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Struggle for life, struggle for love and recognition: the neglected self in social cognitive neuroscience

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Introduction

In the present article, we discuss the importance of integrating the self, self-awareness, and inter-subjectivity in models of social cognitive neuroscience and psychiatric research while striving to progress in the understanding and treatment of psychiatric disorders. The self is central to human cognition.¹ It involves multiple levels of representation with the psychosocial function of articulating the individual with the group. A work-

In the following article we present a view that social cognition and social neuroscience, as shaped by the current research paradigms, are not sufficient to improve our understanding of psychopathological phenomena. We hold that the self, self-awareness, and inter-subjectivity are integral to social perception and actions. In addition, we emphasize that the self and self-awareness are, by their very nature and function, involved over the entire lifespan with the way the individual is perceived in the social environment. Likewise, the modes of operation and identification of the self and self-awareness receive strong developmental contributions from social interactions with parental figures, siblings, peers, and significant others. These contributions are framed by a competitive and cooperative struggle for love and recognition. We suggest that in humans social cognitive neuroscience should be informed by a thoughtful appreciation of the equal significance of the struggle for "life" and that for love and recognition. In order to be better positioned to improve the research agenda and practice of clinical psychiatry, we propose that cognitive and social neurosciences explicitly incorporate in their models phenomena relative to the self, self-awareness, and inter-subjectivity.

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ing definition of the *self* includes all real, imaginary, and symbolic essential qualities and personality traits² that make a person distinct from others, but also similar, not only by way of genes, but also group identification and belonging. *Self-awareness* may be defined by the ongoing cognition of being the agent and the owner of one's own thoughts and actions through time, and of having a self that is constantly concerned with one's own perception and judgment, and those of others.³ We may define *inter-subjectivity* as the interplay among multiple self-awarenesses interacting in interpersonal relationships, as framed by human societies.

The phenomena captured by these definitions and their corollaries can be further understood by considering the self and self-awareness as parts of an evolutionary process that relates to the emergence of unique forms of interpersonal relationships only known in human societies. Through evolution, the struggle for the self among humans has progressively gained a weight that is commensurate to, or greater than, the immediate struggle for survival. Challenging external and internal demands are imposed on the self because of the ongoing competitive and collaborative struggle for attention, love, and recognition. The self and self-awareness, and therefore inter-subjective relationships are strongly determined developmentally and through all stages of life by social (including family) interactions.⁴ They play a critical role in the way individuals cope with self-representation and influence each other through their patterns of projections.⁵

Thus, we suggest that basic (fear, sadness, anger, happiness, etc) and social (pride, embarrassment, shame, etc) emotions largely depend, in their elicitation and in the narrative that surrounds them, on the cognitive stance of the self situated in real, imaginary, or symbolic relationships with the physical and social context. Likewise, self-esteem represents a central aspect of emotional life as it relates to social integration and rejection.⁶⁻¹⁰ It is meaningfully related to the self-concept, self-image, and the awareness the subject has of his or her self-concept and self-image. Low self-esteem is directly linked to a representation of the self that struggles with the fear of a narcissistic failure.^{11,12} Self-esteem is sensitive to challenges, and a critical function that is affected in various psychiatric disorders, from mood to anxiety and personality disorders.¹³ At the core of much psychiatric suffering (eg, depression, social anxiety, personality disorders) lies an attempt to cope with real or imaginary separation and rejection distress.⁶

Thus, self-knowledge and representations of others tend to be highly biased,^{14,15} because acceptance, rejection, and separation distress may have far-reaching consequences for the self. The infant self tends to be defensively structured to fend off challenges and attacks. Without adaptive transformations involving reality appraisal, reappraisal, learning, and maturation, coping mechanisms can reach the magnitude of prevalent ideas, and even delusions, developed in order to protect the projected identity of the self. Under this view, self-awareness is the main hub of social cognition and inter-subjectivity.

Psychiatrists and clinical psychologists often take care of individuals who struggle with their own relationship to their *selves* and the way their *selves* relate to otherness, at various real, imaginary, and symbolic levels. We find that asking what psychological mechanisms operate behind a person that sees his or her *self* as a failure, for instance, is a valid clinical question. We can wonder to what extent the patient's view of his or her *self* is a "social one" and what roles others (society?) play in the patient's imaginary and symbolic relationships (either as judging and punishing or rewarding agencies).¹⁶

Social cognitive neuroscience and the self

Standard contemporary definitions of social cognition in cognitive neuroscience emphasize the encoding, storage, retrieval, and processing of information relating to members of the same species. Social cognition encompasses elements of cognition relating to information and knowledge, supporting and guiding adaptive behaviors of the individual as a member of a group or society. It is generally acknowledged that this information is often (but not exclusively) emotionally charged. Research in social cognitive neuroscience has been concerned with the mechanisms of social perception at the system level (eg, frontal lobes)¹⁷ and molecular (eg, neurohormones) level.¹⁸ Often the focus has been on the mechanisms of perception of certain categories of stimuli (eg, faces vs objects or scenes) and, more generally, on the correlates of the categorical apprehension of social attributes or emotions (eg, contempt, fear, empathy), but also on decision making and the ability for a theory of mind,¹⁹ attachment, and social exploration.²⁰

Psychiatry research has adopted questions and methods of social cognitive neuroscience to study disorders with real-life abnormalities in social adaptation and interaction including autism, schizophrenia, and personality and

mood disorders.²¹ Broadly, the goal of this effort has been to identify “endophenotypes” or to uncover basic mechanisms that underlie psychiatric conditions, and that would provide potential targets for biomedical treatments.²⁰ Social neuroscience has proven effective in eliciting general cognitive and neural mechanisms involved in processing “socially relevant” material. Nonetheless, well-controlled laboratory procedures are most often devoid of personal relevance for the examined participants. This limits the specificity of the emotional resonance (and thus the *self*-relevance) of the experimental results.²² The current social cognitive approach leaves self, self-awareness, and inter-subjectivity unaccounted for in the background where they (as self-image and self-esteem) influence perception, memory, and other cognitive processes concerning socially relevant interactions.^{14,15,23}

We argue that a mature social cognitive neuroscience aimed at having fundamental relevance to psychiatry should therefore not deliberately choose to ignore it for methodological and epistemological convenience. There is a fundamental gap between the type of phenomena currently studied and the type of psychological models that would be necessary to understand and approach human social cognition. The knowledge accumulated by general cognitive and social neuroscience and its application to psychiatry, while representing progress, remains inadequate to address the challenges faced by psychiatry or more generally by any field striving to understand human psychology and psychopathology.

Relevant levels of integration such as self-awareness and inter-subjectivity still escape the reach of biomedical science, and integrating such levels into research will be a challenge. Models integrating social cognition with aspects of the self and psychopathology have been proposed for brain damage occurring during developmental ages.²⁴ Yet, it will be essential to invest in research and clinical practice seeking a more comprehensive understanding of the levels of representation and mechanisms at stake in human social cognition as it relates to psychopathology, including in individuals *without* gross brain damage. We argue that no satisfactory understanding of human social cognition and psychopathology will be possible without making psychological constructs such as the *self*, self-awareness, and more generally consciousness, the unconscious and inter-subjectivity integral to (formal) models of social cognitive neuroscience.

It will be essential to understand how the self, as a socially laden system, structures its relationships to the categories of self and otherness, in the context of the processes that are central to the making of human identity, representations and coping strategies, throughout development. An understanding of the importance of introducing the self in the discourse of cognitive neuroscience might come from an appreciation of the pressing nature of this problem, as other investigators have already acknowledged. The necessity of a paradigm shift in social and affective neuroscience including the first-person perspective has been advocated.^{22,25-29}

Clinical vignettes

A few vignettes of common complaints presenting in clinical psychiatry practice illustrate the importance of having an integrated model of social cognition that captures concepts related to the self.

- A college graduate unmarried mature woman had been treated for three cosyndromal *DSM-IV*³⁰ axis I disorders (depression, anorexia nervosa, and alcoholism) since her mid-20s with antidepressants and psychotherapy, without much result. Patterns of boredom, inconsistency with relationships, and reckless behavior and mistrust strongly suggested personality disorder traits. Social perceptual difficulties were expected based on the literature but it was unclear whether they were to be attributed to depression,³¹ eating,³² or personality disorder.³³ Symptom and social cognition (ie, *mentalizing* or the ability to read other people’s intentions and mental states) improvement began when issues related to perceived or real sexual abuse from the father during her childhood and the consequences these events had on the perception of her *self* were addressed.
- A pre-eminent middle-aged man was treated with medication and psychotherapy for symptoms consistent with depression. He appeared to have no other comorbid personality traits or psychiatric disorders. Social cognitive problems were evident, and from time to time gave way to full paranoid symptoms. During psychotherapy, shame for being an older gay man without a partner and envy of heterosexual persons with a family became the focus of therapy, and led to appreciation of the possible role of hitherto-uncovered childhood neglect, yielding some relief before the patient moved to a larger city.

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- An accomplished young woman came to consultation complaining of worsening dysphoria and anxiety that began after she rushed into a marriage with an old high-school boyfriend, after abruptly leaving the man she had lived with happily for many years and whom she had loved all along and continued to love. With psychotherapy the patient realized that her decision was based on prepotent expectations (from the self) to get married and have a family before her mid-30s, something she perceived the man she loved was not ready to take on. After a few months of marriage, she divorced and went back to the relationship with the former man.

These examples show that mechanisms of social perception and self-awareness tend to be entangled in psychiatric disorders, and are major psychopathological and treatment factors. Personality disorders are extremely common (up to 50%) in psychiatric practice³⁴ and clearly affect treatment outcome of axis I disorders.³⁵ Psychotherapeutic models stressing change occurring at the level of the self and perceptions of the self have been highlighted in recent meta-analyses showing comparable efficacy to medications^{36,37} and effectiveness.³⁸

Domains of social cognitive neuroscience: strengths and limits

Social cognitive neuroscience has emphasized that apprehending and coping with socially relevant material heavily relies on general cognitive abilities, such as perception, attention, memory, and language. These abilities and the brain systems related to them are critically engaged in processing discriminating features (from physical traits to abstract principles) that are important for guiding choice preference, group belonging/formation, and other species-specific activities, and more generally for optimizing *social interactions*, with con-specifics (eg, friends, family, coworkers) or institutions. The notion of “social interactions” is often intended as the interplay between cooperation and competition among individuals and groups (family, kinship, hierarchical dominance) of the same species. Under such a view, an operating model for the self is left implicit in the background and is similar in its assumptions to the classical economic agent.³⁹ This implicit operating model of the self is also framed in reference to Darwinian evolution and the struggle for life. The current success of the field of neuroeconomics stems apparently from such a view.⁴⁰⁻⁴²

In the field of *social cognitive neuroscience*, a substantial crosstalk exists between animal and human research. Evolutionary hypotheses and a comparative perspective have become integral to the normal discourse on social cognition and to the endeavor of uncovering treatments for psychiatry, based on the paradigm of animal models. The field seems to be generally highly receptive to scientific work *telling stories* of overlap between findings from animal models and human studies (eg, amygdala and fear, or striatum and reward^{43,44}). In spite of the large and still-developing research effort, including functional neuroimaging, few hypotheses have emerged that are autochthonous to human research and reach a plausible level of psychological integration (eg, see literature on Default Mode Network^{45,46}).

The progression of the application to humans of hypotheses related to animal research (an ambitious research program that has been pursued over a few decades that has seen some exceptional developments (eg, refs 47,48) while seeking the precision necessary to a scientific field has so far led to the development of a social neuroscience that has not adequately addressed some critical issues (for relative exceptions see refs 49-51).

When borrowing from animal studies to develop hypotheses on humans that are directly relevant to psychiatry, an example of a critical question is to what extent animal emotions are germane to the homologous emotions in humans (beyond the use of common terminology and reference to a common evolutionary background). One is left to wonder how much an emotion among humans is generated by social events that are inescapably influenced by the interpretations of the self, by self-awareness and inter-subjectivity. For instance, the psychological underpinnings of “depression” in humans may lie in social emotions (eg, envy and a following sense of inferiority or impotence) that are arguably primitive to depression. The future challenge will be to determine the degree to which animals that appear to undergo social emotions (eg, the Capuchin monkey) including envy,⁵² develop depression as a result of being placed in envy-generating conditions. A critical emotion experienced during the depressive illness is sadness, an emotion typically construed as “basic,”⁵³ but which in humans has a large social component, both in its causes (eg, loss of a loved one) and in its consequences (eg, guilt for not being able to maintain a certain social role as a result of being sad or depressed; for guilt as a social emo-

tion see ref 54). Likewise, the fear experienced by a mountain climber in potential danger has levels of social complexity that are unlikely to be reached in mice. In addition to fearing his own end, the mountain climber anticipating a possible death is likely also to be scared of losing his spouse and children, of leaving them behind, alone and fatherless and exposed to dangers, of the financial consequences of his death on them, of the emotional effects on his parents, and so on. He may simultaneously experience shame (another social emotion) and anger (perhaps towards his *self*) for having neglected what he thinks were routine safety measures. A human facing the possibility of ceasing to exist very soon has emotions that encompass the inescapable social nature and interconnectedness of our species, and multiple levels of self-representation and projection. Therefore, it is legitimate to wonder in which way the literature on basic and social emotions in animals, as it is usually framed, is truly useful for an extended view of social cognition and understaging of normal and abnormal emotions in humans. Are animal models for psychiatry at this stage of research adequate for psychiatry practice?

The brain rush: historical perspective

In recent years, there has been an impetus towards understanding how social cognitive processes are “mapped” in the brain. Social neuroscience has used experimental paradigms borrowed from the social and cognitive sciences, studying for instance the perception of socially relevant stimuli (eg, facial recognition of identity [gender] and emotion; categorization [personality, identity, emotion]; discrimination [race]) but also decision-making and theory of mind. An extensive exposition of the brain mechanisms purported to subserve social cognitive processes is beyond the scope of this article (we refer instead to several excellent reviews).⁵⁵⁻⁵⁷ It will suffice to say here that brain structures emerging as potentially related to social cognitive processes (including the amygdala, insular cortex, orbital frontal ventral medial complex, the right parietal cortex, and temporal lobe) show multiple areas of overlap with brain regions implicated in the pathophysiology of psychiatric disorders.⁵⁸ In addition, the appreciation of the neurohumoral modulation of social processes (eg, oxytocin/vasopressin, endorphin, and dopamine systems) appears to many as a promising ground to understand psychiatric disorders and devise new effective medications.²⁰

Current research in social cognition and social neuroscience is historically related to academic cognitive psychology whose theories and experimental paradigms provided fertile ground for the early development of cognitive neuroscience in the beginning era of noninvasive human functional neuroimaging.⁵⁹ Some academic social psychologists were also well positioned to take advantage of the new technologies.⁶⁰ Typically these approaches have not been developed starting from an integrative theory of the *self* and self-awareness, and the struggle with the demands of human life. Conversely, scholars interested in psychodynamic approaches (structurally equipped and interested in developing a discourse on various aspects of the self and self-awareness in social interactions), have lagged behind in the development of experimental approaches (but see the recent endeavor of the Society for Neuropsychoanalysis and related work).^{47,61}

Therefore, historical contingencies and the global readiness of a field to embrace the new scientific outlets rather than cogency of psychological models and their potential applicability to the clinical reality influenced the research agenda in social neuroscience. One is left to wonder if cognitive sciences, as they seek an understanding of the human mind and psychiatric phenomena, have reflected adequately on the nature of their object of inquiry. Essential conceptualizations have been excluded in the name of Ockham’s Razor (or *lex parsimoniae*, law of parsimony), in a way that tends to lead to an eliminativist reductionism. A valid object of research has been partially lost and perhaps undermined by an “epistemological obstacle.”⁶² In regard to its application to psychiatry, social cognitive neuroscience may even represent an involution relative to relevant conceptual framework and tools already available for clinicians.⁶³

A narrow view of social cognition applied to psychiatry understands the person to be studied as an object whose properties are measured in order to uncover purported elementary social cognitive processes (eg, perception of facial expression, instrumental learning, etc) and their mechanisms to predict social functioning, adaptation, and outcome. These putative elementary processes are often studied with the goal of (re)defining nosology, identifying potential endophenotypes (or heritable biomarkers present not just during the active phase of the illness) for specific psychiatric disorders, and targets for novel pharmacological treatments.⁶⁴ This approach is

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partially a consequence of research constraints but its limits need to be made explicit to raise awareness about the potential risk of obliterating essential aspects of cognition (in particular cognition's integrative and complex nature). Complexity exponentially increases during the developmental history that humans, as selves and social agents, undergo. Such complexity is a fundamental challenge for research which methodology and approach demand simplification. While on the one hand science cannot progress without some reductionism, on the other the more reduction and simplification are infused into the scientific approach the more this eliminates and loses sight of the object of interest. This might be heuristic when the objects of science turn out to behave in a "simple" manner, like some objects of elementary physics (eg, electromagnetic interactions between two atoms), but this could be a major mistake, when reality is more complex. In the era of translational science the temptation for reductionism is quite real. This leads to a paradox in which the fascination for technology and hard science (and their practical inertia) may lead to a progressive elimination from science itself of legitimate and necessary objects of inquiry. Psychiatry needs to reappropriate the human mind of all the aforementioned dimensions in order to define more valid research orientations. Whereas on the one hand social cognition is central to psychiatry, on the other hand, social cognitive neuroscience applied to psychiatric research will require a substantial maturation.

We argue that fruitful and adequate treatments for the existential challenges that (should) constitute the bread and butter of everyday psychiatry cannot be achieved satisfactorily without returning to and developing paradigms of psychology and psychopathology that have been neglected, and sometimes rejected for ideological and financial reasons.⁶⁵ Among these paradigms one can list psychodynamic and systemic thinking^{4,66-68} and its application to family therapy, and refer back to integrative views and theories such as the organo-dynamism developed by Henri Ey (but the teachings of Ey and his psychiatry manual^{69,70} have unfortunately long been forgotten, in particular in the Anglo-Saxon world).

The study of social cognition and social cognitive neuroscience in psychiatric research may have been influenced by the *epistemic* climate that began with the first era of psychiatric drug discovery.⁷¹ The rise of neuropsychopharmacology gave the impression that bioclinical interventions would be able to short-circuit the chal-

lenge of dealing directly with the subject, and the conquests of cognitive neuroscience and its methodological success seemed to seal the deal. This substitution of the brain to the suffering mind (and its *self*) as the interlocutor of the clinician was largely based on purported efficiency and financial reasons⁶⁵ and it has become the dominant paradigm. There are obvious merits to this enterprise, but, until the fundamental connections between the brain, the self, and self-awareness are understood and integrated into a solid bio-psycho-social model, the concepts and mechanisms the field actually offers to the clinician are in a large part inadequate, and often improperly marketed to the general public.

Social cognitive neuroscience and psychiatry

Psychiatry has been traditionally concerned with the inner world. Irrespective of the approach (symptom based neo-Kraepelinian, phenomenological, dynamic, or other), psychiatry holds profound interest in, and epistemic respect for, the subjective.⁷² Current psychiatric diagnosing relies on collecting symptoms largely based on patients' subjective perception of themselves, and of how they believe others are and see them.³⁰

Cognitive neuroscience and its application to psychiatric research have been highly productive in demonstrating correlations between many psychiatric disorders and the engagement of various brain systems.⁵⁸ A better understanding of social cognition and of its brain mechanisms may improve prediction of course and treatment of psychiatric disorders, but it is less clear, as discussed above, how the current paradigms will improve our knowledge of the bases of psychiatric disorders. Let's take the example of patients with depression. Patients with depression are known to have a reduced degree of social adaptation^{73,74} and (may) show impaired recognition of emotion from facial expressions (a paradigmatic experimental approach in social neuroscience).^{75,76} If an association between perception of facial expressions and social adaptation is found, it is often assumed that the difficulty of perception is primary and etiologically related to depression and to the social maladaptation accompanying depression (and perhaps shares common brain mechanisms).

Generally this approach follows the "deficit" model, even though more refined social cognitive paradigms have begun to demonstrate that the "bias" model may also be appropriate for understanding the social cogni-

tive alterations in several psychiatric conditions.⁷⁷ In a recent study, patients with a history of depression who were examined while depressed showed reduced capacity to appreciate stimuli conveying happiness (and not negative emotions) relative to patients who were examined while in remission, strongly indicating that the phenomenon was related to the depressive state and purportedly attributable to bias (Loi et al, unpublished). For a similar example on eating disorder research see Pringle et al,³² and for an example on schizophrenia see McCormick et al.⁷⁸ Therefore, performance changes on a social cognitive task may be useful to define prognosis and response to treatment and even conceivably help to give external validity to a diagnosis (ie, allowing definition of boundaries with other psychiatric conditions). It is much less certain whether task performance will be informative regarding the “underpinnings” of a given disorder, and therefore enrich its construct with pathophysiological mechanisms.⁷⁹ In contrast with what is widely believed, low performance on a social cognitive task has no obvious primacy status (or is *gründlich*, as Germans would say) over symptoms. Therefore it is not helpful in informing our understanding of the etiopathophysiology (ie, causality) of the illness, for its simultaneous occurrence with other measurable and non-measurable mental events.⁶⁴ The direction of the causal interrelationship between the measurable (the performance score in a task) and the mental state that subtends it is not known and it is unclear whether it is even knowable.⁶⁴ To expand and clarify, objectively measured social cognitive performance cannot be considered to be the underpinning (much less the cause) of a disorder. It may very well be its consequence. Whereas it is often believed that a longitudinal design has the potential to resolve this riddle, *top-down* influences on perception have practical consequences even in research on individuals studied before the onset of the illness. In addition, astute investigators note that response to stimuli in the laboratory is only a proxy for response to stimuli in the real world (the problem of ecological validity).³³ Most importantly, the stimuli to which we all respond in everyday life are critically imbued with significance based on emotional development, patterns of attachment, and defense mechanisms.^{5,74} The influence of these aspects of mental life on social cognition is difficult to study in the laboratory (but see ref 75). For this reason perhaps, although critical to psychiatry, this research has largely been neglected by the field.

What social cognition for psychiatry?

Social cognition is thought to be affected in many psychiatric and personality disorders.^{31,80,81} Most social cognitive neuroscience research relevant for psychiatry has focused on third-person processing including perception, appetitive approach, attachment, motivation, control, and will. As mentioned above, experimental paradigms are used with the ultimate goal of learning about fundamental mechanisms of psychiatric disorders (many of which are associated with rather obvious clinical problems in the social domain, eg, schizophrenia, autism) and improve outcome prediction. For instance, much hope was placed in this approach to schizophrenia,⁸² but initial enthusiasm, while confirming the clinical observation of social dysfunction in schizophrenia, has not translated into outcome prediction beyond 25%.⁸³ The reasons for this modest predictive power are generally explained in many ways ranging from methodology to illness heterogeneity. Rarely it is entertained that the individual *selves* may introduce critical variability on objectively attained group data. Perhaps in part for this reason, objectively recorded social cognitive data face the competition of subjective (eg, self-report) measures often found to be of similar or greater clinical validity.^{84,85}

The focus on dysfunctions of low-level perceptual processes uncovered in social cognitive studies with psychiatric populations seems to have little bearing on clinical reality and mechanisms of psychiatric illness. Particularly poignant to further explain this view are observations on patients with focal neurological damage. Individuals with profound anterograde amnesia due to mesial temporal damage have dramatic social cognitive deficits (leading to loss of most of their autonomy), but this is not premise for a psychiatric disorder. The social impairment that follows profound amnesia is not sufficient to “give” a patient schizophrenia, depression, or personality disorder.⁸⁶

The critical question therefore is not just whether the findings on mental functions that have been shown to be associated with a given psychiatric disorder are consistent across studies or predict some outcome. The problem is more fundamental. Because much of our mental life and many of the complaints that bring patients to psychiatrists are concerned with social appraisal and its reference to the self, the critical question is to what extent the model of a narrow social cognition as dis-

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cussed above can be epistemically valid and heuristically promising. Because social cognition is fundamentally intertwined with self-cognition, understanding and treating psychiatric disorders requires a model of the self and self-awareness (its construction, its identity) involving a level of integration between social perception and self-perception that none of the current neuroscience approaches have proven to be able to illuminate (however, for proposals in this direction see refs 87-89). An integrated approach to social/self cognition should direct efforts toward understanding inter-subjective factors in interpersonal and social-familial relationships, which are potentially implicated in the development of psychiatric disorders^{4,66} beyond and in addition to risk factors of genetic nature.⁹⁰ The adequate level of integration is precisely that of a subject with genetic vulnerability and with a history and a place assigned or imagined to be assigned by others, living in a world of representations while building a narrative about them, and coping with conflicts and dissonances at multiple levels.

Psychiatrists deal with complex phenomena that are deeply rooted in early childhood and involve from the outset the subject and the psychosocial vicissitudes of his narcissism.^{91,92} The cognitive apparatus of a newborn has to position itself in complex inter-subjective and group dynamics, in a relation of fundamental dependence vis-à-vis actions, representations, and narratives of others. The newborn's mind has to develop in a world that imposes an ongoing selective pressure (and struggle) to be loved, recognized, protected, and respected, entailing the development of cognitive and behavioral strategies to exert control over oneself and one's own environment. As a consequence, the young human will enter into a competitive game of *personal marketing* relying on the projection of a construed self-image. The primacy of such dynamics has reached unprecedented heights in current human societies that are dominated by the power of mass media and the celebrity system.

This explains that self-awareness is organized as a projective phenomenon in which the subject sees and judges him- or herself from the point of view of the other to which he or she identifies.⁹³ This leads to a form of *alienation* in which the subject perceives him- or herself as being an object offered in the scopic field to the gaze of the other.² The extant experimental evidence demonstrates that the subject is more self-conscious when aware of being under observation.⁹⁴ A massive reflection of these phenomena is the contemporary "craving" for

being in front of video cameras and for reality shows. This structural alienation is all the more significant very early on in life because of the little human being's constant psychomotor struggle to walk, act, talk, and be understood.² While the cognitive apparatus is constructively open to alterity, its fundamental dependence vis-à-vis the web of human relationships, representations and narratives, places humans at risks of difficulties with the distinction between self and other, authenticity and fiction, in the process of the building of the identity of the self. The fear of loss, separation distress, and the need to control others as a result are central to normal and pathological psychological development.⁹⁹ The self is built on a fundamental defensive attitude (that when gone awry may turn into full-blown paranoia and/or megalomania). The developmental condition of the self discussed here is potential ground for the psychogenesis of much psychopathology affecting the relational world and social communication.⁹⁶

Conclusion

It is time that the perspectives discussed above became once again central to psychiatry research and clinical practice. We advocate for their integration into empirical research on normal and pathological mental phenomena, after theoretical reflections on formalization and modeling, and for their incorporation into research on development of treatment strategies. The goal of finding neural correlates to various variables directly or indirectly related to the psychiatric symptoms and outcome is of potential use. New drugs developed from traditional research approaches may continue to play an important role in patient care. However, strategic choices of public health policy, in terms of research financing, infrastructures, and training of clinicians would benefit from pursuing a more valid and comprehensive understanding of the structure of the mind, with its levels of representation and operation, and its historical nature. We are nonetheless aware that at this stage it is unclear to what extent the levels of integration advocated in the present article as central to psychiatry will have correlates that are sufficiently simple to apply to psychopathology⁹⁷ and lead to effective treatments. We also have to accept the possibility that no treatment, including psychotherapeutic, might come as a solution to problems that are likely to be grounded in the developmental, individual, and often transgenerational history of individuals. □

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La lucha por la vida, el amor y el reconocimiento: los abandonados en la neurociencia social cognitiva

En el siguiente artículo se presenta una panorámica sobre de la cognición social y la neurociencia social, la que en base a los paradigmas de investigación actuales, la resulta insuficiente para mejorar nuestra comprensión acerca de los fenómenos psicopatológicos. Se sostiene que el yo, la auto-conciencia y la inter-subjetividad son integrantes de las acciones y percepciones sociales. Además se enfatiza que el yo y la auto-conciencia, por su propia naturaleza y función, están involucradas a lo largo de toda la vida con la manera en que el individuo es percibido en el ambiente social. Asimismo los modos de operación e identificación del yo y la auto-conciencia reciben fuertes contribuciones para su desarrollo a partir de interacciones sociales con figuras parentales, hermanos, pares y otros significativos. Estas contribuciones están enmarcadas por una lucha competitiva y cooperativa por el amor y el reconocimiento. Se sugiere que en los humanos la neurociencia social cognitiva debe inspirarse en una apreciación meditada sobre el significado equivalente de la lucha por la "vida" y aquella por el amor y el reconocimiento. Para que se posicione mejor el avance en la agenda de investigación y práctica de la psiquiatría clínica se propone que las neurociencias cognitivas y sociales incorporen explícitamente en sus modelos fenómenos relacionados con el yo, la auto-conciencia y la inter-subjetividad.

Lutte pour la vie, pour l'amour et la reconnaissance : le « soi » négligé dans les neurosciences sociales cognitives

Nous présentons dans cet article une thèse selon laquelle les neurosciences et la cognition sociales, selon les modèles de la recherche actuelle, ne suffisent pas à améliorer notre compréhension des phénomènes psychopathologiques. Nous pensons que le soi, la conscience de soi et l'intersubjectivité font partie intégrante de l'action et de la perception sociales. De plus, nous rappelons que le soi et la conscience de soi sont, de par leur nature et leur fonction, impliqués durant la vie entière avec la façon dont l'individu est perçu dans l'environnement social. De même, les interactions sociales avec les modèles parentaux, la fratrie, les pairs et autres personnes marquantes contribuent fortement sur le plan développemental aux modes opératoires et d'identification du soi et de la conscience du soi. Ces influences sont modulées par une lutte compétitive et coopérative pour l'amour et la reconnaissance. Nous suggérons que chez l'homme, les neurosciences sociales cognitives devraient intégrer une appréciation sérieuse de l'importance équivalente de la lutte pour la « vie », et de celle de l'amour et de la reconnaissance. Afin d'être mieux placés pour améliorer l'ordre du jour de la recherche et la pratique de la psychiatrie clinique, nous proposons que les neurosciences sociales et cognitives intègrent de façon explicite dans leurs modèles les phénomènes relatifs au soi, à la conscience de soi et à l'intersubjectivité.

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