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CONTENT

Editorial

RPC is a well-known part of Italian clinical psychology, positioned in between the academic and professional fields. Its name is associated with its co-founder and Editor in Chief, Professor Renzo Carli, one of the most influential leading figures of the Italian landscape of clinical psychology over the last forty years.

Under Carli's direction, RPC represented the driver of a view of clinical psychology characterized by the merging of two main theoretical and methodological approaches: A) a broad vision of the function of clinical psychology, according to which clinical psychology has to embrace the ambition to go beyond individual and micro-social issues, and encompass social and institutional phenomena as areas of interventions; B) a critique of the applicative and top-down view of the relation between knowledge and practice, and the corresponding proposal to conceptualize that relation in terms of a recursive dialectics.

From 2022, RPC has a new Editor in chief and a new Scientific Committee. Without giving up its scientific and cultural tradition, the new Scientific Committee intends to enlarge the editorial policy. It aims at making RPC an open space for debate, capable of fostering dialogue between the different souls and sensitivities of clinical psychology, with a particular focus on the dialectic between theory, research and intervention, on the interlocution among conceptual and methodological frameworks and on the analysis and construction of strategies to address the emerging challenges that society presents to psychology and, more generally, to the social sciences.

In the following pages readers will find a position paper on the current compartmentalization of psychology, written by members of the

SC, accompanied by commentaries by authors conveying a variety of sub-disciplinary and theoretical perspectives. The work by De Luca Picione and colleagues provides a theoretically grounded analysis of the notion of reflexivity, conducted in the dialogue between semiotics and psychoanalysis.

This first issue therefore epitomizes the Journal we would love to build: a plural and open-minded arena that brings general theoretical issues back to the core of the discussion, with the purpose of helping to enable professional practice to address the challenges of an uncertain future.

Sergio Salvatore

TARGET ARTICLE

Compartmentalization and unity of professional psychology. A road map for the future of the discipline

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Abstract

The compartmentalization of psychological science and of the profession prevents the progress of the discipline. Compartmentalization is a collateral effect of the impressive scientific, methodological, and technical development of psychology, which has led to the emergence of specialized segments of knowledge and practice that unavoidably tend to progress separately from each other and weaken their reciprocal linkage. The work highlights the limits of compartmentalization and discusses motives that call for the unity of psychology. Three approaches to unification are outlined: I) the identification of the ultimate causal explanation; II) the progressive extension of the explicative capacity of specific theories; III) the building of a metatheoretical framework. Finally, the paper proposes the intervention as the criterion to compare the capacity of the three approaches to unity. According to this criterion, approaches can be validated by reason of their ability to enable professional psychology to address the current challenges that people and society have to face.

Keywords: Compartmentalization, Unity of Psychology, Professional Psychology.

A Century of Progress of Professional Psychology...

The last century has witnessed an impressive development of professional psychology, alongside two intertwined directions. On the one hand, professional psychology has extraordinarily expanded its range of interest – contemporary psychology addresses a huge set of phenomena that practically span every domain of human life. From health to traffic behavior, from mental illness to organizational processes, from political dynamics to sport, from tourism to school, from cognitive decline to cultural processes, from media communication to economic decision making – in these as well as many other fields, psychologists have developed interpretative frameworks, assessment procedures, and methods of intervention, techniques and measures that support people, institutions, and communities to cope with issues and to pursue their goals and projects. On the other hand, in each of these

fields, psychology has accomplished major advances that have provided a deeper understanding of phenomena and problems and enabled efficacious interventions, increasingly appropriate to the specificity of phenomena and problems, thanks to the growing specialization of the professional intervention. A paradigmatic example of this progressive specialization of contemporary professional psychology is the field of psychotherapy, where one meets approaches and techniques which have been designed and validated to address specific forms of psychopathology and personality profiles, in accordance to the tenet of tailoring interventions to the characteristics of patient and therapist (e.g. Norcross & Cooper, 2021). Another example is related to intervention models and innovative methodologies applied by school psychology to children and adolescents with both learning disabilities and behavioral difficulties (i.e. attention deficit, hypertensive behavior, autism spectrum) and aimed at promoting psychosocial well-being (i.e. bullying, homophobia, affective and nutritional psychoeducation) through the use of serious games, apps and virtual reality (Lamb *et al.*, 2018). Finally, another innovative field of application concerns psychological well-being interventions in the workplace from an ecological perspective, in order to improve positive outcomes such as increased work performance and stress reduction, as an alternative to the traditional paradigm related to the organization of leadership and workplace behaviors (Prilleltensky, 2012).

The two lines of development of professional psychology – expansion and specialization – are clearly intertwined. The increasing capacity of psychology to be more and more specific and impactful fosters investment in the discipline and its social valorization; in turn, this determines the socio-institutional and economic conditions for further advances. Psychotherapy is also in this case an example of this virtuous cycle – alongside the increased capacity of psychotherapy to develop interventions and to show their effectiveness, the social demand for psychological treatments has increased. In several countries this has led to major institutional and financial investments – e.g. the coverage of psychotherapy by insurance companies, and welfare systems – which motivated and fostered further progresses in clinical research and practice.

... with a Collateral Effect

Specialization is a characteristic of any scientific-professional system – e.g. lawyers, physicians, engineers tend to increase their expertise and to specialize in progressively restricted domains of competence. The two processes are clearly interrelated – the scientific knowledge on which professional practice is based consists of growing repertoires of information and techniques, each of which is focused on a specific segment of the whole domain of professional expertise; therefore, to become an expert of any of those repertoires – e.g. cardiologists that are experts in arrhythmia, sound engineers that are experts in open space, lawyers that are experts in intellectual property and so forth – requires time and expenses that leave one little room to become an expert in other – even close – segments of knowledge and practice.

This trend characterizes professional psychology too. The technological apparatus of research has grown enormously, giving rise to a parallel growth of expertise specific for each particular research domain. As a result, fields of analysis have multiplied and separated from each other, in a process similar to that of other professional systems, as observed above. This specialization process represents the form of progress of the discipline, of its capacity to address relevant problems and phenomena in more and more specialized and effective ways. However, what we see as differentiating professional psychology from other professional systems is that in the case of psychology the links connecting the specialized areas of knowledge and expertise are weak. Physicians, engineers, lawyers may count on a general framework that provides common shared semantics – e.g. the biochemistry at the basis of the anatomy-physiology of the human body, the mathematical language of physics, the logic of law – to connect the specialist repertoires of knowledge with each other. Accordingly, specialization is conceived and translated into actions as an intellectual division of labor within the shared domain of competence targeted by the professional system. Instead, within the field of professional psychology, we see a void of conceptual and methodological common ground horizontally linking the specialized repertoires of knowledge. As a result, the repertoires of knowledge of most professional psychology are based on or comprise short-range models that tend to operate in reciprocal isolation, as self-contained systems of theory and practice, ending up

being separate territories, with weaker and weaker reciprocal connections. What we observe is that today, the vast majority of psychologists – both in research and professional practice – are specialized in one or a few sub-sectors; they acquire advanced knowledge and skills in the language, theories, methods, tools that substantiate those sub-sectors; the knowledge and skills developed in other areas are often so widely different that they are practically irrelevant, or at least are considered to be so. For example, researchers and professionals dealing with psychotherapy do so with theories, methods and tools that have only marginal overlap with theories, methods and tools used by those who operate, say, in fields like work psychology, voting behavior analysis, community interventions, and so on. This separation is sanctioned and further fueled by the separation between scientific communities, each with its own organizational structures, contexts, and communication tools (conferences, journals, scientific associations). Thus, more than a single doctrinal corpus, within which professionals specialize, contemporary professional psychology appears to be a cluster of compartmentalized fields of knowledge and practices, having their own languages, methods as well as institutional modes of propagation (e.g. scientific societies, journals). Here we will call this process *compartmentalization*.

One example could be related to the study of the development of the individual's potentials identified by different areas of specialization such as learning psychology, psychology of aging, clinical psychology, and psychotherapy, using specific theories, methods and tools which communicate with each other only marginally. Another example is the study of learning healthy behaviors. Also in this case, specific specializations of psychology, such as cognitive psychology or neuropsychology, use theories, methods and tools that are not always connected with each other, creating partial and specific readings of the individual's complex learning process in relation to the culturally and socially constructed environment (Di Clemente *et al.*, 2002).

Reasons for Discontent

There are several reasons for considering the compartmentalization of professional psychology as a critical issue that prevents its

development and, in the final analysis, reduces the impact of the significant advances accomplished in the field over the last century.

First, it must be recognized that the discontent with compartmentalization reflects the ambition, underlying any scientific effort, to build general theories on their object of study. Physics is emblematic of this epistemic tension. The history of that discipline can be told as the systematic effort to unify the theories concerning the fundamental forces that operate in nature. We know that this effort has already led, in the second half of the nineteenth century, to modeling electric and magnetic forces as two local forms, contingent on certain field conditions, of a single more fundamental dynamics – electromagnetism. More recently, electromagnetic force has been combined with weak nuclear force (responsible for radioactive decay). The horizon towards which contemporary physics is moving is the complete unification of forces, the so-called supergravity: a single, fundamental dynamics underlying all natural phenomena. Needless to say, the search for an overarching, generalized comprehension does not mean giving up short-range theories focused on specific classes of phenomena. On the contrary, as physics teaches, the stronger the general framework, the higher the explicative power of short-range theories based on it as well as their technological spill-out.

Second, the compartmentalization of professional psychology leads to a decrease of learning opportunities for psychologists. Sectors tend to be closed communities of practices, characterized by languages, technical apparatuses, traditions, standards, and rituals with increasing mutual separation. This discourages the possibility of transversality: the opportunity to use information and knowledge produced in one sector to increase the ways of operating in other sectors is severely limited. Indeed, nowadays researchers and professionals are encouraged to pursue their progress, in terms of the growing accumulation of expertise and accomplishment only within their specialized domain of interest. This follows two complementary lines: on the one hand, through the progressive differentiation of the phenomena of competence – see for example the tendency in the field of psychotherapy to identify specific treatments for specific disorders, or even for subclasses of disorders; on the other hand, an enhancement of the technical and technological content of the professional action – for example, increasingly sophisticated data analytic models, use of apps and

other devices deriving from robotics and artificial intelligence. Needless to say, this is anything but a bad thing. What is critical is the absence of a complementary trend enabling the integration of the drive towards specialization with the ability of specialists to communicate with each other in order to develop a general framework that further strengthens their capacity for innovation and influence.

Third, the compartmentalization of professional psychology weakens its social image and impact on society. The inability of psychology to anchor specialist explanations and strategies to a general disciplinary framework prevents the valorization of professional psychology in its different domains of intervention. For instance, psychologists have demonstrated the efficacy of psychotherapy, yet this has been done from within that specific professional field, without valorizing the evidence coming from other professional fields – e.g. the intervention in organizational contexts – and/or domains of investigation – e.g. the analysis of the framing effect in social communication. Society and institutions trust in concepts and solutions that engineers and physicians propose not only because of their validity to address the specific target phenomenon, but also because they are seen to be grounded on and to be the expression of a whole scientific-professional corpus that has accumulated broad acknowledgment across a long history. As to the importance of the unity of professional psychology for its institutional and social legitimization, it is worth referring to the words of Kazdin (2008), in his role as President of the American Psychological Association, stating:

«Insufficiently discussed is the importance of the unification of psychologists. Our scientific advances depend on increased specialization, broad collaborations and interdisciplinary networks. Yet, to keep our specialties robust requires that we bring to bear the discipline and profession acting as a unified whole on a daily basis. This facet of the unification of psychology is critical as we make the case to the public and policy-makers of what might make a difference (e.g. in health care and reimbursement of services, funds for basic research). Here, acting as fractionated or narrow special interests is not as adaptive as it is in making the substantive advances of our field. When it comes to making strong cases, partnering with other national and international organizations, and achieving goals that will concretely help our subspecialty interests, the heft of a large professional organization presenting a unified front, with experts in moving legislation, accumulated know-how,

and contacts that can make things happen are for the good of individual segments of the field. It is stunning to see APA teams form on multiple specific and specialized interests (e.g. in research, education, practice) and respond to issues of public as well as professional importance».

Forth, compartmentalization reflects and at the same time favors the subordination of psychology to social demand. The sectors in which psychology is divided mirror how society organizes itself in spheres of life and contexts of activity. Care, school, sport, tourism, stages of life cycle are not objects of nature having self-contained ontological status – rather, they are social formats founded on and regulated by specific symbolic and institutional apparatuses, subjected to historical evolution. When psychology assumes these social forms as its core targets, in fact it is accepting that its scientific agenda is dictated by the historical evolution of the ways in which society reproduces itself. Obviously, here we are not contesting the attention that psychology reserves to social issues. Rather, we mean to highlight the problematic consequence of leaving the definition of scientific objects of the discipline to society. This weakens the autonomy of the discipline, enslaving its progress to exogenous dynamics.

Last but not least, compartmentalization reduces the chance to provide interpretations and solution to the challenges that current times present to individuals, groups, and institutions – climate change, war, economic inequality, demographic transformation, migrations, crisis of representative democracy, health insecurity, urbanization, ageing, digital forms of subjectivity and relationship, and so forth. Needless to say, each of these processes and related problems/chances of development call for a specific form of understanding and action. Yet, at the same time, they lend themselves to be recognized as the protean manifestations of global trends of systemic change, which are redrawing the human condition at its core. Accordingly, we need general theories in order to complement the specialist understandings with interpretative frameworks enabling us to comprehend the fundamental socio-psychological dynamics underway and thus to orient the design of interventions accordingly.

The Pursuit of Unity

The unity of psychology and, within it, of professional psychology, is an enduring issue in the field. Concerns as to the fragmentation of the discipline, calls for unity, and strategies to pursue it appear regularly in debates (just looking at the last 15 years e.g. Gaj, 2009; Henriques, 2011; Kimble, 1990; Mandler, 2011; Melchet, 2016; Sternberg, 2005; Valsiner, 2009; Salvatore, 2017; Zagaria, Ando' & Zennaro, 2020). In 2013, the *Review of General Psychology* dedicated a special issue to the topic, hosting 19 contributions. The variety of contributions testifies to the interest in this topic; at the same time, it is indicative of how wide-ranging the discussion is and how hard it is to identify a unifying perspective of unification. Accordingly, what is currently possible and useful is to draw a map of the major strategies of unification and to identify a general criterion to compare their effectiveness.

In this vein, so it seems to us, the approaches to unification proposed by the literature can be clustered into three overarching strategies: I) the identification of the ultimate causal explanation, from which phenomena could originate; II) the progressive extension of the explicative capacity of specific theories to phenomena other than those for which the theory was originally elaborated; III) the building of a metatheoretical framework providing the language to map the conceptual connections among short-range theories.

The Search for the Ultimate Explanation

According to several authors, the unification of psychology requires psychological theories to be grounded in a general explicative framework provided by sciences that have already reached a paradigmatic status. For instance, this view frames Kimble's (1990) claim that physics should provide the basis for the unification of psychology. In the same vein, Lickliter and Honeycutt (2013) conclude that evolutionary theory is the appropriate meta-theoretical framework on the grounds of which the unity of psychology can be built.

Recently, Zagaria, Ando' and Zennaro (2020) have highlighted the theoretical precariousness of psychology and provided further arguments for the idea of evolutionary theory as a unifying framework that

would allow psychology to move beyond the current pre-paradigmatic condition (a status in which conflicts between rival schools of thought hinder the development of a true unifying paradigm). Consistent with a small but robust scientometric research tradition aimed at examining the status of psychology as a scientific discipline (Fanelli, 2010; Fanelli & Glanzel, 2013; Friman *et al.*, 1993; Robins *et al.*, 1999; Roeckelein, 1996a, 1996b, 1997; Simonton, 2002, ch.13; 2004; 2015; Tatman & Gilgen, 1999; Tracy *et al.*, 2005; Spear, 2007), the authors selected 12 popular university-level introductory psychology books and the APA Dictionary of Psychology. All books and the APA dictionary were published between 2012 and 2019. The authors then selected 18 psychological core-constructs (*psychology, mind, behavior, attention, cognition, consciousness, decision-making, intelligence, language, learning, memory, perception, problem solving, reasoning, thinking, emotion, motivation, sensation*) and searched each of the 12 sources for the definitions of each of the 18 core constructs. From this they showed that there seems to be no agreement on the fundamental definitions of *mind, thinking, cognition, consciousness, emotion,* and *intelligence*. On the other hand, *attention, behavior, decision making, language, learning, memory, motivation, reasoning, perception, problem solving,* and *sensation* seems to be less controversial; however, these latter concepts are ambiguous, overlapping, and circularly defined by the previous ones, resulting in empty recursion. In other words, psychological core-constructs are poorly defined and ambiguous, which is seen as an example of the theoretical precariousness of the discipline. These findings are consistent with various scientometric and bibliometric studies that reveal the "softness" of psychology (Fanelli, 2010; Fanelli & Glanzel, 2013; Friman *et al.*, 1993; Robins, *et al.*, 1999; Roeckelein, 1996a, 1996b, 1997; Simonton, 2002, ch.13; 2004; 2015; Tatman & Gilgen, 1999; Tracy *et al.*, 2005; Spear, 2007). They are also consistent with the recognition of theoretical uncertainty in psychology made regularly since the 19th century by many authorities such as James, Vygotsky, and Cronbach (Cronbach, 1957; Heidbreder, 1933; James 1894; Kuhn, 1962; Koch, 1993; Miller, 1985; Henriques 2011; Toomela, 2020; Vygotsky, 1927/1997). Zagaria, Ando' & Zennaro (2020) propose evolutionary psychology (EP) as the most compelling means to improve this status through the development of a psychological metatheory. There are many

controversies and criticisms surrounding EP, but according to the authors, many of them stem from misconceptions (see Zagaria, Ando' & Zennaro, 2021). For example, EP is usually associated with biological reductionism and determinism (the view that biology and genetics are self-sufficient to explain psychological functioning, somehow leaving aside culture and social environment). However, if one follows the authors' argument, an evolutionary approach resolves the usual dialectic of nature and nurture because genes are "blind" to what is "innate" and what is «learned» (see Tooby & Cosmides, 2015): «In a nutshell, we are naturally selected to be cultural. At the same time, our cultural lives have a biological impact on us; we are culturally shaped in our nature» (Zagaria, Ando' & Zennaro, 2020, p. 539). Regarding other controversial facets of EP (e.g. computational assumption, massive modularity), the authors argue that these are undoubtedly useful heuristics, but they do not appear to be strict requirements for the existence of EP. In other words, the authors claim that a broad evolutionary assumption seems inescapable unless the basic tenets of Darwinism and Neo-Darwinism are denied, which would be very demanding if we want to maintain a scientific perspective on the human mind.

Melchet (2016) provided a normative version of this view, claiming that nowadays the discipline has made significant progress in the understanding of human behavior, and this lays the conditions – and compels professional psychology – to assume a unitary framework.

> «The evolution of psychology to a paradigmatic natural science discipline poses critical questions for PP [professional psychology] as well. As a science-based profession, PP needs to identify outmoded frameworks and practices and replace them with approaches consistent with the best available scientific knowledge. Before recent years, there essentially was no alternative but to rely on the various theoretical orientations for guiding clinical practice, because scientific knowledge regarding the tremendous complexity of human psychology was too limited. Now that a paradigmatic scientific understanding has emerged, however, it might be considered irresponsible for PP not to systematically transition to the new scientific framework (...).
>
> Though difficult in some ways, transitioning to a unified science based approach to education and practice in the field will be a very welcome development for many psychologists. This has always been, after all, the goal of the profession from the start. It would also mean that many of the perennial pre-paradigmatic conflicts between the theoretical camps in the field can

finally be left behind. More importantly, it would mean that PP would become a true clinical science guided by an integrated body of scientific knowledge that is consistent with the rest of the scientific disciplines and clinical professions. Moving ahead with a unified voice grounded firmly in science will allow PP to more effectively address people's behavioral health and biopsychosocial needs. This is critical not just for the future of the profession but also for the health and well-being of the public who we serve» (p. 494).

The Strategy of Extension

The trust in natural paradigmatic sciences as a unifying framework has raised criticisms of reductionism by authors (e.g. Green, 2015; Stam, 2004) who maintain that psychology has to elaborate its own paradigmatic foundation from within the language of the discipline. The strategy of extension is a way to address this kind of criticism.

Since psychology exists as a scientific discipline, multiple attempts to extend some relevant discoveries concerning mental functions as paradigmatic explanations of multiple phenomena have been developed. Just to give an example here, the original discovery of operant/instrumental conditioning, i.e. the mechanism operating in animals by which rewards and punishments generate an association between a behavior and a consequence for that behavior, led to the use of this knowledge in many fields, apparently distant from psychology – e.g. in financial economy, as happens with behavioral economics. Actually, the extension of a physiologically-based learning model such as operant conditioning to understand multiple domains of human systems (just to name a few, individual psychopathology, career development, macro-economy, collective adherence to public health indications) is one of the many possible examples of how specific psychological models may well extend beyond their original intention, and cover multiple, if not all, domains of human functioning.

Another example is the classical Freudian theory about the role of sexual drives and the Oedipus complex (Freud, 1905) in individual development: psychoanalysts have applied this theory to treat individual psychopathology of course, but also to understand mass psychology and the rise of nationalism, anthropological determinants such as the taboo of incest, and even organizational behaviors in institutions

(such as in the work of French socio-analysts in the 1960s). Notably, we currently know that sexuality is just one among different motivational systems embedded in mammals (e.g. attachment, caregiving, cooperation, and ranking; see Lichtenberg, 2003). On the epistemological level, the power of explanation of a single theoretical model cannot exceed the power of explanation of a whole set of models that entail that specific model. However, this is true only if the array of theoretical models that include the specific model is not arranged in a hierarchical structure. So, if the motivational systems are conceived in a hierarchical structure, in which sexuality is considered on the top of the structure, the power of explanation of the single overarching model corresponds to the power of explanation of the whole set of models. In other words, one could contend that without sexuality there is no reproduction, and without reproduction there is no human species with its motivational systems: in this example, considering sexuality at the top of the hierarchy would imply that the other systems in the model depend on sexuality, which thus entails the definition and specification of other motivational systems as its own substructures.

Now, it becomes evident that the extension strategy moves in the end toward the ultimate causal explanation framework, in which a common origin of all psychological processes can be inferred. However, the question remains on the capacity of the extended theory to explain local (i.e. specific) phenomena. In this context, it becomes critical to understand that paradigmatic shifts of the interpretative framework can also occur in the process of extension of a given psychological theory.

To remain in the psychoanalytic field, attachment theory (Bowlby, 1969, 1973, 1980, 1988; Duschinsky & White, 2019) emerges from psychoanalytic principles but belongs to a perspective that differs from the original psychoanalysis in many respects. Mainly, the shift in perspective derives in this case from the level of extension of the theory. Unfortunately, only few scholars know that John Bowlby originally conceptualized attachment theory as a general theory of love (R. Bowlby, 2004), and that the choice to call such a theory "attachment theory" rather than "theory of love" was closely related to theoretical and institutional conflicts within psychoanalytic circuits in the years when the theory was developed. Actually, the process of extension in attachment theory consists of accepting most psychoanalytic principles, but also considering attachment (that is, the need to maintain

closeness with attachment figures) rather than sexuality as the overarching system by which the human mind develops and operates. Epistemologically, attachment theory extends psychoanalytic theory, in that it includes an overarching force (love/attachment) that is responsible for the development of the other dynamic forces in play, including the development of sexual drives. In this vein, one could examine almost any human behavior through the lens of attachment—and in fact attachment theory has been used to explain a variety of mental processes, behaviors, and phenomena at individual and social levels (e.g. affect development, individual psychopathology, psychology of migration, organizational behaviors, reaction to war and pandemics, behaviors in relation to climate change, etc.).

This is relevant in understanding how the extension paradigm may serve the integration of psychological theories. Specific theories are tested across a number of contexts, and theories that are able to cover, and ultimately generate predictions about more contexts become generalized. Within this paradigm, it is likely that attachment theory currently receives more consensus than classical psychoanalytic theory among scientists because the attachment is a construct easier to represent empirically than classical psychoanalytic constructs. That is, the question here is not only the empirical testability of a given model, which is a problem of methods; rather, the question concerns how the extended model, originally developed to understand specific human behaviors, may extend over other behaviors generating new knowledge on those behaviors. To maintain the example of attachment, every human being experiences love in its multiple forms: thus, understanding that love means closeness to significant others—as implied in the principal tenets of attachment theory – may help understand multiple phenomena in multiple contexts and at different levels of observation (e.g. clinical disorders, nationalism, response to catastrophes, relationship with nature, organizational behaviors, just to name a few), and thus intervene based on the principles of the same theory, using languages that can be easily exported toward other disciplines across society while maintaining its specificity and rules within the psychological framework.

The Metatheoretical Framework

In his comment on the paper by Melchet (2016), Henriques (2017) expressed his perplexities as to the trust in the capacity of the current scientific understanding of human behavior to ground the unity of professional psychology. According to Henriques, this could be accomplished only if psychological science were to work «as a coherently organized body of knowledge that provides a theory of the person, a theory of psychopathology, and a theory of psychological change processes» (p. 393). To do so, psychology needs a meta-theoretical framework grounding a single, clear definition of the basic concepts of the discipline – e.g. mind, self, behavior. *The Tree of Knowledge System* (Henriques, 2011) is maybe the most advanced attempt to achieve this. It provides a conceptual landscape mapping the relations between the plurality of levels of psychological phenomena – physical, biological, psychological, and social – and, in so doing, enabling precise definitions of the core concepts of the discipline.

Thus, for Henriques, unity is not to be pursued as the search for a single ultimate causal mechanism, but as the building of a metatheoretical framework: a general language providing the ultimate meaning of psychological core concepts – i.e. the concepts that in turn ground short and medium-range theories. In a partially similar vein, Marsh & Boag (2014) envisaged the unity of psychology as emerging from the conceptual analysis of the ontological premises underlying the current medium-range psychological models.

Within psychoanalysis, the effort to achieve a coherent and comparable theoretical structure has been advanced since the 1960s, particularly in the United States, thanks to several authors, among whom Rapaport's work certainly remains a point of reference. The far-sighted research programme undertaken by Rapaport (1960), though unfinished, aimed at revising the structure of psychoanalysis, in order to bring order within a theoretical landscape that had become increasingly varied over time, but in a non-systematic manner. It was still necessary to elaborate criteria that would allow the different psychogenetic, pathogenetic and treatment formulations that had emerged over time to falsify or modify each other. Rapaport's research was driven by the hypothesis that psychoanalysis could constitute the most coherent and comprehensive model of a scientific psychology of that time.

In this same vein, a recent study by Riolo and colleagues (2021) has shown a basic problem in such a project of revision and systematisation of the general psychoanalytic theory. With the exception of Freud and Hartmann, the various authors of psychoanalysis (Klein, Winnicott, Bion, Kohut were the others considered in this study) developed special theories adequately correlated with clinical observations, but they did not give rise to strictly axiomatic systems. In other words, their formulation was not characterized by precise definitions and theoretical links of interdependence and derivation such as to allow necessary and unambiguous inferences. In their study, Riolo and colleagues start by identifying through an analysis of Freud's texts (*Some Elementary Lessons in Psycho-Analysis*, 1938) the axiomatic structure of Freudian theory divided into descending theoretical levels (basic axioms, general theory, observational theories, operational theories). They then proceed to isolate the axioms of the other authors considered as well. Subsequently, they compare the statements (by the different authors) of the same theoretical level, in order to distinguish *concordant* from *alternative* statements, subdividing the latter into two classes: alternative but *not mutually exclusive* statements, thus able to coexist within the same general theory; alternative but *mutually exclusive* statements, thus incompatible within the same general theory. Their analysis initially only concerns the logical consistency of the utterances, not their content. However, the authors soon realise that this type of analysis is impossible since the majority of the utterances they manage to isolate in the text are syntactically and semantically too heterogeneous – the same terms often appear as belonging to different theoretical levels and conveying different meanings – to be able to compare them with a purely formal criterion. Therefore, Riolo and colleagues argue that it is necessary to move from a propositional comparison to a conceptual comparison: i.e. to shift the focus on the specific articulations and meanings that assumptions take on within the overall conceptions, in order to identify which concepts underlie fundamental theoretical divergences (e.g. a drive or a relational conception of the mind). In this way, they manage to outline relevant theoretical developments that occurred over time, reaching the conclusion that although none of the post-Freudian theoretical proposals explicitly question the Freudian paradigm, the changes introduced into it are such as to assume paradigmatic significance.

According to Salvatore (2016, 2017), the metatheoretical framework has to be built in terms of *abstractive generalization*. He argues that the compartmentalization of the discipline reflects the empiricist vision of the scientific knowledge, which has been taking possession of the discipline since the Second World War (Toomela & Valsiner, 2010). According to the empiricist view, scientific knowledge consists of identifying empirical relationships between psychological constructs and between these and the phenomena investigated, through controlled procedures, capable of guaranteeing the reliability of results. A relevant implication of this vision is that it leads to conceive psychological constructs in strict connection with the experience, in order to make their meanings self-evident, therefore objectifiable.

Empiricism's preference for constructs close to experience has been accompanied by the downgrade of abstract constructs, that is to say constructs whose meaning is defined on the basis of the theoretical framework they are embedded in, rather than on the basis of their factual content (Valsiner & Salvatore, 2012). Think of Gestalt concepts of good form and closure (for a review, see Wagemas, 2018), the Piagetian constructs of assimilation and accommodation (e.g. Piaget, 1936), and notions of mediation (e.g. Vygotsky, 1934/1986), scheme (Neisser, 1976), liminality (Stenner, 2017). These constructs are abstract in nature, rather than empirical – as such, they can be used to conceptualize an infinity of phenomena, which are also very different from an empirical point of view. For example, Piagetian concepts can be used to describe human thinking as well as organizational development.

It is worth highlighting that the fact that abstract constructs are not defined on the basis of specific profiles of empirical characteristics does not mean that they are anti-empirical; rather, it means that it is the theoretical framework that establishes how empirical data have to be interpreted to produce information relating to these constructs. Continuing with the example of Piagetian constructs, it is not the child's behavior that defines the (empirical) meaning of assimilation, but the (theoretical) meaning of assimilation that allows us to interpret the child's behavior in a given sense.

According to Salvatore (2017) there is a structural connection between the centrality adopted by empirical constructs in contemporary psychology and its compartmentalization. Empirical data are by

definition inscribed within a context and their meaning depends on this embeddedness. Attachment behaviors occur and are recognizable as such in the context of relationships with significant others, the therapeutic alliance within the context of psychotherapy, the sense of community within the context of the relationship with one's community, and so on. Thus, according to the abstractive generalization strategy, the compartmentalization of psychology – psychology of mental disorders, hospital psychology, tourism psychology, etc. – finds its foundation and constraint in the centrality attributed to empirical concepts and in the specular marginalization of abstract constructs. And this leads to the conclusion that to overcome compartmentalization, psychology needs to rediscover the role of super-ordered abstract concepts. More specifically, this rediscovery involves two steps.

Firstly, psychological science and profession have to aspire to *single definitions of the discipline's core concepts*. Just as physics shares the same meaning of concepts like quantum, atom, gravity, and economists use notions like value and demand within the same constraints, psychologists have to work to arrive at giving the same meaning to categories that operate as the bricks of their scientific buildings, whatever the contingencies (i.e. circumstances, phenomena, plans) of their use.

This result can be reached only if psychological science moves from the currently prevalent *extensional* way of defining its concepts to the *intensional* mode (Salvatore, 2016; Valsiner, 2007). The extensional definition consists of the linkage of the concept with the piece of the world it refers to. In other words, the meaning of the concepts consists of the description of the object (or of the operation to measure it). By contrast, the intensional definition consists of the map of the semantic relations the concept maintains with the other concepts of the theoretical framework. The meaning of concepts as autopoiesis, market, social system, sign – to mention categories from life and social science – does not consist of the reference to empirical phenomena – rather, they are categories defined from within the theory and then they are used to model reality. Concepts like primary process, assimilation and accommodation, schema, are examples of psychological concepts defined in an intensional way – their meaning does not consist of the reference to a given piece of the world; rather, they are defined in terms and by reason of the theory.

Extensional definitions are unable to provide the single meaning of concepts because they cannot avoid depending on the socio-cultural context. This is true for any science, but even more for psychology, because psychological phenomena are shaped by and represented by means of culturally framed commonsensical formats. Therefore, defining concepts in terms of the empirical content of the phenomena they refer to, makes their meaning vary due to the contingencies of their use. For instance, behaviors considered indicative of "agency" change across cultural contexts and social circumstances; therefore, no definition referring to the manifestations of agency can aspire to be unitary.

Secondly, the intensional definitions of psychological core concepts have to be made at abstract and generalized level (Kazdin, 2008; Salvatore & Valsiner, 2010; Shepard, 2004). In doing so, the compartmentalization limiting the development of the discipline can be addressed. Short range theories are necessary, because they provide forms of knowledge close to experience, therefore at the level of problems, where demands and objectives are defined. So, they must not be substituted; rather, they have to be framed within an abstract, metatheoretical framework (Henriques, 2011), in order to be understood as local instances of fundamental dynamics. In so doing, instead of seeing them as alternatives, psychological science can pursue the contextual specificity of psychological knowledge and the opportunity of making local theories communicate with each other together – e.g. cross-fertilizing the understanding of the psychotherapy process and of populism.

Physics provides a paradigmatic example of abstractive generalization – the apple falling on Newton's head, the orbit of planets, the trajectory of a bullet are modeled as local instances of the same fundamental dynamics – gravity. Psychology has a rich tradition of abstract, general theories – e.g. cognitivism, behaviorism, psychoanalysis. Yet recent decades have witnessed the progressive weakening of the interest in this level of theorization, substituted by the commitment to more and more specific models, each of them focused on a particular domain of reality.

The Intervention as Regulative Criterion

As recognized above, psychologists agree that the discipline is fragmented but have different ideas as to how the issue can be addressed. Thus, we need a criterion to compare the different approaches, in order to prevent the fragmentation afflicting psychological science from being replicated at the very level of the efforts to address this issue.

Our proposal is to identify this criterion in the (broadly speaking) *intervention.* As intended here, intervention refers to the capacity of scientific knowledge to ground and channel the ability of professional psychology to contribute to human progress. This is achieved by providing interpretative frames, forecast scenarios, strategies, and devices to deal with problems and projects considered relevant by people, institutions and societies. This is how we see the epistemic mission of professional psychology – to provide psychological science with a "third position", in relation to which meta-theoretical frameworks can be validated. This validation concerns the capacity of the frameworks to work as hub of theories that support human efforts to govern the relation with the world.

To give an example, consider the copious literature on the socio-cognitive impact of uncertainty (Arkin, Oleson, & Carroll, 2013). In this field of investigation, several theories have been developing in parallel, reflecting the different, implicit, ontological and anthropological assumptions on the basic needs (e.g. the sense of control over events, the anguish related to the awareness of one's own mortality, the stability of one's system of meaning) which, when challenged by uncertainty, motivate the reaction. In taking the intervention as the basis for comparing theoretical frameworks, the evidence supporting the various socio-cognitive theories of uncertainty is a necessary but not sufficient criterion. Theories have to be also compared in their capacity to support interpretations and strategies of intervention on the psychosocial manifestations of the response to uncertainty.

Possible Scenarios

We do not express a unique view of how the three approaches outlined above can/will interact with each other. It may be possible that

they will enter in competition with each other, and that one of them will prove to be the most effective path to the unity of professional psychology. It may also be possible that the approaches will undergo a process of progressive integration. As already observed, this would not be unexpected for the first two approaches (search for ultimate explanation and strategy of extension), that share the same bottom-up, data-driven logic of knowledge building, and differ from each other in where to look for the basic explicative tenet – within and outside psychological science, respectively. However, integration is a scenario that might involve the third approach as well. This is so because a prerequisite for the use of any data-driven form of knowledge for a mature psychological science is the anchoring to a theoretical framework that describes psychological phenomena, inspires hypotheses to be tested, explains phenomena and guides predictions of changes.

It is useful to keep in mind that science «proceeds by models to find its core concepts and build broader theories» (Di Nuovo, 2020, p. 703). In other words, scientific knowledge does not describe nature itself, but conceptual models that are usually ideal. In order to gain predictive power, those ideal models are compared to observable reality and to limitations of the validity of the models identified. These comparisons provide feedback that modify the theories, letting them become broader and able to explain a bigger portion of reality.

Thus, according to this integrative perspective, the unifying empirically grounded theoretical research in psychology domains would emerge from the capacity of eliminating gaps in theories, reducing redundancy, and increasing parsimony. This can be accomplished via: 1) paying attention to "the bigger picture" in terms of how to translate research into practical recommendations that will have real effects on real people in the real world; 2) selecting the essential psychological variables and processes that do most of the "work" when it comes to predicting and explaining behavior at the individual, relational and organizational level; 3) proposing and testing integrated theory-based interventions.

In all domains of psychology (basic, applied, social, clinical etc.) specific micro theories have proliferated and their usefulness is very limited. For instance, in health psychology, many specific theories have been proposed for describing and explaining health beliefs and healthy behavior. However, when past behavior is taken into account, most of those theories lose their predictive value (e.g. Hagger, 2009).

Thus, the development of a generalized theoretical framework can be the means of both extending the heuristic value of micro-theories and of empowering their capacity for guiding the empirical understanding of phenomena.

Moreover, a further advantage of this perspective lies in the fact that it can help to address the major crisis that science has witnessed as a consequence of the replication failure in our field, after the findings that only 30% of all psychological experiments, although deriving from very influential theories, have been replicated. Similarly, more than half of researchers have failed to reproduce their own studies (Baker, 2016). The answer of researchers to this replicability crisis is the open science movement; this movement parallels the search for unifying broader theories and both may increase the predictive value of each micro-theory and contribute to overcome compartmentation.

Conclusion

The compartmentalization of psychological science and the profession prevents the progress of the discipline and its impact on the capacity to respond appropriately to old and new challenges that individuals, groups, institutions, and societies have to face. Compartmentalization is a collateral effect of the impressive scientific, methodological, and technical development of psychology, which has led to the emergence of specialized segments of knowledge and practice that inevitably tend to progress separately from each other and weaken their reciprocal linkage.

Thus, overcoming compartmentalization does not mean giving up the specialization of the discipline, which is an inherent marker of its advancement, but it means establishing conditions to make specialization even more efficacious and impactful. Accordingly, the search for the unity of psychology has to be conceived as the effort to bridge the specializations in order to enable them to cross-fertilize and learn from each other as well as to provide a coherent image of the discipline to society and users.

The authors of this paper agree on the analysis of the current scenario of psychological science and the profession (i.e. the critical role

compartmentalization plays in it) and on the bigger picture (i.e. the search of unity). Instead, they have different views as to the ways in which unity can be pursued. These ways have been outlined in terms of three general approaches, which have been presented above without expressing any preference for one over others. This is where the specificity of this paper lies – a road map of the field, highlighting the different options at stake and a shared "rule of the game" in terms of which the different standpoints can debate with each other and in so doing make the discipline develop. Intervention is the "rule of the game" proposed – we disagree as to what the most efficacious path to unity is; but we agree that the measure of such effectiveness is the capacity of the advancing of scientific knowledge to empower the psychological intervention – namely, the ability to understand and address problems and issues challenging the contemporary human condition.

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Comments on "Compartmentalization and unity of professional psychology. A road map for the future of the discipline", by Salvatore and colleagues

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Abstract

My response to this road map has three aspects. First, I agree that the various fields of psychology do not share a consensus about basic principles, but I remain skeptical whether they could ever be linked by a unified theoretical framework. Any new set of governing concepts would immediately become a contested topic, increasing the already precarious reputation of the field. My more important reaction, however, focuses on the varied practices and theories of *clinical* psychology. Clearly, the use of diverse empirical methods by many clinical disciplines does not support the unification thesis of the road map, but rather illustrates their fragmentation. Yet, I find myself in accord with the authors that the absence of a theory with well-defined basic concepts condemns clinical psychology to a patchwork of forms of treatment with disparate goals and purposes. Without a theory, practitioners have no place to organize their observations, choose possible interventions, or even design meaningful research. The example of psychoanalysis in the paper demonstrates the inadequacy of adopting metapsychological terms for this effort. Some psychoanalytic concepts may belong to subcategories of a unifying theory to come (not an organized model). What we may need most now are conversations about this issue among clinicians. Whether this process might lead to identification of shared factors for the vast domain of professional psychology remains to be seen.

Keywords: Psychology, Psychoanalysis, Clinical Practices, Metatheory, Paradigm, Common Factors.

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I am responding to the invitation to comment on the position paper by Salvatore and colleagues (2022), concerning the unity of psychological science and professional practice, prepared for the newly reorganized *Rivista di Psicologia Clinica/The Italian Journal of Clinical Psychology (RPC).* The paper presents an extremely wide-ranging and theoretically elaborate thesis about the compartmentalization of the field of psychology into discrete disciplines that exist in semi-isolation from each other. The authors support the goal of a unified professional field organized within an overarching theoretical framework within which each part links with the others, and they offer a "road map" for implementing this goal. Their proposal addresses a social and conceptual impasse, which the authors view as impeding the growth and progress of psychology.

My response to reading this road map has three aspects. First, I appreciate the ambitious scope of thinking that went into the proposal. Such far-reaching conceptions can stimulate the imaginations of participants in the disciplines and sensitize us to issues that often pass unnoticed in the current fragmented social and economic situation in which the diverse currents of psychological practice find themselves. I want to recognize the quality of creative thinking that has clearly gone into the writing. I do feel, however, that a lot more clarification and refinement will need to be accomplished before the agenda can approach meaningful implementation.

My second set of reactions is more critical. These are preliminary thoughts, of course, about some difficulties I have in following the argument. The very scope of the roadmap raises questions. Many diverse disciplines including physics, engineering, and law are compared to professional psychology, but the analogies seem weak. There are ways in which each follows accepted rules or theories in a Kuhnian sense and ways in which they do not. Probably, professions and disciplines are the historical products of complex social processes that structure each practice. Within the domain of professional psychology itself, it is evident that the various sub-categories do not share a consensus about basic principles, and I am skeptical whether they could ever be linked within a unified theoretical framework. How might such an integration actually work? Some of the fields have an empirical focus, some are sociological, others are considered forms of applied psychology, while a central one for this effort represents clinical psychology. It may be quixotic to seek a unifying conceptual framework that

would include all of them, simply because of the shared and loosely applied label "psychology". Pursuing an overarching model strikes me as an attempt to build a metatheory that can explain many dissimilar phenomena, yet, in our current post-modern situation, we have largely moved beyond this aspiration. Even if we were able to agree on a candidate for a hypothetical metatheory of "psychology", of what use would it be to the subjacent disciplines? Wouldn't the new theory immediately become a contested topic, essentially adding to the precarious social-scientific reputation of the field?

My more important reaction to the roadmap focuses on the varied practices and theories of *clinical* psychology. We might better refer to "clinical psychologies". A major issue involves the scientific status of these subtypes. Clearly, some continue to pursue validation by operationalizing and testing concepts and researching their applications through empirical methods. Perhaps within each clinical type, some practitioners advocate quantitative research for various purposes like measuring outcomes, validating the replicability of actual practices, conducting semantic analysis of clinical sessions, studying the application of specific techniques, and so forth. Others favor qualitative approaches. Whether these types of research constitute "science" or "social science" may be a matter of definition. In any case, empirical methods are important to many clinical disciplines in ways that don't necessarily support the unification thesis of the road map paper.

The importance of a theory or a conceptual system that seeks to explain clinical practices in terms of "general theories of their object" seems more central to the proposal. Here, I find myself in agreement with the authors that the absence of a theory with well-defined basic concepts condemns clinical psychology to a disconnected patchwork of disparate parts with fragmented goals and purposes. Without a theory, practitioners have no place to organize their observations, to choose possible interventions, or even to design meaningful research. Should the basic concepts for clinical psychology involve familiar terms like mind, self, person, subjectivity etc.? Although their degree of general use is certainly extensive, I fear that such terms are so abstract and vague that nothing would be accomplished by referring to them. Moreover, I believe that the well-explicated example of psychoanalysis in the paper demonstrates the unlikelihood of success of choosing more specific metapsychological terms for this effort. True,

intensional systems have been constructed within some psychoanalytic theories, but their surface consistency often strikes me as tautological. Moreover, the status of these theories has become increasingly criticized as faulty pretensions to science (out of a materialist perspective, philosophical naivete, or a scientistic bias). The prevalent current interpretation of psychoanalytic concepts as a set of awkward metaphors for human behavior, rather than explanatory objects or attempts at causal explanation, suggests we look for other alternatives.

Recently, the study of "common factors" underpinning all psychotherapies has gained attention. Included here are notions like dialogue, relationship, and alliance. Whether these can be consensually defined and identified and, perhaps most important, arranged in a hierarchy represents a major current challenge to the field. Some psychoanalytic concepts may belong to subcategories of the unifying theory to come (but not organized as a model). Probably some of these concepts like defenses, unconscious (as an adjective), repetition, framing, etc., will deserve a higher position after further definition *en route*. I can imagine delineating the different models in this way and then seeking evidence for their comparative effectiveness in various situations, which might be of interest to funding authorities. Since empirical validation studies will remain piecemeal and probably inconclusive (for reasons addressed by the paper), what we may need most now, however, are conversations about this issue among clinicians. Similar discussions within other psychological disciplines might conceivably lead to recognition of shared factors, possibly dealing with relational issues. I realize that this suggestion might lead us to renounce many intellectually interesting, highly abstract, and complex ideas to which our training and personal experiences have attached us, but which may not merit their institutional importance in the long run.

In summary, I feel that a subdisciplinary inquiry about basic concepts for which practitioners attempt to reach general agreement could help build a hierarchy of identifiable common factors for each psychological field. The goal would be to clarify a theory underlying each practice, recognizing that it would be incomplete and continuously evolving as the contexts change. Whether this process might lead to identification of shared or overarching factors for the vast domain of professional psychology remains to be seen. In the process, each subdiscipline might need to give up some traditional hallowed concepts.

Two sources for a meta-theoretical framework in psychology

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Abstract

This paper is a commentary to Salvatore and colleagues (this volume) which discusses the foundation of a theoretical framework for psychology as a science. The paper argues that in general there are two fundamental sources for any theoretical frameworks in sciences, specifically philosophy and psychology. The argument is that psychology is historically the discipline that justifies an empirical approach in philosophy, whereas philosophy has traditionally only produced theoretical reasoning. This changed in the early modernity, in which philosophy and psychology became united. This unity produced different combinations of subjectivity and objectivity in philosophical reasoning. This paper presents synesthesia as a gateway to investigate the most rudimentary processing of a sense impression. From this perspective, the result demonstrates that the fundamental arbitrariness that forms intensional concepts is almost unavoidable.

Keywords: Synesthesia, History of Psychology, Arbitrariness, Intensional Concepts, I. Kant, F. de Saussure, L. Vygotsky, C.S. Peirce.

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Introduction

In Salvatore and colleagues (this volume), the authors discuss what kind of foundation a theoretical framework in psychology should have. The article presupposes, so to speak, a contradiction between an extensional and intensional perspective. In this commentary, however, I will argue that it is hard, if not impossible to differ clearly between extensional aspects and the mental processing of a sense impression. Synesthesia will form an example of this. Yet, synesthesia will also form an argument for how a conceptually based theoretical framework in scientific discourses in general have to be of an intensional type.

It is a widespread misunderstanding saying that psychology emerged from philosophy. It is more correct to state the opposite: Humans have always reflected on the human nature and the human mind, whereas philosophy as an academic discipline was established with the thinking of Socrates, Plato and Aristotle. Accordingly, Aristotle's thesis on the soul was not about psychology (Klempe, 2020). In contrast, in the beginning of this thesis he delineated his own project from earlier speculative reflections on psychological issues. Instead, he formulated the basis from where valid knowledge comes from; sensation and thinking (Aristotle, 1998). During the medieval time psychological speculations were provided partly by a mixture of culturally induced knowledge, medicine and common sense (Mengal, 2005; Vidal, 2011). The inclusion of psychology in philosophy appeared rather in the early modernity as a consequence of the Reformation and the theological turmoil in the wake of it. When Protestantism threw out philosophical speculations by referring to the Scripture Alone, two severe consequences appeared: The term "metaphysics" became problematic to apply in philosophy, and philosophy had to find a replacement of the fundament on which the philosophical tenets should be built. This is the modern turn, which introduced a new phase in philosophy, in which psychology gradually became a part (see Klempe, 2020).

Psychology intervenes philosophy

If psychology is to be defined as knowledge of the human nature, sensation and the way sense impressions are processed in humans are

at the core of it. Consequently, the British empiricists have been presented as those who first presented sensation as the new basis for deducing valid tenets in philosophy of knowledge. However, neither Francis Bacon nor any other Brits applied the term "psychology", which on the other side of the channel had been applied for more than hundred years before Bacon published his *Novum organon* in 1620 (Klempe, 2020). We can now refer to several publications from the beginning to the end of the sixteenth century that applied the term "psychology" and discussed different aspects of the human nature as the basis for acquiring new knowledge (Janssen & Hubbard, 2021; Klempe, 2020). The term "metaphysics" evaporated gradually, until the German philosopher Christian Wolff published a series of volumes under the label "Metaphysics" during the 1730ies. This series included one volume on *Psychologia empirica* and one volume on *Psychologia rationalis* in addition to volumes on ontology, cosmology and natural theology.

In other words, philosophy was in a desperate need to formulate a solid basis for philosophical valid knowledge after philosophy and theology had been separated, and psychological discussions of sensation appeared as the solution in both British and German philosophy. This formed the background for Immanuel Kant's critical thinking. His project was to restore a basis for the philosophy of knowledge in which psychological factors were excluded as the premise. This is the background for the harsh formulation at the end of his *Critique of Pure Reason*, in which he banned empirical psychology and tried to throw it out from metaphysics (Kant, 1781/1956). The same aim forced him to revise the first edition of this Critique, as he was criticized for leaning too much on introspection (Smith, 1962), which necessarily also includes psychology. Thus, the B-edition of the first Critique debilitated the observational aspects in his method and replaced them with focusing on concepts and their transcendental status instead.

However, a clear distinction between philosophy and psychology as academic disciplines is hard to find. Since Aristotle (1998), they have apparently been intertwined, as he referred to the soul in his discussion of the sources from which humans gain valid knowledge, i.e., thinking and sensation. Both sources touch aspects of the human nature, and his thesis on the soul is not irrelevant for psychology. As mentioned, Aristotle's aim with this thesis was most likely to form a

basis for his philosophy of knowledge, which is explicitly formulated in his metaphysics. Although he meant sensation and thinking are sources for valid knowledge, both can of course produce delusions. Thus, in his metaphysics he sorted out those concepts and axioms that cannot be doubted. This is what Kant in fact repeats with his first Critique. The only difference is that the concepts and tenets Kant presents are not only objectively, but also subjectively founded. This difference is important as it highlights the fact that the objective entrenchment had been lost when philosophy was freed from theology and religion, but it highlights also the fact that subjectivity had to form a factor in philosophy. The latter was unthinkable in medieval philosophy, but it became a crucial factor in psychological considerations that gradually emerged in the sixteenth century. Consequently, it was not Kant that introduced subjectivity to philosophy for the first time. Subjectivity in philosophy was rather a result of the gradual intervention of psychology in philosophy, which is traceable two hundred years before Kant (Klempe, 2020). It is on this basis ontology may count as a demarcation criterion for distinguishing philosophy from psychology: In psychology all imaginations and delusions are of interest to study, whereas only those ideas and imaginations that are entrenched by an ontologically justified cause are of interest in philosophy (Klempe, 2015).

Synesthesia

On this basis, two almost contradictory – yet equal – sources for scientific knowledge were accepted at the entrance of modernity in Western civilization, specifically sensation and concepts. After Kant, they are still regarded as valid, although the balance between them has always been at stake. Each one of them is also embedded with contradictions, as both include subjective and objective aspects. In 1890, the Norwegian painter Edward Munch allegedly said: «I don't paint what I see – but what I saw» (Byatt, 2012). Thus, an artist's sense impression is immediately processed in many different ways in a perceiver's mind, and this process makes that the expression can be very different from the original impression. This is not only true for artists, but also for all human memory. This is well known from different types of research, not least from research on testimonials from court (Neisser,

1976). There are, however, different ways to explain the processes sense-impressions go through. Neisser (1976) found that testimonials could be comparable with dreams, as they are characterized by condensations and replacements. Another mental process with comparable outcomes, but not so much referred to, is *synesthesia*. One reason for not focusing on synesthesia is that it is very often presented as if it is a very peculiar and extraordinary capacity restricted to just a small part of the human population (Ramachandran & Hubbard, 2001). However, this question is at stake at the moment, and others argue that synesthesia is a common human capacity that reveals how an individual processes sense-impression in a preverbal stage of life (Cohen Cadosh & Terhune 2012; Simner, 2012).

Thus, the fundamental question in this context is quite simply: To what extent can synesthesia explain anything relevant for how valid metatheoretical reflections are constituted? Before answering the question, synesthesia has to be defined, and an old, but still valid definition could be; Synesthesia is a sense impression in which «one specific stimulus may arouse not only the specifically corresponding sensation, but a second sensation united with the first» (Werner, 1957, p. 86). To answer the question, there are at least three aspects that have to be pointed out: (1) Synesthesia is a result of a certain sense impression. (2) Synesthesia is a result of an internal production of a new impression incomparable with the external impression. (3) The unity of the two impressions is mandatory for a synesthete.

In this context, any subtle distinction between genuine and not genuine synesthesia is unnecessary. The former is defined as enduring and constant unities, whereas in the latter synesthetic concords may vary. What counts in this discussion is all occurrences of mandatory combinations of incomparable sense-impressions. In Luria's study on the *Mind of a Memonist* (1987), synesthesia seems to be a highly productive factor for Sherashvsky's extraordinary memory. As a young man, Mr. S as Luria called him, worked as a journalist. In this job, he never took notes, but memorized what was said and recalled every detail when he had to write out the report. Therefore, just one small quote from Mr. S may open an informative gate into this mysterious world of synesthesia:

When I was about two or three years old I was taught the words of a Hebrew prayer. I didn't understand them, and what happened was that the

words settled in my mind as puffs of steam or splashes … Even now I see these puffs or splashes when I hear certain sounds (Luria, 1987, p. 22).

Here we may find several factors that bring us deeper into this mysterious world of synesthesia. The "puffs and steam or splashes" he refers to is most likely associations very few, if any recognize. These associations, therefore, must be characterized as (1) completely private and subjective. What he hears is the sound of Hebrew words he does not understand, which (2) are external sense impressions that trigger the production of an internal image. What happens in the boy's mind is that (3) incomparable entities are united, but also that one phonetic sound is differentiated from other phonetic sound. This process of differentiation and unification form a primordial type of categorizations and synthesizing. The fact that he did not understand the Hebrew words, but still differentiated between them by means of certain associations, implies that (4) for the preverbal child, language consists of differentiated sounds that stand in opposition to each other and the oppositions are produced by synesthetic associations. Thus for the child, (5) language appears as an arbitrary compilation of sound elements that are differentiated by means of synesthetic associations. After Mr. S had attended ceremonies in the Synagogue for while, he most likely learned what the prayers were about. Thus (6) the meaning of the words are not embedded in the words themselves, but a result of how the sounds are disposed and used in a social and cultural situation. One term that may exemplify this process of meaning making is the expression "Alleluja", which is impossible to translate, but nevertheless all people in the Christian world know the meaning of.

In line with this, synesthesia may tell us something about the process of meaning making that might be of general validity. It reveals a highly subjective component, which is active in categorizing and synthesizing sense impressions. It reveals also that these processes of categorizing and synthesizing are not acceptable unless they are aligned with a conventionally given cultural and social system of how the different sounds should be disposed. All the different languages and musical systems that in fact exist in this world envisage an almost inconceivable broad specter of sounds and systems. Moreover, every newborn baby, no matter where it is born in this world, has the potential of acquire and apprehend all these systems of sound. However, after

having achieved the capacity of mastering some few language and musical systems, the door to other languages and musical systems are closed for most of us.

Vygotsky, Saussure and Peirce

If this is true, i.e., that the most fundamental logical operations like categorizing and uniting are already present in a preverbal and immediate processing of sense impressions in human minds, then thinking can be separated from language. This separation is what Lev Vygotsky (1987) ended up with in his investigation of the development of thinking and speech and stated that they must have different roots. The point of departure is the egocentric speech, which is normally understood as an incomplete type of speech. No, says Vygotsky, egocentric speech is comparable with thoughts, in which words refer to much more than just their references: «Thought is always something whole, something with significantly greater extent and volume than the individual word» (Vygotsky, 1987, p. 281). Although the child uses just single words and the language appears as if it is poor, the meaning embedded in each word exceeds normally what an adult is able to grasp. Accordingly, this is what characterizes an adult's inner speech and thinking as well since «thought's flow and movements does not correspond directly with the unfolding of speech» (p. 280). Thus, the inner speech and thinking «is a process that involves the evaporation of speech in thought» (p. 257). In other words, thinking goes beyond language, of which synesthesia may count as an example.

Saussure's thesis of the arbitrary sign can also be seen in this perspective (2011). Language is characterized by the embedded paradox that it is apparently stable, but still changes over time. The reason why it is apparently stable is the «*[c]ollective inertia toward innovation*» (Saussure, 2011, p. 73, original italics). Language is a sort of social institution, but it is different from all other social institutions, as it is never changed by an individual but by a collective agreement through the use of it over time. Thus, language is a result of both synchronic and diachronic factors, which place the aspect of collectivity in those two dimensions. So when language changes anyway, it is a result in a gradual "*shift in the relationship between the signified and the*

signifier" (p. 75, original italics). The distinction between the signifier and the signified is crucial, as this distinction allows the signifier, and not the signified, to be the one that produces meaning. "Experiment" is for example primarily associated with natural sciences, and the term produces certain ideas in our mind. However, when talking about a "psychological experiment", we will imagine something different, and there has been a shift in the relationship between the signifier "experiment" and what it signifies. The opposition between the two signifiers is what produces the differences in significations. This forms the main argument for the thesis of the arbitrary sign, and this results in languages as systems that constitute themselves through the actual disposition of sounds.

There are parallel thoughts in Charles Sanders Peirce's early considerations around logic. Whereas Saussure is associated with semiology and French structuralism, Peirce is related to American pragmatism and semiotics. For many decades now, semiotics has been established as a generic term to cover both traditions. This is for good reasons, as the two traditions may have much more in common than what often has been communicated. In his early writings from the 1860ies and 70ies, Peirce emphasizes that logic «belongs to a community» (Peirce, 1869/1984, p. 271) but also that logic «is rooted in the social» (Peirce, 1878a/1986, p. 284). These statements imply that according to Peirce, logic does not have an independent ontological status, but is instead conventionally founded. This implies that systems of thinking also may reflect great differences, as is true when we compare strict deductive logic with mythical thinking, for example. If we go back to Vygotsky again, both types of thinking are present in the inner speech – in addition to many other forms of reasoning. Moreover, Peirce went quite far in his psychologistic way of anchoring his philosophy of science. Especially in the famous article «The Fixation of Belief» (Peirce, 1878b/1986), he states that our motivation for doing research is entrenched in an «irritation of doubt» (p. 247) and an ambition «to attain a state of belief» (p. 247). Thus, the criterion he presents for having achieved a true result is simply «the feeling of believing» (p. 247). Then we are left with Kant again, as he faced the crisis metaphysics met when philosophy was no longer under protection of religion and theological doctrines (Kant, 1781/1956, A849/B877). Although Kant tried to avoid psychology, we see that Charles Sanders Peirce hundred years later did not.

Conclusion

To summarize and conclude these considerations, we have to bring this back to the discussion about the foundation of a metatheoretical framework in psychology. We must say that the Western intellectual history tells us that both psychology and philosophy form a basis for scientific discourses in general. This happened after the entrance of modernity. However, the challenge is that psychology and philosophy contradict each other in the sense that psychology focuses on subjectivity, which may *include delusions*, whereas philosophy focuses on objectivity, which *excludes delusions*. The psychological process of synesthesia exemplifies how sensation is strongly and intimately connected with illusory ideas that really have genuine subjective origins. On the other hand, synesthesia illustrates at the same time how the most fundamental rational production of categorizing and synthesizing are embedded in the delusions synesthesia produces. The latter forms an unavoidable prerequisite to the transformation process in which randomly chosen sound combinations end up in motivated meaningful concepts. The latter is a consequence of a common use of common sound combinations, which are completely conventionally founded, and in this sense *in principle* arbitrary. However, the collective inertia toward innovations in the use of language is at the same time a collective warranty against unacceptable delusions. This makes that the intensional mode of defining concepts is the only way to retain this warranty for objectivity in scientific discourse.

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Outline of a grand theory of psychological activity

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Abstract

The rise of psychology over the past century has proceeded apace even in the absence of a unifying theory. The current state of the discipline is one where distinct sub-disciplines pursue compartmentalised interests based on specialist foci that address nuanced aspects of psychological activity in the human species. This commentary outlines the minimal ingredients of a grand theory of psychological activity that requires formulation at three levels of analysis. At the macro level, sociocultural contextual factors bear an influence on individuals and are more or less conducive to the expression of particular tendencies. At the micro level, phylogenetic tendencies influence psychological activity through neurochemical activity. At the meso level, individual dispositions are attuned to contextual demand through a process of changing mindsets to suit circumstances. At this strictly psychological level of activity, the ethical imperative facing the discipline is one that helps maximise psychological health and wellbeing in the face of adversarial conditions.

Keywords: Psychology, Clinical Psychology, Social Psychology, Personality, Worldviews, Cultural Influence.

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Salvatore and colleagues (this issue) draw our attention to the expansion of psychology's domain of interest, over the years, to cover every aspect of human activity. This ranges from the clinical situation to issues experienced by everyone in everyday life, such as relationships, workplace behaviour, physical fitness, health, wellbeing, and so on. In a sense, this is not all that surprising. The psychological subject engages in psychological activity in all she does; psychology is part of human nature. This is similar to physiological activity – the heart pumps blood around the body whether the subject is working out on a treadmill or relaxing at home in front of a television set. Cardiac activity is implicated as well as interesting in both cases. In the former, one is curious to see how well the heart might be keeping up with the strains of physical exercise. In the latter, one is curious to see whether cardiac activity, like heart rate and blood pressure, relax to a healthy level. Physiological intervention may be directed at either or both cases, depending on whether any anomalous patterns are discerned by the medical practitioner. The same holds true for psychology given that, like physiology, psychological activity is implicated in every aspect of human functioning. By extension, therefore, psychology has a question to ask and something to say about the entire gamut of human activity.

This state of affairs, however, stands in sharp contrast to the exclusive focus on the abnormal, or patterns of activity which do not "fit". This is not to say that abnormal psychology, or psychopathology, is not a legitimate psychological concern. It certainly is, but it is not the only one. Psychology today, clinical psychology included, investigates the normal as well as the abnormal with the intent of identifying techniques for how psychological health can be ameliorated. Over the years, the abnormal has been associated with norms of behaviour that are relative in their manifestation (Farr, 1996). Psychologists understand that what is routine for some may be abnormal for others, and vice-versa. The fashion styles associated with Goth or EMO style have gone as far as to popularise what were previously considered psychological aberrations.

Be that as it may, psychology is still routinely requested to dig into a box of tricks to help resolve psychological ails, regardless of the fact that such problems may be construed differently by others. Parents still

take their teenagers to therapy when they realise they are self-harming, whether this behaviour conforms to some overarching fashion trend of the times or otherwise. Managers still implement team building programmes to help their human resources thrive and produce, even though some will say that the problem lies elsewhere, such as with management. The point is that psychology, in all its branches, remains attuned to human welfare of the psychological kind and perseveres in its efforts to understand it enough to try to improve it. It is hard to argue against such noble aspirations in the same way that it is hard to argue against the Hippocratic Oath, even though the life preserved may be depraved and go on to perpetrate heinous atrocities. No one would dare blame a doctor for this eventuality however. And in a similar way, no one blames psychology for trying to help restore and improve psychological health where needed either. This laudable aspiration drives the discipline forward in various directions. On the one hand, the Behavioural Sciences aspire to identify ways to nudge individuals to act in determined ways that (presumably) benefit society as well as the individual herself. On the other hand, the Cognitive Sciences are driven by the impetus to discern our neuro-cognitive mapping that, if tweaked through neurochemical activation, promises to modify subsequent behaviours and experiences. The Psychological Sciences add to these concerns a broader gamut of phenomena, such as experiences, emotions, non-conscious processes and social relations, all of which play a role to some extent in how an individual comes to develop or resolve a psychological condition.

One question that the application of psychology raises, most predominantly in its clinical vestige, is whose ends are being pursued through intervention (Sammut *et al.*, 2016)? Whilst some will argue that alleviating the suffering associated with psychotic or depressive episodes is a clear and straightforward task that requires no further justification, other areas of intervention may be less clear cut. For instance, psychology has pathologised individuals in the past on the basis of exhibited behaviours that are no longer deemed pathological today. The example of gay conversion therapy, which is being outlawed in many countries worldwide, provides a sobering lesson for the discipline. Moreover, there is something to be said about side-effects and long-term consequences of psychological intervention. Empowering an individual through cognitive therapy, for example, may lead to

relational breakdown and cause other forms of suffering that, perhaps, a systemic intervention might have averted. On the other hand, is it worth preserving a family nucleus that includes an active perpetrator? Is it not better to empower the domestic violence victim to break the cycle and seek romance elsewhere? My point here is that perhaps more than ever, as we learn further about human functioning and new psychological questions come to the fore, the domain of ethics in psychological practice becomes ever more salient. Sure, the discipline has extensive ethics codes that the various disciplinary bodies are charged with enacting and enforcing. But the crucial problem here remains our fundamental inability to understand the breadth and depth of our interventions given the disparate, specialised and compartmentalised psychologies our interventions draw upon. This is the outcome of a disjointed and fragmented discipline, which Salvatore and colleagues (this issue) draw our attention to. Should we alleviate anxiety by changing workplace practices, or should we pursue the same ends through psychotherapy? Which intervention is preferable, and why? These questions are a direct result of psychology's lack of a unified theory. Yet, I would like to suggest, this is no cause for despair. If anything, this only means that great discoveries in our discipline lie ahead of us not behind us, as we continue to figure out how psychological activity arises and unfolds in human subjects over the lifespan and in the contexts they inhabit. Rather than despair, this task is invigorating and in what follows, I wish to sketch the minimal constituents of what a grand theory of psychological activity might start to look like.

Individual Differences

Clearly, a central focus of any psychological inquiry – clinical psychology in particular – is a description of the psychological condition demonstrated by the afflicted individual. The roots of any psychological condition arguably extend beyond the individual with the presenting problem, as do its effects. Nevertheless, the individual's inclinations, behaviours, emotions, cognitions and dispositions are focal ingredients for any psychological analysis. We understand today that not all individuals are the same – some are more or less inclined than

others given any dispositional tendency. Indeed, this represents the great insight of "individual differences", which some sub-disciplines of psychology have used as a measure of normality and, by implication, to define what is abnormal as well as, by extension, what can be regarded as psychopathological. Be that as it may, some individuals are more neurotic than others, more depressed or more jovial than others, more prone to anxiety, sadness, violence, happiness, open-mindedness, cognitive closure, and so on for any psychological trait one could identify. The same holds true for physical features attributable to individuals. The big question psychologists have faced over the years is how to explain these different tendencies, particularly how to explain how they arise? Evolutionary theory has solved this problem for physical traits by identifying the dual mechanism of natural and sexual selection operating at the genetic level. For psychology, the task is somewhat more arduous since it involves but exceeds biological propensities alone. The challenge, however, remains: if we know how they arise, then we know where and how to intervene in the same way that treating obesity requires consideration of calories consumed through eating and expended through exercise. One core explanation is that humans are endowed with a range of traits, on which they differ from others. The constellation of traits a particular individual demonstrates represents her personality, in other words, what makes her the *person* she is, different from any other person. I refer predominantly to the trait theory of personality here. The jury is still out on whether individual differences can be explained in terms of single traits alone or whether differences are due to structural variability in the constellation. In essence, however, we are wired differently from each other and differences in our human activity can be explained, at least in part, as a function of these psychological underpinnings.

The question of wiring here is crucial. One wonders how we come to have differently structured personalities. This takes us to the heart of the nature-nurture debate, which I will not rehearse here. We largely understand that our biological sub-structure plays a role, that our brains secrete neurotransmitters that lead to variable experiences in the mind, and that our inherited genetic baggage has something to do with the behavioural dispositions we demonstrate, at least to some extent. Genetic mutation alone explains how some disorders arise, by throwing a spanner in the works of healthy functioning and giving rise to

maladaptive dispositions. These may not survive phylogenetic transmission, but they still need to be contended with in the present and for the particular individual.

Arguably, the most influential theory of personality worldwide is the Big Five theory of personality (Costa & McCrae, 1992), that posits that individual differences in personality arise as a function of the role played by five underlying traits (Openness to Experience, Neuroticism, Conscientiousness, Extraversion, Agreeableness). This theory has attracted cross-cultural criticism regarding validity of its claims concerning the universality of the range and type of traits (Wang, Cui & Zhou, 2005; Zhou *et al.*, 2009). Moreover, the specific role played by particular traits remains contentious (Connelly, Ones & Chrnyshenko, 2014). Another theory that has gained prominence in recent years is the Dark Tetrad theory of personality (Paulhus, 2014), which posits that maladaptive behaviour can be explained as a function of three underlying pernicious traits (Psychopathy, Narcissism, Machiavellianism). In any case, psychology subscribes to the belief that human beings are not all alike, they differ from one another in their inclinations, and this in itself may, at times and for certain individuals, prove problematic. Psychologists, therefore, are called upon to help remedy certain inclinations (e.g. addiction) or alleviate the suffering caused by certain dominant dispositions (e.g. depression), despite the fact that their root cause may originate in underlying phylogenetic influences about which psychologists can due precious little, or overarching socio-political conditions that burden individual functioning. It is to the latter set of influences that we now turn.

Socio-Political Conditions

If social, cultural and political conditions fully determined individual inclinations, we would expect all Italians to demonstrate the same personality structure, different from the French personality structure, from the American personality structure, and so on. Deterministic accounts on the nurture side of the debate are prone to such fallacies. Behaviourism rests, to some extent, on the belief that human beings will respond to stimuli in the same way, regardless of individual differences that manifest between them at the psychological level. But all

Italians are not alike, and all French, American, or any other socio-ethnic-cultural-political category one may choose to identify with are not all alike either. However, socio-ethnic-cultural-political conditions differ from each other at the macro level and these differences translate into differences at the individual level, at least in part. That is, some contextual conditions are more or less conducive to particular inclinations than others. This is the behavioural insight that behaviourists have developed into a fully-fledged science – the science of nudging individuals in determined directions due to their being, to some extent, similar in certain respects.

In essence, whilst human infants have the natural capacity to learn any human language, Italian infants naturally learn to speak Italian, British children naturally learn English, Chinese children naturally learn Mandarin, and so on. That is, our abilities are both developed and honed through the environment we are exposed to. Children who grow up in stimulating environments do better at school than they would if they lacked such stimulation, regardless of their natural abilities. In other words, the kind of person we end up being depends on how our inclinations are shaped by the environment we inhabit. It follows that some environments are more conducive to develop some inclinations than others, for better or worse. Sociologists have sought to identify the universal features on which societies differ. Hofstede's (1991) theory of cultural dimensions and Schwartz's (2006) theory of cultural values are two of the most well-known and have received a lot of scholarly attention over the years. The effort is similar to the psychological enterprise to map the personality structure for the sake of comparison between different types.

The Missing Link

I would like to argue that the above two foci represent macro and micro influences on human psychology. Both sources of influence are concurrently implicated in social psychology – that branch of psychology devoted to understanding the relational individual in context. Social psychology has for a long time been juxtaposed against individual psychology. But just like the normal and abnormal are two sides of the same coin, the individual and the social are two sides of the same coin

of psychological activity like a figure/ground Gestalt. However, I would like to argue that between the two of them is a missing link that explains how an individual with characteristic natural dispositions goes on to develop particular tendencies and consequently demonstrate certain behaviours in a context of a certain kind, which results in psychological actions bearing consequences that play a role in the psychological functioning of the same individual. This refers to the meso level of psychological activity, which has received scant scholarly attention over the years but that proffers explanations that stand across the social psychological divide.

In essence, we understand how certain genetic influences go on to shape our dispositional tendencies that lead us on to particular psychological experiences. The same situation (e.g. public speaking) may thus be pleasant for some and anxiety-provoking for others. We also understand that situational circumstances hone our psychological tendencies. In one context being different is shunned, whilst in another it may be valorised. But individuals regularly turn up to the psychologist's office for therapy that helps them change, without resort to either changing contextual conditions (i.e. systems therapy) or meddling with their biochemical dispositions (i.e. psychiatric treatment). Taking nothing away from the fact that both systemic and psychiatric interventions may be effective and desirable in their own right, there is also a level at which people change without resort to one or the other. This level is, I wish to propose, strictly psychological, and is one step removed from direct genetic influences in a way that personality theories are not, as well as one step removed from social, political and cultural conditions in a way that cultural theories are not. In other words, this is the level at which *individual dispositions are attuned to contextual demands*.

The individual who makes recourse to psychological intervention is one who experiences a misalignment between her experience and her expectations of the experience. That is, she wants something different and that want leads to a discomfort that the individual has not resolved on her own. Individuals do not go to therapy to recite what is great about their lives. They focus on what is less than great – the problems, the issues. As detailed above, the roots of these problems may lie elsewhere, possibly genetic or social, or both. But the crucial point here is that people can be helped to change their *outlook* on

something, to experience a situation differently by thinking about it differently perhaps, or deriving a new sense out of it, construing it in a different way, without necessarily changing the situation itself and without medicating for it. That is, individuals can learn to cope with the situation, rather than change it or change themselves in reaction to it. And when they cope, they adapt to it, by changing themselves from one state to another, where the former was maladaptive and the latter adaptive. That, essentially, is what coping is – a state of conjectured adaptation to circumstances. And, I argue, this constitutes the missing psychological link.

As stated, scant scholarly attention has been paid to the meso level focus over the years. Some notable theories stand out, which I have rehearsed at length elsewhere, such as Salvatore and colleagues' (2018) notion of symbolic universes, Leung & Bond's (2010) theory of social axioms, and Haidt's (2012) theory of moral frameworks. What all these theories have in common, other than a fivefold typology, is a postulation of psychological states that represent an individual's axiomatic outlook on the world which shapes and guides their perceptions, the sense-making features of their cognitions, and the emotive responses they trigger to flavour their psychological experiences. For instance, recent research shows that worldviews based on these typologies discriminate supporters for recreational cannabis from opponents to this legislation (Sammut, Mifsud & Brockdorff, 2022). Clearly, one cannot assume that differential support for policy is based on personality structures rooted in genetic tendencies. Nor can sociocultural conditions alone predict such divergent support within the same setting. Once this missing link is factored in, we understand how in certain societies, some individuals who are inclined in a certain way will go on to act in particular ways that others will perceive as psychological activity of a certain kind. This applies to the deranged suicide bomber as much as it does to the holy ascetic, as well as the myriad constellation of behaviours that range between these two extremes and which pertain to the everyday life that human subjects actually and effectively inhabit.

Conclusion

Salvatore and colleagues (this issue) highlight the lack of a grand theory of psychological activity and point to some consequences of this disciplinary failure. They also advance some proposals of what a grand theory could look like. In this commentary, I have discussed the minimal ingredients that a grand theory of psychological activity requires. At the macro level, psychologists understand that different environments are more or less conducive to the expression of particular dispositions. At the micro level, psychologists understand that human beings are endowed with characteristic tendencies that naturally incline them in determined directions. These represent the sociogenetic and the phylogenetic influences on psychology respectively. At the meso level, psychologists understand that the people change even though their biological dispositions and the sociocultural contexts they inhabit might remain constant (Sammut, Foster & Andrisano-Ruggieri, 2016). The question is, what changes when individuals change? I have argued that ontogenetic changes psychologists typically target help individuals adapt their mindsets to changing circumstances. I propose that the ability to change mindsets constitutes our species' adaptive potential, much like a phenotypic camouflage, that enables individuals to pursue ontological aspirations that maximise their wellbeing (Sammut, 2019). This, in essence, represents the psychologist's ethical task.

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On unifying psychology: A view from the trenches; and what's wrong with pluralism anyway?

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Abstract

This paper addresses, from the perspective of a psychotherapist, a proposal for unifying psychology under some form of conceptual umbrella, as advanced by Salvatore and colleagues in this current issue of *Rivista di Psicologia Clinica*. My response raises conceptual and practical questions. The unhappy history of universal models in psychoanalysis illustrates personal, social, and political dynamics that interfere with finding and implementing such models. There is no neutral meta-position; any meta-position is subject to challenge according to its angle, methods, and interests. The question may not be whether, a priori, psychology should be unified, but whether it will turn out to be so. Generalized scientific models applied to psychotherapy may not be close to how people understand and talk about themselves. Psychotherapists are likely to incorporate general principles and models without much rigor and as metaphors to justify and shape change in accord with cultural values rather than to describe or explain. Given different conceptual categories in psychology, natural/causal and humanistic, universal principles or models could be so general and abstract as to constitute philosophy more than science. Balancing assimilation and accommodation, or general stability

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with local level instability, allow for complexity, flexibility, and responsiveness to unique local conditions for human meaning systems – individual and collective, and for the academic disciplines that study them. Pluralism or polyphony may be an alternative meta-position which allows therapists to flexibly draw from scientific and humanistic perspectives, and from folk psychology, along with personal training and life experience, soft-assembled at the moment of contact with the messy subjectivity of the other.

Keywords: Psychology Unification, Unified Models, Theoretical Psychology, Theory of Psychotherapy, Psychotherapy Practice, Pluralism, Complex Systems in Psychology, Integrative Psychotherapy, Common Factors.

> *It is not easy to find an answer. We can only say: 'So muss denn doch hie Hexe dran!' [We must call the Witch to our help after all!] – the Witch Metapsychology. Without metapsychological speculation and theorizing – I had almost said 'phantasying' – we shall not get another step forward. Unfortunately, here as elsewhere, what our Witch reveals is neither very clear nor very detailed.*
> (Freud, 1937, p. 225; quotation from Goethe's Faust).

Many of us in the psychoanalytic world are wary of unifying theories – we have had some bad experiences. Theories start with a particular problem in living, traced to a problematic negotiation of a developmental task, likely one with personal resonance for the originator of the theory (Cooper, 1985). They soon go to the bedrock of human nature and the fundamental dilemma of the human condition (Cooper, 1985). All motives are reducible to the fundamental drivers and organizers of human experience and the dilemmas they create. The universalizing, colonizing impulse and the bloody turf wars that follow are also influenced by the originators' personal needs (Cooper, 1985)[1]. Kaplan (2006) has written about the history of fetishizing psychoanalytic theories in psychoanalytic institutions, where orthodoxy was enforced, alternatives "interpreted" and marginalized, and complexity and creativity suffered. When Pine (1988, 1990) introduced the notion that various psychoanalytic models of the mind, "listening

[1] Freud, the "conquistador" (Freud, 1985/1900), though the quote above suggests that Freud regarded his more abstract theoretical constructions with more humility.

perspectives", can apply to different aspects of development, different people in treatment, or different moments with the same person, there was a collective sigh of relief. Pluralism was a good thing, a more accurate reflection of the complexity and fluidity of human subjectivity and behavior.

Scientific vs Experiential Language

General and abstract concepts, such as forces and mechanisms, what Freud called "meta-psychology", are removed from actual human experience and from how people talk and understand themselves. Influential psychoanalyst George S. Klein (1976) called for a moratorium on metapsychology, a "theorectomy", in favor of an "experience near", more personal language (Gill & Holzman, 1976). There is also an emphasis on listening from the patient's perspective and for the plausibility of how they construct what is happening (Schwaber, 1983, 1998). To privilege and help clients more fully articulate and elaborate their own meaning requires analysts to check their authority or privileged claim to know reality, especially regarding messy human exchanges.

I will elaborate below the notion that theoretical constructs useful for psychotherapists are hybrid metaphors, combining elements from psychology, humanism, and folk psychology. They must speak to clients in a language similar to their own. They are creatively brought together, usually nonconsciously and without much rigor, at the moment of contact with the subjective other.

Human and Social Impediments

Whether it makes sense to unify psychology within a generalized model or language might best be worked out by theoretical psychologists and philosophers of science. A psychoanalytic clinician, with the help of a sociologist of science, could add the complications from our humanity and from social dynamics to finding a universal framework. I was an undergraduate major in psychology and philosophy at a large Midwestern university in the US. Some twenty five years later I visited

the campus and was roaming the halls of the psychology department, looking for names on the doors that I might recognize. The chair of the department walked by and asked if he could help me and I told him I had been a student there. He was friendly and welcoming and gave me a tour of the new research facilities. Feeling a nice connection, I asked him if a psychodynamic perspective was represented among the clinical psychology faculty. He answered, "no, we only teach scientific approaches here". Behind my polite smile I took this personally. I thought – this man is oblivious to the empirical data on the efficacy of psychodynamic therapies and the experimental data on psychoanalytic constructs – he uses the pretension of "scientific" to advance personal and political bias. So much for our friendly bond.

Why do I tell this story, other than to nurse a narcissistic wound and resume a thwarted quest for recognition? It illustrates that claims for scientific universality can get personal and that our humanity and social dynamics complicate claims to know and projects to implement what we regard as the best way to integrate psychology. To what body, process, or methodology do we grant this lofty perch and authority? There are no philosopher kings or queens with a neutral place to stand. Any meta-position is subject to challenge according to its angle, methods, and interests. Salvatore, Ando', Ruggieri, *et al*. (2022) could answer that authority is distributed and methodological and that interrogating the position from which we see and integrate is part of the process. The criteria are pragmatic: how effective an integration and application results from the meta-theoretical constructs? But is this enough to settle disputes regarding power, authority, and method? Who defines effective outcomes? They are constructed from the very constructs they are to confirm. The chair of psychology at my alma mater appealed to science to justify his dominant and marginalizing voice. His appeal to scientific authority disavowed the complex sociopolitical history behind his claim. As cultural psychologist James Werstch (2009) writes, "... we must consider how and why a particular voice occupies center stage, that is, why it is 'privileged'" (p. 14). Human sciences are more vulnerable to passionate disputes, laying claims, as they do, to our very nature, and, according to Foucault (1980), providing the means for our subjugation and control.

Human Nature?

Does universal psychology claim to answer the very question of human nature? The question of human nature has been distributed among philosophers, psychologists, theologians, sociologists, and neuroscientists. Would a unified psychology have the final word? Or would lawful connections between the specialized domains of psychology apply whether we are by nature beasts or noble savages? And which speaks more directly to and grasps the human experience?

Sensation, perception, cognition, memory, brain function, are describable according to natural causal laws. Any linking framework that includes them would privilege scientific methods and laws. But psychotherapy is a pragmatic synthesis of scientific and humanistic perspectives and methods, often brought together at the moment of contact with the subjective other. Universal frameworks of natural and generalized laws could marginalize other ways of understanding and responding to persons. I had participated in a movement in psychoanalysis that sought to integrate and amend psychoanalytic concepts with findings from neuroscience, termed "neuropsychoanalysis". Many look to neuropsychoanalysis to answer questions about and challenges to psychoanalytic theories and to integrate the various psychoanalytic perspectives. I was in a local study group for neuropsychoanalysis and the group expressed an urgency to integrate neuroscience and neuropsychoanalysis into the curriculum at psychoanalytic institutes. One member said she could not imagine entering psychoanalysis with an analyst who did not have this understanding of the mind. I said I would prefer a personal psychoanalyst who was immersed in poetry rather than cognitive neuroscience. No one else shared the sentiment. Groups are vulnerable to extremes which interfere with the wise application of unifying knowledge.

Who is Unification For?

Is a unifying framework more for theoretical psychologists and researchers or for clinicians? The authors' arguments for the practical benefits of a unifying model, especially for the practicing psychotherapist, are currently too general and vague to be persuasive. We need

to see examples and how they actually work. Pluralism may be more usable for clinicians. Creatively drawing on psychology, humanism, and folk psychology, from the nomothetic and the idiographic, are also influenced by experience – with other clients and with the person before us over time, our own psychotherapy, supervision, and immersion in theories and other symbolic resources (Zittoun, 2007), in addition to a capacity for empathy and emotional resonance and responsiveness. They are fluidly assembled at the local level, at the moment of contact with the messy subjective other.

There is a welcome body of research on interventions common to all psychotherapies that mobilize change (Wampold, 2001; Norcross & Wampold, 2019a). These are not yet unified under common principles of change. Each psychotherapy school and their associated model of the mind would explain the effectiveness of these interventions in their own terms and they would regard the explanation as sufficient. It could turn out that each of these interventions influence meaning making according to different principles which may or may not be linked.

Misappropriations

Culturally shaped interventions could be justified and authorized by a post hoc appeal to or metaphorical appropriation of scientific principles from general psychology. Translating theory into practice is rarely done with rigor. And there is always something lost in translation from the original context of meaning. Philosopher L. Susan Stebbing (1937) described how translating theoretical physics from mathematics to everyday language yielded feel-good results but altered meanings and, sometimes, absurdities. In the psychotherapy literature there are frequent appeals to "the brain" to support and market an approach, indicating that the brain is more plastic than ever imagined.

The Ontological Status of the Theoretical Object

The claim or hope that subfields of psychology, with their different modes of discourse and methods, could be integrated by a common

model, set of principles, or laws, suggests that these subfields study different appearances of the same underlying thing. Given that many of these subfields, such as sensation, perception, or brain function are modeled with biophysical laws, the unifying entity must be a natural and independently existing object or organization. It seems more likely, though, that the different discourses, settings, methodologies, politics, etc. of psychology construct their own entities. They do not exist apart from the contexts that construct, study, and market them. The mind isolated in the laboratory is not the same thing as the subject that is jointly observed and jointly constructed in the psychoanalytic setting. They may not be organized by common principles or laws. Barret (2009), discussing the future of psychology, argues that brain states and the phenomena that emerge from them are both real, but "real in different ways'". The way we divide higher mental functions does not carve nature at its joints.

Salvatore and colleagues (2022) could respond that unifying constructs and principles need not refer to an underlying entity or natural organization. They are theoretical constructs, necessary to make sense, orient, and organize scientific activity. The ontological status of theoretical entities is debated in the philosophy of science and the project to integrate psychology calls for conceptual clarification on how to regard these constructs. The authors might find congenial the notion that theoretical constructs and entities are "as if" constructions that help us navigate the complexity of the world, or an aspect of the world (Appiah, 2017; Vaihinger, 1925). This notion is consistent with the idea that culturally different ways of constructing the world are local tools that evolved to cope with local problems (Baker & Galisinki, 2001; Shi-xu, 2005). I have argued that different psychoanalytic models are meaning making tools that mobilize the process where it has become truncated or stuck (Saporta, 2016). A teacher in my psychoanalytic training said that psychoanalytic interpretations are ways to keep the conversation going. Pluralism in cultural discourse studies resists universal, hegemonic forms of discourse or ways of constructing the world that are not sensitive to local realities (Shi-xu, 2005). Subfields of psychology could have emerged as local tools for local questions and local problems. Given questions and problems of different conceptual categories their solutions may be incommensurate. This is most evident with natural, causal models appropriate to some

questions and non-causal humanistic models appropriate to other questions and problems.

Given the different conceptual categories in the study of persons, linking principles would likely be so general and abstract that they would belong more to philosophy than to science – reminiscent of the great philosophical systems of a bygone age. Linking psychotherapy practice to other specialized areas of psychology by way of these principles would likely be metaphorical to justify and shape rather than describe and explain.

Prescription or Discovery?

Again, it is hard to assess the authors' (Salvatore *et al*., 2022) proposal based on the abstract conceptual arguments presented. The question is not whether psychology should be integrated, but whether it will turn out to be so and will the integration be useful. Philosopher of science, Carl Hempel (1966) made a similar point for the physical sciences, «Generally, then, the extent to which biological laws are explainable by means of physical-chemical laws depends on the extent to which suitable connecting laws can be established. And that, again, cannot be decided by *a priori* arguments; the answer can be found only by biological and biophysical research» (p. 105).

Our colleagues (Salvatore *et al.*, 2022) might point to the conceptual and theoretical impoverishment resulting from the extreme positivism in which Hemple participated and which played a role in the atheoretical fragmentation at issue. As discussed above, constructs are necessary to make sense of, orient, and organize scientific activity. Constructs and empirical data are complexly interdependent. Still, the proof is in the pudding.

Balancing Assimilation and Accommodation

Generalized constructs are necessary to organize scientific activity. Those proposed by Salvatore and colleagues (2022) may be akin to Kuhn's (1962/1970) notion of paradigms which assimilate until they can no longer hold discrepancies. For general psychology, for

psychotherapists, and for individual persons, forms of experience and meaning can be overly dominated by universalizing constructs. In all three domains there should be a balance between assimilation and accommodation, or between generalized stability and local instability. Systems capable of local instability are more responsive to local conditions and can organize in different ways. For meaning making systems, new meaning in new circumstances can emerge. Pine (1988) advocates a similar listening stance for psychoanalytic psychotherapists, one that holds tension between organizing what is happening according to explicit and implicit models and open listening that allows the process to take its own shape. Generalized frames and settings confer constraint and local stability for meanings that emerge from dialogue (Linel, 2009) and for gestalts that make sense of experience (Salvatore, 2015). General constructs and principles in psychology have a similar stabilizing function, but top-down control should allow for local level disorder or messiness, for specialized areas in psychology to think in their own way. Local messiness in research and clinical practice allow new findings and organizations and creative solutions to emerge at local levels.

A Possible Unifying Principle?

Generalized stability and local instability, the ability to reorganize in response to changing local conditions, applies to change and adaptation in various complex systems. For meaning systems, balance between assimilation and accommodation (Wachtel, 1981) and between generalized stability and local instability (Saporta, 2016) have been applied to change in psychoanalytic psychotherapy. Priel (1999), applying Bakhtin's ideas to psychoanalysis, sees the process as cultivating optimal tension between rules for narrative coherence and their disruption through free association. Personal transformation described in myths and in religious settings has been interpreted according to the pattern of dissolution and reemergence of order and, in religious contexts, emergence of less egocentric orientations in meaning making (Rohr, 2020). This pattern of change for individuals and systems resonates with Kurt Lewin's three stage change model (Lewin, 1947; Papanek, 1973). Messiness in local conversation and interaction are necessary for new meaning and

creative solutions to emerge (Shotter, 2008). Bakhtin thought that meaning emerges from dialogue at the intersection of stability and instability or the centripetal and centrifugal (Bakhtin, 1981; Linel, 2009, Shotter & Billig, 1998). Gestalts that emerge to make sense of local experience are constrained and stabilized by generalized factors (Salvatore, 2015). Stable and unstable meaning characterizes the tension between place and space, home versus migration and exile (Tuan, 1977, 1998). General stability and local instability apply to cognitive and motor development (Thelen & Smith, 1994) and corporate business models that advocate loosening top-down control to allow for local level instability and responsiveness (Burnes, 2004; Rozasand & Huckle 2020; Papaneck, 2015). The adaptive value of instability for biophysical systems in nature is described by Kaufman (1993), who studies such systems: «selection achieves and maintains complex systems poised on the boundary or edge between order and chaos» (p. xv).

Is this a general principle governing change and adaptation for complex systems? Does it explain personal transformation in psychotherapy and other cultural settings? If so, we could use it to develop more effective ways to mobilize such processes. Here is the rub with applying this supposed unifying principle to personal change in psychotherapy and other settings. It is not likely to be descriptive or explanatory. It is more likely a metaphor that justifies and directs interactions and change in accord with cultural values as to what constitutes "the good life". Such is the case with other unifying constructs from psychology and their messy incorporation into psychotherapy.

Pluralism

Pluralism and polyphony may be an alternative meta-position. Dialogue between perspectives or ways of organizing experience and meaning allows human meaning making systems – individual and collective, and the academic systems that study them, to be more complex, flexible, and responsive to local conditions (Saporta, 2013, 2014, 2016). Shi-xu (2005) advocates an "in-between" stance for cultural discourse studies, standing in between culturally different, local ways of constructing the world. Psychoanalyst Philip Bromberg (1998) similarly advocates "standing in the spaces" between multiple self states, which

to my mind are different orientations or positions for making sense of experience or different ways of organizing meaning. I have argued that psychoanalytic therapy cultures multiple dialogical positions to make sense of experience in varied local contexts and relationships (Saporta, 2013, 2014, 2016). Specialized fragmentation in psychology may be due to the absence of dialogue as each specialized fragment speaks its monologue, as opposed to lack of a meta-voice. Our colleagues (Salvatore *et al.*, 2022) could say that their goal is such dialogue, but dialogue requires a common language and unifying constructs are meant to create that in-between space. It is not clear, though, how much unity is needed for dialogue, and there can be dialogue between different languages. Neither is it clear that a supra-ordinate voice best creates the conditions for dialogue. Any meta-voice should be in dialogue with rather than standing above the many voices in psychology.

Different forms of pluralism have been advocated for psychiatry. Brendel (2004, 2009), writing from the philosophical perspective of pragmatism, advocates pluralism as a way to bridge the science humanism divide in psychiatry. McHugh and Slaveny (1999) recommend pluralism for psychiatry between the language of cause and the language of meaning, two languages that they consider incommensurate. Hierarchical pluralism has been advocated for psychopharmacology (Aftab & Stein, 2022). For example, antipsychotic medications are understood to work by blocking dopamine transmission at the receptor level. At a higher level of the hierarchy these medications seem to work by changing the brain's, or the person's, response to salience. The higher level on the hierarchy better explains the effects of these medications on delusional meaning making and is better for developing new such drugs.

Parenthetically, Salvatore and colleagues (2022) might consider whether horizontal integration/unification across subdisciplines is different in kind from vertical unification of organizations that emerge from hierarchically lower level interactions. Barrett's (2009) suggestion that emergent psychological phenomena, and our way of carving them, are real in different ways challenges the notion that one model can encompass all levels of emergent order. This may be true of different forms of organization emerging from lower level interactions in purely biophysical systems. Hierarchical or vertical pluralism seems more likely and more usable than vertical unification.

At the local level of psychotherapy practice, pluralism allows us to draw flexibly from scientific and humanistic perspectives, and from folk psychology, in connecting and responding to another person. Therapists have flexible access to a wider field of symbolic resources (Zittoun, 2007) in making sense of and mobilizing meaning for the client. Dialogue between multiple positions is more sensitive to local conditions, more responsive to an idiosyncratic, context dependent subject. Research shows that responsiveness, the therapist adapting his or her approach to the unique needs of the patient, is a trans-theoretical positive outcome variable (Norcross & Wampold, 2019a, 2019b). Varied possibilities for understanding and responding, along with personal experience, combined with empathy and emotional responsiveness, are fluidly or soft-assembled at the point of contact with the complex subjectivity of the other. Multiple possible dialogical positions allow for messiness in between, creating space for the subjects in the room to interactively find their resonances, ruptures, and realignments, in contrast to an approach directed from above.

Conclusion

Whether or not psychology moves toward a unified framework or disciplined pluralism, however similar or different these may be, important conceptual and practical issues are fleshed out in the conversation. Salvatore and colleagues (2022) have conceptual work and turf battles ahead. Unifying psychology will not be an orderly progression, it is a messy process. I hope that I have contributed to the mess.

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Dynamics of defragmentation

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Abstract

In their statement paper, Salvatore and colleagues observe dynamics of expansion and specialization in the field of psychological theory and clinical practice, and especially the compartmentalization of professional psychology. The authors, joining a long strand of diagnostics about the fragmentation of the field, argue in favor of an effort toward a reunification of the field. They propose three "overarching strategies: I) the identification of the ultimate causal explanation, from which phenomena could originate; II) the progressive extension of the explicative capacity of specific theories to phenomena other than those for which the theory was originally elaborated; III) the building of a metatheoretical framework providing the language to map the conceptual linkages among short theories". The authors present these strategies as alternatives that would exclude each other and indicate that they themselves do not agree on the best way to fight against fragmentation. As readers with experience in developmental psychology and with the development of theory, we believe that this separation is based on a static flaw: understood dynamically, these three strategies may well be part of a general movement of theoretical development. We illustrate our point with a series of theoretical moves in our fields.

Keywords: Development, Theoretical Integration, Dialogism.

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Psychology without Foundation[1]

Describing psychology as fragmented is one possible narrative of the field; one may also object that, psychology, as any growing system, undergoes phases of differentiation and hierarchization (Werner & Kaplan, 1963; Zittoun *et al.*, 2009); however, in the case of the authors, the starting point comes from an experienced crisis in professional practice, which justifies a particular reading of the field as fragmented.

From that perspective, then, psychology is a fragmented field, both in theory and in the field of professional practice. The fragmentation is due to a large range of causes: the diversity of objects studied by psychology, and the range of its scales (from neurobiological processes to social discourses); the pluralization of schools and traditions over the world, while the domain attracts more and more scholars; the financial interests related to publications, conferences, funding bodies, psychological practice, insurances, and the medicalization of the field; an old habit to create schools around creative scholars cultivated as heroes, and the reinforcement of boundaries around communities, rather than fostering collaborative work, etc.

First, even if we admit this differentiation, one may question the need to achieve a form of global unity – is it necessary or even really possible to find a unifying principle in what explains neuronal plasticity, repressed memories, and group activism? (Zittoun *et al.*, 2009). To the search for unity, we would first oppose the principle of commensurability among theories and concepts (Valsiner, 2007; 2009): to address complex phenomena today – such as the construction of gender at school (Cabra, 2021), the development of older persons in new housing modes, or the life-long experience of immobility (Pedersen & Zittoun, 2021) – we need to be able to put in dialogue a diversity of concepts and theories, so as to combine multiple perspectives and different levels of analysis. Commensurability requires interdisciplinary work, collaboration, and theoretical creativity and integration (Valsiner, 2007, 2009; Zittoun, submitted; Zittoun *et al.*, 2007). Hence, against a search for unity, we more modestly encourage other forms of integrative efforts.

[1] A heading referring to Stenner & Brown (2009).

Second, we believe that the question of the "solution" to fragmentation, even through local integration, needs to be reflected on the basis of some explicit theoretical and epistemological assumptions. The three strategies proposed by the authors – looking for ultimate causes, proceeding by extension, looking for metatheoretical principles – seem to be proposed from different fields, on the background of different types of research and practice; the authors can therefore themselves see them as in potential opposition, or having only local validity. These thus appear as isolated operations, detached from wider dynamics or purpose. We believe that a reflection on theoretical integration needs to be grounded in a certain conception of what scientific work is, and how it changes and progresses.

A developmental stance

We approach psychological science from a developmental and sociocultural perspective, and epistemologically, we assume a constructivist, dialogical and pragmatic stance. This implies, first, that we are aware that theories and concepts are not hanging out there waiting to be discovered; theories and concepts are co-constructed, in our interaction with the world, and authors of the past and the present (Carré *et al.*, 2016; Doise, 1989; Silva Guimarães, 2021). Second, we work with a historical, processual, or dialogical ontology, which then translates, epistemologically, in a duty to identify processes of development and change, not static phenomena (Bornstein & Lamb, 2015; Valsiner, 1994; Valsiner *et al.*, 2009). And third, we believe that a good criterion for the solidity of a theory is its pragmatic validity: does it enable to see or conceive better some aspect of the reality, does it enable us to guide an efficient activity (Cornish & Gillespie, 2009; James, 1904a, 1904b; Rosenbaum, 2015; Zittoun, 2015)?

From such a perspective, then, the movement against fragmentation is a developmental process, and it has to be described as a dynamic process. Theories and concepts may at some point move towards a certain form of extension within another field, and in other contexts lead to the need to find a methatheoretical framework which coordinates different concepts developed in other fields. As such, the dynamic movements through which theories and concepts evolve can

take various shapes, as any trajectory of thinking or of theoretical elaboration. From such perspective, then, the three strategies identified by Salvatore and colleagues (2022) can be seen as subcases of movements of transfer, enrichment, and generalization, as part of dialogues within theory and between theory and empirical facts, or as part of more general abductive dynamics (Cornish, 2020; Valsiner, 2017; Zittoun, 2017).

Qualifying Movements of Theoretical Integration

Let us first start with a basic movement of generalization in theory, the one that the authors call "extension". Extension is the first and simplest way by which findings expand from one case to further cases. Extension can be distinguished in three main ways.

The simplest extension is that by contiguity; it is a form of horizontal translation. A researcher observes a child interacting with a wooden object that resists its activity, say, piling it up unto another one; he calls it conflict. He then observes another child struggling with how much liquid remains when a glass is transposed in another glass – this is another case of conflict, then. He then realizes that the resolution of the conflict brings the child to more complex conducts. Conflict is a concept that can be extended to a wide variety of situations, and that enables to build a theory of assimilation and accommodation, key for development (Piaget, 2000). Later on, another researcher realizes that children that disagree may actually gain new understandings from the conflict of perspective; that seems to be another case of conflict – now a socio-cognitive conflict (Perret-Clermont, 2020; Perret-Clermont *et al.*, 2004). These are still cases of horizontal generalization, or transfer of concepts. Later on, further researchers realize that young people experiencing the move to a new school, or mobile person arriving in a new country, or older persons losing their homes, all experience a form of rupture in the taken for granted; this seems to be triggering developmental processes (Zittoun, 2006, 2008; Zittoun *et al.*, 2021) – other, slightly more complex cases of horizontal extensions. Now, researchers may realize that ruptures and conflicts engage similar phenomena, which can be more generally modelized as a person, with a given state of understanding, facing a disrupting event, requiring a reorganization

of knowledge. A second move would thus be to say that these dynamics pertain to the same class of phenomena – which would be still a horizontal extension, but this time with more active bridging of two sets of notions, or a partial integration (Zittoun *et al.*, 2003). However, one may do a third form of extension, by attempting to integrate these observations in one single explanation or subsuming them under one concept – that of conflict, or rupture, or crises – which would be a form of vertical extension.

Second, researchers may wonder why these dynamics seem to be so close to each other, and to other ones – cases of cognitive dissonance, group conflict, etc. This would require hypotheses about the phenomena beyond these observations; and here the researchers would turn to what Salvatore and colleagues (2022) call the search for the ultimate cause. What are the substrates of these conflicts – schemes, semiotic constructs, electric dynamics? Why are conflicts conducing to change – because they demand the production of discourse, or a solution, or a new scheme? For the first researcher mentioned above, knowledge is based on the complexification of schemes emerging from action; this is the ultimate cause of development (Piaget, 2000). For other researchers, conflicts are rather seen as liberating affects that need to be elaborated, and so semiotic elaboration is the cause of change (Salvatore, 2016; Salvatore & Zittoun, 2011). Hence, there may be different, and compatible or not, models to account for these phenomena.

Third, researchers may then wonder why these searches for ultimate cause are compatible or not, or what supports these. For this, they will need to temporary forget the specificities of the phenomena they observe, to consider more metatheoretical explanations. One may thus consider that all psychological phenomena, whether individual or collective, are based on very basic semiotic processes of progressive generalization (Valsiner, 2021a, 2021b); the same, or others, may prefer to consider that all changes can be described in fundamental open dynamic system terms (Smith & Thelen, 2003; van Geert, 2019; Witherington, 2007). Moving to metatheoretical explanation enables then to come back to the specificities of observations, and to give a grounding for past local extensions, as well as provide supports for new ones. It also enables to select among ultimate causes, the one that are compatible with other findings.

And Back to the World

We so far decomposed the dynamics of theoretical integration inherent to any knowledge construction – whether the acquisition of language or mathematical reasoning in children, of professional expertise, or of life experience: these require transfer of knowledge across domains, either horizontal or vertical; the latter often require the emergence of new levels of explanation, and these may potentially, partly, or wholly, reorganize other aspects of previous understandings. In addition, all these processes require some fundamental pragmatist tests: the concept, knowledge, or explanation, works or not – they are validated by practice, by communities, or by consistency.

Unlike common sense knowledge, however, theoretical constructions are characterized by the need, for developing, to be formalized to some extent – this may temporarily take a metaphorical form, as part of the scientific imagination (Zittoun, 2021; Zittoun & Gillespie, 2020b) – and to satisfy to some criteria of quality and transparency; they are much more dependent on the approval of other researchers, and validation by communities. And this is where we come back to our core issue: the only way to overcome fragmentation is for each of us, psychologists, to read beyond our field of expertise, to engage with other researchers, and to interact with the world that resists our propositions; we need to take the time and the risk to think and to try to practice with others. Defragmentation requires a fundamental dialogical engagement as a dynamic process, and it is the responsibility of each of us to do our part.

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Looking at oneself in the mirror of the others. Modelisation and implications of a study on human flexivity starting from semiotics and psychoanalysis

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Abstract

The mirror is a very widespread tool in human life. It works as an optical device that recreates the image of an object placed in front of it. The relation of the human being with the mirror is very important: we find a pervasiveness and diffusion of mirrors in everyday life, but also in stories and legends, in folklore and mythology. At a certain step of his development, the child is able to recognise himself in the reflected image of a mirror. We observe a strong cultural intra-subjective and inter-subjective recursivity in the construction of the mirroring experience as a model of truth and lie, identity and otherness, knowledge and ignorance. Starting from the debate between two semioticians – Umberto Eco and Juri Lotman – on the semiotic value of the mirror, the authors develop the topic of reflexivity as a psychic process by examining it in the light of various psychoanalytic contributions. Reflexivity and the psychodynamic relationship with one's own reflected image are

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developed by centralising the importance of an ongoing and deeply dialogic process between identity and otherness, continuity and transformation.

Keywords: Reflexivity, Mirror, Identity/Otherness, Continuity/Discontinuity, Semiotics, Psychoanalysis.

Introduction

The mirror is a tool that the human being uses for the reflective capacity of its smooth and shiny surface. Its uses are common and widespread throughout the world in all eras. People use mirrors in their daily lives. Our everyday life is so imbued with mirrors that we hardly notice their omnipresence. Yet the mirror's success and appeal go far beyond its ease of distribution and convenience. In every culture and time, the mirror is a vehicle for a repertoire of symbolic meanings, mythological references, rituals, superstitions, hopes and fears for the human being. It allows the doubling of one's image, the recognition of one's face and identity, and the possibility of looking at a parallel virtual world beyond the reflecting surface. A mirror also allows you to look in places where your gaze cannot reach, allowing you to meet the blind spot of your perspective, that is, to look at yourself while you are looking somewhere else. Thus, all these prospective possibilities acquire great value in the epistemic experience of the human being, generating great enthusiasm and hope but also fears, alarms and anxieties. Folklore is full of superstitions, legends and myths about the mirror (Frazer, 1994; Baltrušaitis, 1978; Di Nola, 1993).

Cultural processes of sensemaking about mirroring have many simultaneous, ambivalent and complementary values. Indeed, a mirror offers several models for the human intra-inter-subjective experience:

- A model of *truth* (looking at oneself) or *lying* (deceiving oneself).
- A model of *identity* (recognising oneself) or *difference/otherness* (the figure of the double, the uncanny, the twin).
- A model of *knowledge* (knowing how to look) and *ignorance* (illusion).
- A model of *reality* (the mirror that reflects what exists) or *fiction* (the mirror reflects non-existent things).

Interest, fascination and fear in legends and stories take the forms

of shattered mirrors, magical talking mirrors, mirrors as doors to other worlds, as duplicators of one's person and as robbers of one's identity[1]. All these show us the relevance of this object and its symbolic value for the human being. Mirrors and their functions represent and grasp the specificity of some psychic and relational processes.

It has always been emphasised how the activity of thinking that knows itself is an activity of reflection, that is, the folding of the same activity on itself – the Latin root of the verb "to reflect" is *reflectĕre*, composed of *re-* ("again") and *flectĕre* ("to bend"). In physics and optics, reflection indicates the phenomenon whereby a propagating wave changes direction when it hits an obstacle. The obstacle represents a change in the interface of the propagation medium. When the collision between the wave and the obstacle occurs, part of the energy of the incident wave is returned, while the remainder penetrates the medium and is deflected and propagated in the form of refracted waves (so-called "refraction").

The mirror and its reflective processes have always been treated as metaphors of thought:

> Reflection and speculation are the 'names of thought' in which, especially since the modern era, an ancient 'sleeping metaphor' has been hidden, that metaphor of the mirror that the decline of the organisation of pre-classical knowledge has delivered in full to the complex strategies of the subject. The fortune of this metaphor is due to the fact that, whatever its form or function or use, the mirror is always a prodigy where reality and illusion touch and merge. Its first effect was to reveal one's image to the human being. Physical and moral revelation, which fascinated the philosophers. Socrates and Seneca recommended the mirror as a tool for knowing oneself; the mirror is the

[1] A quite widespread superstition all over the world involves overturning or veiling mirrors in the room with the body of the just-deceased in order to prevent his soul, wandering around his corpse in the immediate hours after death, from being trapped by the mirror. Anthropology emphasises in this practice the survival of an animistic culture and practice. The spectre and the mirror share the same Latin etymology: *spectrum* and *specula* (Di Nola, 1993). It is interesting to deal with this important anthropological-cultural clue from a psychodynamic point of view. The idea that the soul of the deceased, his *imago*, remains trapped in a mirror has a strong link with the melancholy process in which the image of the object – the shadow of the object (Freud, 1917) – can cover the ego of those who go through the experience of mourning.

attribute of Prudence and embodies Wisdom. A single word expresses the reflection that takes place in thought and in the mirror. Image of an image, simulacrum detached from the body and made visible on a screen, alter ego, ghost, double of the subject who shares its destiny, the reflection and its object would be indissolubly united by mystical bonds, and always their absolute identity seemed to depend on a miracle that no artist has ever managed to equal. However, this miracle must not make us forget the ambiguous nature of the mirror: a hieroglyph of truth, it is in fact also a hieroglyph of falsehood. Multiplied, differently arranged or otherwise bent, it changes the appearances of life that unravels and reforms itself, totally freeing itself from its measures and its equilibrium (Tagliagambe, 2011, pp. 235–236, our translation from Italian).

On YouTube, one can find many videos of sadistic jokes that stage situations in which an alleged mirror no longer reflects one's own image. With a background of recorded laughter that should induce and trigger the spectator's amusement, it is possible to see the anguish and terror painted on the face of the victim. Losing one's reflected image[2], losing one's identity, not recognising oneself in the mirror implies crossing an area of liminality (De Luca Picione, 2017a; 2017b, 2021c; De Luca Picione & Valsiner, 2017), where a distressing feeling and the fear of being lost become very intense.

During a session, a patient (of one of us) told of a dream in exactly these terms: the night before an important final exam to pass to a higher-level school, faced with this important change in his life, in his dream he felt the anguish of no longer being able to find himself in a mirror.

The Jungian analyst Aldo Carotenuto conducted a symbolic study of the many horrifying figures and masks in folklore and fantastic literature (Carotenuto, 1997). He defines the vampire, who is not reflected in the mirror and has no shadow, as an unconscious fantasy of undifferentiation, the lack of a plan of separation, of autonomy (think also of the parasitic alimentary aspect of sucking the blood of victims), as an existence suspended between life and death.

[2] Here we are not referring to *prosopagnosia*, or *prosopoagnosia*, which is instead a cognitive-perceptual deficit. Such a deficit makes the individual unable to recognize the faces of known people and, sometimes, even his own face, when he looks in the mirror or observes his pictures.

The reflecting of yourself in the mirror involve a series of processes of psychic development relevant to fundamental aspects of each person's psychic life: the relationship between subjectivity and otherness, identity and difference, truth and deception, totality and partiality, necessity and possibility, and knowledge of objects and the world and oneself.

In previous works, we have discussed in depth some possible declinations and developments of reflective processes (De Luca Picione, 2015a, 2019; Freda, De Luca Picione & Esposito, 2015; Esposito, Freda & De Luca Picione, 2016), distinguishing two different levels of complexity. We have proposed that *reflection* is a recognition of the individual's own image, while *reflexivity* is a psychological, recursive process focused on the representation of relational processes starting from different subjective positions in the becoming of time. Different subjective positions are expressions of pre-reflective consciousness, a constitutive part of the reflective dimension. Reflection and pre-reflection are not separable dimensions of consciousness (Scalabrini *et al.*, 2022). For example, the pre-reflective experience of emotions allows them to become objects of reflection, and the pre-reflective experience of time allows it to become an object of reflection. It is the importance of pre-reflective experiences that, at a later moment, become objects of reflection. In synthesis, pre-reflexivity, reflection and reflexivity are integrated into the evolution of time (Fossa & Pacheco, 2022).

However, this possibility must not be considered an innate species-specific capacity of the human being but rather a process made possible by the mediation of semiotic devices (signs and language *in primis*) and their acquisition through social practices within symbolic universes. That is, the construction of reflexivity starts from the intersubjective and dialogic experience with otherness: I come to define myself and recognise myself (in a partial and never definitive way!) by starting with the other (De Luca Picione & Freda, 2022a/in press, 2022b/in press). Although the new scientific creed aims to recognise the value of intersubjectivity in the development of reflexivity by noting the importance of caregivers and other significant figures in the processes of mirroring and reflection, nevertheless, it seems that reflexivity is reduced to a sort of recognition of the mind and its intentions. Think of the development of the notion of *mentalization* or of neuroscientific research on *mirror neurons*, where perhaps it is no

coincidence that suggestive references to the mirror, specularity and reflection are so central. Let us consider brief definitions.

Mentalization is the ability to see and understand the self and others in terms of mental states, such as feelings, beliefs, intentions and desires. Mentalization deals with the ability to think and reflect on the self and the behaviour of others (Bateman & Fonagy, 2012; Fonagy & Target, 1997). This ability develops from the first interaction with caregivers (Schimmenti & Bifulco, 2015; Schimmenti & Caretti, 2014) and has profoundly intersubjective and interpersonal characteristics (Mucci & Scalabrini, 2021) that are interconnected with mirroring processes. The "reflective functions" (at the basis of the mentalization construct) include a self-reflective component and an interpersonal component, which together provide the ability to distinguish both internal or intrapsychic realities and external or interpsychic ones (Santoro *et al.*, 2021).

The term «mirror neurons» (Rizzolatti & Craighero, 2004; Gallese, Migone & Eagle, 2006) indicates the brain neurons whose function is to link oneself with others. These neurons were originally discovered in monkeys. In humans, they were initially identified in specific areas of the brain but were recently found to relate in a much more extensive and transversal way to multiple cognitive functions. Mirror neurons have a double characteristic that makes them especially interesting: on the one hand, they are activated when the subject performs an action, for example, picking up an object; on the other hand, they are activated in a similar way when the subject sees another individual doing the same action. This means that an action, whether performed by the subject himself or observed in another person, activates the same neurons. The same phenomenon seems to occur with emotions, which are both directly experienced and observed in others. For this reason, it is increasingly argued that mirror neurons represent great scientific promise for the future. They are expected to lead to the understanding of the neuro-anatomical and neuro-physiological processes underlying intersubjectivity, imitation and empathy (and also of language, since some hypotheses address the search for the connection between the sense-motor embodied matrix and the acquisition of language itself).

The possible developments of this research about mentalization and mirror neurons are extremely interesting, yet the question arises of which idea of the mind is involved in these reflexive processes (Carli,

Donatiello & Leoni, 2021). The mind, in fact, seems to be reified in its quality of recognisable, identifiable and circumscribable intentional states, namely as something to be known "as it is" or "as it is in its various degrees of development". Taking up the "specular epistemic model", we would say that the mirror (or rather a modelling, in specular terms) refers to an identity definition of the reflected object. "My" mind and "your" mind (i.e., the "other's" mind) become entities to be discovered. This necessarily implies the risk of losing the consideration of less evident aspects, namely, that the mind is also a process of reciprocal and recursive dialogic construction, a contextual and contingent process, in constant evolution and always instantiated within symbolic-cultural frames (Salvatore, 2016; Salvatore & Zittoun, 2011; De Luca Picione, 2015a; Valsiner 2007, 2014; Neuman, 2003, 2008; Lauro Grotto, 2021).

The purpose of this work is to continue developing the premises for a semiotic and psychodynamic model of reflexivity, starting from some considerations (from different disciplinary areas) on the mirror, its functions and characteristics. Starting from semiotic, cultural psychological and psychoanalytic perspectives, we will highlight how reflexivity is a psychic process whose main activity of *thinking back on yourself* does not constitute a closed and determined circuit nor a function of exact correspondence between the representation and the object. Rather, it is a psychic process whose features are openness, recursivity, unsaturation and endlessness. Therefore, it implies that reflexivity is never completely conscious. From our perspective, there is no dichotomy between reflexivity and pre-reflexivity. Rather, the experience of consciousness is an overlap or interconnection between the reflective and pre-reflective dimensions of consciousness. That allows it not to be a closed, static and determined process in the temporal dimension. Consciousness, reflective and pre-reflective, unfolds in a constant temporal experience. Consciousness unfolds its intentionality to the present (as an object of perception and reflection) but also to the past, moving away from the necessary dependence and independence of that intentionality. The dependence of consciousness in relation to intentionality "towards the past" allows us the experience of continuity in time, of always being the same; but the independence of consciousness from the intentionality "towards the past" is what allows us the emergence of novelty and an always-new present (Fossa & Sanhueza, 2022).

The Semiotic Debate on the Mirror: Umberto Eco versus Yuri Lotman and the Tartu School

Two important works have tackled careful semiotic examinations of the characteristics of the mirror: Umberto Eco's essay "Mirrors" (1984) and the special issue of the journal *Trudy po znakovym sisteman*, Vol. XXII (1988), edited by Yuri Lotman and his "Semiotic School of Tartu". It is worthwhile to read these works together since their debate helps us understand the complexity of the mirror and its multiple values. They prevent us from the error of identifying human reflexivity *tout-court* in the mirror. The differences between Eco's and Lotman's positions are useful for focusing on specific issues with developing reflexivity in semiotic terms.

Umberto Eco argues that the mirror is a *rigid designator* (paraphrasing the famous argument of the philosopher and logician Saul Kripke, 1980) that does not translate but records what strikes it. The mirror works as a neutral prosthesis, allowing one to grasp the visual stimulus where the eye could not (for example, in front of one's body, around a corner, in a cavity) with the same force and evidence. Umberto Eco argues that the magic of mirrors consists in the fact that their extensiveness and intensity not only allow us to better look at the world but also to look at ourselves as others see us. The mirror proposes the question of the «threshold phenomenon» (Eco, 1975).

This is an issue of no small importance: the mirror represents a threshold phenomenon for semiosis (Lotman, 1985; Kull, 2009; De Luca Picione & Freda, 2016a, 2016b, 2016c; Bacchini, 1995, 2017; Sonesson, 2015) without, however, being truly semiotic, as it lacks interpretative capacity. The mirror does not produce signs since a sign is characterised by its ability to refer to something else that may also be absent. Indeed, Eco states that the sign is linked by a semiotic relationship that correlates abstract types and not concrete occurrences; therefore, the sign presupposes an interpretative activity. In the mirror, we find a necessary relationship between the image and the referent, which can never be absent; thus, the image represents the specific contingent occurrence linked to the present object and, as such, it does not require an interpretation process by means of the mirror, but only reproduction according to the well-determined laws of optics and physics.

In reply to Eco's essay, in 1988, Lotman introduced the *XXII* issue of the journal *Trudy po znakovym sisteman* dedicated specifically to the mirrors. In his reply, Lotman recalls two key notions of his theorisation of the *semiosphere* and the *processes of signification*: border and enantiomorphism (Lotman, 1997). According to Lotman, the mirror represents a phenomenon of the semiotics of culture: it introduces the need for context in terms of problems of symmetry, of the logic of possible worlds, of mythology. Lotman believes that the mirror works exactly

> as a border of the semiotic organization and as a border between our world and the world of others (with the whole range of achievements that can be had – from 'me/you' to 'before/after death'). From this point of view, the exchange between right and left of a regularity, the structural reorganization, for example the change in the direction of the passage of time (Uspenskij, 1988) represents a variety of the effect of specularity [...]. In the history of culture, the mirror reveals itself as a semiotic machine for describing an 'other's' structure; this is why it lends itself so well to logical games and mythological constructions (Lotman, 1997, pp. 128–129, our translation from Italian).

Our interest in this debate concerns the fact that the mirror itself does not constitute an automatic generator of meaning. Rather, it is the psychic activity of a human being (always culturally involved) that makes use of it. Starting from some of its precise characteristics, people can elaborate and complicate their experiences and think about themselves, their actions and their relationships with otherness and the surrounding world.

In the same volume introduced by Lotman, Levin offers a series of interesting arguments developing the idea of «The mirror as a potential semiotic object» (Levin, 1997). The reflection constitutes a reproduction of the original belonging to the iconic category. Therefore, the specular image is considered a sign in all respects according to Pierce's triadic model (1935) of icons, indexes and symbols. The mirror has semiotic potential deriving from being able to see what is outside the perceptive field of the observer.

The iconic representation in the mirror is identical to the original while at the same time differing from it, thus creating a real identity

paradox: (A = A) and (A ≠ A). The mirror allows "seeing oneself" and dialoguing with some possible "oneself". It allows a mythological-narrative elaboration of the theme of the double, of self-awareness, of "looking into oneself/looking at oneself", as well as the connected themes of the unity of ego, the illusion of the ego, narcissism, rejection and so forth. Furthermore, the reflected image in the mirror closely correlates with the *echo* (sound reflection) and the *shadow* (a sort of anti-reflection). This connection is attributable to the possibility of reproducing the original (the sound of the words in the echo, the image or outline of the figure in the shadow). Such connections have been richly developed in mythology and literature.

A further semiotic potential of the mirror consists in the figurative transformations allowed by its curvature. The concave mirror, enlarging the image, recalls the rhetorical figure of *hyperbola*, while the convex mirror, reducing the image, recalls the rhetorical figure of the *litote*.

Let us consider for a moment the association and similarity between mirror and linguistics. We find a very interesting connection between the mirror and the personal pronoun "I':

> If we compared mirror images to words, they would be like personal pronouns: like the pronoun /I/, meaning 'Umberto Eco'. If I pronounce it, and someone else if someone else does so. I may, however, happen to find a message in a bottle reading 'I was shipwrecked in the Juan Fernandez islands'; it would be clear to me that someone (someone who is not myself) was shipwrecked. But, if I find a mirror in a bottle, after taking it out with considerable effort, I would always see myself in it, whoever may have sent it as a message. If the mirror 'names' (and this is clearly a metaphor), it only names a concrete object, it names one at a time, and it always names only the object standing in front of it. In other words, whatever a mirror image may be, it is determined in its origins and in its physical existence by an object we shall call the image referent. (Eco, 1984, p. 211).

The linguistic sign "I" is considered an index sign due to its ability to refer from time to time to its enunciator. There is a relationship between what one sees in the mirror, one's mirror image when one stands in front of it, and what one means by "I" when that word is spoken.

Augusto Ponzio reminds us: «This *I* belongs to me and coincides with me as long as I pronounce it, in the same way as what is seen in the mirror, the mirror image, belongs to me and coincides with me as

long as I am in front of the mirror» (Ponzio, 2005, pp. 108-109, translation from Italian).

A precise definition of the ego question from the linguistic point of view is present in the linguistics writings of semiologist Roman Jakobson:

> Any linguistic code contains a particular class of grammatical units which Jespersen labeled shifters: the general meaning of a shifter cannot be defined without a reference to the message. Their semiotic nature was discussed by Burks in his study on Pierce's classification of signs into symbols, indices, and icons. According to Peirce, a symbol (e.g. the English word red) is associated with the represented object by a conventional rule, while an index (e.g. the act of pointing) is in existential relation with the object it represents. Shifters combine both functions and belong therefore to the class of INDEXICAL SYMBOLS. As a striking example Burks cites the personal pronoun. I means the person uttering I. Thus on the one hand, the sign I cannot represent its object without being associated with the latter 'by a conventional rule', and in different codes the same meaning is assigned to different sequences such as I, ego, ich, ja, etc.: consequently I is a symbol. On the other hand, the sign cannot represent its object without 'being in existential relation' with this object: the word designating the utterer is existentially related to his utterance, and hence functions as an index (cf. Benveniste). The peculiarity of the personal pronoun and other shifters was often believed to consist in the lack of a single, constant, general meaning. […] For this alleged multiplicity of contextual meanings, shifters in contradistinction to symbols were treated as mere indices (Bühler). Each shifter, however, possesses its own general meaning. […] In fact, shifters are distinguished from all other constituents of the linguistic code solely by their compulsory reference to the given message (Jakobson 1971, p. 132).

We now come to some conclusions that allow us to proceed further on our path. Any image reflected in the mirror has no semiotic character; rather, one's own image in the mirror (namely, in relation to the reflecting/reflected observer) has several simultaneous semiotic features:

- *In primis*, it has an "iconic value" (in terms of imitation/reproduction).
- *In secundis*, it has an "indexical value" (it refers to the observer who recognises it and connects it with his own present experience).

- *In tertiis*, it has a "symbolic value" (in fact, a first form of triadicity is created, with three elements involved: a person, her own image and the word "I" as a cultural sign device that seals the triad).

From One's Own Image in the Mirror to the Constitution of the Self: The Psychoanalytic Contribution to the Question

We have just seen how the question of human reflexivity is enriched by a further element: to be reflexive, a process must show the knowledge of referring to the "*I*" sign. This operation requires the gradual development of both an identity and a differentiation process. From a psychological point of view, many authors have grasped the duplicity and dialectic of the self and the other in psychic development. Freud's text "The Uncanny" (1919) provides a very meaningful framework for discussing this development in the light of the tension between identity and otherness. One's own image in the mirror works as the catalyst for this tension:

> I can report a similar adventure. I was sitting alone in my wagon-lit compartment when a more than usually violent jolt of the train swung back the door of the adjoining washing-cabinet, and an elderly gentleman in a dressing-gown and a travelling cap came in. I assumed that in leaving the washing-cabinet, which lay between the two compartments, he had taken the wrong direction and come into my compartment by mistake. Jumping up with the intention of putting him right, I at once realized to my dismay that the intruder was nothing but my own reflection in the looking-glass on the open door. I can still recollect that I thoroughly disliked his appearance (Freud, 1919, p. 248).

Regarding the German term *unheimelich*, translated into Italian as *perturbante* and into English as *uncanny*, Freud argues that it does not refer only to something frightening or terrifying but rather simultaneously recalls both the familiar (*heimelich*) and the unfamiliar (*unheimelich*), the known and the not-remembered, the acknowledged and the repressed. The uncanny represents the "double" that, in an unexpected way, brings back to consciousness the duplex meaning of familiar and extraneous, of identity and otherness, of similarity and

absolute difference. The uncanny is, therefore, something known and unknown, a mixture of conscious and unconscious psychic processes. A recent work has theoretically explored the transition from "thing representations", typical of a pre-reflexive nature, to "word representations", typical of a reflexive nature. For example, Suarez and Fossa (2020) have explored passage from the unconscious experience (preverbal, thing representations) to the conscious experience (verbal, executive functions, reflexivity), arguing that the pre-reflective unknown is also a form of knowledge, which is only accessible to reflection at a later time and with a psychic effort.

Lacan developed his inaugural contribution to this topic in 1939, starting precisely from the function of the mirror in the formation of the ego (Lacan, 2006). The Parisian psychoanalyst begins with the studies of the psychologist Wallon (1933), according to whom self-awareness is achieved progressively, starting with a confused multitude of components from sensorimotor actions of both endogenous and exogenous origin, that is, from one's own body, from the surrounding material and relational environment, and from the care provided by the adult. Starting from this confused totality, the differentiated nuclei of the self and the other are built. Wallon argues that there is a very close connection between the development of one's identity, the understanding of one's image in the mirror and the capacity for symbolisation.

Starting from these arguments, Lacan's hypothesis is that between six and eighteen months of age, there is a precise phase of development, which he defines as the "*mirror stage",* during which a child comes to grasp himself as a unified identity thanks to his reflected image. Lacan argues that the mirror stage works in terms of identification, the transformation produced in the subject when he takes on an image.

Lacan distinguishes three stages in this process:

1. The child, even if strongly intrigued by what he sees in the mirror, does not yet recognise his own image but mistakes it for that of another. For example, the child may try to surprise this alleged other by looking behind the mirror.
2. The child recognises the fictitious, illusory character of the image and stops treating the image as a real object.
3. The child comes to recognise the image in the mirror as his own.

He identifies himself with it and "becomes exactly" the image of him. This stage marks a decisive step for psychic development, and it represents the foundation for all other subsequent identifications.

With the hypothesis of a mirror stage, Lacan intends to emphasise the identifying and unifying capacity of the reflected image, capable of giving unity and identity to a child during a phase of life in which he perceives himself and the world as still undifferentiated and fragmented. The central point of this discourse is that this awareness is, however, anticipatory, premature and external, as it arrives in advance of psychomotor maturity and mastery of the body. The mirror image anticipates an imaginary self (*moi*) of what will be a symbolic self (*Je*). The external image anticipates a bodily unity at a time when the child is not yet mature. In other words, the mirror image proposes an identifying *gestalt* for a fragmented, chaotic and disorganised body experience.

We can say that the child finds himself identifying with what he is not. The ego constitutes an imaginary, illusory dimension. In this decisive step, the mediating figure of a parent (or another figure) retains a decisive role in allowing the recognition of the child who, seeing the image of the other person doubled in the mirror, can recognise his own image in the mirror as such.

The English psychoanalyst Donald Winnicott elaborates on the function of the mirror in psychic development in a different way while recognising his debt to Lacan's theory of the mirror stage. Winnicott argues that the maternal function, in addition to that of *holding*, *handling* and *presenting reality*, is to allow the child to be *mirrored*. Winnicott argues that the infant, when looking at the mother's face, sees himself:

> What does the baby see when he or she looks at the mother's face? I am suggesting that, ordinarily, what the baby sees is himself or herself. In other words the mother is looking at the baby and what she looks like is related to what she sees there. (Winnicott, 1971, p. 151).

When this does not happen, the child's creative potential is lost since he is intent on scrutinising the world and environment as a source of danger rather than being able to carry out other activities. In the mother's gaze, the child no longer seeks himself, seeing only the mother's face. The mother ceases to be a mirror.

Otherwise, when the relationship with the mother is realised in a climate of trust and security, the conditions are created for the development of creative and transformative processes. A potential space is created between the child and the mother, an intermediate neutral area, based on the trust placed by the child in the mother, which will be the basis on which transitional phenomena will develop. Those particular psychic experiences occur on the border between inside and outside, between reality and play, which allow the child to develop potentialities, attitudes, creativity and imagination using the world of culture in personal, innovative and creative ways (Winnicott, 1971).

Winnicott elaborates on the relationship between the experience of looking at the mother's face and looking at oneself in the mirror in an unprecedented way.

> This [the failure of mother mirroring] brings a threat of chaos, and the baby will organize withdrawal, or will not look except to perceive, as a defence. A baby so treated will grow up puzzled about mirrors and what the mirror has to offer. If the mother's face is unresponsive, then a mirror is a thing to be looked at but not to be looked into. (Winnicott, 1971, p. 152).

As we are seeing, the mirror and its reflection of one's own image is relevant to the construction of identity in an intersubjective frame. Many authors have elaborated on this theme.

According to Heinz Kohut (1976), three main kinds of self-object are necessary for self-development processes: *mirroring*, *idealising* and *twinship* self-objects. A healthy experience of a *mirroring self-object*, such as being the sparkle in the parent's eye, facilitates self-esteem, ambitions and the ability to assert oneself later in life. Unlike mirroring self-objects, idealising self-objects arise from the desire to rely on or merge with an idealised other in times of difficulty or intense stress, similar to the desire to seek the resources of a secure attachment figure. When the idealised needs of the self-object are met, they foster a healthy sense of internal ideals and values and promote self-comfort and the regulation of emotions. Twinning self-objects respond to the needs for belonging, being recognised as a human being and feeling connected to similar others. They facilitate a sense of intimacy, belonging and connection with a larger group (Marmarosh & Mann, 2014).

The French psychoanalyst René Kaës offers a complete synthesis of the identifying processes by connecting intra-subjective and inter-subjective processes. He uses the analogy of the mirror to account for these processes:

I would like to develop the perspective according to which the intrapsychic process and the intersubjective framework – constituted by four structuring encounters – are simultaneously formed, and the effects of this double process become inscribed.

The first meeting precedes the coming into the world of *infans*. He is recognized as a member by anticipation of the community; and in turn the community recognizes itself in him (identification with the *idem*). The original identification with the human species is linked to this *first mirror* formed by the gaze of the parents alone and for their use, as it recognizes the newborn as being made 'of the same stuff as the parents' and other human beings. This is what P.-C. Racamier describes as the identification of the ego with human identity.

The second encounter is, as described by Winnicott, the one with the mother's face: the child recognizes himself as himself in that he is thus designated as 'himself' by the look, by the games of the *echolalias*, by the echo *praxias*, by the *echochemies*, and by the given word of the mother. *This second mirror is in continuity with the first*, it organizes its subjectivation in the child and in the parents. [...]

The meeting of oneself with *one's own mirror image forms the third mirror*. This encounter was theorized by H. Wallon as a reaction to the mirror, then by J. Lacan as a stage of the mirror, the moment of the constitution of oneself (identification on the self-way) and of the other, of social feelings and of taking-disengagement imaginary, until the moment in which the mirror functions as a third among itself, the image of oneself and the other, and the conflicts and identifying resolutions of the fraternal complex are set up.

The fourth encounter, triggered by the third function of the mirror, is the one with the third embodied in the paternal function. This meeting inaugurates the conflicts and identifications associated with the Oedipus complex. In these four encounters, what is at stake are the relationships between the identifier (the signs that allow us to be identified), the identified (what is perceived and recognized) and the identification (what I am for myself, for another and for more-than-another). (Kaës, 2013, pp. 218–219, our translation from Italian, italics added).

In 1902, the American psychologist Cooley used the expression "looking glass self" in reference to the mirror function of social relations in the construction of the self. The term "looking glass" is an archaic English term for a mirror, and Cooley used the common image of a person looking at her reflection in a mirror as a metaphor for understanding the development of the social self (Shaffer, 2005). Cooley's *looking glass self* represents the product of an active process of construction through the development of the imagination (Cooley, 1902). The looking glass self has three components. First, Cooley argued that individuals learn about themselves in any situation by exercising their imaginations to reflect on their social performance. By doing so, they imagine how others see them. This construction is basically like an image reflected in a mirror. Second, anticipating the theory of mind analysis, Cooley argued that individuals imagine what others think of them. Individuals imagine others' evaluations of their actions. Third, the individual experiences an affective reaction to the imagined evaluation of the other. These affects are related to the imagined evaluations of others. If the evaluation is positive, the affect is positive (like pride), but if the evaluation is negative, the affect is negative (like shame or embarrassment) (cf. Shaffer, 2005, pp. 53–54).

Cooley's theory of the looking glass self implies an expectation of the reactions of others, an impact of the judgments and evaluations of others, and a feeling of social desirability. Your image in the mirror acquires the character of a mask to be worn and displayed on the social stage. An individual is conceptualised as a social actor. These arguments remind us very closely of Jung's conceptualisation of the "*person*" (Jung, 1934/1954). According to Jung, the person is the mask that the individual wears in social relations with the other, assuming a social role, fulfilling and responding to the expectations of others.

However, there is still a further level of mirror processes for the psychic construction of the subject. In Bakhtin's hypothesis, reflexivity is an activity of self-awareness and the product of a deeper dialogic activity. The character of social complacency is not the fundamental aspect; rather, it is the construction and progressive development of one's self-awareness as a reciprocal and dialogical act. That implies a border position in its constitution as a common action (De Luca Picione, 2017a, 2020a, 2021; De Luca Picione & Valsiner, 2017).

I am conscious of myself and become myself only while revealing myself for another, through another, and with the help of another. The most important acts constituting self-consciousness are determined by a relationship toward another consciousness (toward a thou). Separation, dissociation, and enclosure within the self as the main reason for the loss of one's self. Not that which takes place within, but that which takes place on the boundary between one's own and someone else's consciousness, on the threshold. And everything internal gravitates not toward itself but is turned to the outside and dialogized, every internal experience ends up on the boundary, encounters another, and in this tension-filled encounter lies its entire essence. This is the highest degree of sociality (not external, not material, but internal). […] The very being of man (both external and internal) is the deepest communion. To be means to communicate. Absolute death (nonbeing) is the state of being unheard, unrecognized, unremembered. To be means to be for another, and through the other, for oneself. A person has no internal sovereign territory, he is wholly and always on the boundary; looking inside himself, he looks into the eyes of another or with the eyes of another. (Bakhtin, 1984, p. 287)

According to Bakhtin, reflection is a deep intersubjective process that implies a radical otherness as a primary ground for self-construction.

Semiotic Mediation as a Prerequisite for Reflexivity

Previous arguments from semiotics, cultural psychology and psychoanalysis on reflexive processes provide us with a solid basis for developing below a series of implications and defining the basic principles of a dynamic model of reflexivity.

The process of reflexivity implies several circumstances:

- the suspension of a direct connection with the world,
- the impossibility of a predetermined response to stimuli and environmental constraints, and
- the need to constitute oneself as an individual with one's own specificities by integrating the demands of otherness.

The ability to develop "*higher level psychic functions*" (Vygotsky, 1987) lies in the possibility of being able to use signs, symbols and language as mediation tools between the individual and the environment:

> The function of signs in HPFs [higher Psychological Functions] is to mediate the influence of external stimuli on the reactions of the organism. With this mediation, an organism emancipates from the direct influence of the perceptual field on its behavior. In other words, sign operations allow to process perceived information differently from purely perceptual forms of organizing experiences. (Toomela, 2016, p. 101).

The philosopher Cassirer (1923–1929) highlighted that human life is characterised by a completely new way of adapting to the environment. This is made possible by inserting a third symbolic system between the other two systems (the receptive and reactive systems present in every animal species). By virtue of this symbolic thirdness, there is a qualitative jump: the human being does not live in an extended reality; rather, he lives in a new dimension of reality that he himself contributes to building, renewing and transforming.

The contribution of a semiotic approach in the psychoanalytic field makes it possible to observe, study and deepen our understanding of how processes of symbolisation and sensemaking always organise human experiences. People spend their lives symbolising their experiences through signs (Valsiner, 2007, 2014; Salvatore, 2016; Salvatore *et al.*, 2022, 2021; Salvatore & Freda, 2011; Freda, 2008; De Luca Picione, 2015b, 2020c; Neuman, 2003, 2008; Marsico, Ruggeri & Salvatore, 2015). The notion of semiotic mediation signs therefore plays a pivotal role (Valsiner & De Luca Picione, 2017): a sign can be considered a device that creates systems of relations (De Luca Picione, 2015a, 2021a, 2021b; De Luca Picione & Valsiner, 2017). This implies that feeling, thinking and acting are semiotic forms. The sensemaking of experience is a process of articulating signs, by means of which people can simultaneously perform two apparently paradoxical operations:

a) distancing themselves from the here and now of experience, and
b) living in the present time but "forgetting" that signs are being used to think, act and relate (Valsiner, 2007, 2014; De Luca Picione, 2017a; Valsiner & De Luca Picione, 2017).

According to Toomela (2016), the signs used by humans have four specific characteristics: availability for the senses, conventionality, superimposition of meaning and reference to something else. The last characteristic is typical of the human animal and has an eminently cultural character: it must be possible to use a sign in ways and contexts

that are different from the ways and contexts in which the referents of the signs appear.

From a semiotic point of view, the mind and every psychic process appear dynamic, contextual, temporal, local and contingent. This can be summarised by some semiotic tenets that grasp the essential and general aspects of every psychic process beyond its phenomenological occurrence. Sergio Salvatore (2016) summarised the mind in these terms:

1. The mind is not an entity but a recursive dynamic within a semiotic flow.
2. This semiotic flow is an infinite movement of the connection of signs over time. A sign is something that stands for something else; therefore, the combinatorial dynamics of semiosis occur between elements that have no intrinsic substance but that acquire value through the combination of the present one and what follows.
3. A semiotic dynamic is not the action of the single individual and his intrapsychic states but is socially distributed and radically intersubjective.
4. Signs are "states" of the body. A sign is a modification of the body that represents a further modification of the body. No sign has content: it acquires meaning through the infinite game of reference to something else, thanks to which the body is constituted as a mind.

Therefore, through signs and their concatenation over time, people can signify their experience, act, interact, and learn by reformulating past experiences and re-constructing expected future scenarios.

Based on these arguments, we consider reflexivity a pure semiotic process of the transformation and construction of the meaning of one's experience. The phenomenon of reflexivity (psychologically understood) requires that the reflected information (returning to the thinking subject) is shown in the form of a symbolic representation; that is, it makes use of semiotic mediation. Properly, the semiotic mediation creates conditions for reflexivity. Furthermore, to prevent this process from closing in a finite and self-referential circle in which the subject identifies himself with his own thinking activity, we must ask ourselves, what is the minimum condition for permitting openness and an ongoing process of identification?

According to Lotman, the basic form of each "thinking structure" is the *enantiomorphism*, or *mirror symmetry*:

The simplest and most widely disseminated form of combination of a structural identity and difference is enantiomorphism, mirror symmetry, through which both parts of the mirror are equal, but unequal through superposition, i.e. relating one to the other as right and left. Such a relationship creates the kind of correlative difference that distinguishes both identity – rendering dialogue useless – and non-correlative difference – rendering it impossible. If dialogic communication is the basis of meaning generation, then enantiomorphism divides the unity, and the rapprochement of the difference forms the basis of the structural correlation of individual parts in the construction of meaning generation. Mirror symmetry creates the necessary relations between structural diversity and structural similarity, which allow dialogic relationships to be built. On the one hand, the systems are not identical and give out diverse texts, and on the other, they are easily converted, ensuring mutual translatability. We may say that, in order for dialogue to take place, the participants must be distinct and yet simultaneously contain within their structure a semiotic image of counter-agent (Paducheva, 1982), and thus enantiomorphism represents the primary 'mechanism' of dialogue (Lotman, 2005, pp. 218–219).

Lotman uses the mirror metaphor to explain the relationship between symmetry and asymmetry. According to the Estonian semiotician, all the mechanisms that generate meaning start from an initial state of symmetry, that is, of equilibrium and stillness, which becomes progressively sophisticated through the production of an *enantiomorphic specular symmetry*. Enantiomorphism is defined as a case of specular symmetry that occurs when the parts are specularly equal but unequal when overlapped, as in the case of gloves or hands.

Both in the internal relationships between the parts of a semiosphere and in the extra-systemic relationships of the semiosphere with the outside, there are continuous tensions between homogenisation and differentiation. Lotman highlights the semiotic process as a dynamic that proceeds from *symmetry* to *enantiomorphic specular symmetry* and, finally, to *asymmetry*. The creation of novelty (that is, new meanings that feed cultural processes) is ensured by the processes of translation and the production of enantiomorphic models.

An intriguing convergence between this semiotic perspective and psychoanalysis can be envisaged in the recent attempt to formulate, in formal logical terms, the Bi-Logic theory of thinking originally proposed by Matte Blanco (1975). The symmetric mode «treats the

converse of any relation as identical with the relation. In other words, it treats asymmetrical relations as if they were symmetrical» (Matte Blanco, 1975, p. 38). Once the possibility of representing asymmetric relationships is abolished, the main characteristics of unconscious functioning emerge: specifically, no ordering criterion (and therefore no "time") can be found in the symmetric mode. As any symmetric relationship is reformulated in terms of a symmetric one, only essentials, such as "motherhood", can be represented within the symmetric mode. Finally, we are forced to recognise the equivalence of any proper part of a set to the whole, leading to the emergence of the symmetric infinite. In the abstract symmetric mode, similarity relationships (*structural similarity*, in Lotman's terms) overtake differentiating ones (*structural difference*, again in Lotman's terms); in actual thinking, however, structural similarity and structural difference appear to coexist. In a recent attempt to analyse the properties of the Bi-Logic theory in terms of formal logic, a complete definition of the symmetric set was provided in terms of the *infinite singleton* set (Battilotti, Borozan & Lauro Grotto, 2021). Nevertheless, once the symmetric infinite is introduced in the formal model, we are faced with the need to confine it somehow, to embed it within an asymmetric structure in order to sustain thinking and allow the ubiquitous interplay of its symmetric and asymmetric aspects, as already proposed by Matte Blanco. The semiotic perspective could provide an *enantiomorphic way* to reframe and face the problem of embedding symmetry within asymmetry in the development of a formal thinking model.

From a systemic paradigm that considers Bateson's (1979) view, the specular dynamic involves two information sources that together provide knowledge of a different logical order than separately. The human perception of distance is an example from the neurobiology of binocular vision; it is the result of the overlapping of the left and right fields of vision. This resulting creation of novelty is coherent with Peirce's proposal of abduction as a third type of logical inference, in addition to the traditional types of deduction and induction (Burks, 1946; Peirce, 1935). This creative semiosis leads to insights in the scientific arena and in everyday life (Aguayo, 2011; Burks, 1946; Peirce, 1935). It occurs in the presence of co-categorisations based on similitude (Hui *et al.*, 2010) and leads to broader relational systems by introducing new logical hierarchies and rules of more complex

abstraction levels (Bateson, 1979). Such phenomena of symmetry and asymmetry constitute a dialogicality in which the asymmetry of sources of information allows reflexive processes of patterns of communication and the creation of new meanings (Molina *et al.*, 2018).

Accordingly, Lotman explicitly recognises that asymmetry and heterogeneity cannot be boundless in time and tend towards infinity (that would generate waste, superfluity and excess). In contrast, a tendency towards stability, conservation and homeostasis is created through "meta-descriptions" that block the drift of differentiation by creating a new systemic unity generated by rules, canons, grammars and codes and capable of holding together diversity and differences in the semiotic dynamics of the semiosphere.

We observe another structural paradox of the semiosphere, namely, a reciprocal tension between the drive towards *homogenisation* and the drive towards *differentiation*, where the former tends toward the creation of unitary semiotic formations of higher abstract levels, and the latter tends toward the creation of increasingly fragmented independent units capable of presenting themselves as totalities of meaning. Each semiotic "thinking structure" implies a mechanism for regulating both symmetry and asymmetry.

> The reason for these notable phenomena lies in the fact that reflected objects possess their own internal structure of surface symmetry and asymmetry. Through enantiomorphic transformation, surface symmetry is neutralised and cannot be displayed in any other way, and asymmetry becomes the structural signifier. Therefore, mirror-symmetry represents the primary structure for the dialogic relationship. The law of mirror symmetry is one of the basic structural principles of the internal organisation of meaning-making constructions. It includes, at the topical level, such parallel phenomena as the 'high' or comic character, the appearance of doubles, parallel topicality and other well-known phenomena in the duality of intra-textual structures. Also included in this are the magic function of the mirror and the role of the mirror motif in literature and art. (Lotman, 2005, pp. 224–225).

Lotman believes that enantiomorphic forms can be found everywhere: in literary texts, paintings, art and whenever we are in the presence of parallel interweaving, the appearance of the "double", specularisations between serious characters and comic characters and so forth.

Reflexivity as a Search for Continuity through Variability, Rupture and Transformation

The above allows us to address the issue of the paradox of the simultaneous continuity and discontinuity of the subject in his relations. We believe that this question has several possible declinations:

1. Continuity as a full way of living the experiential flow and discontinuity as discretisation by semiotic production.
2. Continuity and discontinuity of the subject's identity over time.
3. The relationship between continuity and discontinuity as a dialectical process activated by a "rupture'.

1. Let's imagine a soccer player while he is playing. Taken from the experience of the match, he is very focused on following the movements of the ball. He is carrying out a first discretisation of the experience: he is living by selecting and articulating the semiotic production generated by the ball's movements. However, the aim of the game is to play together and against other players who are divided into two teams, one of which must become the winner by scoring more goals. In this sense, a certain degree of reflexivity is necessary to respond to the continuous "perturbations" of the game. Reflexivity processes help broaden and extend the semiotic organisation over time to allow the player not to simply stay with the moment-by-moment movements of the ball but to organise a team game with the other players and prepare a strategy of joint actions leading to victory.

Reflexivity and action are not mutually exclusive; rather, they are processes governed by semiotic constructions of temporality and abstraction at different levels. Reflexivity is a process in which people do not respond to stimuli with immediate reactions but rather are able to organise actions over time.

Some intervention methods in clinical psychology propose the concept of a «suspension of action» (Carli & Paniccia, 2003). On closer inspection, this modality of non-action is itself an action since it is configured as a voluntary inhibition of the immediate response (i.e., the acting-out), an inhibition of the reactivity to the provocations of the other, a suspension of the immediate complacency to the requests of the other. It is about "acting a non-acting"! This non-action is made possible precisely by a semiotic construction, which, by widening the temporal

window of understanding of relational processes, allows one to not respond in terms of moment-to-moment reactions but to organise and construct intersubjective relationships over time.

2. Each person is constantly involved in a process of transformation. Each new experience, each new relationship with otherness and each contextual change produces a series of transformations in the person. However, human beings are able to perceive themselves as continuous subjects over time through the sense of their identity. Identity functions as a semiotic organisation that is abstract and general enough to contain a multiplicity of aspects and functions, bonds and experiences. Identity ensures the continuity of the subject over time and in diverse relationships and contexts.
Identity (as an abstract semiotic process) has two sides: on the one hand, it ensures the continuity of the subject despite continuous transformations; on the other hand, it is always at risk of hypostatisation, that is, of transforming itself into a reified entity (Tarsi & Salvatore, 2013). When one's own identity is no longer problematised or questioned, this generates a closure of the semiotic space for any further possible sensemaking trajectory. Reflexivity, as a recursive process of increasing abstraction, interfaces with broad and general semiotic structures such as identity. Reflexivity allows the shift from «*I am*" (understood in absolute and a-contextual terms) to «*I how organize my relationships over time and in different contexts*», «*I how use the tools I have at my disposal*», «*I how tell myself in different circumstances*» (Freda & De Luca Picione, 2013).

3. According to our semiotic-dynamic perspectives, "experiencing" is the proper way to be affected by a rupture in the development process. An experience is a field of perturbation of the development trajectory that was taking place.

When faced with an obstacle that produces a rupture of continuity, a phase of perturbation, confusion, disorder and liminality is triggered (Lotman, 1993, 1985; Stenner, 2018; De Luca Picione, 2017, 2021; De Luca Picione & Lozzi, 2021). Such an unstable condition requires a new semiotic re-elaboration capable of both tolerating and containing the experience of rupture, novelty and uncertainty (De Luca Picione & Lozzi, 2021).

In this sense, "making experience" means to live a loss (rupture, discontinuity, uncertainty) and to attempt to reconstitute a broader general trajectory of development (Abbey & Valsiner, 2004; Zittoun, 2006). The breaking of continuity requires the construction of broader and more abstract semiotic structures to integrate new experiences. The semiotic reorganisation of an experience does not have the value of describing an event; rather, it represents a way to reconfigure new forms of continuity after experiences of rupture. It is a semiotic work capable not only of enduring but above all of tolerating, containing and reworking ambivalences, contradictions and discontinuities through new syntheses, projecting the subject into new possible relational scenarios. It is never completely saturating.

"Speculations" and Conclusive Implications

In conclusion, we focus on a series of essential semiotic and psychoanalytic implications for reflexive processes.

First point: *for reflective activity, an observer (namely, a subject) is always needed*. By this, we mean that it is necessary to have a subjectivity that can exercise a precise point of view. A question arises regarding this issue: *What does a mirror reflect without an observer?* While I am writing, I wonder and try to imagine what the mirror in the other room is reflecting at this moment, without any observer's gaze. I must conclude that the mirror paradoxically reflects "everything and nothing", in the sense that it is potentially reflecting all the objects present in the room in a spatial relationship with it.

However, perhaps the mirror is reflecting nothing until my real perceptive activity enters into a relationship (in "dialogue" with the mirror), namely by exercising a certain direction of the gaze and impressing a specific point of view. The reflective activity is then something partial, specific and defined by the direction of the observer's epistemic activity. Reflective activity constructs a possible chain of successive signs starting from a precise perspective, that is, from a minimum condition of breaking the multipotentiality. Therefore, the first fundamental implication of our discussion is that we must suppose a field of (virtual) multipotentiality, but one that immediately breaks

into a specular symmetry as soon as an observer enters into relation with it.

Second point: *There is always a need for a certain distance from the mirror* (De Luca Picione, 2015a; Freda, De Luca Picione & Esposito, 2016; Esposito, Freda & De Luca Picione, 2016). For there to be a reflection, a certain distance from the reflecting surface is necessary. An object placed on the surface of a mirror does not reflect anything since it lacks the necessary and indispensable distance between the object and the mirror that allows reflection. Similarly, for a subject to recognise himself in the reflected image, he must be at a certain distance from the mirror surface.

In 1945, Merleau-Ponty provided support for this claim. In the *Phenomenology of Perception*, he writes,

> What protects the healthy man against delirium or hallucination is not his reason [sa critique], but rather the structure of his space: objects remain in front of him, they keep their distance and, as Malebranche said about Adam, they only touch him with respect. What brings about the hallucination and the myth is the contraction of lived space, the rooting of things in our body, the overwhelming proximity of the object, the solidarity between man and the world, which is not abolished but repressed by everyday perception or by objective thought, and which philosophical consciousness rediscovers. (Merleau-Ponty, 2012, p. 304).

When the person is totally identified with her action and the semiotic process finds direct and immediate expression in that action, it seems unlikely that there is any possibility of carrying out a reflexive process (De Luca Picione, 2015a). The semiotic mediation process fails, and we have the immediate translation of a bodily state into an acting-out.

This prompts us to consider that when the identification with one's own image is total, leaving no space for reflexivity, we have the illusion of not having any waste, loss, split or repressed unconscious element. Identity constitutes a full totality and does not produce any dialogue. The words of Jacques Lacan in his "Presentation on Psychical Causality" draw attention to precisely this issue:

It should be noted that if a man who thinks he is a king is mad, a king who thinks he is a king is no less so (p. 139). […] For the risk of madness is gauged by the very appeal of the identifications on which man strikes both his truth and his being. Thus rather resulting from a contingent fact – the frailties of his organism – madness is the permanent virtuality of a gap opened up in his essence. (Lacan, 2006, pp. 143–144).

The proximity or adherence of the object to the mirror surface prevents its reflection. Human reflective activity can grasp itself if it creates a game of approaching and moving away from its own semiotic devices. This implies a constant work of identifying and dis-identifying oneself from the same signs that one uses to act, think and relate (first of all, from the pronoun "*I*", and then from all the predicative formulas of the copula "*I am ...*").

We note a radical otherness in the same "I". There is a radical form of otherness. It takes both the contextual and contingent form given by the exchange with the other and the precipitate of a series of past identifications. In full consistency with the second Freudian topic, the ego works as a mediation device, a semiotic device that swings from one side to the other of interacting positions (together with the "you" within the dialogic dynamic).

Dialogue – in both the intersubjective and intrasubjective form (the inner dialogue, Barros *et al.*, 2020) – requires a great mobility of the ego, which continuously repositions itself according to its frames of reference. The "*I*" sign is a "reflection" and, as such, the effect of a local point of view. The possibility of continual repositioning is necessary. The semiotic mediation process – in the ongoing reflexivity and its paradoxical dynamics – display through movements of psychological distancing and contextualisation (Molina & Del Rio, 2009; Simão *et al.*, 2011).

Third point: *reflexivity is an open, recursive, intransitive and unsaturated psychic process.* The previous considerations imply the assumption of an open cultural and symbolic exchange between the reality of the unconscious and social and material reality (Carli, 2011). The ego, as a mirrored reflection, is in a recursive process with the unconscious and otherness. If reflection is a process of static identification, it hypostatises the identity and confuses the ego as an entity. This is the ontologising drift of reflection.

A possible distinction between reflection and reflexivity is useful, therefore, because the latter can be understood as a broader recursive process that occurs through transformations and through a dialogue between identity and otherness. *In reflection, there is a dyadic relationship* (a one-to-one static correspondence between sign and subject, that is, between I and subject, through copulative predication). *In reflexivity, triadic relationships are realised* (between subjectivity, sign production and the dynamic of transformation over time, that is, between subjectivity, otherness and the transitory contextuality of the relationship that acts as a local interpretant *à la* Pierce) (Pierce, 1935).

Reflexivity is a process that mobilises a virtual and imaginary construction. It implies the re-articulation of the modal categories of necessity, possibility, contingency and impossibility (De Luca Picione, Martino & Freda, 2018; De Luca Picione, Martino & Troisi, 2019). Reflexivity creates a "possible local" (a changeable contingency according to the trajectory of the point of view) starting from a state of necessity (i.e., the mirror must always reflect something). The possibility of seeing things differently as a result of different reflective references opens up to the construction of possible worlds, of pasts that can be revisited differently, and of futures that can be imagined in many ways. Reflexivity activates an area of transitionality (Winnicott, 1971).

Reflexivity implies many hypothetical constructions: fictionality (the "*as if*"), counterfactual sensemaking processes of experience, the construction of stories and narratives, and multiple temporal frames in which to organise thoughts, texts and actions. The product of the reflective process is an "*as if*", always in continuous transformation. When there is a risk that it transforms into an "*as it is*", temporality then ceases to be a composite and dynamic structure and is crystallised into forms already given, already predictable (deceptively) and without any possible novelty.

A reflexive semiotic surface is an unsaturated regulatory mechanism, closed from the structural-synchronic point of view (the subject needs to self-refer in order to organise thoughts, actions and relationships) but open from the dialogic-diachronic point of view (continuously reserving novelties, exceptions, and the need to review one's own position and that of the other).

In conclusion, we consider three Greek myths where the presence

of the mirror assumes a central relevance: the myth of Narcissus, the myth of Medusa and the myth of Dionysus. Tagliapietra's readings (1991) of these myths are very instructive with respect to our semiotic and psychoanalytic hypotheses on reflexivity.

In the myth of Narcissus, Narcissus dies in an effort to connect with his mirror image on the surface of a lake. Denying otherness and falling in love with his own image, in a movement of identification *tout-court* with his reflection, he dies by drowning in the waters that reflected him. Self-recognition as an unavoidable passage for reflexivity generates the death of the subject when there is no longer any opening but only an exclusive closing on itself. There is no longer anyone else, only the self; there are no longer differences, only identity with oneself.

In the myth of Medusa, the monster whose gaze petrifies her victims, Medusa is defeated by the hero Perseus through the reflective power of his shiny shield. Perseus defeats Medusa by looking at her through a mirror and avoiding looking directly at her. The absolute otherness – an unspeakable and non-sense experience (which leads to death) – is stemmed through a structure of reflected signs to avoid burning and direct contact with the lack of sense of experience. This leads us to think that the experience of the world and of oneself can never be direct; it is always mediated by the signs we use to approach it. Reflexivity is a mediated experience, and one's identity always reflects this relational character.

In the myth of Dionysus, when the god was a child, before being savaged by the titans, he looked in a mirror and instead of seeing his face, he saw the entire universe. Here we find no longer absolute sameness or absolute otherness but the whole cosmos in its totality as the coincidence and coexistence of opposites; one's own image is diluted in the multitude of things and the faces of others. Then, the titans were burned as punishment by the other gods. From their ashes, which also contain part of the devoured Dionysus, human beings are born. This passage of the myth is decisive. The divine experience of totality refracted in the mirror is digested (eaten and burned), and only from its partiality is the birth of man and of thinking possible.

In the psychoanalytic context, already in 1921, Lou Andreas-Salomé proposed an idea of the primary Narcissism as an original state, grounded in pre-natal and infantile experience, in which the identity

has not yet emerged from an undifferentiated state and in which we perceive ourselves as the whole and the whole as ourselves. She depicts, with a poetic image, the human being as a plant that longs for the Sun (i.e., for the differentiated state) while at the same time being grounded in the soil of this universal undifferentiated state (Andreas-Salomé, 1921).

In line with our arguments, reflexive experience can never be a psychic activity that includes the entirety of the individual, the wholeness of the world and the completeness of experience; rather, it can take shape precisely by starting as partial, unsaturated and lacking.

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