traumatic repetitions of the traumatic events aimed at mastery are often evident in *post-traumatic dreams*. In several such dreams, the traumatic event is relived and, as time goes by, is progressively modified; different possible solutions to the problems caused by the trauma are explored, corrective emotional experiences are imagined, traumarelated memories and representations are connected to other memories, and the emotions connected to those dreams are progressively downregulated (see Cartwright & Lamberg, 2000; Hartmann, 2010; Kramer, 2006; Walker & van der Helm, 2009; for an overview of CMT

hypotheses and recent empirical findings about dreaming, see Gazzillo, Silberschatz, Fimiani, De Luca, & Bush, 2019).²

It is also well known how several artists use their talent to master their traumatic experiences by remembering and representing them in their works while being in a safer state of mind and feeling more in control of them, and by modifying them via their integration with other experiences and memories. Moreover, their representations may help them regulate the emotions connected to their traumas, make sense of those experiences, and disprove the pathogenic beliefs derived from them (see, for example, Frankl, 2006; Steinberg & Weiss, 1954). Other ways that people try to master their traumas are to become aware of the pathogenic beliefs developed from them, to better understand their origins and functions, and to look for communications and experiences that disprove them (Shilkret, Isaacs, Drucker, & Curtis, 1986).

Weiss (1993) provides a clear example of a shock trauma and its consequences: "One boy of 21/2 was sent away for 5 months to live with an uncle and aunt, because his parents were overwhelmed by the tasks of taking care of his sick younger brother and were afraid that the boy would catch the disease. However, the boy believed that he was sent away because his restless activity had burdened his mother. He complied with the belief by becoming especially docile and passive, and he remained this way long after he came back to live with his parents. As a consequence of his mother's sending him away, this boy acquired a number of other pathogenic beliefs: He inferred that his mother was ruthless and powerful; that if he defied her she would mete out swift, hostile punishment; and that she was untrustworthy. Finally, he acquired the pathogenic belief that if he were complacent, relaxed, and happy, something catastrophic would befall him" (p. 7). This boy was unconsciously looking for relational experiences that made him feel that everything would have been fine if he had been complacent, relaxed, and happy.

^{2.} It is also true that, for several patients with PTSD, traumatic dreams end up being a factor supporting their sufferance and symptoms, so that they may be thought of as failed attempts at mastery (Campbell & Germain, 2016; El-Solh, Adamo, & Kufel, 2018).

^{3.} In this paragraph, we chose to reflect only on the traumatic etiological factors at the basis of David's problems. This does not mean that we do not consider any genetic and/or temperamental factor influencing them. In particular, it is quite probable that his problems were a consequence of a bad "fit" between his introverted temperament and his mother's requests and expectations. Another possibility is that David has a highlevel p factor (Caspi et al., 2014; Fonagy et al., 2017) associated with internalization traits. However, much needs yet to be understood about the genetic factors affecting mental disorders (for recent studies based on big data, see Otowa et al., 2016; Ripke et al., 2013).

The next example illustrates some of the consequences of a stress trauma³: David⁴ is a 32-year-old man with a complex clinical picture that caused him intense suffering and severe constrictions in several domains of his life. He had met the criteria for narcissistic personality disorder, major depression (recurrent), generalized anxiety disorder, obsessive-compulsive disorder (with checking rituals), and paraphilia. He had lost several jobs and had difficulties in finding new jobs, and he had severe difficulties in establishing long-lasting romantic relationships with women. Virtually all his symptoms could be understood as consequences of the pathogenic belief of being inadequate and doomed to disappoint others.

The trauma that led to the development of this pathogenic belief was a recurrent pattern of his childhood relationship with his mother. The mother used to compare David with his older sister and tell him that he should have been more outgoing, brighter, and more enterprising than he was. In other words, he should have been more similar to his sister, who worked hard to satisfy the ideals of the mother. David was very hurt by these messages. He felt helpless because his mother seemed incapable of understanding how much he suffered because of them, and she seemed incapable of refraining from making him feel inadequate. David thought that, given that the problem was his nature, he could not have solved it in any way. His narcissistic personality disorder was a consequence of his embracing the ideals of the mother: people, for him, were either bright, rich, and outgoing or they were losers. He oscillated between trying to be or presenting himself as the mother wanted him to be and making other people feel inferior and inadequate, or feeling himself to be inferior and inadequate and imagining other people as perfect. David's depression was a consequence of his self-hate—he became depressed when he had to do something new that he believed himself to be incapable of doing. His anxiety was a consequence of the fact that he believed that his efforts to do what he should do in order to be appreciated were doomed to failure, and that he would have unavoidably disappointed other people. His obsessional rituals were a consequence of the fact that, in order not to fail and not to disappoint others, he believed that he should control everything to ensure perfection; he believed, in fact, that any imperfection would lead to people abandoning him (the boss at work would have fired him, the girlfriend of the moment would have left him, etc.). Finally, his paraphilia was a sexualized enactment, controlled by him, of the

^{4.} All names and details have been changed to protect patient privacy.

core elements of his traumatic relational pattern with the mother: he was excited by being insulted by prostitutes while he was on his knees sucking their plastic penis.

During his CMT psychotherapy, David tried to master his trauma and disconfirm his pathogenic belief in two different ways. In some sessions, he tested his pathogenic belief by turning passive-into-active while complying with it: during his very first interview, for example, David spent more than half of the session investigating the therapist's credentials and comparing him with a former therapist whom he represented as more experienced, rich, and elegant. And he appeared relieved by the fact that the therapist was able to remain calm and said to him: "It seems to me that in this room there are two people. One is comparing the second one with another person he knows, and the second one is found to be inadequate and inferior. Today I am this second person, and you are acting as the first one. But I suppose that it also happens that you are the person who is judged as inadequate and inferior. Is this true?" David's reply was: "This is the story of my life" and started to talk about his relationship with his mother.

During the progressively longer periods of therapy when he was feeling better, David tried to master his trauma using mainly a transference test by compliance strategy: in other words, he tried as hard as he could not to be a "good" patient in order to see if the therapist accepted him in any case. He could arrive early or late to his sessions, could not say a word for a whole session, and could ask the therapist for a glass of water, a socket to charge his mobile phone, or to use the bathroom of the office to change his clothes before going out. He did not pay his therapy bill for months. He could skip several sessions and then call the therapist on his mobile phone or send him text messages. And, as he later explained, he was helped by the "laissez-faire" attitude of the therapist, by the fact that, unlike his previous therapists, he thought that the therapist viewed him as "a human being on par with him." Apart from the therapist's consistent attitude (referred to by Sampson [2005] as "treatment by attitude"), the only two kinds of interventions that David found useful were confrontations when he acted toward others as his mother had with him, and empathic validations of his suffering and communications, which helped him connect this suffering with his mother's messages.

CONCLUSIONS

According to CMT, in order to understand the long-lasting consequences of adverse experiences, it is necessary to understand the beliefs

that the victims have developed in order to make sense of what happened and prevent its future reoccurrence. These beliefs, particularly if developed during childhood, may be pathogenic, because children tend to interpret adverse experiences as consequences of their own attempts to pursue healthy developmental goals.

Human beings are intrinsically motivated to master their traumas and disprove their pathogenic beliefs because they are grim and painful, and they try to disprove them by testing them. Testing for mastering traumas means re-proposing situations similar to the original traumatic ones hoping that they will have a different, happier ending (Weiss, 1952), which will enable them to change their affective resonances and disprove the pathogenic beliefs developed from them.

In order to help patients master their traumas and disprove their pathogenic beliefs, therapists have to make them feel safe. And in order to make a patient feel safe, therapists need to understand and disprove pathogenic beliefs in the way the patients want to see them disproved. Each patient, in fact, comes to therapy with an unconscious *plan* for reaching her/his goal, disproving her/his pathogenic beliefs, mastering her/his traumas, having her/his tests passed, and reaching the insight s/he needs to have in order to get better (Curtis & Silberschatz, 2007; Gazzillo, Dimaggio, & Curtis, 2019). For these reasons, psychotherapy can be viewed as a case-specific human enterprise centered around safety.

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