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Abstract
This paper aims to emphasize the fundamental role of unconscious processes in our adaptation. We will point out how we are able to unconsciously perform higher mental functions such as setting goals and planning how to pursue them, dealing with complex data, and making choices and judgments. In the first part of this paper, we will describe the main features of conscious and unconscious processes as pointed out by recent empirical research studies, and we will see how safety is essential in pursuing our fundamental goals, and how unconscious mental processes are strongly oriented towards preserving our safety and pursuing these goals. Finally, we will discuss control-mastery theory (CMT), an integrative, relational, cognitive-dynamic theory of mental functioning, psychopathology, and psychotherapy processes developed by Joseph Weiss and empirically validated by Weiss, Harold Sampson, and the San Francisco Psychotherapy Research Group over the last 50 years. This conceptualizes unconscious processes starting from this "higher unconscious mental functioning" paradigm and, in accordance with research data, stresses that our main goal is to adapt to reality and pursue adaptive developmental goals while preserving our safety. Three clinical vignettes will help show how the concepts proposed by CMT have important implications for therapeutic process.

Key words: *adaptive unconscious, control-mastery theory, plan, test.*

With his hypotheses on unconscious processes and their importance for human functioning, Freud changed the world of psychology. He identified psychoanalysis as the study of unconscious contents and processes, and asserted that its main goal was to make the unconscious conscious (Freud, 1916) or, quoting his words, "[where] id was, there shall ego be" (Freud, 1933, p. 79).

Freud (1900, 1915) argued that the Ucs (Unconscious), later the id, was the psychological representative of inborn drives, and focused first on psychosexual drives (1901) and later also on aggressive drives (1920). These impulses constantly strive for expression, and are psychically represented in the form of wishes (representations and affects); the aim of the Ucs/id is the discharge of drive energy. According to Freud's models, both the topographical (1915) and the structural one (1923), the unconscious is primitive, irrational, with no care for logical thinking and reality, and unceasingly demanding. Unconscious primitive urges and repressed wishes actively and constantly strive to reach consciousness and satisfaction, so

that people need to develop defenses to avoid their emergence and the consequent conflicts and dangers.

Over time, and starting from some of Freud's later writings (1920, 1926, 1940), this point of view has changed, and the conceptualization of unconscious functioning in psychology has taken different paths and connotations according to the theoretical paradigm favored by each author (for a review, see Weinberger & Stoycheva, 2019).

Structuralism, functionalism, and behaviorism (e.g., James, 1950; Skinner, 1974; Titchener, 1929), for example, minimized and denied the existence of unconscious processes. Nisbett and Wilson (1977) reinterpreted classic social psychology studies such as cognitive dissonance theory (Festinger, 1957) and attribution theory (Heider, 1958), arguing that their results make sense only if unconscious processes are hypothesized; according to these authors, unconscious processes are not limited to basic information-processing, but include also higher-order psychological processes such as motivational process and complex judgments.

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Much of contemporary psychology, across various domains such as attention and encoding (e.g., Shiffrin & Schneider, 1977), memory (e.g., Squire & Dede, 2015), implicit learning (P.J. Reber, 2013), emotional appraisal (e.g., Jurchis & Opre, 2016), attitudes, persuasion, social perception and judgment (e.g., Bargh, 2017), causal attribution (e.g., Bar-Anan, Wilson, & Hassin, 2010), and the studies of brain-damaged individuals (e.g., Shelley, 2016), has come to recognize that a great deal of human mental functioning does not require conscious control, and that both conscious and nonconscious determinants are important to human mental functioning.

The term "adaptive unconscious"[1] proposed by Wilson (2002), which we will adopt in this paper, underlines the conception that nonconscious thinking is an evolutionary adaptation: the mind operates most efficiently by executing most of its higher-level mental functions unconsciously. The adaptive unconscious does an excellent job in assessing, disambiguating, and interpreting stimuli; detecting dangers and warning about them; selecting, learning, and dealing with complex information; setting goals and initiating behavior quickly (Wilson, 2002). Moreover, our core beliefs, mostly developed and acquired implicitly in childhood from real relational experiences with parents and significant others, are themselves unconscious, and guide our expectations about relationships, ourselves, and the way we see the world (Weiss, 1992).

As Freud (1915) argued, without the notion of unconscious processes, it would be impossible to understand much of psychological functioning. But today we have a quite different idea of the unconscious processes than the one proposed by Freud.

Conscious versus unconscious processes

Conscious and unconscious processes are generally thought of as opposite mental processes with different features (e.g., Bargh, 1994). Freud (1915) used the term "conscious" to denote all the mental processes we are aware of at any particular moment; these processes are deliberate and require mental effort and attention, and for these reasons conscious capacity is limited.

Empirical research studies (Kahneman, 2011) show that conscious activities are often associated with the subjective experience of agency, choice, and concentration. Consciousness works top-down, or schematically (e.g., Dijksterhuis & Nordgren, 2006), deals with self-control and reasoning, and is normally in an effortful mode; it is slow and serial. These features of conscious processes imply that thoughts and actions are often guided by unconscious processes, and that the results of these processes, when all goes well, are adopted by consciousness as they are. In contrast, when events violate the model of the world and the expectations that the unconscious maintains and things get difficult, consciousness mobilizes itself in monitoring behavior. So, one of consciousness's main tasks is to inhibit and overcome the unconscious's responses when they seem to be problematic (Kahneman, 2011).

With the term "unconscious," we denote mental processes that are inaccessible to consciousness; proceed in parallel; and influence judgments, feelings, and behaviors (Wilson, 2002). Unconscious processes work bottom-up, or aschematically (e.g., Dijksterhuis & Nordgren, 2006), quickly, and in a pre-reflexive way. To use a term favored by some authors, they are "automatic" (Shiffrin & Schneider, 1977), and imply little or no effort and no sense of voluntary control. Kahneman (2011) has given an exhaustive synthesis of the main characteristics of unconscious thinking. It is intuitive and generates impressions and feelings that are the source of conscious beliefs, attitudes, and intentions; it is a quick pattern detector and distinguishes the unexpected from the normal, often performing this fast analysis with the use of heuristics (see below). Unconscious processes are the basis of our tendency to jump to conclusions; they are slow in changing, even in face of new contradictory information (they are biased toward confirmation), focus on existing evidence, ignore what is missing, and tend to suppress doubts and neglect ambiguity. Moreover, unconscious processes generate an impression of similarity, look for coherent patterns and infer causality, which in turn activates compatible ideas in associative memory; they link a sense of cognitive ease and familiarity with illusions of truth and pleasant feelings, and exaggerate our first impressions. They elaborate norms and prototypes, are more sensitive to changes than to states and respond more strongly to losses than to gains. Unconscious processes are older in evolutionary terms than conscious process: an increasing number of studies, in fact, suggest that unconscious emotional elaboration occurs mainly in the right subcortical structures (Gainotti, 2012), and that emotional unconscious memories are stored in the right hemisphere, which matures

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[1]Others called it "cognitive unconscious" or "emotional unconscious" (e.g., Kihlstrom 1987, 1999). In agreement with Wilson (2002), we believe that is not useful to separate cognitive and emotional aspects, and have decided to adopt the term "adaptive unconscious" to stress its evolutionary-based adaptive function.

before the left one – that is, in the first two years of life (see Schore, 2012).

Notwithstanding their differences, however, Damasio (2010) underlines the continuous and bidirectional interaction between conscious and unconscious processes and the cortical and subcortical areas of the brain, and stresses that there is an integration between the deepest cerebral areas, which encode affects, cognitions, and behaviors, and the prefrontal cortex, which mediates their execution. This integration generates a *conscious–unconscious continuum* (Horga & Maia, 2012; Pally, 2007), so that it is impossible to talk about consciousness without the underlying unconscious processes, which, being always active in the background, are an inextricable part of our mental and social functioning (Churchland, 2013; Damasio, 2010; Koziol & Budding, 2010).

As we will argue, unconscious processes seem to be mainly aimed at quickly elaborating a representation of our environment and at producing emotional reactions and actions that enable us to preserve our safety and maximize the opportunity to pursue our more fundamental and evolutionary-based goals in that environment. In other words, unconscious processes are our basic tools for survival.

Unconscious, heuristics, and biases

According to Tversky and Kahneman (1973, 1974, 1981; Kahneman, 2011; Kahneman & Tversky, 1979), heuristics are strategic unconscious shortcuts for solving problems that help people to quickly find appropriate, even if often imperfect, answers to difficult questions. People are not aware of using such strategies, and their purpose is to solve problems, make decisions, and come quickly to conclusions. These cognitive rules are probably the result of natural selection (A.S. Reber, 1992) and adaptation to the environment, but can lead to systematic errors and biases.

Tversky and Kahneman identified three main heuristics (see Kahneman, 2011): the availability heuristic, the representativity heuristic, and the anchoring heuristic.

The *availability* heuristic is the process of judging frequency by the ease with which instances come to mind: whatever comes easily to mind or is familiar is assumed to be common and consequently true. For instance, in an experiment (Tversky & Kahneman, 1973), participants heard a list with the same number of men's and women's names. In one condition, the names were of famous men and not famous women, while in the other, this was reversed. When they were asked if the list contained more male or female names, participants gave significantly higher responses according to the gender of the famous names. This occurred because famous names come to mind more easily, and ease is confused with frequency.

Adopting the *representativity* heuristic, people base their categorization on similarity to a prototype that, in general, has itself been elaborated unconsciously. For example, Kahneman and Tversky (1973) gave a description of the personality of a man and then asked students to rank the field of his specialization on the basis of how similar his description was to the typical student in the nine fields under examination, which meant retrieving or constructing stereotypes and making comparisons. The man's main features included high intelligence, a lack of creativity, little sympathy for people, and little interest in being with them. The first field to be classified was computer science, which seems plausible because the description fits well with small groups of people (e.g., computer scientists, engineers) and less with large ones (e.g., social workers, human scientists). The results show that people focus only on the similarity of the description to the prototype, ignoring doubts and probability assessment. Prejudices and stereotypes are examples of how we think about categories, and they greatly influence our behaviors (e.g., Bargh, Chen, & Burrows, 1996; Fiske & Tablante, 2015).

The *anchoring* heuristic is a strategy for estimating uncertain quantities by gradually adjusting them, moving from an "anchor," which influences subsequent judgments. For example, if it is asked whether Gandhi was more or less than 114 (the anchor) years old when he died, the estimate of his age when he died hypothesized by people is higher than if the anchor given is 35 (Kahneman, 2011). Factual knowledge and social judgments are biased in that way (Russo & Shoemaker, 1989).

Another important heuristic is the *affect heuristic* individuated by Slovic and his colleagues (e.g., Slovic, Finucane, Peters, & MacGregor, 2002). It posits that people, without realizing it, make judgments and take decisions based on their emotions. "How do I feel about it?" replaces the more difficult "What do I think about it?" (Kahneman, 2011, p. 139). This heuristic is compatible with the work of Damasio (2010), who points out that emotional evaluation is essential in decision-making: People with a damaged brain, who are not able to feel the appropriate emotion before taking a decision, also show difficulty in making good decisions. The consistency of affect is a central element of what Kahneman (2011) calls *associative coherence*: The emotional intensity of the message that we receive alters the expectations that we have about the frequency of events, so if risky events come to our mind easily,

we will feel fear, which will trigger a cascade of many other ideas whose essential feature is their coherence in being fearful, and each of these elements will strengthen the others. As we will see, emotional reactions are first determined by an implicit assessment of how safe or dangerous a particular stimulus is.

Moreover, as argued by Michotte (1963), *we see causality as directly as we see colors*. According to Kahneman (2011), assuming causality is part of the general vigilance that we inherited evolutionarily: We unconsciously assess our environment to see whether something has changed, and thus whether we need to react in some way to stay safe. And we are *pattern seekers* because we need to think of the world as coherent, and we tend to see regularities as results of intentions. This tendency is overwhelming, and implies that people can see patterns even when events are random.

If we put these data together, we can see how our unconscious mental processes are strongly influenced by our relevant and/or repetitive previous experiences, by the first impression that we have of a stimulus and by our affective reaction to it, and in particular by how safe we believe it is to deal with it. We unconsciously look for patterns and try to create a coherent model of the world we live in, where the intensions of others are crucial.

Unconscious and the sense of safety

Zajonc (1980) argued that all perceptions imply some affect, stressing that affectively charged information is processed more readily and quickly, and requires less stimulation and fewer resources than cognitive contents. An initial evaluation of experiences as positive or negative – to be approached or to be avoided – takes place unconsciously, and is fundamental to our safety and functioning (Bargh, 1994; Doré, Zerubavel, & Ochsner, 2015).

Zajonc (e.g., 1968) also demonstrated the existence of a mere-exposure effect, which explains how we develop preferences unconsciously: We tend to evaluate new things as positive or negative on the basis of how familiar they are to us, and this effect is stronger for stimuli not consciously seen by the person (Bornstein, 1989; Bornstein & D'Agostino, 1992). The effect has an important adaptive function, because this preference for familiar stimuli is based on the fact that being repeatedly exposed to that stimulus has not caused us any harm or negative feeling so far. Given that our absolute priority is being safe in our environment, any violation of normality is detected incredibly quickly by the brain, which allows us to monitor possible threats and so to react to them faster. We are likely to trust our intuition and gut feelings, as we naturally trust our senses (Bargh, 2017), and the amygdala detects and learns rapidly cues about safety from the surrounding environment (Tottenham, Hare, & Casey, 2009). All this makes sense in evolutionary terms: to survive, it is fundamental to stay safe and to be able to understand immediately if this safety is undermined, to detect threats, and to judge people, deciding to stay or go before things become irreversible. In fact, safety is essential for matching all our fundamental drives: to survive, to mate and to cooperate.

Unconscious higher human mental functioning as showed by empirical research

Several studies have shown that we unconsciously monitor and control reality, set and pursue goals, and react to environmental changes (Bargh, 2007, 2014; Churchland, 2013; Glaser & Kihlstrom, 2007; Wilson, 2002).

Unconscious complex judgements

Dijksterhuis and Nordgren (2006) proposed a theory of unconscious thought which argues that we unconsciously make judgments while our conscious mind is busy with something else, and that unconscious decisions are often more complex and effective than conscious ones. For example, researchers gave participants information to help them judge which car was better to buy or which apartment was better to rent. In each case, they offered alternative choices focusing on different relevant dimensions (e.g., price and gas mileage for the car; nice area, unfriendly landlord for the apartment), and designed an objective right answer by considering all the features. Some participants consciously thought about which was the best choice for a given time; others, after reading the material, were prevented from doing so by being engaged in a difficult mental task (for example, counting backward) for the same time, and only after having completed that task did they have to communicate their decisions. These latter were found to make the best choices. These results were replicated across many similar studies (e.g., Dijksterhuis, 2004; Dijksterhuis & van Olden, 2006). Creswell, Bursley, and Satpute (2013) imaged the brains of the participants during the experiments and found that the same brain areas that were active while acquiring key information (the right dorsolateral prefrontal cortex and the left intermediate visual cortex) were also active while people were unconsciously solving the problem; moreover, the more active those areas were, the better the decision was.

Dijksterhuis and colleagues (Dijksterhuis 2004; Dijksterhuis, Bos, Nordgren, & vanBaaren, 2006) also found that unconscious decisions seem to be better when judgments are complex and many different factors need to be combined and integrated, especially in the absence of reliable data. Consciousness, on the other hand, is more effective when conditions are simple, with few features, and when there are rules to follow. Again, from an evolutionary perspective, conscious thinking is a later acquisition, and being able to deal with complexity, and in particular with complex interpersonal information (monitoring threats and people from our environments, reacting to new stimuli, trusting or mistrusting others, letting them get close without being damaged or staying away from them), was essential for survival even before its emergence.

Unconscious goal-setting and pursuing

In addition, research data show that we can set and pursue goals unconsciously (e.g., Soon, Brass, Heinze, & Haynes, 2008), influenced by environmental priming and turning our attention to stimuli that are relevant to the pursuit of those goals (Bargh, 1990; Wegner, 2002; Wilson, 2002). Let's look more closely at some of these processes. Our social environments can prime our preferences and our goals (e.g., Bargh, Gollwitzer, Lee-Chai, Barndollar, & Troetschel, 2001; Kruglanski et al., 2002); for example, Bargh, Green, and Fitzsimons (2008) showed participants a video of two job interviews and gave them the task of evaluating how suitable the candidates were for the job offered, which in one instance was a waiter, and in the other a crime reporter; the first required being polite, and the second being tough and rude if necessary. During the video, a coworker, Mike, often interrupted the candidate, changing his behavior in accordance with the two experimental conditions. In one, he was polite and deferential; in the other, he was rude, angry, and aggressive. The participants were not asked to judge Mike at all, but, after they had watched the video, the authors asked the participants how much they liked Mike. In the control condition, no job was mentioned, and participants preferred the polite Mike significantly more, and the same happened in the waiter condition. In the crime reporter condition, however, participants liked the rude Mike more, even though they recognized his negative aspects. So, while the goal was active, they reacted positively to qualities that they would otherwise have disliked. Goals and needs make the person more sensitive to goal-relevant people and objects in the environment (Bruner, 1957), and

unconsciously turn their attention to them and their influence.

A review of goal-priming studies (Weingarten et al., 2016) has showed that the more important the need or the desire is, the stronger the priming effect is than less valued behaviors. Indeed, goals affect how we choose people and relationships, but the opposite is also true (Fitzsimons & Bargh, 2003): What we choose to desire and to pursue (see Kruglanski, 1996) may be the result of pressures from the environment and significant others (see, for example, Deci & Ryan, 2000; Ryan & Deci, 2000). Often, people follow the goals proposed by their important others and give up their own goals, which may significantly influence psychological wellbeing and interpersonal functioning (Moretti & Higgins, 1999).

Goal priming also influences how one experiences specific goal pursuits. Shah (2003), for instance, demonstrated that priming the names of significant others may implicitly influence the degree to which we emotionally perceive the success or failure of a goal on the basis of what we believe these other people think. Moreover, the correspondence between conscious and unconscious goals is linked to greater emotional wellbeing; when this alignment is absent, wellbeing decreases (Brunstein, Schultheiss, & Grässman, 1998; Schultheiss & Brunstein, 1999). The desire to feel good and the ability to meet this desire by unconscious thoughts are probably universal (Heine, Lehman, Markus, & Kitayama, 1999), and unconscious processes have a major role in selecting and processing incoming information (Wilson, 2002), so it is not a surprise that meeting our goals seems to maximize our wellbeing. What is more interesting is the fact that, according to these data, we unconsciously adjust our mental functioning according to the goal we are trying to pursue, and at the same time we are unconsciously (and consciously) sensitive to our environment, particularly the interpersonal one, so that we unconsciously (and consciously) adjust our goals according to it. It is as if our unconscious processes are primarily aimed at maximizing our fit with the environment we are in (as we see it) and the goals we want to pursue for adapting to it (Bargh, 2014; Damasio, 2010; Glaser & Kihlstrom, 2007; Hassin, Uleman, & Bargh, 2007; Koziol & Budding, 2010).

Implicit learning

In this process of adaptation to our environment, an important role is played by *implicit memory* and *implicit learning*, which are strictly connected processes (P.J. Reber, 2008, 2013). Implicit memory and learning are inferred when a person does

something that indicates the influence on their behavior of a previous event that can be denied or not recalled later (see Schacter, 1987). A notorious example was given by Claparède (1911), who reported the case of a woman with Korsakoff's syndrome, a neurological disease that seriously impairs memory, which vanished within minutes. During a handshake, Claparède pricked the patient's hand with a hidden pin, but she immediately forgot the episode. However, when they met again and the doctor reached out his hand, she immediately withdrew it, without knowing why and denying any memory of a pin. The memory of her experience was implicit in her reaction and unconsciously worked to avoid a threat.

Implicit memories are actually our first memories; before the age of three, in fact, the hippocampus is not fully developed yet, so memories will not be explicitly remembered, but are unconsciously recorded and influence our thoughts and behaviors for a long time (Mitchell, 2006; Thomson, Milliken, & Smilek, 2010). The working memory systems, implicit and explicit, are essential during the early phases of development. They consolidate behavior and adaptive patterns, define rules, and formulate previsions that are the basis of procedural learning (Gilhooley, 2008; Hassin, 2007; Koziol, 2014; Lewis & Todd, 2007; Paul & Ashby, 2013).

Implicit learning means the acquisition of knowledge of relationships between experiences without any intention or effort, without knowing anything about this acquisition (Berry & Dienes, 1993; Seger, 1994). Implicit learning is pre-reflexive, and the information learned can be complex and even abstract (e.g., A.S. Reber, 1989; P.J. Reber, 2013; Seger, 1994), such as the recognition and correct use of grammar rules (e.g., Cleeremans & McClelland, 1991). Implicit learning is an early ability and remains relatively stable during life (Frensch & Runger, 2003; Verneau, van der Kamp, Savelsbergh, & de Looze, 2014): infants discriminate and prefer sequences with structure to simple unstructured auditory sequences (Saffran, Aslin, & Newport, 1996). Learning these sequences is completely unconscious (A.S. Reber, 1967, 1976, 1989; A.S. Reber & Allen, 1978; P.J. Reber, 2013); moreover, in some cases, consciousness can even interfere adversely with it (Whitmarsh, Udden, Barendregt, & Petersson, 2013). Implicit learning guides attention even when there are explicit instructions to follow (Jiang, Swallow, & Sun, 2014; Jiang, Won, & Swallow, 2014), influences responses and perceptions of stimuli, and leads to possible biases.

Central to this process is the ability to process covariations in environments, and as Buonomano (2011) argued, a large part of what we learn derives from the tendency of our brains to associate aspects that occur simultaneously. Attribution theory (Heider, 1958) posits that people continuously monitor themselves and their environments unconsciously, inferring causes of behaviors, and these causal attributions are processed in accordance with preexisting causal beliefs (Weiner, 1986, 2000). In the same vein, Bar-Anan, Wilson, and Hassin (2010) show that people attribute their behavior to whatever is accessible, plausible, and self-serving, and once they have arrived at such conclusions, they tend to preserve them. As Gilbert and Malone (1995) reported, people find it difficult to modify previously made inferences, even after they are proven to be wrong.

Learning covariations is a very early acquisition (Roter, 1985, cited in A.S. Reber, 1992): it has been shown that at the age of five, children are already able to deal with two covariates together (Lewicki, 1986). We are quick in finding covariations (Lewicki, 1986), which may also be complex (Lewicki, Hill, & Czyzewska, 1994) and abstract. Moreover, Gross and Greene (2007) showed that what is learned implicitly can be applied by analogy to different situations. This kind of mechanism is at the basis of "thin slicing," which is the ability to find unconsciously quite accurate patterns while assessing people and making judgments on the basis of very short "slices" of experiences (Ambady & Rosenthal, 1992; Gladwell, 2004). Implicit learning, in fact, is linked to intuitive thinking and is the basis of social intuition (Lieberman, 2000).

Unconscious relational patterns, behaviors and expectations

Even relational patterns are inferred and then carried out unconsciously (Bargh, 1994) and tend to remain stable throughout life (e.g., Cozolino, 2014). This implies that people may unconsciously engage in relationships on the basis of cues received from other people that they are not able to recognize. Andersen and Przybylinski (2012), for example, showed experimentally that a person may abstract a relational pattern from interactions with a significant other and then apply it to another person, for whom it does not fit properly. This means that aspects of present reality may not be taken into account, because the present reality is considered through the lenses of pattern learned from past experiences, which leads people to repeat behaviors and strategies that are not useful any more (Pally, 2007) without realizing they are doing so. As Kahneman (2011, p. 24) argued, "we can be blind to the obvious, and we are also blind to our blindness".

We quickly and pre-reflexively select information relevant to our goals (Hutto, 2012; Stewart, 2010), and this implies making unconscious previsions about future events and our reactions to them, previsions that influence our behaviors. The neural intertwining of conscious and unconscious circuits, in fact, also involves the prefrontal cortex, which mediates many executive functions, including planning (Donald, 2001), and this helps to explain unconscious higher mental abilities such as the pursuit of goals, dealing with complexity, and acting on the basis of our unconscious beliefs (Bargh, 2007, 2014). Our evaluations are reinforced by similar experiences, ending up with the unconscious tendency to put them into action pre-reflexively; so, we tend to respond to a wide range of stimuli as if they were always the same, with the same degree of threat or difficulty (Phelps, 2009), with the adaptive purpose of maximizing quick and pre-reflexive responses, and we generally associate those stimuli with specific interpersonal contexts (Ginot, 2015). As Cortina and Liotti (2007) argued, experiences coded in that way have powerful adaptive and maladaptive effects on our development, because they create unconscious procedural expectations, defining what to expect from the caregiver, for example, and forming models of interpersonal relating that will be generalized to others. We develop an unconscious system of beliefs on the basis of our early repetitive and affectively laden experiences with our caregivers, and this system of beliefs guides our expectations and consequent behaviors, the way we see things in the world, who we feel we are, how we see ourselves and how we think we deserve to be treated, our desires, and how and if we are allowed to follow them.

In the same vein, Mischel and Shoda (1999) argued that people have distinctive "if-then" rules, based on a set of cognitive and affective variables (e.g., encoding, expectancies, affects and emotions) that determine their subjective responses in different situations. These rules are marks of the adaptive unconscious's chronic way of encoding situations, interpreting reality, and responding to events (Wilson, 2002). As argued by Bargh (2017, p. 282), "the outside world can only prime things inside you that are already inside you," and this means that our beliefs are recalled at each moment, blending past and present (Chartrand, Maddux, & Lakin, 2007; Churchland, 2013; Damasio, 2010; Gendlin, 2012; Horga & Maia, 2012), and that what we constantly put into action are specific maps, habits, and deep-rooted learning (Gendlin, 2012; Pollack, Watt, & Panksepp, 2000).

Jurchis and Opre (2016) found that unconscious processes may be partially responsible for dysfunctional affective responses, and Wegner (1994) argued that a conscious process is needed to overcome unwanted behaviors or thoughts that are unconsciously determined, but what happens is that unconscious processes simultaneously monitor the environments, ending up priming them. So the old learning is never eliminated, but exists as a parallel alternative, and can recur mostly under stress, when people tend to revert back to previously learned ways of responding (Wilson, Lindsey, & Schooler, 2000). Accordingly, new behaviors or thoughts need to be practiced many times to successfully compete with the previous ones.

To sum up, unconscious processes have a strong adaptive function even if they are often biased and may lead to mistakes. They have been evolutionarily selected primarily because they allow us to deal quickly and safely with the complexity of our environments, monitoring and immediately detecting changes that may expose us to dangers, and being ready to react before those become real.

As the previously described studies emphasize, unconscious mental processes may be quite complex. We unconsciously monitor and select information from our environments; we set goals, taking into account external reality, our desires and important relationships; and we unconsciously learn from previous experiences, store implicit memories, make judgments, define rules, and create expectations. From the very beginning of our lives, we analyze covariations in our environments, detect causal patterns on the basis of previous experiences, and develop beliefs and working models that shape our way of interpreting and reacting to reality.

Unconscious, psychodynamic thinking and higher unconscious mental functioning

As we saw at the beginning of this paper, the traditional and most widespread view of unconscious functioning in psychoanalysis depicts it as primitive, infantile, illogical, aimed at gratifying drive derivatives without considering reality, and regulated by the pleasure principle (Freud, 1900, 1911, 1915). According to this view, unconscious functioning is fundamentally maladaptive, and in order to adapt to reality and function effectively the individuals should be able to become conscious and acquire control over their unconscious, "taming" the drives and passing from the primary process to the secondary process and from the pleasure principle to the reality principle.

However, within the psychoanalytic tradition, different views of the unconscious functioning have been proposed. For example, relational approaches

share the idea of the unconscious as containing split and repressed, affectively charged, and more or less realistic sets of self-object representations (Klein, 1959; Fairbairn, 1952; Kernberg, 1975).

According to Bion (1962), the process that symbolizes subjectively sensory and emotional experiences and makes them thinkable is unconscious (see also Meltzer, 1984). This conceptualization has evolved over time, shaping the notion of an "*analytic field*" (Baranger & Baranger, 1961–1962), according to which the unconscious processes and phantasies of both the patient and the therapist regulate the interchanges and experiences of the analytic couple (Ferro, 2002). To quote Civitarese (2014): "the unconscious is not anymore under or behind the conscious, but inside the conscious experience" and the only truth that interests the analyst is the "unconscious, emotional and shared one" (p. 205).

According to the intersubjective perspective (Atwood & Stolorow, 1984; Stolorow, Atwood, & Brandchaft, 1994), three type of unconscious have been delineated: the *dynamic unconscious*, which collects a set of configurations of self-others that cannot be accepted by consciousness because they are associated with emotional conflicts and subjective threats; the *unvalidated unconscious*, which refers to all those experiences not expressed because of an unvalidated response from the environment; and the *pre-reflective unconscious*, which operates outside of the consciousness and includes all the pre-reflective structures of experience formed during the interactions between the subjective worlds of a child and their caregivers.

Finally, Ignazio Matte-Blanco (1975, 1988) has proposed a view of unconscious functioning in which such functioning is composed of "*infinite sets*" shaped by both a symmetric and an asymmetric logic. In this view, the symmetric logic is the expression of a specific, homogeneous, and indivisible "*mode of being*" of the mind.

Other contemporary psychoanalytic researchers refer to concepts derived from cognitive sciences, such as implicit memories and processes, emotional and embodied memories, and procedural learning (Ginot, 2015).

A particularly interesting and modern view of the functioning of the unconscious ego was proposed for the first time by Freud himself in 1926. According to this view (Freud, 1926, 1940), the human mind is unconsciously able to notice the drive derivatives that push from the id; to develop plans aimed at their gratification; to foresee, on the basis of past experiences, what the consequences of the realization of these plans would be; and to deliberate on what to do on the basis of these previsions. If the outcome of the realization of these plans is pleasurable and does not put the individual in danger, then the drive derivative may be satisfied; if the outcome puts the person in danger, then the ego needs to use defense mechanisms to deal with this drive derivative. According to this view, then, human beings are able to unconsciously perform many of the same complex functions they are able to perform consciously. In performing these functions, they follow not only a pleasure principle, but also considerations centered around safety, and are unconsciously motivated to acquire control and mastery over their internal and external reality, to solve problems, and to adapt to the environment.

Joseph Weiss and colleagues (1986) proposed differentiating this "higher unconscious mental functioning" (HMF) paradigm from the "automatic unconscious mental functioning" (AMF) most widespread in psychoanalytic thinking. This view has been partly adopted by some ego-psychologists, such as Rangell (1969, 1971, 1975), who anticipated several key concepts of control-mastery theory, such as the decision-making and testing function of the unconscious ego, the ego's control of the therapeutic process, and the existence of senses of guilt about ego interests that are believed to be threatening for important others in some way. However, the only dynamic model that fully adopted the HMF paradigm is control-mastery theory (CMT; Gazzillo, 2016; Silberschatz, 2005; Weiss, 1993; Weiss, Sampson, & the Mount Zion Psychotherapy Research Group, 1986).

Some core concepts of CMT and how they are expressions of higher unconscious mental functions

CMT is an integrative cognitive dynamic theory of mental functioning, psychopathology, and therapeutic processes that has been developed by Joseph Weiss and empirically validated by Weiss, Harold Sampson and the San Francisco Psychotherapy Research Group (formerly the Mount Zion Psychotherapy Process Group) in the last 50 years.[2]

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[2]The reception of CMT in contemporary psychanalysis has not been wide. After the endorsement that it received from Morris Eagle in 1984, Migone and Liotti (1998) tried to integrate cognitive-evolutionary psychology; Bowlby's attachment theory; multimotivational models such the one proposed by Lichtenberg, Lachmann, and Fosshage (2010); and the model proposed by Liotti himself (Liotti, Fassone, Monticelli, 2017) within the CMT framework. However, there are many points of contact between CMT and various psychoanalytic relational theories (for a review, see Silberschatz, 2005, pp. 224-230): a basically relational orientation in human psyche; the abandonment of the hypothesis of a death instinct and the central role given to real experiences in psychic

In line with the HMF paradigm, CMT stresses how the overarching aim of mental functioning is *to adapt* to reality – that is, to pursue evolutionary-based developmental goals, to solve problems, and to *master* traumas. Its overarching regulatory principle is a *safety/danger principle*. Moreover, CMT stresses that human beings are able to unconsciously perform many of the same complex functions that are generally attributed to consciousness, and are motivated and able to *control*, both consciously and unconsciously, their conscious and unconscious contents and processes.

In their efforts to adapt to reality, human beings need to develop and maintain good enough relationships with the members of their groups, first of all their caregivers and siblings. They also need a possibly coherent set of *beliefs* about themselves, other people, the relationships between themselves and other people, the world, and the rules that they have to follow to preserve their safety while pursuing their goals. These beliefs about reality and morality, which may be both implicit and explicit (Weiss, 1992, 1993), shape people's attention, perception, motivations, emotions, thoughts, and behaviors, and their influence is strengthened by confirmation bias.

CMT defines a subset of these beliefs as *pathogenic beliefs* (Curtis & Silberschatz, 2005). A belief is considered pathogenic when it associates the pursuit of a healthy and adaptive goal with a danger. This danger may be either internal (anxiety, fear, shame, guilt, etc.) or external (i.e., a danger for the self, important others, or important relationships). Pathogenic beliefs are developed to adapt to adverse experiences that make the person feel in danger (Fimiani, Gazzillo, Fiorenza, Rodomonti, & Silberschatz, 2020): they are developed in the attempt to understand what happened, how the person contributed to it, and how they can prevent its future reoccurrence. Pathogenic beliefs are developed mainly unconsciously during the developmental period, and they are shaped by the features of immature thinking and infantile motivations typical of children, so that they tend to reflect egocentricity and the tendency to overgeneralize and attribute to oneself more responsibility than realistically probable. Moreover, pathogenic beliefs tend to be shaped by motivations such as the attachment of the child to their family members and their attempts to make them happy (care), and by the child's need to see their caregivers as good and wise. Pathogenic beliefs may

obstruct the pursuit of goals connected to any kind of motivation in the different phases of life.

According to CMT, given that pathogenic beliefs are grim and constricting, people are highly motivated to disprove them in order to feel safe in pursuing the goals obstructed by them. When people undergo therapy, they have a *plan* aimed at disproving their pathogenic beliefs and pursuing those goals. This plan is generally unconscious, an expression of the unconscious higher mental functions of the human mind, and can be reliably inferred and formulated by an appropriately trained clinician (for a review, see Curtis & Silberschatz, 2007; Gazzillo, Dimaggio, & Curtis, 2019). This plan is composed of the *goals* that the patient wants to pursue, the *pathogenic beliefs* that obstruct their pursuit, the *traumas* such beliefs were derived from, the ways the person wants to disprove them (*tests*), and the *insights* and/or *new experiences* that the person may want to acquire in order to better master their own functioning. Patients may consciously and unconsciously *coach* (Bugas & Silberschatz, 2000) their therapists to help them understand the elements of their plans and how to pass their tests. Several empirical research studies have shown that if the clinician is able to help a patient carry out their plan, their therapy tends to have a good outcome (for a review, see Silberschatz, 2005, 2017).

The concept of a "plan" in general, and the concept of a "test" in particular, are two of the clearer examples of unconscious higher mental functioning in psychotherapy. With the term "test," CMT (Gazzillo et al., 2019; Weiss, 1990) defines communications, attitudes, and behaviors unconsciously devised to disprove pathogenic beliefs. As empirically shown, when patients test their therapists, they tend to be more anxious, because they are afraid that the therapist's response may confirm the pathogenic belief tested and so retraumatize them. On the other hand, when therapists pass their test, patients tend to become less anxious, less depressed, bolder, more insightful, and more involved in the therapeutic relationship: they may bring new material, master their traumas more fully, and work harder to pursue the goals obstructed by the pathogenic belief tested (for a study see Silberschatz, 1986; Silberschatz & Curtis, 1993).

According to this perspective, the human mind, both consciously and unconsciously, tries to pursue adaptive goals in a reality shaped by the person's beliefs, and follows plans aimed at disconfirming

development and change; and the centrality of constructs such as beliefs, schemas, and self-other representations in normal and pathological psychic functioning. Moreover, in line with contemporary infant researchers (see, for example, Stern, 1985), CMT stresses how children, far from being narcissistic and incapable of differentiating the self from the mother and of being interested in external reality, are intrinsically interested in developing and testing hypotheses about how the world works from the beginning.

the beliefs that obstruct the pursuit of those goals and at mastering the traumas from which these beliefs come from. This happens also in dreams (Gazzillo, Silberschatz, Fimiani, De Luca, Bush, 2020).

Three clinical exemplifications will help us better understand how planning and testing are strong evidence of unconscious mental functioning in psychotherapy.

Setting unconsciously the time when to look for a therapy: the case of Beatrice

The first vignette is an example of how unconscious goals, unconscious pathogenic beliefs, and the desire to disconfirm them can shape long-term behaviors, and it is taken from the one-session-per-week therapy of Beatrice.[3]

Beatrice was a 31-year-old woman who looked for a therapy because she felt confused about several aspects of her life. She had had two boyfriends for one year without being able to choose one of them; she really liked her job, but from time to time she found good reasons to quit and to start over again; she lived in an apartment she did not really like, but she was not able to look for a nicer one; she felt confused and unable to recognize and choose what she wanted. In her own words, "she want[ed] to stop being a person she [felt] she [was] not."

Beatrice clearly remembered that during her childhood she had always had to be good, calm, and trustworthy; she could not worry her parents in any way. She did not feel she was such a good and calm girl, but she felt that being different from how her parents wanted her to be would have meant hurting and disappointing them. Beatrice developed a strong separation/disloyalty guilt, based on the pathogenic belief that separating physically or differentiating psychologically from her significant others and their expectations and values would cause them harm. In fact, when she left her native town to go to university, her parents were hurt and disappointed; and given that her jobs led her to travel abroad, her parents, particularly her father, did not miss any opportunity to remind her how much they were suffering because of her being so far away and because of the fact that she did not even consider participating in her family business as expected from, and demanded of, her.

In the first session, after an interpretation by her therapist that supported her plan, Beatrice was able to recall that from the moment she left her city she

thought, and also said to her parents, that she would be back in 10 years no matter what, and that it was a good time frame not to make them suffer too much. Until that moment, she never remembered that she had set such a time frame when she left, nor she was aware that that time was close to being passed when she decided to start her therapy. She was also not conscious of the great influence that it had on all her choices. She became aware of all these aspects during the first sessions of her treatment. With this unconscious time frame in mind, she was unable to maintain a stable job, even if she loved it; she stopped herself from looking for a stable affective life, and from renting a nicer apartment where she could feel comfortable and at home. The therapist connected these aspects to something that the patient said to her in her first session:

> I think that beyond all this there is something better that I'm not allowed to take, but at the same time I have to be what I pretend to be. I feel guilty for everything that could break this balance, even if I use all my efforts to break it, but when I see the implications of this for others, I step back, and this makes it impossible for me to make my choices.

Beatrice was not even aware that the moment when she decided to start psychotherapy was also close to the deadline of 10 years she had given to herself, and that looking for therapy was an attempt to disconfirm her pathogenic belief and to give herself the opportunity to make her own choices, to stay far from home and live her own life according to her goals and desires.

Difficult therapeutic moments as unconscious tests: the case of Francine

The second example derives from the sixth month of the three-sessions-per-week treatment of Francine,[4] a patient in her early twenties who looked for psychotherapy because of heroin addiction, deep social isolation, and a lack of goals and purpose in her life. Francine met the criteria for a borderline personality organization, with histrionic and narcissistic features in a borderline-level personality organization (Lingiardi & McWilliams, 2018). Among her main traumas were the systematic mistreatments and devaluations that she suffered at the hands of her mother, who accused her of being ugly, inelegant, not very smart, and impossible to love. Her mother used to say to her that her life would be a disaster because she did not always do what she told her. Francine had developed a strong self-hate (Faccini,

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[3]Beatrice's therapist was J.L.
[4]Francine was in therapy with F.G.

Gazzillo, & Gorman, 2020). At the beginning of one session, as soon as her therapist opened the door of his office to her, Francine looked at him and said: "How are you dressed? Do you want to advertise [to] working-class people?" The therapist, surprised by that observation, and with a mix of fun and surprise, smiled at Francine and asked her: "Why?" She replied that it was a mistake to wear blue jeans with a denim shirt. At that point, the therapist understood what advertisement the patient was talking about, and replied to her: "Well, it seems to be the beginning of a good day for me." Then he laughed and added: "I do not think it is so bad."

In the meanwhile, they had entered the consulting room, and Francine started to talk about the fact that she was afraid that, during an impending discussion about her dissertation, the professors might think that her dresses were not beautiful enough, and that her way of talking was not appropriate. Then she started to remember some of her experiences during high-school. After having failed one year, she had changed schools and had gone to study in a high-school in a town not far from where she lived. That school was attended by children from families that were richer than hers, and she suffered because they always wore much more expensive and attractive clothes than hers.

Then Francine went back to the topic of her mother's devaluations, and remembered several occasions when her mother criticized her body, the clothes she bought, her way of moving, and the way she talked. It is worth noting that the therapist did not say anything during that session, apart from "What are you thinking about now?" on a couple of occasions, and only at the end of the session did he draw the patient's attention to the coherence of her communications: she was working to master the trauma of her mother's constant criticism, which made her feel deeply insecure about her appearance and her way of dressing, moving, and talking. Her lack of self-esteem was one of the bases of her fear of being criticized during the impending exam. But when the therapist connected this thread of thoughts and feelings to the comment about his clothes that Francine had made at the very beginning of the session, Francine replied that she was not at all aware of the fact that she was going to talk about that topic.

CMT helps us to make sense of this clinical exchange in every detail. According to CMT, in fact, the funny criticism of the therapist's clothes made by Francine at the beginning of the session can be considered a test, and in particular a passive-into-active test by compliance (Gazzillo et al., 2019). With this term, CMT indicates a test that is mediated by the identification of the patient

with a traumatizing other, and by the proposal of a behavior that is coherent with the pathogenic belief tested. In this case, Francine was testing the pathogenic belief "I deserve to be criticized," and in order to do so, she was identifying with her critical mother and putting the clinician in the role of herself. The unconscious aim of this behavior was to find in the clinician a "role model" who could help her find a way to deal with a behavior similar to that of her mother without being traumatized and without developing a similar pathogenic belief. The response of the clinician, who was not aware of the meaning of Francine's behavior, passed that test.

In describing what happened, we could say that Francine was trying to pursue the goal of being more self-confident even in the face of criticisms, but in pursuing that goal she was obstructed by the pathogenic belief that she deserved to be criticized. She developed that pathogenic belief because of her mother's constant and harsh criticisms (trauma); given that she, as a child, could not think that her mother was wrong and bad, she had to develop the belief that she deserved the way her mother treated her, and now Francine was looking for experiences that could help her disprove that belief and master that trauma. So, that day she came to the session with an unconscious request for her therapist: help me see how I can deal with criticisms without being retraumatized by them. And the therapist's response was good enough.

How can we say this response helped Francine? Because, after that reaction, Francine seemed relieved and started to recall several instances where she had been criticized and felt inferior and humiliated, implicitly suggesting the connection between those experiences and her being afraid of being criticized and humiliated during the discussion of her dissertation. She talked about those experiences with appropriate affects, but without being overwhelmed by them. In explaining what happened, we can say that, thanks to her therapist's response, Francine felt safe enough to recall the memories of her mother's criticisms without being afraid of being overwhelmed by them, and without taking them as evidence of the fact that she really was inadequate. All this process took place outside of her consciousness and was aimed at better mastering her history and her mental functioning – good evidence of higher unconscious mental functions. Unconsciously, Francine decided to work in that session on the goal of improving her self-esteem and ability to deal with criticisms; unconsciously, she decided to use a passive-into-active way of testing her pathogenic belief in the attempt to disprove it; unconsciously, she assessed her therapist's reaction in light of her goal; unconsciously, she

decided, after the response of the analyst helped her feel safe, to work again on the traumas connected to that pathogenic belief in order to master them better.

Night insights: two dreams of Valentina

Another good example of higher unconscious mental functioning may be found in two dreams that Valentina[5], a 35-year-old patient, explored with her therapist during a session from the seventh and last year of her treatment.

Valentina had looked for a treatment because she did not know if she was homosexual, heterosexual, or bisexual; actually, she fell in love with any person whom she found not ugly and who showed themselves to be interested in her. Valentina was not able to maintain a satisfying and reciprocal love relationship because she never fully believed that the other person really loved her, and was overly sensitive to any lack of attention and respect, because in the past she had had relationships with abusive men. She kept on finding and losing jobs because of conflicts with her colleagues and bosses, by whom Valentina felt herself to be exploited and mistreated. Valentina was also very anxious and suspicious, and had periods of depression and difficulties in sleeping; she tended to use illegal drugs, and had periods of sexual promiscuity that helped her feel less sad and anxious. She also had severe angry outbursts where she could hurt herself or other people when she felt abandoned or deceived. Finally, she had difficulties in being assertive because she was always afraid to be wrong, and she thought herself to be a burden for other people because of the intensity of her needs and emotions. She showed a borderline personality disorder.

Valentina had had a very traumatic childhood characterized by a physically and emotionally abusive father who used beat and devalue her, her two sisters, and their mother. Valentina's mother had had two long periods of depression during her daughters' childhoods, and experienced their energy and vitality as a burden for her. One of these periods was soon after Valentina's birth: she had wanted to have a male child, and Valentina was a female – this was said to Valentina when she was older. Moreover, the relationships among Valentina and her sisters were charged by envy and competitiveness: each one of them thought that another sister was loved more than her by their parents, and for this reason they used to attack each other. Moreover, when she was 11, Valentina was sexually molested by an old man.

These traumatic experiences convinced Valentina that she was unlovable and a burden for other people; that she did not deserve to be protected; and that if she had been able to be happy and to find a person who loved her, her parents and sisters would have been jealous and envious of her. She also unconsciously ended up believing that her father needed her to be submissive to feel she had a value. In fact, any time she showed herself to be convinced of something, proud of herself or enthusiastic about one of her projects or achievements, her father humiliated her.

At the end of the sixth year of her psychotherapy, which was a face-to-face therapy with a CMT male therapist who saw her twice a week for the first five years, and then once a week, Valentina felt much better. She was having a quite satisfying relationship with a man and defined herself as heterosexual. She had found a job she liked, and had been able to have a role of responsibility in the work team. In the last year, she had not had any angry outbursts, and was able to sleep better and feel much less anxious and depressed. For these reasons, Valentina had proposed to the therapist that they meet every other week. She was satisfied and wanted to learn how to go on without the help of the therapist.

During the second session of this new period of less frequent sessions, Valentina said to the therapist that during the last week she had been less serene than in the last months, and she wanted to understand why. Nothing particularly bad had happened, and in general she was doing well enough. She did not think that this change in her mood could be connected to the idea of ending the therapy, and she wanted to understand why she felt "unnecessarily" sad and anxious. She added that in the last week she had had two dreams.

In the first dream, she was at home, but her home was nicer than the one she was living in with her boyfriend. She was taking care of a plant with some shoots that were coming out; but anytime these shoots came out, her father cut them. She got angry with him, but he kept on doing so, and then she got angry with her mother as well, because her mother did not protect her.

In the second dream, she wanted to denounce the fact that a young girl had been raped, but she was afraid of being punished by the aggressor for her denouncement. At the end, she decided to denounce him, but then the aggressor shot her. She kept on being alive and awake for some moment, and when she died, she woke up.

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[5]Valentina was in therapy with F.G.

After telling the therapist these dreams, Valentina realized that they were messages she was sending to herself unconsciously (Gazzillo, Silberschatz, Fimiani, De Luca, Bush, 2020) and that they conveyed the response she was looking for. She ended up feeling sad and anxious out of compliance with her father, who, according to her unconscious pathogenic belief, did not want her to be happy and optimistic, the way she was feeling in that period. She had difficulties in coming out of that painful feeling and in protecting her happiness and proactivity because she believed that she did not deserve to protect herself, as her mother did not protect her from her father during her childhood. Valentina realized that she was afraid to lose the relationship with her father if she was not loyal to him, and if she denounced the fact that he was violent and abusive with her. These were themes Valentina and her therapist had addressed during all her therapy, but now Valentina was able to see how they were continuing to obstruct the possibility for her to enjoy a happy ending to her therapy and to be proud of her accomplishments.

While she was sleeping, when her consciousness was off, Valentina was able to find a response to her question about why she was feeling sadder and more anxious, and she needed only a little help from the therapist to understand the message she was sending to herself with her dreams.

Conclusions

Recent developments in social, cognitive, and evolutionary psychology have shown how unconscious processes are the basis of our everyday functioning, and that they are much more complex, sophisticated, and adaptive than previously thought. We unconsciously continuously assess reality and adjust our goals to it in order to stay safe and satisfy our basic needs and wishes; we unconsciously develop plans to pursue our goals and assess these plans on the basis of the consequences of their implementation that we foresee; we unconsciously detect patterns in the presence of complex covariations of multiple factors and we are able to unconsciously learn, infer intentions, and develop decisions. Unconscious processes are the core of our everyday mental functioning, and consciousness seems to play a role only when the results of unconscious elaboration seem to be mistaken.

Among the psychodynamic models developed in the last 100 years, only CMT seems to be in line with these data, and has developed a model of mental functioning and psychotherapy that is compatible with them, so that a greater integration between recent findings on unconscious processes developed by researchers and the core concepts of CMT is, in our opinion, very promising. The moment has come to see, in any behavior and communication of a patient in therapy, (also) the expression of their powerful attempt to get better.

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