

**AN ATTEMPT TO EPISTEMOLOGICALLY GROUND CURRENT PSYCHOTHERAPY  
NEITHER BETWEEN NOR WITHIN:  
ON THE COMERGENCE OF HUMAN COMPLEX SYSTEMS**

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**ABSTRACT**

The present paper is devoted to the description of a model that may support the theoretical integration and the clinical advance of current psychotherapy. On the one hand, it reports an extensive review of the common trends of the so-called Third Wave of Cognitive-Behavioral Therapy and other modern approaches. On the other hand, it defines a few epistemological tools that may help therapists in understanding such trends. The model comprises five main principles that are explained in terms of theoretical and clinical implications. Further studies are needed in order to prove its clinical effectiveness and extensively report the subsumed therapeutic mechanisms.

Keywords: Comergence, Complex Systems Theory, Constructivism, Cybernetics, Psychotherapy

**1. INTRODUCTION**

In the last 20 years, our understanding of the mind and the brain has changed tremendously. Since the beginning of modern science, these intertwined issues have stood at the core of many research programs. Chemists, physiologists, psychologists and other experts tried to define and extend the range of convenience of their studies as if they were all playing on different chessboards of the same game later called neuroscience. Eventually the “possibility – even the hope – of putting the entire jigsaw together only began to emerge towards the end of the last century” (Rose, 2005, p. 3), and swiftly became a sort of certainty.

Unluckily, our “fragmentary and rapidly evolving understanding is reminiscent of the situation faced by cartographers of the earth’s surface many centuries ago, when maps were replete with uncertainties and divergent portrayals of most of the planet’s surface” (Van Essen, 2004, p. 507). That means that on the one hand we are constantly increasing our comprehension of the mind and the brain. On the other hand, we can assume that the ubiquitous Red Queen’s Race<sup>1</sup> (Van Valen, 1973) between different fields of study and theoretical perspectives has perpetuated a partial (and incomplete) understanding of many human complex phenomena.

At the same time, clinical psychology, psychiatry and psychotherapy<sup>2</sup> are trying to keep the pace of cognitive neuroscience and its innumerable and diversified discoveries, still perpetuating the same fragmentation and often compromising their validity due to a very low replication rate of studies (Open Science Collaboration, 2015). The huge amount of physiological and clinical data about

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<sup>1</sup> The *Red Queen’s Race* is an evolutionary hypothesis proposing that organisms must constantly evolve to survive while competing with always evolving adversaries and inside always changing environments.

<sup>2</sup> In order to simplify the exposition I will use “psychotherapy” as an umbrella term for psychological and psychiatric understanding of all the relevant issues in assessing mechanisms and disorders, and in promoting therapeutic changes.

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Human Complex Systems<sup>3</sup> (HCS) constantly forces psychotherapy to formulate and test new hypotheses and techniques, and hopefully redefine the theoretical frameworks. At the same time, new comprehensive perspectives such as the so-called Third Wave of Cognitive-Behavioral Therapy (CBT) are frequently described as not really innovative in terms of theoretical models and clinical mechanisms (Hofmann, Sawyer, & Fang, 2010) and partially inconclusive in terms of competitive effectiveness in comparison with standard interventions (Öst, 2008).

Even if this historical process cannot be diminished and enclosed inside the Italian principle of «changing things so everything stays the same» (Lampedusa, 1958), we need to consider the theoretical and practical effects of this kind of Red Queen's Race. Firstly, the rate of yearly discoveries is constantly higher than the one of the yearly attempts to integrate such discoveries. Secondly, the speed of this experimental proliferation complicates (often impedes) a critical reflection over the higher order assumptions that we run the risk to share with models and eras we do not belong to anymore. Finally, a discrepancy between these theoretical assumptions and the practical implications of new discoveries may lead to the paradox effect of reducing the ecological validity of a desirable proliferation (Thomson, 2016).

The research question of the present paper arose in order to face such historical and epistemological challenges, and we can summarize it as follows: (Q<sub>1</sub>) how do we foster the development of an epistemologically grounded and clinically effective psychotherapy? In other words (Q<sub>1.1</sub>) how do we promote a theoretical integration within a rigorous epistemological framework, and at the same time, (Q<sub>1.2</sub>) how do we advance current diagnostic and therapeutic systems in the light of such an integration? In order to tentatively answer to these very crucial questions, I will review the state of the art of modern psychotherapy and describe a few epistemological tools or better methods of the present study. Subsequently, I will formulate and argue for five fundamental concepts I assume may promote the advance of current psychotherapy. Finally, I will summarize the preliminary results of three projects aimed at applying this epistemological model. The model, which in a naïve manner is a way to consider human experience as the comergence<sup>4</sup> of all the HCS related to that, is intended to be a methodological offering destined to be replaced by something more comprehensive rather than a conclusive unified theory we can take for granted.

### 1.1 Trends and Advances in Current Psychotherapy

We can trace a few recurrent and entangled concepts during the history of psychology (Greenwood, 2015), although many kinds of speciation (Butlin, Galindo & Grahame, 2008) have popularized very different approaches to HCS. On the one hand, we see how in the same department or on the same journal a few contrasting frameworks and languages continuously take turns (i.e. sympatric

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<sup>3</sup> As I will better explain later, I will use “Human Complex Systems” (HCS) as superordinate and comprehensive construct for the many levels and frameworks of human experience (biological, cognitive, emotional, behavioral, interpersonal, social, political, etc.). From a complex systems point of view these levels and frameworks can be just defined systems.

<sup>4</sup> As a first definition, we can consider “comergence” as a multi-level and fractal-like look at the construct of emergence within the framework of Complex Systems Theory. Beyond all the possible arguments and foundations of the philosophical definition of emergence (O'Connor & Wong, 2015), Complex Systems Theory shapes (or sometimes implies and subsumes) a practical and operative definition of emergent properties and processes of a system. Indeed, the constructs of complex systems and emergence may be strictly interconnected in a circular (and intentionally tautological) manner when referring to non-linear systems. A complex system is defined by recurrent patterns leading to emergent properties, whereas a property is emergent if it is a novel property of a system that arises when that system has reached a certain level of complexity. Since the present paper is extensively grounded in non-dualizing approaches (e.g. Enactivism and Second Order Cybernetics), I will focus on the epistemological and embodied dimensions of emergence (i.e. the ecological interactions of systems) rather than on the ontological and metaphysical arguments (i.e. philosophical foundations of systems). The construct “comergence” is an attempt to bypass the long-lasting debate of modern philosophy and consider all the multi-level processes related to and relevant for a specific system, so formulating a few foundative concepts that transcend dichotomous distinctions such as inside/outside, personal/social, superordinate/subordinate, etc. Moreover, this construct (etymologically composed by the prefix co- and the word emergence) is intended to highlight the relational and ecological framework of each and every process involved in HCS.

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speciation). On the other hand, historical, geographical, cultural and social contingencies make bring up an approach that in different times or places would certainly fall (i.e. allopatric speciation).

All that said, the cultural (and hegemonic) heritage of American individualism has significantly influenced the development of modern psychology (Greenwood, 2004), and so especially fostering the cognitive (frequently personalistic) revolution both of neuroscience (i.e. Cognitive Neuroscience) and of psychotherapy (i.e. CBT). Within the latter field such a revolution marked the shift from a first phase of Behavioral Therapy, strictly focused on problematic behavior and emotions and on conditioning, to a second phase or wave that added a relevant (even if not exclusive) focus on “dysfunctional beliefs and faulty information processing” (Beck, 1993, p. 194). Nevertheless, the new model showed significant anomalies and inadequate results (Gortner, Gollan, Dobson, & Jacobson, 1998) that, in turn, highlighted the need for a theoretical and practical restructuring. A restructuring that had to recover a comprehensive point of view on personhood.

A few ideas of Constructivist Psychology (CP) and of Second Order Cybernetics (SOC) were just entangled within American approaches to epistemology and psychology since the Second World War. The American roots of General Semantics (Korzybski, 1937), Cybernetics (Von Foerster, Mead, & Teuber, 1951), Personal Construct Psychology (Kelly, 1955), clearly depict a common thread widely recurring across different ages and disciplines. Indeed, the rise or better the renaissance during the 80ties of “constructivism and similar postmodernist theories have weakened the idea that scientific theories identify discrete parts of reality that can then be organized into comprehensive models” (Hayes, 2004, p. 644), and so have significantly and progressively invalidated a few core assumptions of the first and second wave of CBT. Neuroscientists and therapists started (re-)discovering the second order and ecological dimensions of human experience. At the turn of the new millennium, a few scholars introduced the idea of a New Wave or of a Third Wave of CBT gradually leading to a more contextual rather than eliminative approach to human change and suffering (Zettle, Hayes, Barnes-Homes, & Biglan, 2016).

In spite of different cultural niches and of a continuous speciation, the most of the common threads of the Third Wave recur across different approaches in respect to the CBT paradigm. Similarly, a few ecological and second order assumptions have become cornerstones of different approaches inside and outside America. At the same time, the cross-fertilization between the dominant CBT paradigm, the constructivist and cybernetic perspectives, and a few alternative models (e.g. Psychodynamic Therapy, Family Systems Therapy, etc.), fostered the renaissance of another crucial component of psychotherapy, that is, the interpersonal and systemic dimension of human experience and development (Safran & Segal, 1990). All that must push us to recognize and clarify the common threads of both Third Wave and of all the modern psychotherapeutic approaches. I maintain that the growth of psychotherapy (see Q<sub>1.2</sub>) passes through an essential theoretical integration (see Q<sub>1.1</sub>), as a common characteristic of any mature scientific discipline.

The trends I am reporting below represent a theoretical summary<sup>5</sup> of the Third Wave and of a few concurrent approaches that have showed a high cross-fertilization, such as the therapeutic alliance perspective (Safran & Muran, 2000), and/or a significant effectiveness, such as the Mentalization-based Treatment - MBT (Bateman & Fonagy, 2012). In any case, the most frequent approaches I am referring to are traditionally categorized as core components of the Third Wave of CBT: Acceptance and Commitment Therapy - ACT (Hayes, Strosahl & Wilson, 2012), Metacognitive Therapy – MCT (Wells, 2012), Mindfulness-based Interventions – MBI (Didonna, 2008), and so on. Such a selective decision is motivated by the present scientific hegemony of CBT (Butler, Chapman, Forman, & Beck,

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<sup>5</sup> Methodologically speaking, the present summary is composed by a nonsystematic review and a meta-synthesis of selected references (identified through a citation analysis per single reference and per single scholar). The results were previously presented as an attempt to explore the viability of a Complex Systems Theory perspective in fostering the theoretical integration of the new wave of CBT (Cheli, 2017a).

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2006), and the increasing popularity of the Third Wave regardless of the currently (and partially) reported effectiveness (Hunot, Moore, Caldwell, Furukawa, Davies, Jones, Honyashiki, Chen, Lewis, & Churchill, 2013).

**TABLE 1 - TRANSDIAGNOSTIC PROCESSES FROM A COGNITIVE POINT OF VIEW**

Attention	Memory	Reasoning	Thought	Behaviour
<i>Definite transdiagnostic processes*</i>				
Selective attention to external & internal stimuli Avoidance & attention toward safety	Explicit selective memory Recurrent memory	Interpretation reasoning Expectancy reasoning Emotional reasoning	Recurrent thinking Positive and negative metacognitive beliefs	Avoidance behaviour Safety behaviour Experimental avoidance
<i>Possible transdiagnostic processes*</i>				
	Implicit selective memory Overgeneral memory Avoidant encoding and retrieval	Attributional reasoning Availability heuristic Covariation bias Confirmation bias for threat rules	Thought suppression	Ineffective safety signals
<i>Accumulating evidences on metacognitive processes**</i>				
Metacognitive efficiency	Metamemory	Decision confidence	Metacognitive awareness	Metacognitive accuracy

\*Harvey, Watkins, Mansell & Shafran, 2004; \*\*Fleming & Frith 2014

*1.1.1 Transdiagnostic Processes.* One of the most recurrent and recognized trend of new approaches is the experimental study and clinical application of transdiagnostic processes (see Table 1), that is of processes that recur across different disorders rather than anchoring the psychotherapeutic knowledge in tight diagnostic categories, which in turn are dependent to specific socio-cultural contexts and epochs (Szasz, 1961). The rationale is to define processes that are “useful in predicting and influencing the contextually embedded actions of whole organisms” (Zettle, Hayes, Barnes-Homes, & Biglan, 2016, p. 18). The transdiagnostic point of view tries to overcome the boundaries of a standard diagnosis and, at the same time, to highlight the need for a clear-cut analysis of the predisposing, precipitating and perpetuating mechanisms of a specific experience of suffering. Such an approach has proved to be effective in terms of experimental proofs of the explored mechanisms (Harvey, Watkins, Mansell, & Shafran, 2004), clinical viability in bypassing the high rate of psychiatric morbidity (Kessler, Chiu, Demler, Walters, 2005), clinical effectiveness in reducing symptoms severity and drop-outs (Barlow et al., 2017). About ten years ago, a British team published the most extensive review of transdiagnostic processes, and systematized them in terms of different levels of experimental and clinical validity (Harvey, Watkins, Mansell, & Shafran, 2004). Since the referent framework was the one of CBT, there is obviously an overestimation of role of standard cognitive dimensions, also incremented by the high number of publications within this kind of approach. In any case, the processes they labelled as definite rest on robust evidences and clearly stand at the core of the most famous Third Wave approaches: avoidance (see ACT), selective attention (see MBI), positive and negative metacognitive (see MCT). Ten years after this outstanding publication, we face with the flourishing of a new set of transdiagnostic processes. We are accumulating evidences about the relevant role of metacognitive processes in the fields of cognitive neuroscience, and so exploring the role of mechanisms such as meta-memory, metacognitive efficiency, etc. (Fleming & Frith, 2014), and in different psychotherapeutic mechanisms, such as the

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metacognitive strategies in the Interpersonal Metacognitive Therapy – IMT (Dimaggio, Semerari, Carcione, Nicolò, & Procacci, 2007) and other metacognition-based processes<sup>6</sup>.

*1.1.2 Focus on Interpretation.* This brief review of the role of metacognition in modern psychotherapy may support our understanding of another core trend that is grounded both on the constructivist and post-modernist undercurrents of CBT and on a clear-cut assumption of the Third Wave: psychotherapy as a way to promote a desirable change deals with the interpretations of events, rather than on the events per se. “Attentional and metacognitive perspectives began to make clear that it was the function of a problematic cognition, not their form, that was most relevant” (Hayes, 2004, p. 5); that is to recover the cybernetic construction of change as a second-order control enabling a restructuring of the referent system (Watzlawick, Weakland, & Fisch, 1974). Indeed, all the metacognitive processes and mechanisms recurring in modern psychotherapy (see note 6) focus on a progressive increase of the general ability of the patient in monitoring and revising the way of looking at her-/him-self and at the world; and on a shared attempt to contextualize the experiences of suffering and change in specific, here-and-now situations. There are significant differences in the theoretical assumptions and in the clinical applications, but all these new approaches assume to pursue a sort of second-order change. The main criticism is probably the frequent inability or unwillingness to metacognitively revise all the epistemological (or ontological) assumptions of standard CBT (first and second wave). Only few approaches, for example ACT and its contextualist<sup>7</sup> background, have tried to revise the behavioral tradition, whereas the majority seems to have developed new clinical techniques and extended the role of known mechanisms (Öst, 2008; Hofmann, Sawyer, & Fang, 2010; Hunot et al., 2013). Approaches such as MBI turn out to be so widespread and popular to include very different outcomes: from a sort of pop product to a theoretically grounded protocol with robust evidences (Shonin, Van Gordon, & Griffiths, 2015).

*1.1.3 Dimensions-based Diagnosis.* One of the distinctive feature of the dominant American framework of psychotherapy is for sure the ambition of developing easy to apply, standardized and evidence based diagnostic categories (Fischer, 2012). On the one hand, a diagnosis have to be rigorously grounded on significant statistics and representative samples. On the other hand, a clear-cut, hierarchical system of diagnostic criteria can simplify the clinicians’ work, economically focusing on just a subset of features. Unluckily, the scientific revision and the daily practice seem to have disconfirmed these truly meaningful ambitions. Systematic reviews and meta-analyses have proved two intertwined biases: an excessive and recurrent diagnostic co-occurrence and a lack of extensive statistical data for a few categories (Kessler, Chiu, Demler, & Walters, 2005). Clinicians experience in their daily practice an inadequate coverage due to concurrent criticisms: (i) a significant amount of patients are basically undiagnosable through standard categories; (ii) there are relevant differences among persons who share the same disorder; (iii) the most of the boundaries between categories turn out to be unstable and arbitrary (Simonsen & Widiger, 2006). From an historical point of view we can see how the Third Wave was developed together with a new look at diagnosis. In the last 15 years, we have faced consecutive attempts to develop new types of diagnostic systems based on the construct of dimension, rather than on categories. Theorists assume that a few high-orders domains (or dimensions) exist and recur among different persons and across different disorders. These superordinate dimensions (e.g. extraversion and introversion in assessing personality) may be considered neutral in terms of pathology since they are the same for the so-called healthy person and

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<sup>6</sup> In MBI the metacognitive awareness is conceptualized as a higher order ability enabling change (Teasdale, Moore, Hayurst, Pope, Williams, & Segal, 2002); approaches such as the Metacognitively Focused Psychotherapy for schizophrenic patients are mainly focused on metacognition (Lysaker, Dimaggio, Brüne, 2014); the constructs of mentalizing/mentalization of the MBT are based on metacognitive processes too (Bateman & Fonagy, 2012).

<sup>7</sup> Contextualism is a monistic viewpoint that takes as its root metaphor the ongoing act-in-context and the behavior of a whole organism, which are both considered embedded and inseparable from a specific referent context (Zettle, Hayes, Barnes-Homes, & Biglan, 2016). Despite a few incongruences or fallacies, we have to recognize a constant effort of ACT scholars in improving their practice and relative theory, and a commonality with other relevant approaches such as MBI.

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the so-called patients. For example, in an alternative model of personality disorders, the disorder itself is defined in terms of level of personality functioning in respect to a few dimensions (APA, 2013). This trend shows the pros and the cons of each new perspective. It is mainly focused on the effort of overcoming the relevant criticisms of standard model. It still lacks a common, shared approach to all the relevant questions of diagnosis. In any case, we can see how a few extensive attempts to develop a dimensions-based diagnosis exist, in both the field of psychopathology (Kotov et al. 2017) and of research (Cuthbert & Insel, 2013)<sup>8</sup>.

*1.1.4 Relational Renaissance.* The most validated factor in psychotherapy is probably the so-called therapeutic alliance that is the quality of relationship between patient and therapist as particularly perceived by the patients themselves (Horvath, Del Re, Flückiger, & Symonds, 2011). This outcome has been interpreted differently in recent years, and especially inside the CBT paradigm: from a generic component of the therapeutic setting (Beck, 1993), to a specific effectiveness factor and therapeutic mechanism (Safran & Segal, 1990). The development of the Third Wave has progressively include or formulate core constructs that are focused on the relational/interpersonal dimension. MBI has defined a few constructs and mechanisms that consider the connectedness between all the components and all the actors of experience the crucial and higher order achievement of therapy and, generally speaking humankind (Didonna, 2008). Recent MBI models try to clarify at neurobiological and cognitive level how we can pursue a kind of self-transcendent ethics (Vago & Silbersweig, 2012), by assuming the fundamental relational dimension of mindfulness and life itself (Thomson, 2016). Moreover, ACT and other Third Wave approaches share the same sustained attention toward the relational dimension of psychological suffering and flexibility (Hayes, 2004). ACT has grounded its therapy on an extensive collection of experimental proofs about the relational and contextual framework of human cognition and language, by highlighting how this framework define the transdiagnostic processes<sup>9</sup> that recur across different disorders (Zettle, Hayes, Barnes-Homes, & Biglan, 2016). Beyond these general and pretty abstract principles, the most of the Third Wave and of the modern psychotherapy interventions include a specific module or technique for the interpersonal dimensions, and all the psychotherapists include these dimensions in the assessment phase. Furthermore, a few approaches are mainly focused on the interpersonal components of the therapy (Safran & Muran, 2000) and of the developmental history and actual experience of the patient (Dimaggio, Semerari, Carcione, Nicolò & Procacci, 2007). The basic assumption is that a relevant component of our suffering is due to recurrent patterns of cognitive-interpersonal cycles, which shape our way of looking at the others and ourselves. “One’s interpersonal schemas shape the perception of the interpersonal world and lead to various plans, strategies and behaviors, which in turn shape the environment in a manner which confirms the working model” (Safran, 1990, p. 97).

### 1.2 An Epistemological Crisis?

As we know, the discontinuity between historical epochs or scientific movements is more a matter of ex-post perception than a succession of clear-cut turning points; and so the innovative and breakthrough changes we now praise started before, when the new was still the old (Agassi, 1973). The history is a complex balance between continuity and discontinuity that is difficult to frame when having a view from within. Thus, we can understand how the common trends of the Third Wave I have previously described can be alternatively and concurrently lessened as an «old wine in new bottle» (Öst, 2008), or immortalized as a revolutionary and evolutionary change of the standard paradigm (Hayes, 2004).

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<sup>8</sup> On the one hand, there is a hierarchical model of psychopathology that consecutively includes high-order dimensions, spectra, subfactors and disorders. On the other hand, a few research domain criteria are aimed to foster the development and the integration of current researches.

<sup>9</sup> For example, our verbal constructions of experience define a bi-directional relation with our awareness. This is why, in facing a traumatic experience and memory, avoidance is the normal result of verbal behavior.

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We can make a step further if we recursively try to apply the same assumptions of these presumed trends to the general framework and the leading reflections of modern psychotherapy. Firstly, we have to admit that looking for processes (i.e. patterns of recurrences in respect to a referent system) we find multiple anomalies in respect to the standard paradigm, and contrasting theories in respect to the presumed new paradigm. From a Kuhnian perspective, CBT seems to be frequently involved in bypassing or underestimating “fundamental novelties because they are necessarily subversive of its basic commitments” (Kuhn, 1996, p. 5). When Beck was asked for the anomalies of standard CBT and the flourishing of the Third Wave defined the latter as just “touchy-feely types things” (Cloud, 2006, p. 61) in compare to the robust long-standing evidences of his model. Therefore, we can hypothesize that standard CBT is at least facing a model drift that is neither normal science nor model crisis (Kuhn, 1996). Secondly, the accumulating (even if non-conclusive) evidences about transdiagnostic processes, dimensional diagnosis, and interpersonal relationships (see 1.1) depict a pattern of new models and research programs. The major pros and cons of MBI are the widespread attempts to apply them to all the possible disorders and beyond all the existing protocols (Shonin, Van Gordon, & Griffiths, 2015). Generally speaking, all the Third Wave programs are showing a significant increase in terms of publication, fundraising and dissemination (Hunot et al., 2013). We may recognize a theoretically progressive problemshift since Third Wave research programme “predicts some novel, hitherto unexpected fact” (Lakatos, 1978, p. 33) in respect to its predecessor. The more a problemshift becomes not only theoretically but also empirically progressive, the more the hard core of the standard research programme runs the risk to collapse. Thirdly, the popularization of Third Wave is going to create a sort of snowball effect in the development of new research projects and of new education and training programs. And so increasing the discontinuity with standard CBT and reducing its ability to recover an equilibrium state as the one of its normal science phase. This inability to recover a rest phase and the progressive accumulation of irreversible changes, describe a pattern leading to what is called in thermodynamics as a far-from-equilibrium state (Prigogine, 1977), which is quite similar to a state of epistemological crisis.

Finally, the question at the core becomes: Is standard CBT and, generally speaking modern psychotherapy, facing an epistemological crisis? By reviewing what I have previously reported, I assume there is a medium-to-high probability that the answer is yes. Indeed, significant proofs seem to support such an answer: (i) many scholars are highlighting a general crisis of psychiatry in facing the new development of neurobiology and the impasse of standard medications (Smith, 2016); (ii) the general framework of diagnosis seems to need a huge reform (Frances, 2016); (iii) psychological studies are constantly losing rhythm of modern medicine in terms of shared standardization of theories and practices (Open Science Collaboration, 2015). In short, all the fields of psychotherapy seem to be threatened by an advancing science and society they are not able and/or inclined to deal with, so as not to question their well-known tradition. The more we consider the cultural, scientific and personal dissent against the standard paradigm as a meaningful cue and a practical compass to promote and foster a change (Cheli, 2017b), the less we run the risk to face a progressive balkanization and impoverishment of psychotherapy. Such a risk is so relevant especially because the effects would affect not simply the scientific community, but mostly the lives of patients and their communities. On the one hand, if scientific efforts are channelized in a priori defense or offense of a set of assertions, the model crisis phase may turn in an endless and regressive cultural stagnation<sup>10</sup>. On the other hand, the persistence of an ambiguous link between old and new waves seems to impede an effective revision of the hard core of the psychotherapy research programme. Even if ACT is proposing a monistic, contextualist and person-centered approach, it still pursues a tight and almost-

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<sup>10</sup> From a social epistemology point of view, the debate between old and new waves can be reframed as a political dynamics between the maintenance of a majority and the dissent of a minority. In a previous publication I have tried to motivate that we can consider the dissent as a recursive processes leading a system toward a far-from-equilibrium state: “The more we de-construe it, and therefore re-frame the whole political system, the more we anticipate and govern the inevitable shift in the equilibrium” (Cheli, 2017b, p. 132).

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reductionist “prediction and influence of behavior with precision, scope and depth” (Zettle, Hayes, Barnes-Homes, & Biglan, 2016, p. 20). At the same time, MBI are still at the crossroad between a clinical, evidence based approach (Didonna, 2008), and a sort of right interventions that must be integrated with the Buddhist religion and a few unquestionable, metaphysical assumptions (Lindhal, 2015).

To question the epistemological foundation of our practice is a very ethical challenge, if, I have to say, we consider ethics as the counterpart of the Socratic doubt, rather than another set of indisputable assertions. As a great philosopher and political activist stated, the famous Socrates’ quote «I know that I know nothing» draws our attention to the awareness that we are immersed in and defined by always-changing relations and networks (Patocka, 2003). To the extent that we accept our fallacy, we can truly meet the others. We reaffirm that ethics, moment by moment, comes out from the face-to-face encounters with the persons around us, rather than from ontological or metaphysical positioning (Levinas, 1961). The present research is aimed to foster the process of revising the epistemological foundations of current psychotherapy, and to pursue the assumption that a good theory is the one that contains the rules for its own replacement.

### 2. EPISTEMOLOGICAL METHODOLOGY

This section is intended to be a methodological description of the epistemological constructs and frameworks I have progressively introduced in the previous section and I am going to extensively use in the next one. I assume that an epistemologically focused methodology may effectively serve in dealing with the research question (Q<sub>1</sub>) and its sub-components (Q<sub>1.1</sub>; Q<sub>1.2</sub>).

#### 2.1 Epistemological Methods

The present paper and the model I am going to discuss is deeply rooted in three epistemological methods that, in turn, share a common background and evolutionary trajectory. The first one is the empirico-intuitive method of General Systems Theory (GST) that “remains rather closed to reality and can easily be illustrated and even verified by examples taken from the individual fields of science” (Von Bertalanffy, 1969, p.95). GST’s isomorphism offers the benefit to transfer the methodological and epistemological achievements of different disciplines to a specific one, where we are supposed to be highly involved and barely unbiased. The second one is the epistemology, or better the circular causation statement of Radical Constructivism (RC) and SOC, as “a shift from causal unidirectional to mutualistic systemic thinking, from a preoccupation with the properties of the observed to the study of the properties of the observer” (Howe and Foerster, 1975, pp. 1-2). The third framework is the dynamics of Complex Systems Theory (CST) between critical transitions and cycles, fluctuations and perturbations. CST assume that typically a mix of internal mechanisms and external forcing “drives the fluctuations that may occasionally bring a system over a tipping point for a critical transition” (Scheffer, 2009, p. 54). These continuous dynamics can foster our understanding of human experiences as HCS (see note 3) with an intentional overlapping of the usual dualizing distinctions: cognitive vs emotional; mind vs body; personal vs social; and so on. From a CST point of view, HCS refer to all components of human experience: indeed, “if you want to understand a phenomenon you must consider it within the context of all the completed circuited relevant to it” (Bateson, 1991, p. 261). Moreover, by assuming such a perspective, we may consider the recent developments of CBT as an evolutionary attempt to face the complexity of psychopathology and of modern epidemiological trends and so to pursue the CST principles.

#### 2.2 Epistemological Tools

In order to better specify the present methodology, I would like to summarize four epistemological tools that represent the cornerstones of the paper and are my personal construction of a few relevant



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theories: (i) eigenstate; (ii) viability; (iii) irreversibility; (iv) entanglement. If the previous methods are the rules of thumb or better the epistemological space of my study, the following tools are the evident components of every single concept. The starting point of the present reflection is a core assumption of RC and SOC that clearly illustrates how these theories conceptualize the apparently trivial constructs of observation and experience. We know that RC posits that “observations are made by an experiencing subject and therefore depend on that subject’s way of perceiving and conceiving” (Von Glasersfeld 2007, p.22). This does not mean that RC rejects reality, but rather that daily and scientific theories are derived by our human experience and formulated in terms of our human beliefs. Therefore, a rigorous scientist (and a rigorous man) is the one who accepts that “it seems no more than a pious hope to expect that these theories reflect anything that lies beyond the experiential interface” (Von Glasersfeld, 2007, p. 150). From a SOC point of view, we have to consider how we think our way of thinking, how to include a second-order reflection on our theorizing. We can assume that the forms we daily deal with are “created from the concatenation of operations upon themselves and objects are not objects at all, but rather indications of processes” (Kaufman 2003, p.3). The objects of our observation (and of our experience) are a kind of symbolic entity, participating in a network of interactions. This is the famous Von Foerster’s quote that objects are just tokens for eigenbehaviors<sup>11</sup>, that is they are just cues of a concatenation process of ours (Von Foerster, 2003, p. 261). Therefore, the human experiences may be considered “Eigen-States of the organism which permit it to refer each incoming signal to its own self, i.e., to establish self-reference with respect to the outside world” (Von Foerster, 2003, p.110). At a higher level, that is the one of social interaction, we see how an epistemological coupling exists between an observer and, at least, one referent, both “capable of developing with others a linguistic consensual domain” (Maturana and Varela, 1980, p. 121). Moreover, we have to admit that our understanding “is not only pliable, but also nearly inaccessible to observation outside communicative interventions by Others” (Krippendorff, 1996, p. 323). Therefore, the construct of eigenstate turns out to refer to an individual level just because of our way of looking at it. The concatenation processes of nontrivial machines such as humans are always part of the co-construction processes we use to call a social level. What also explains the systemic positioning of eigenstates is the epistemological tool of viability. As I said, RC and SOC do not imply to reject reality, but rather to articulate the concept of adaptation in terms of constraints rather than of causation (Bateson, 1972, pp. 399–400). The organisms that knock against the environmental constraints are destined to be eliminated in a systemic manner. We can similarly think about the survival of theories and constructs. “The fact that some construct has for some time survived experience – or experiments, for that matter – means that up to that point it was viable in that it bypassed constraints that were inherent in the range of experience within which we were operating” (Von Glasersfeld 1981, p.93). The tool of viability represents a *vox media* in bypassing determinist or relativistic application of causation to the human experience and science. It can be seen as a general formulation of the scientific distinction between progressive and regressive research programmes (Lakatos, 1978). We can make a step further if we consider how, from a CST & SOC point of view, changes happen and shape the viability of an organism or a construct. In order to understand HCS and their complex dynamics “we have to show that non-equilibrium may be a source of order” (Prigogine, 1977, p. 263), since the natural and enduring state of humans, and of each and every complex system, is an extreme and paradoxical effort to maintain an organization that is destined to vanish anyway. Three linked aspects shape complex systems: (i) the biochemical function defining their trajectory; (ii) the space-time structure resulting from the instabilities; (iii) the fluctuations as events triggering the instabilities themselves. All together, these aspects describe a general behavior of HCS as systems that continuously alternate far-from-equilibrium states and near-to-equilibrium

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<sup>11</sup> Von Foerster borrowed this term from the algebraic concepts of eigenvalue and eigenvector that is a non-zero vector whose direction does not change when that linear transformation is applied to it. The similitude between eigenvector and eigenbehavior is aimed to highlight the reflexive function of our behavior in defining ourselves and so-called reality.

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states. Indeed, HCS are dissipative structures<sup>12</sup> characterized by consecutive bifurcations through which the undertaken alternative is, in the most cases, irreversible (Prigogine 1982, pp. 49–51). Prigogine focused on the concept of bifurcation in order to underline how the presence of time in life is as important as forgotten. He also dedicated all his work to contextualize the second law of thermodynamics<sup>13</sup> so as to remark the role of irreversibility and irreversible processes in complex systems. The human experience emerges through these consecutive (and irreversible) processes of enaction, or, in other words, through the intertwined paths of an actor's embodiment and its historical transformations (Varela, Thomson, & Rosch, 1991). We assume that HCS are autonomous and dynamic systems that are characterized by their ability to create meanings. Such a process is defined, in turn, as an embodied action that is always relational and epiphenomenal. Our knowledge is here-and-now and embedded in a web of relations and systems. Thus, this kind of uncertainty is the rule of thumb and not the exception of our lives. The notion of complexity defines a “dynamic instability or metastability” (Thomson, 2007, p. 40) that is the real rule of thumb of HCS. We finally arrive at the last tool that is labeled as entanglement. The use of this term stresses an isomorphism between the relational, systemic component of HCS's enaction, and the construct of entanglement<sup>14</sup> in quantum physics. Erwin Schrödinger, one of father of quantum mechanics, underlined this sort of isomorphism. On the one hand, he reaffirmed that “when two systems...enter into temporary physical interaction...then they can no longer be described in the same way as before (Schrödinger, 1935, p. 555). On the other hand, he continuously looked for the philosophical and experiential implications of these theories for human life, as if our life was the result of and the access door to the most of the universe (Schrödinger, 1944). Following the Schrödinger's intuition, we may extend this isomorphism, and summarizing all that we know about the constructive effect of systemic interaction on human lives. The story says that both phylogenetically and ontogenetically the development of HCS is due to interpersonal and social interactions. At a phylogenetic level, the most validate theory about the rise of Homo Sapiens Sapiens and human mind, namely the Social Brain Hypothesis, states that the neurobiological process of encephalization and the cultural process of socialization is (or better was) due to the social complexity and community size of our hominid and ape ancestors (Dumbar, Gamble, & Gowlett, 2014). At an ontogenetic level, is undisputed the role of relationships in shaping the complexity and the plasticity of our brain and mind, in a word experience (Cozolino, 2014). “The structure and function of the developing brain are determined by how experiences, especially within interpersonal relationships, shape the genetically programmed maturation of the nervous system” (Siegel, 1999, p. 2). In more abstract and non-dualizing terms, we may hypothesize a kind of entanglement at the crossroad between the contiguousness and the continuousness of each and every HCS (Cheli, 2011). We may also substitute the construct of system's emergence (see note 4) with the construct of systems' comergence, so assuming the need for superordinate processes and principles that may help us in understanding the whole experience of humankind.

### 3. TOWARD A THEORY OF COMERGENCE

I have to admit that the role of RC in defining the first principle<sup>15</sup> of the present theory (see Table 2)

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<sup>12</sup> A dissipative system is a thermodynamically open system which is working out of and far from thermodynamic equilibrium in an environment with which it exchanges matter and energy.

<sup>13</sup> The second law of thermodynamics states that the state of entropy of the entire universe, as an isolated system, will always increase over time. It also states that if the physical process is irreversible, the combined entropy of the system and the environment must increase.

<sup>14</sup> The concept of entanglement assume that “two particles that can be miles or light years apart may behave in a concerted way: what happens to one of them happens to the other one instantaneously, regardless of the distance between them” (Aczel, 2002, p.250).

<sup>15</sup> All the principles are classified through alphanumeric codes (e.g. E<sub>1</sub>), which are reported in the relative cells (Table 2). Each principle, in turn, is defined trough two types of implications (theoretical and clinical) with relative codes (e.g. E<sub>1T</sub>).

**TABLE 2 – TOWARD A THEORY OF COMERGENCE OF HCS**

<i>Foundative Concepts</i>	<b>Classification</b>	<b>Primary Source</b>	<b>Theoretical Focus</b>	<b>Theoretical Implication</b>	<b>Clinical Focus</b>	<b>Clinical Implication</b>
<b>Systemic Emergence</b> <i>E<sub>1</sub></i>	First epistemological principle	Radical Constructivism	<b>Systems emergence</b>	<i>E<sub>1T</sub> A system is the comergence of its observing processes</i>	<b>Active agency</b>	<i>E<sub>1C</sub> Humans actively pursue a viable pattern of self-organization</i>
<b>Fluctuational Continuousness</b> <i>E<sub>2</sub></i>	Second epistemological principle	Complex Systems Theory	<b>Systems continuousness</b>	<i>E<sub>2T</sub> A system is always a node, a relation, and a network</i>	<b>Social processes</b>	<i>E<sub>2C</sub> Social experience is a self-organizing source of individuation</i>
<b>Autopoietic Contiguousness</b> <i>E<sub>3</sub></i>	Third epistemological principle	Second Order Cybernetics	<b>Systems contiguousness</b>	<i>E<sub>3T</sub> A system is the entanglement of selfhood and otherness</i>	<b>Personal processes</b>	<i>E<sub>3C</sub> Personal experience is a structurally coupled embodied action</i>
<b>Constructive Irreversibility</b> <i>T<sub>1</sub></i>	First transformational principle	Non-equilibrium Thermodynamics	<b>Systems phase irreversibility</b>	<i>T<sub>1T</sub> Observing processes are non-balanced and irreversible</i>	<b>Transitory diagnosis</b>	<i>T<sub>1C</sub> Experiencing is a dissipative and irreversible process</i>
<b>Constraining Imbrication</b> <i>T<sub>2</sub></i>	Second transformational principle	Enactivism	<b>Systems space irreversibility</b>	<i>T<sub>2T</sub> Observing events are locally collapsed and context-dependent</i>	<b>Transitive diagnosis</b>	<i>T<sub>2C</sub> Agency is defined by informational closure and punctuation</i>

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maybe seem ambiguous or counterintuitive. Or better, the theoretical use of RC's principles is rooted in the von Foerster's call for a "social cybernetics" (2003, p. 286), as a way to melt the proposition of Humberto Maturana and his own assertion: everything said is said by and to an observer<sup>16</sup>. This apparently simple objective turns out to be as tricky as perturbing. One of the foundational thesis of constructivist epistemology is that "every autonomous system is organizationally closed" (Varela, 1979, p. 59), since it is an autopoietic machine defined in terms such as autonomy, unity and individuality. And so the perspective of biology, or of any scientist of autopoiesis, exalts the role of the self-perpetuating processes in maintaining the determinants of this autonomy. At the same time, autopoiesis is equally expressed by the consensual domain resulting from a structural coupling between at least two unities, where one's conduct is defined by the conduct of the other and vice versa (Maturana & Varela, 1980, p. 136). By looking at autopoiesis in terms of different orders of cybernetics, at each and every level of autopoiesis we define a new system and a new autopoietic space (Maturana & Varela, 1980, p. 110). Indeed, the "successor of objectivism is not subjectivism, by way of negation, but rather the full appreciation of participation, which is a move beyond either of them" (Varela, 1979, p. 276)<sup>17</sup>. Therefore, if we want to develop a theory that can be applied to both the so-called personal and the so-called social level of HCS we have to imbricate<sup>18</sup> this apparent dichotomy and access to a higher level of superordinate processes leading to such apparent distinction. As I previously anticipated, the aim of a theory of comergence is shaped by this ambition and considers the general term of HCS a superordinate system including all the possible levels and dimensions of human experience.

To look at a man's story through the lens of HCS, maybe means "to know the individual through the individuation, rather than the individuation through the individual" (Simondon, 2005, p. 24). A theory of comergence should be formulated in terms that are easily transferable among different levels of conceptualization. In order to understand a human we have to consider all the processes of individuation leading to her/him; in order to understand a family we have, again, to consider all the processes of individuation leading to it. And we have to accept a foundational role of a sort of epistemological uncertainty since "we cannot, in common use of the term, know individuation; we can only individuate, individuate ourselves, and individuate in ourselves" (Simondon, 2005, p. 36). Moreover, a theory of comergence, as a social cybernetics, may have the ambition of supporting the infinite search of a multidisciplinary framework, and trying to "get glimpses of a new lingua franca of science, fragments of a common tongue likely to counteract some of the confusion and complexity of our language" (Von Foerster, Mead, & Teuber, 1952, p. xiii).

The principles reported in Table 2 represent 5 foundational concepts (5FC) I have used to summarize the referent theories of the present paper, and served as epistemological foundations of a few psychotherapeutic interventions. On the one hand, the 5FC were previously defined at a general and philosophical level (Cheli, 2012). On the other hand, I have started a few projects up, which are aimed to offer an integrated intervention in the fields of cancer care, migrant crisis, therapeutic alliance (Cheli, Caligiani, & Velicono, 2016; Cheli, Caligiani, Nembrini, & Fioretto, 2016; Cheli, 2017c). The

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<sup>16</sup> Humberto Maturana stated that "everything is said is said by an observer", whereas Heinz von Foerster affirmed that "everything is said is said to an observer" (Von Foerster, 2003, p. 283).

<sup>17</sup> Despite many calls for "social" in RC and SOC we have to remark how rare are theoretical and clinical formulations in the fields of social psychology and sociology. With the only exception of the Luhman's theory of systems (1995) that has been eventually included in the constructivist framework, we do not have many similar attempts. The present theory of comergence is intended to fill the gap between an extensive literature on autopoiesis at biological and psychological level, and a growing field of CST even if focused on natural sciences.

<sup>18</sup> Varela defines imbrication as something different from the Hegelian synthesis in facing dualities. Imbrication is aimed to bypass the dichotomy and seek for the processes leading to perception of a duality (Varela, 1979, p. 101).

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main assumption is that we might consider reality as the comergence of many interdependent systems that is in a naïve way of many interdependent observers. From time to time all is co-construed is neither-between-nor-within two or more systems, and so we need to walk toward the “lingua franca” (Von Foerster, Mead, & Teuber, 1952, p. xiii) cyberneticians talk about. In order to clarify the general epistemological rules and the transformational rules of a HCS and so of the present theory itself, I have organized the 5FC in two sub-sets (i.e. epistemological and transformational) and two kinds of implications (theoretical and clinical).

### 3.1 Epistemological Principles

As a first tentative formulation, I assume that a system is the comergence of its observing processes ( $E_{1T}$ ), where the observing processes are not simply the ones of the considered system. From a comergence point of view, an eigenstate is a here-and-now entanglement of many processes leading to it: (i) the interaction between the describing system and the described system (i.e. the comerging system); (ii) the autonomous interactions defining the organization of the described system (and obviously of the describing system and the following systems); (iii) the interaction between all the systems involved and contiguous and continuous systems at different cybernetic and autopoietic levels. These complex patterns of processes frame the epistemological context of our understanding as an attempt to construe invariances (and so coupling) to operationally deal with and through (Varela, 1979, p. 247). Moreover, we have to clearly highlight the nomothetic (or in other words based of very tight and contextualized perspectives of one or few observing systems) nature of the distinction between what I defined as the continuousness and the contiguousness of systems (Cheli, 2012). We may look at this distinction as the results of choosing as privileged point of view a singular level of fractal-like<sup>19</sup> redundancy “so bringing an element of unity to the worlds of knowing and feeling” (Mandelbrot, 2012, p. 292). That is what Gottfried Wilhelm Leibniz grasped a few centuries ago: “In situ omni est ordo, sed arbitrium est initium”<sup>20</sup> (Couturat, 1903, p. 545). There is a pattern of invariances in the autopoietic space of every system, but a chosen observing point, which is, in turn, concurring to define such invariances themselves, precipitates this pattern. Therefore, when talking about the continuousness and the contiguousness of two or more systems, we have to remember the Leibniz rule of the precipitating effect of observing processes.

On the one hand, all that means that a system is always a node, a relation and a network ( $E_{2T}$ ). Radically speaking, we can assume that what is defined in CST as a pattern of dynamic fluctuations is a superordinate system (in respect to the comerging and observed one) constituted by all the observing/precipitating processes of all the systems involved. As well as the dynamics of a lake (Shceffer, 2007, pp. 109-138) can be seen as the effect of being part of fluctuating environments (e.g. the framework of the living systems of lake plants and animals; the omni-comprehensive universe of the live of an eukaryote floating in cup of lake water; etc.) HCS can be re-framed in many ways and from many points of view. It is our very human and circumstantiated need to divide and conquer that leads to perceive a clear-cut boundary between living systems.

On the other hand, we cannot escape from this basic rule of live that stands at the core of our cognition indeed. “We become observers through recursively generating representations of our interactions, and by interacting with several representations simultaneously we generate relations with the representations of which we can then interact and repeat this process recursively” (Maturana & Varela, 1980, p. 14). This kind of dance between irreversibility and viability of our knowledge defines

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<sup>19</sup> A fractal is an abstract form, each part of which has the same statistical character as the whole.

<sup>20</sup> We may literally translate the fragment Math., I,9,e as follows: there is an order in the space of everything, but its beginning is arbitrary.

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who we are and what we are enacting. Thus, the comprehension of HCS does not imply to forget these rules of living, it urges us to remember that a system is the entanglement of any selfhood and any otherness ( $E_{3T}$ ). Since a system is the result of precipitating/observing and self-precipitating/observing processes, the question of contiguousness cannot be avoided. We can only commit ourselves to recursivity as an incessant approximation of the so-called entanglement.

Clinically speaking, these three principles ( $E_{1T}$ ;  $E_{2T}$ ;  $E_{3T}$ ) can be formulated in different ways<sup>21</sup> at different levels. The basic assumption ( $E_{1C}$ ) is that humans and human organizations actively pursue a viable pattern of self-organization, navigating across the three types of interactions I previously summarized. As I motivated knowledge is always a relational process (Thomson, 2007). The psychotherapeutic counterpart of individuation (Simondon, 2005) is to conceptualize personality in terms of personification (Sullivan, 1953), a family system in terms of homeostasis (Jackson, 1957), and a society in terms autopoietic communication (Luhman, 1995). If we look at a single human experience, we can see how the resilience is highly rooted in the metacognitive resources (Dimaggio et al. 2007) and the suffering in the repetitive thinking (Wells, 2009). In other words, the more the recursivity is applied at a low order of reiteration, the less we achieve viability. Whenever our recursivity is reflexively oriented, our viability tends to increase. The precipitating effect of these rules can be seen in the dynamics of interpersonal schemas and cycles (Safran, 1990). A personal experience as a structurally coupled, embodied action ( $E_{3C}$ ) leads to cognitive-interpersonal schemas that are more or less tight. The more they are stereotyped, the more they strictly precipitate reiterative and potentially painful cycles. Our social experience is a self-organizing source of individuation indeed ( $E_{2C}$ ). The way we construe and enact our peripersonal space, for example, may channelize our ability to differentiate selfhood and otherness and define two different kinds of self-organizing patterns and disorders, namely schizophrenia and autism (Noel, Cascio, Wallace, & Park, 2017).

### 3.2 Transformational Principles

The two transformational principles ( $T_{1C}$ ;  $T_{2C}$ ) are designed to underline the central role of irreversibility in complex systems (Prigogine, 1977; 1980) and of epiphenomenalism in enactive approaches (Varela, Thomson, Rosch, 1991; Thomson, 2007). Moreover, they reaffirm how the present theory of comergence is one of the possible formulations of itself, and just a theoretical leaf in the wind of the human attempts to understand life. The more they will allow to change the theory itself, the more they will prove to be useful principles.

It is also important to remark that from a theoretical point of view they focus on the irreversibility of time ( $T_{1C}$ ) and space ( $T_{2C}$ ), from a clinical point of view they stress the fundamental characteristic of diagnosis as a transitory ( $T_{1T}$ ) and transitive ( $T_{2T}$ ) process that is in continuity and overlapped with therapy itself. The first transformational principle states that observing processing and so all the human kinds of experiencing are irreversible, dissipative and so non-balanced ( $T_{1T}$ ). On the one hand, one of the most painful transdiagnostic process is avoidance ( $T_{1C}$ ). In facing a traumatic experience, we tend to react by trying to avoid the memory of the trauma itself. By employing significant resources in pursuing an unattainable goal, we break our experiencing of the here-and-now we live in and establish a spiral of loss of effectiveness and meaning (frequently called post-traumatic stress disorder). On the other hand, when we make a diagnosis we are avoiding the majority of comerging experiences too. Even the perfect diagnosis is just a picture of a present moment, or better of a part of the interactions defining a moment that is no more. The observing events are similarly irreversible

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<sup>21</sup> In order to schematically explain the 5FC, Table 2 reports the theoretical implications mainly in terms of individual experiences and so psychotherapy. Ongoing clinical studies (Cheli, Caligiani & Velicogna, 2016; Cheli, 2017b) and further theoretical researches will better clarify the different implications.

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and so locally collapsed and context-dependent ( $T_{2T}$ ). Clinically speaking, it means that human agency is defined by our informational closure and by an inescapable process of punctuation that affect each and every experience ( $T_{2C}$ ). Otherwise, if we forget these rules, people run the risk to “so strongly believe the literal contents of their mind that they become fused with their cognition” (Hayes, Stroahl, & Wilson, 2012, p. 20). At the same time, we, the therapists, have to remember that diagnosis, therapy and every significant experience is a transition toward another way of looking at ourselves and the world ( $T_{2C}$ ). We know what our experiencing systems allow us to know here-and-now. And moment by moment, we will be able to see new things as we will be changed.

### 4. IMPLICATIONS FOR PRACTICE

The present paper is devoted to summarizing the roots of a theory of comergence and outline a few fundamental concepts. Nevertheless, the main objective is to define a few practical tools that may foster our understanding of human suffering and change as core components of psychotherapy. In the introduction, I reviewed a few recurrent trends of modern psychotherapy. I motivated how these trends recur among different approaches and are rooted in an epistemological tradition that is intertwined with the history of RC, SOC and CST. In the methodology section, I then summarize a few epistemological tools that are the cornerstones of a theory of comergence and are based again on this epistemological tradition. Finally, I reported the 5FC of a theory of comergence describing the theoretical and the clinical implications. In the last few year, I have been involved in developing and testing a few interventions, which are based on the discussed theory of comergence. All the projects have a few common characteristics. Firstly, they offer integrated interventions trying to involve all the relevant systems: for example patients, families and professionals in the cancer care project (Cheli, Caligiani, & Velicogna, 2016a). Secondly, they explore at different levels the intertwined paths of co-constructions between all the actors involved: in facing the European migrant crisis we assume to explore the trauma entanglement between migrants and residents (Cheli, 2017c). Thirdly, I assume to theoretically integrate the most relevant advances of psychotherapy in order focus and apply the common and superordinate trends, beyond any nomothetic and reductionist vision of human suffering (Cheli, 2017a). Fourthly, I always try to practically and reflexively revise the intervention by involving the referent actors themselves: I assume the therapist and the researcher are parts of the observed system itself and so they have to see in the participants a source of transformation rather than an object (Cheli, Caligiani, Nembrini, & Fioretto, 2016). Finally, as I hope to have motivated in this paper, I consider human agency as an always-meaningful attempt to make life worth living. The persons I meet as therapist are HCS I will be never able to fully understand. I can only accept to get a glimpse into a few moments of their lives, and create a space to co-construe a coupling recognizing and letting recognize some partial invariances we use to call actions. The more the therapist and the patient acknowledge the transitory and transitive dimensions of their encounters and of every events, the more they find viable choices in their lives.

In conclusion, the present theory is a first summary of a psychotherapeutic model I am testing. It is mainly based on the attempt of integrating a few epistemological (e.g. RC, SOC; CST) and psychotherapeutic (e.g. Third Wave) sources. New results about the ongoing projects will be published in the next few months. The main limits of the present study are: (i) the lack of an extensive analysis of the standard psychotherapeutic mechanisms through the lens of the present theory; (ii) the lack of significant results about the projects based on this theory. Further researches are needed in order to face these two limits and so revise the theoretical model and specify its practical and operational implications.

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