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SPECIAL ISSUE: CONTINUING CONVERSATION WITH VYGOTSKY

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Editorial

This special issue is dedicated to the 3rd Estoril Vygotsky Conference — the biannual international scientific event held in Estoril, Portugal on 16-18 June 2014. The organizing committee honored the wide impact of Lev Vygotsky's works on contemporary psychology and included Vygotskyan League of Portuguese Language and the Institute Quintino Aires, in collaboration with the Lomonosov Moscow State University, the Russian University of Humanities (Russia, Moscow), IPAF — Instituto Vygotsky (São Paulo, Brazil) and Andricard (Luanda, Angola). The editorial board of our journal is very grateful to Professor Quintino-Aires for organization of this outstanding conference and to Professor Margarida César for contribution to this special issue.

L.S. Vygotsky founded the socio-cultural approach to understanding cognitive processes in child development and introduced the genetic (developmental) method for their study. He also introduced the concept of cultural tools or mediational means, in his belief the higher mental functions to be products of social processes.

The *Theory and methodology* section starts with an article by Andrei I. Podolskiy that discusses the practical implementation of another outstanding theory within the cultural-historical approach — by P.Ya. Galperin. The article's title *There's nothing so practical as a good theory* could be the motto of this special issue, because it includes classic theoretical papers as well as applied research and empirical data from professional practice. From the standpoints of the intersubjectivity concept, Anatoly N. Krichevets explores Lev Vygotsky's quintessential statement that "Every function in the child's cultural development appears twice: on the social and on the individual levels — first between people (interpsychological) and then within the child (intrapsychological)". Pedro Ferreira Alves joins developmental psychologists and cognitive scientists around the world in discussion of L.S. Vygotsky and J. Piaget's dialogue on formation of scientific concepts.

The idea of external mediation in rehabilitation of mental functioning became the basis of major neuropsychological developments, including the works by A.R. Luria. The largest section of the issue is dedicated to current questions of neuropsychology and clinical psychology.

From post-nonclassical theoretical standpoint Joaquim Quintino-Aires shares his understanding of methodological foundations of psychopathology. Natalya L. Karpova shares the results of using Vygotskian ideas in family group logopsychotherapy to treat stutter. Two articles discuss practical applications of cultural-historical approach in psychological support of somatic patients with oncological diagnosis (Maria do Rosário Dias) and mitral valve prolapse (Yuri P. Zinchenko, Elena I. Pervichko, Evgeniya V. Akatova). Janna M. Glozman and Valentina A. Naumova in their article discuss cultural-historical approach to art-therapy and its application for mobilizing personal resources in the elderly.

The articles of the *Mediapsychology* section explore cultural tools that are becoming more and more influential in human society. Gonçalo Leones do Couto and Andreia Cruz describe impact of videogames on frequent videogame players' personality structure. Elena L. Vartanova, Anna V. Tolokonnikova and Taras S. Cherevko discuss the problem of information safeguards for children, relating psychological findings and concerns to the present Russian and international legislation.

The *Social and educational psychology* section includes paper by Rute Teixeira with a case study of a child's communicative development facilitation through play-based activities, and by Tãmara Ferreira Rodrigues, with tools for both qualitative and quantitative evaluation of meanings in spousal interrelationships. Conceição Courela and Margarida César describe the experience of application of neo-Vygotskian approach to adult education in Portugal.

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THEORY AND METHODOLOGY

“There is nothing so practical as a good theory”: How to let it work in practice (the case of Galperin’s theory)

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One of the most important and sharply discussed aspects of scientific knowledge is the problem of the possibility for practical applications and results. The application of psychological knowledge in different types of schooling, training, and instruction is a representative illustration of that problem’s current state. The aims of this paper are (1) to consider the possibilities and difficulties of such an application, (2) to analyze the reasons for both success and failure, and (3) to try to work out a path toward the construction of an applied theory to bridge the gap between psychological theory (in particular, learning and developmental psychology) and instructional practice. Specifically, this article considers practical applications of the fundamental psychological theory of Planned, Stage-by-Stage Formation of Mental Actions, or the PSFMA theory, by P. Galperin as the target case.

Keywords: psychological knowledge, practical application, formation of mental actions, mental models, internalization, applied model-based theory

Introduction

If we consider teachers, trainers, and instructors as the “consumers” of psychological knowledge, we may ask this question: What type of psychology do practitioners need? Certainly, they are not in need of general speculations; rather, they need concrete information about the psychology of learning, development, and instruction, information that can become the core of their practical activity. Recent educational practice has created a real challenge for psychology: the challenge of providing knowledge that is sensitive to the heterogeneity and complexity of the social context in which learning processes take place while at the same time offering to the teacher sufficiently concrete and clear psychological descriptions both of students and of learning/teaching processes and contents. Without answering such a challenge, researchers wonder why teachers and school administrators do not want to use their remarkable and sometimes outstanding ideas, theories, and

models, while teachers and school administrators (together with the general public) wonder why researchers are not capable of providing them with practical, useful knowledge, expressed in an acceptable and understandable form, that can be applied to everyday schooling activities. More than thirty years ago, Snelbecker (1987) published a "menu" of teachers' justifications for not using educational psychologists' and instructional designers' prescriptions in their everyday professional activity. Evaluating the possibilities of instructional-design "blueprints," several teachers claimed that they were already on their own practicing what was recommended by scientists. Other teachers, while acknowledging the innovative nature of scientific recommendations, still doubted the practical possibility of applying the recommendations in their own classrooms. Snelbecker found that statements such as these were the most common among teachers: "I don't need any help in teaching/training"; "I am already doing what you advise"; "if I use that theory, I'll have to change my teaching methods completely"; "I already know those theories."

It is not easy to get practitioners to accept a system of conditions for applying scientific knowledge. Creating such conditions would mean giving teachers, trainers, instructors the possibility of obtaining more explanation about and practice with that knowledge than they can obtain on the basis of common sense or their own practical experience alone. It means discovering a general intellectual procedure that would not only enable the users to analyze many concrete instructional situations according to the findings of modern psychology (in particular, learning and developmental psychology) but would also encourage them to do it. In other words, it is necessary to offer a sort of "intellectual tool" that practitioners can use to increase their competence in using instructional technologies. This instrument has to be multifunctional and universal. It should direct the attention of the users to changes in and development of the constructive activity of a learner and to focus the users' attention on the mental, internal components of any learning activity. On the procedural (technological) level, such an approach must operate sufficiently so as not to be simply a set of speculative declarations of "good intentions." Thus, applied psychoeducational theory requires a strict and simultaneously more explicit form of psychological knowledge. In other words, it requires nonmetaphoric descriptions of the variables (structural, functional, and developmental) that are most essential and that determine the effectiveness and efficiency of learning/teaching processes as well as a description of the interrelations of those variables. In addition, a detailed and, again, nonmetaphoric and unambiguous description of the psychologically grounded conditions that should be present within schooling environments should be offered. Such descriptions must encompass the whole of the schooling situation and the complexity of the processes and phenomena involved.

It is important to emphasize that these descriptions must also be developmentally sensitive. Two different mechanisms may underlie a lack or even an absence of an ability to act on a mental plan: (1) macrogenetically, a learner's mental plan may be underdeveloped (Galperin, 1992; Piaget, 1970), and thus he/she may be prevented from acting mentally within specific spheres of reality; (2) microgenetically, the mental actions that are the prerequisites for learning specific content may not have been formed at all (or may have been formed with inappropriate and insufficient properties) in the course of a student's past educational experience (Galperin, 1969).

Discussion

The developmental dimensions of instructional content are equally clear. For example, it is generally not possible to assimilate certain subject areas before a certain, identified age or developmental point (Piaget, 1970). However, it is possible to overcome such age-related barriers when a teacher promotes the special formation of a student's mental activity on the basis of functional-development regularities (Galperin, 1992).

In discussing the "developmental sensitivity" of modern descriptions of instructional technology, one has to distinguish two different aspects. First, as an essential and necessary component of the psychoeducational knowledge base, the developmental dimension must be taken into account in developing plans for instruction. Doing so requires (1) planning, designing, organizing the learning/teaching processes in accordance with macro- and micro-developmental regularities, and (2) determining the short- and long-term developmental consequences of these processes and the extent to which learning/teaching processes influence the student's cognitive, personal, moral, social, and emotional development. Second, developmental changes can also be viewed as a direct and immediate aim of the learning/teaching processes. This principle has been formulated in a general, philosophical manner by Vygotsky as "instruction is good only when it proceeds ahead of development" (1978, p. 132).

It's my firm belief that such an approach, in which the above requirements for the "general intellectual tool" are met, and met in a sufficiently complete, sophisticated, and operationalized manner, is the Planned, Stage-by-Stage Formation of Mental Actions approach introduced by Piotr Galperin (1967, 1969, 1989, 1992).^{*} Galperin's approach is the continuation of a trend in developmental and learning psychology that was started by Vygotsky (1978). However, Galperin's approach introduces the following new elements: (1) the approach considers the nature of human mental life, its coming into existence, and its further development in the context of phylogenetical, anthropogenetical, and ontogenetical processes; and (2) it considers the system of psychological conditions that enable knowledge and skills formation with the desired and prescribed outcomes. According to Galperin's approach, mental action is a functional structure that is continually being formed throughout an individual's lifetime. Using mental actions, a human being plans, regulates, and controls his/her performances by means of socially established patterns, standards, and evaluations. Mental action can and should be considered the result of a complex, multimodal transformation of initially external processes performed by means of certain tools. In other words, from a nomothetic point of view, concrete mental actions and images are the results of the internalization of external processes (Galperin, 1967).

Mental actions and images reflect, and are the product of, both human needs and the demands and conditions of the objective situation. They can, therefore, be characterized by a set of primary and secondary properties. The following properties are considered to be primary: (1) the composition of the action's objective content; (2) the extent of differentiation of the essential elements of the problem

* The first Russian publication of this approach appeared in 1952, while the first more or less comprehensive description of the approach in English appeared in 1967.

situation from the nonessential elements within the problem situation; (3) the degree of internalization of the action; and (4) "energetic" (speed and enforcement) parameters. Secondary properties are: (1) reasonability; (2) generalization; (3) consciousness; and (4) criticism. The secondary properties are the result of specific combinations of the primary properties. Both primary and secondary properties represent socially estimated and evaluated qualities of human activities and refer to any sort of activity, whether individual or collective, material or mental.

The final values of these properties determine the specific action or image that is formed. Galperin considered the values of the properties to be the direct outcomes of the conditions of action formation. He therefore defined a system of conditions that ensure and guarantee the achievement of prescribed, desired properties of the action and image: the "system of planned, stage-by-stage formation of mental actions," or the PSFMA system. This system includes four subsystems: (1) the conditions that ensure adequate motivation for the subject to master the action; (2) the conditions that provide the formation of the necessary orientation base of the action; (3) the conditions that support the consecutive transformations of the intermediate forms of the action (materialized, verbal) and the final, end transformation into the mental plan; and (4) the conditions for cultivating, or "refining through practice," the desired properties of the action (Galperin, 1989). Each subsystem contains a detailed description of related psychological conditions, which include the motivational and operational areas of human activity.*

The procedure of the PSFMA (Galperin, 1992) can be presented in the most general form in the following way. In the first stage, the subject's initial attitudes toward the goals and objectives of the forthcoming process as well as toward the concrete learning-teaching situation are constituted. These attitudes may be changed during the formation process. In the second stage, the scheme of orienting, or the scheme of the orientation base of action, is elaborated. Three psychologically different but interconnected levels of the orientation base may be distinguished in considering mental activities of learning: (1) the executive orientation base, a scheme of human orientation regarding how to do something; (2) the goal orientation base, a scheme of human orientation regarding what to do; (3) the sense orientation base, a scheme of human orientation regarding the reason(s) for doing something. The three levels of the orientation base are connected to each other in both ascending and descending order: human understanding of how to do something also affects higher-level sense and goal representations and is in turn affected by the possibilities and execution of the sense and goal orientation bases (Podolskij, 1997). Guided by the scheme, a subject constructs, explores, reflects on, and performs the action being formed. The extent of autonomy of the subject to construct such a scheme may vary from full dependence on a teacher to almost full independence; autonomy is a function of the content and goals of the concrete learning-teaching process and of the learner's characteristics. For instance, the younger the learners are the more necessary it is to present an orienting scheme in a guided form (as a rule).

* For a detailed description of Galperin's system see, for instance, Podolskiy, A.I. (2009). On scientific status and practical significance of one psychological theory. *Psychology in Russia: State of the Art*, 2, 187–209.

The general macrostructure of this scheme is relatively indifferent to the features of the special domain content of the action and to the level of expertise of the learner. Essential differences may be found if one compares concrete specifications of each element of the orientation schemes in the actions of beginners and experts; of disabled, ordinary, and gifted children; and so on. The macrostructure is also relatively indifferent to the kinds and sorts of actions being formed; for example, concrete, specific domain actions; actions that belong to cognitive metastrategies; actions that underlie heuristic methods. The general function of the scheme is to provide the learner with a powerful orientation tool, which enables him/her to plan, to direct, and to control the solving of different kinds of problems related to the field involved. In general such a scheme is not an “algorithm” for solution (although, in some cases and under definite conditions, there are several kinds of “algorithmic prescription”; but this is an exception rather than the rule). This scheme is the learner’s tool for his/her orientation in both the objective content of the action and in the operations needed to handle this content in accordance with concrete learning aims and goals.

The construction of an orientation base is a creative task for the participants in the learning/teaching interaction. Furthermore, this scheme plays the role of a synchronizer for the development of knowledge and skills related to the content of the action (see Dijkstra, 1997). The scheme of the orientation base contains the necessary and essential information both for the learner’s analysis of the objective content of the action and for the application of this content to the definite problem situation. In other words, it has a function close to the most general function of mental models.

At the third stage, the learner starts to solve different problem tasks, which are organized and presented in a definite sequence and manner (see the fourth subsystem above) by using the scheme of the orientation base of action elaborated at the previous stage. The form of the scheme may vary from detailed descriptions of the order and content of the operations to be executed to general hints and heuristics. As for the external view of the scheme, all kinds of representations are possible: the orientation base may be represented as an arrow scheme, a flow diagram, a “solution tree,” a text, a picture, a graph, a formula, and may be presented as a whole or part by part or hierarchically. The representation is dependent on the three variables mentioned above: the objective content of the action, the learning goals, and the learner’s characteristics. The constancy of the action’s essential general macrostructure, enforced by verbally reasoned solving of the sequence of specially designed problem types, leads to its no longer being necessary for the student to use the scheme of the orientation base as a material (materialized) learning aid. At that time its main content (see earlier—the second subsystem) is fully represented in the subject’s socialized speech (*socialized* means understandable to other persons). This socialized speech becomes the base for a new action to be formed. With this step, the action moves into the fourth stage of formation—the level of overt, socialized speech. Once the sequence of varying problem situations has been set, the “melting” of the external phonetic form of speech takes place. The main content of the fifth stage of action formation is the formation of the action’s internal verbal mode (covert-speech level).

At the last, sixth, stage of formation, the mental action passes through final changes, which are the result of the introduction of simultaneity and automaticity.

The new mental action begins its own "psychological life." It is able either to be included in other psychological structures, thereby enriching them, or to be subsumed in other psychological structures in order to be enriched and developed itself.

Thus, as a result of a stage-by-stage formation an externally mediated and successive action appears to be transformed into a "pure mental act": after estimating the problem situation a learner makes a decision on the spot. The results of planned, stage-by-stage formation closely correspond to the most desirable aims of contemporary instructional design: the acquisition of generalized, meaningful, synchronized knowledge and cognitive skills is a result of authentic transformations of student learning activity.

Evaluating the state of the art of Galperin's system, one notes that not all the subsystems have been developed and operationalized to an equal extent; the first subsystem, for instance, has not been described in as explicit a manner as the other three. Similarly, not all areas of learning are equally well developed within the framework of the PSFMA approach. Thus, many primary and secondary school subjects are more developed than higher education disciplines, and cognitive ("pure" intellectual, perceptual) action formation has been studied in much more detail than, for example, sociomoral action formation. There are relatively few examples of PSFMA being applied to the conditions of real human activity (professional, military, sporting); however, these cases clearly demonstrate what is missing in the concrete PSFMA model, in which the formation of isolated actions is considered separately from the entire structure of the corresponding activity.

Looking at the history of Galperin's approach, one can see periods of great optimism regarding its effectiveness and efficiency. Indeed, it seems to be possible to transform radically the methods, as well as the traditional results, of the learning/teaching process using this approach. As has been convincingly demonstrated by hundreds of experimental and applied studies, a whole set of the main objectives of any schooling effort have been reached through this approach. For example, (1) the guaranteed acquisition of the curriculum by all learners with the necessary level of preliminary knowledge and skills is achieved without prolonging the time allocated and with essentially no additional cost; (2) the separation of instruction into the acquisition of knowledge and its application is minimized or wholly disappears; (3) learners are able to transfer acquired abilities to new situations and are also able to transfer the process for acquiring new knowledge and skills; (4) by becoming aware of these newly formed abilities, learners become more and more interested in the processes of acquiring knowledge and in knowledge itself (Galperin, 1989; Podolskij, 1993). Studies have been conducted in different kinds and types of schools (primary, secondary, vocational, special schools). Subjects (learners) have been ordinary, disabled, and gifted children of different ages (from 5 to 18). Specific domains have also been different: writing and arithmetic, native and foreign languages, math, scientific and humanitarian disciplines, drawing, music, physical training. And psychologically heterogeneous structures have been the objects of planned, stage-by-stage formation: separate mental actions in specific domains along with concepts and representations; groups and systems of actions and concepts; actions that underlie cognitive as well as metacognitive strategies and heuristics.

However, if one compares publications from the 1950s–1970s to those from the 1980s–1990s, one discovers a significant decrease in the wave of optimism

concerning application of the PSFMA. Moreover, anyone familiar with the current situation of school education cannot find extensive practical applications of the PSFMA in contemporary schools or in schools of the near past. Of course, there were and are many interesting experiences in different parts of Russia and outside it that demonstrate the successes, failures, and problems of the practical use of the PSFMA; however, the scale of usage is rather limited.

Besides the obvious social-economic and social-psychological reasons, a reason of a methodological nature concerns the ways of using Galperin's approach. Historically, the substantial pedagogical results of planned, stage-by-stage formation of mental actions first came to the fore in most psychological research conducted along the lines of this approach. However, the proponents' enthusiasm about unusual and hopeful results had a reverse side: it led to a serious misunderstanding of Galperin's approach. Sometimes the approach is interpreted not as a general description of laws and regularities that try to explain the dynamics and results of the formation of human mental activity but rather as a set of technologies and prescriptions for how to teach. Indeed, such an interpretation distorts reality and transforms the approach to some "absolute" knowledge, like a sort of "philosophers' stone."

In the nomothetically orienting role of the general PSFMA system, the successful application of the PSFMA does not imply a literal reproduction of some abstract, extremely general procedure. Rather, it refers to the creative design of a system of necessary and sufficient psychological conditions for instruction. The elaboration of such a procedure occupies an intermediate position between fundamental psychological knowledge and the actual process of schooling, instructing, or training (Podolskij, 1993, 1997). This intermediate position is operationalized in the consecutive elaboration of three models of the instructional situation. These are the psychological, the psychological-pedagogical, and the methodical, or technological, models (Podolskij, 1993; Podolskiy, 2012).

The *psychological model* includes: (1) a description of the knowledge and skills to be acquired on the basis of the learner's mental actions, images, and concepts; (2) a description of the macro- and microstructure of the multilevel learner's orientation as the basis for a new mental action, concept, or image to be formed; (3) a description of age-related and individual characteristics of the learner that are relevant to instruction and schooling; and (4) a description of the specific system of psychological conditions needed for the formation of the planned action. It is clear that in different applications of the PSFMA system, application emphasis should be placed on different constituents of the psychological model.

The main function of the *psychological-pedagogical model* is to project the psychological model onto the specific objective and subjective conditions of schooling and teaching. Such conditions include instructional activities and the organization and distribution of different organizational forms during a lesson or a sequence of lessons; in-class and homework activities along with individual, small-group, and whole-class learning activities; use of available technical aids for teaching (computer-assisted learning, for example). One might declare that the psychological-pedagogical model represents the "art of the possible"—that is, it reaches an optimal compromise between the strict requirements of the psychological model and the restrictions constructed by objective and subjective components of reality. Sometimes it is necessary to reduce such strict requirements (at least part of them) in

favor of implementation, and sometimes they are necessary to overcome resistance in the traditional learning environment in order to implement innovation.

The last, *procedural, or technological, model* of instructional situations includes a detailed description of the teaching process distributed between units of definite form and time, with a precise description of the goal of each unit and the means to achieve it. It also includes a complete list of teaching documentation: schemes, different types of learning and assessment tasks, a description of the order in which technical aids should be applied, and a number of other materials specified for different types and kinds of schooling/instructional situations. The procedural model looks like the traditional well-done "teacher's lesson plan"; however, one has to remember that this model is based on the considerations outlined in the psychological and psychological-pedagogical models (Podolskij, 1993, 1997).

It is also necessary to consider the three-model framework as an intellectual tool, not just as an algorithm that prescribes how a teacher should act. This framework, when used in an appropriate and sophisticated way, gives a teacher the ability to orient, plan, control himself/herself completely, and correctly design, arrange, and carry out different instructional activities. In other words, this framework may provide us with an applied psychoeducational theory that occupies an intermediate position between fundamental psychological knowledge and educational/instructional practice.

To summarize, in order to bridge the gap between psychological science and schooling (instructional) practice one needs to deal with two categories of mental models. First, one must take into account a hierarchical system of students' mental models; this system forms schemes of action orientation on different levels. Mental models come into existence and acquire necessary features by means of the application of the special procedure of mental-action formation. Second, one must form a system of teachers' mental models, the contents of which are to be constituted by the three-model scheme of the instructional situation. Such a scheme may become a basis for the construction of applied, model-based psychoeducational theory.

Conclusion

It is highly unlikely both practically and theoretically that psychology can prescribe that a teacher or trainer do anything. What psychology can and must prescribe are the definite directions, marks, and "mile stones" for the teacher's (the trainer's) thinking. The most important thing modern psychological and educational science might give teachers is a general intellectual tool that may be used not to prescribe designers' or teachers' executive activity but rather to give them an extended and sophisticated approach to the processes and events that constitute student learning and teacher instruction. Designers and teachers have to be provided with knowledge about all the complex psychological mechanisms that underlie learning/teaching processes and with knowledge about how to "switch on" these mechanisms by creating and using a system of necessary and sufficient conditions.

A possible approach to constructing and using an appropriate general intellectual tool based on Galperin's psychological doctrine, especially on his theory of planned, stage-by-stage formation of mental actions, has been described here. This approach provides a general outlook on different processes that underlie the acqui-

sition of mental actions and concepts. It is based, on the one hand, on a theoretical analysis of the nature of human mental life and, on the other hand, on a carefully elaborated and tested system of psychological conditions for the planned formation of mental actions and concepts with definite properties. This system is sensitive not only to the functional and structural characteristics of schooling and instructional processes and products but also to age-related and functional developmental variables. Once experienced in the use of this system, one may describe the acquisition of any newly formed mental structure in concrete and operationalized terms. Supplemented by a three-model scheme, which bridges the gap between the psychologically described conditions and a variety of actual schooling circumstances, this system gives a teacher a chance to predict the most probable developments both in the realization of the specific teaching/learning process and in the characteristics of the products of this process.

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Vygotsky and intersubjectivity

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Lev Vygotsky's statement on the development of the higher psychological functions—from the interpsychological form to the intrapsychological form—is discussed in the article. I describe the changing of Vygotsky's interest from nonverbal to verbal communication and his emphasis on verbal communication as an only kind of interpsychological function. I then analyze works that show the importance of nonverbal communication in this process. I raise the questions of what an interpsychological function is and who is its "owner." I argue that immediate response to the behavior (verbal and nonverbal) of another person is a basis for the psychological functions of a child, and this basis continues to influence processes in later stages of human development, including adulthood. Thus, interpsychological function in the development of the child is inevitably connected with some kind of passivity in reactions to social stimulation.

Keywords: interpsychological and intrapsychological functions, ontogeny, intersubjectivity, communication, dialogue

Vygotsky's Main Formula

"Every function in the child's cultural development appears twice: first, on the social level, and, later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals" (Vygotsky, 1960^{*}/1983: 145; see also Vygotsky, 1978). This passage from Lev Vygotsky's "The history of the development of higher mental functions" is one of the most often cited from his works. It is his principal formula, and one may find dozens of similar propositions in his other works. For reference I call this proposition his Main Formula. It is not clear what exactly "interpsychological" means in this formula. The purpose here is to clarify what it *could* mean.

With the help of his Main Formula, Vygotsky tried to accomplish two tasks at once: to describe the parallel processes of (1) the internalization of psychological

* The text was written in 1931.

function and (2) the acquiring of behavior. Is it necessary for both processes to be connected with language?

Vygotsky's interest in the "sign without meaning" (for example, tying a string around one's finger as a reminder) and in children's pointing gestures in his early works shows that the process of behavior acquiring may be connected with non-linguistic signs. Later his interest shifted. Why? Why did Vygotsky in his texts that were published later interpret "interpsychological" as a special kind of communication by means of language, as the order to do something? Many examples can be found to confirm this tendency. This is one of them:

As a person masters the action of external natural forces, he masters his own behavior using the natural laws of this behavior. At the base of the natural laws of behavior are the laws of stimuli-response, so one cannot master the response while one has not mastered the stimuli. Hence, the child acquires his behavior, but the key to this process is in acquiring the system of stimuli. (Vygotsky, 1960/1983, p. 154)

The Main Formula now becomes:

Each system I speak about goes through three stages. The first is the interpsychological—I order, you execute; then the extrapsychological stage follows—I begin to order myself; and then the intrapsychological stage comes—two brain elements that are activated by external stimuli show a tendency to perform as a whole system and become an intracortical element. (Vygotsky, 1982*, p. 130)

The reference to physiological processes here is absent in the previous version of the Main Formula. And he goes further. It is impossible to understand all aspects of Vygotsky's motivation for writing the following (I tend to think that ideological pressure was one of the causes):

Let a psychological process move a brain atom a distance of one micron—and the energy-conservation law is crushed, and we shall have to give up the main principle of natural science, which [our] entire present-day science is based on. So we have to suppose that our acquiring our own behavioral process is in essence like our domination over processes that take place in Nature. A person living in society is always under the influence of other people. Speech, for example, is one such powerful means of affecting another's behavior, and it is natural that a developing child acquires the same means that others use to conduct his behavior. (Vygotsky, 1983, p. 279).

The argument about the energy-conservation law shows that Vygotsky in his Main Formula had an interest in solving the body-mind problem in such a manner. It is difficult to agree that the mind can easily move a brain atom by means of a voice order. To give a voice order, one has to move some atoms of the vocal apparatus, and one has to do so, of course, not by means of a voice order to these atoms.

So the scheme of acquiring one's behavior by means of a language order does not help us to solve the body-mind problem, but this scheme may be to some extent empirically true. I say "to some extent" because using language for a com-

* This is the first publication of the text written in 1930.

mand to oneself is possible only for a person who can speak. One-year-old children are already included in intersubjective relationships, and they get their new psychological functions only in that process. I mentioned above Vygotsky's previous interest in the "sign without meaning" and in pointing gestures. His interest in these phenomena shows that he moved from a wide question about a psychological function that occurs between people in any communication to a limited question about higher psychological functions and their connection to language communication only (some details of his changing interest can be found in Akhutina, 2004).

"Intrapsychological" as a form of "interpsychological"

So I assert that Vygotsky's change of interest led him to disregard an important question that was presented in an earlier version of the Main Formula. Let us consider one Russian attempt to come back to the lost question of the interpsychological. In the middle of the 1980s, Kovalev and Radzikhovsky (1985) published their article on communication and the problem of internalization. Now it is almost forgotten; I find that only a few of my colleagues mention it. Maybe the ideas were not developed because of Kovalev's early death. As for Radzikhovsky, who was the favorite disciple of Vasiliy Davydov, he became a popular political analyst at the time of perestroika and abandoned his scientific career.

The question of what *interpsychological* means is the central question of Kovalev and Radzikhovsky's article. They assert that the evolution of the notion of internalization in Soviet psychology was dramatically predetermined.

The fact that the theory of the step-by-step formation of mental actions [by Pyotr Gal'perin] had taken the place of internalization theory is not accidental. The transition to such a theory and, especially, the departure from Vygotsky's opinion of internalization was inevitable. The reason is the critical part played by communication in Vygotsky's opinion. Neither Vygotsky himself nor his followers could develop the notion of communication. The way out was found in dissolving the connection between internalization and communication (Kovalev & Radzikhovsky, 1985, p. 114).

The Russian word *obshcheniye*, which we translate as *communication*, has an important connotation that is lacking in the English word. *Obshche* can be translated as *common*, but this meaning is not expressed in English as clearly as it is in Russian. The meaning of *obshcheniye* in Russian is "to forget the Self in the process," "to share oneself with the Other." This is the key for understanding what G. Kovalev and L. Radzikhovsky said. They stated that the difficulty is that the function, being between two individuals, being interpsychological, cannot be attached to a single individual. But who is such a function's "owner"?

Either we consider the psychological function as individual, and then "communication" has only a commonplace psychological meaning: communication (like any other factor) influences the psychological function from outside. Or the psychological function exists in intersubjective space, and then, keeping its structure essentially

intersubjective, it is internalized, determining the basic structure of the human mind. The second variant contradicts tradition and requires a new methodology of psychological analysis to be developed for its support, such that the events that happen in intersubjective space can be given a real meaning (Kovalev & Radzikhovsky, 1985, p. 118).

The authors suppose that the problem can be solved through developing a dialogical approach to communication.

There has to be a universal analysis, embracing not only the cases where dialogism “is not hard to plumb” (double consciousness, specific inner dialogues described by F. Dostoevsky and analyzed in detail by M. Bakhtin), but the whole set of psychological phenomena—if we assume that the dialogism is an intrinsic component of the basic structures of consciousness.

To do this, it is necessary to build a real typology of all (both explicit and implicit) inner dialogue forms; to describe in detail their common structural-genetic basis, as well as the differences between those forms; and to explain the origin of these differences. In each case, it should be shown what new benefits can be really gained from the analysis of the appropriate phenomenon as dialogical in its structure. (Kovalev & Radzikhovsky, 1985, p. 120).

My purpose here is like that of the above authors, although not so wide. I take a restricted class of dialogical phenomena—that is, only the phenomena of non-linguistic communication. My interest is not in building the typology; it will be enough to describe a set of prototypical examples. These are examples that show that our mind’s life often is not our sovereign territory, as M. Bakhtin wrote. As my interest is mainly in nonverbal dialogues, I abandon also the dialogism of Bakhtin, who tended to describe the inner mind’s life as the fight of ideas that can be expressed in words.

Now I shall develop the approach of H.J.M. Hermans (2001), who wrote that “dialogical relationships are to be restricted neither to internal mental processes nor to verbal communication only, but can be considered as embodied, spatialized and temporalized processes that start from the beginning of life” (p. 266), and “the actual Other questions, challenges and changes existing positions in the self, and is able to introduce new ones” (p. 255). The following strong proposition can be considered a summary: the content and even intentions of my consciousness are not purely mine from the very beginning of my life.

Aleksey Leontiev and Evald Ilienkov: Mediation by instrument

Vygotsky set up the problem of interpsychological forms of psychological functions, but he could not solve it because his interest shifted from communication of any kind to verbal communication alone. Now let’s consider the approach of one of Vygotsky’s followers: the activity theory of Aleksey Leontiev, who took a step toward research on nonverbal behavior.

Leontiev (1975, p. 97) wrote:

The instrument [of labor] mediates activity relating to an individual not only with the world of things but also with other people. Because of this mediation, one's activity assimilates humankind's experience. Accordingly, the psychological processes of an individual (his/her "higher psychological functions") acquire a structure containing, as an inevitable part, culturally and historically formed means and methods transmitted to him/her by others in the course of collaboration and communication. However, it is impossible to transmit a means or a method of an activity otherwise than in some external form—the form of action or the form of external speech.

There is an important contradiction in this small fragment. The first sentence asserts that communication between people is not immediate. The mediator is an instrument. The fourth sentence asserts that the instrument needs to be transmitted from the person to another one who internalizes the corresponding meaning with the help of it. Does this sentence mean that (the action with) the instrument is transmitted immediately (in contradiction to the first sentence)? Leontiev continued:

Higher psychological processes, specific for humans, may appear only in the communication between individuals, that is, as interpsychological. And only after that can those processes be performed by the individual alone, and so some of them lose their original external form, transforming into intrapsychological processes (p. 97).

As we see, Leontiev repeats here Vygotsky's Main Formula, so he considers the passage cited above in regard to it.

The Soviet philosopher Evald Ilienkov expressed a more definite position. He developed his Activity Theory in parallel with Leontiev. We can even say that Ilienkov, in close contact with Leontiev, gave a sound Marxist basis for his Activity Theory. He tried to solve the problem of transmission of mental function by developing, as he insisted, the approach of Benedict Spinoza. He asserted that the individual, from the very moment of birth, acquires a universal ability: "The proper, specific form of action of a thinking being is its universality.... The individual—a thinking being—builds his movement conforming it to the form of any other thing" (Ilienkov, 1984, p. 38).

Ilienkov tried to build a theory to correspond to his version of Dialectical Materialism. According to Ilienkov, a system of ideal meanings is "attached" to cultural things, and the subject reads these meanings when acting with these things and conforming his acts to their form (having a universal ability for such "reading" activity). Such an approach does not require any "interpsychological" phenomena at all (in either a verbal or a nonverbal form). It requires only that the subject be able without any help to "decipher" the things of culture—any things of any culture, inasmuch as these things carry cultural meanings.

The deep enigma of interpsychological functions and intersubjective communication was solved by Vygotsky, Leontiev, and Ilienkov with different emphases. The emphasis on language mediation reduces Vygotsky's ability to deal with earlier forms of the transmission of communication and psychological function. Leontiev's approach fluctuates between two options: either to admit the immediate transmission of action from an adult to a child (and it is not important here whether the

action is with an instrument or without it), or to consider the instrument not as a mediator in the direct sense but as a thing that is sufficient to transmit the meaning, forgetting about the interpsychological. Ilienkov developed just the second option, and his theoretical description of development is to some extent similar to an empirical description of the development of autistic children. What is in deficit in autistic children is simply the ability to be engaged in some immediate relationship with an adult and later to have “triadic” relationships with an adult and some object. The details are presented below.

Immediate reaction and joint attention as forms of communication: What does it mean to be “moved”?

I identify joint, or shared, attention as a focus of my interest in psychological research on early ontogeny. Because of the great interest of philosophers in such research, it might be better to call such research psychological and philosophical.

N. Eilan (2005) wrote that to consider a process involving two persons as “joint attention” is possible only provided that

- there is an object that both persons are attending to
- each person is aware of his/her own perception of the object
- both persons know that the other person perceives the object
- there is some causal connection between their acts of attention to the object

Eilan also wrote that it is necessary for the persons to understand the concept *attention*, but that seems superfluous to me. The last item on the list of conditions is important. Acting with the same object an adult and a child may be in joint attention or they may not be in it. The critical point of the activity theory of ontogeny is located just here, and it is important that both variants be actualized in the development processes. The adult shows to the child an operation with an instrument or other object, and the child—in connection with this showing—acts and masters the action. Or, conversely, he/she acts with the object without paying attention to the adult’s operation. So the triadic relations may be different.

From the viewpoint of the research that we are speaking about, triadic relations are a rather “late” psychological structure, which is necessarily preceded by important events that possibly explain these differences. First, children in the first days of life and even in the first hours of life show reactions that may be important for the future development of their relations with adults. As A. Meltzoff & M.K. Moor (1977) shows in his well known experiments, such a child responds to an adult’s smile by contraction of mimic muscles, which are involved in smiling. A child may also repeat finger movements, and so on.

Second, some kind of joint attention appears in the second part of the first year: the child turns his head and tracks the direction of his mother’s (or other adult’s) gaze. Later the child can repeat simple acts. After the first year, the child can repeat not only the adult’s action but also the adult’s intention. If an adult expressly makes unsuccessful attempts to perform some act (for example, tries to insert one object into another), the child can repeat the act, achieving success (Tomasello, 2008). M. Tomasello notes that chimpanzees nurtured by humans demonstrate the ability to repeat acts of humans also.

Third, the immediate communication of a child with an adult, beginning from the middle of the child's first year, is well known to every parent and has been described by scientists many times. Emotional exchanges are adjusted in these processes with the help of an eye-to-eye gaze, mime, and vocalization. Sergienko wrote: "Communications of all these kinds are perceived immediately and do not require special conscious interpretation. This is a 'toolbox' for nonverbal communication, and cycles of intersubjective communication are based upon it. Interpersonal perception functions from the very birth" (2012). What is that immediate intersubjectivity? What is its relation to the automatic reactions of a newborn child? Who is its owner? Who is active in this act?

Let us consider the situation in which a child repeats an adult's smile. As many authors insist on the absence of an exact me-and-world differentiation in a newborn, we may suppose the absence of a distance between one's mimic response (which we can consider as automatic) and the feeling that accompanies that act. In that case, the automatic act is the act of a psychological function that has no single owner because it is initiated by the adult and continues in the child. This initiation may be a conscious and purposive act of the adult, which causes a feeling of pleasure in the child. Such immediate reactions form a basis for the immediate perception of the emotional state of other people.

The philosopher and psychologist Peter Hobson wrote (2005, p. 190):

To perceive a smile as a smile (to take the simplest example) is to respond with feeling, in such a way that through the smile one apprehends the emotional state of the other. In other words, there is a mode of feeling perception that is critical for establishing intersubjective relations between people, and it is a kind of perception that establishes a special quality of relatedness between the individual and what is perceived—in most natural circumstances, a person.

So we may call the immediate automatic reaction of a child the organ for smile perception. As a child's conscious perception of the external world is based on the organs of perception that are parts of her/his body so "an infant's awareness of sharing a subjective orientation with someone else is founded on early-developing propensities to identify with the bodily expressed attitudes of others—a special form of interpersonal engagement involving feelings" (Hobson, 2005, p. 190). The word *identify* is too strong—not because I insist on some distance between a subject and the automatic reactions of his/her body but because a subject appears and develops as a wholeness of passive engagement with intersubjective processes and an active influence on these processes.

Hobson used the exact phrase "to be moved" to describe one side of such a process. He wrote that at a certain stage "the infant engages with someone else's engagement with the world—and is 'moved'" (p. 188). The subject acquires an interpsychological function that is basically without-subject automatism and develops it as a whole inter-intrapsychological function, which allows the subject to understand the other person and to be engaged in the other's intentions.

J. Roessler (2005, p. 257) points out another important detail: when direct, immediate contact between a child and an adult develops to a triadic interaction, then the child does not simply repeat and copy the adult's joy but transfers joy to a com-

mon object. Roessler supposes that other aspects of understanding develop in the same way: Hearing some proposition P from an adult, the child is “moved,” and the thought P is directly induced in his/her mind, but the child is now able to resist being saddled with the belief that P, by prefixing this thought with the concept “she believes that ...”, or “she is telling me that ...”. So, according to Roessler, the ability to share attention and intention is the basis for understanding both psychological states and language propositions.

It is easy to understand why researchers of early ontogeny are interested in development deviations. One of the major problems in this field is autism. There is no agreement among researchers regarding the basic violations that determine the further destiny of a person with autism. A hypothesis is that the basic violation is an in-built weakness in orienting to social stimuli, such as a smile, mime, and so on (Leekam, 2005, p. 222). Autistic persons abdicate the possibility to be to some extent passive in a communication, to be moved. As I wrote above, their situation is more similar to Ilienkov’s theoretical description of child development the less they are able to be passive in such a way.

The owner of intersubjective functions

People with autism develop almost completely out of immediate relationship with the Other. A person with autism is a self-sufficient subject, in contact only with the world of objects, and an adult as an educator may only change and configure this world. This is not enough for normal development. It is clear that in Vygotsky’s Main Formula, the interpsychological has to include some kind of immediate influence of one person on another. How can such an influence take place?

The question raised belongs to the sphere of philosophy. I will answer it as phenomenological philosophy answers such a question, interpreting “how” as “in what forms.” This approach allows us to see another, more important problem closely connected with the question of the owner of interpsychological function that was raised above.

I repeat a citation from above (Kovalev & Radzikhovsky, 1985, p. 118): Either we consider psychological function as individual, and then “communication” has only a commonplace psychological meaning— communication (like any other factor) influences the psychological function from outside—or the psychological function exists in intersubjective space and then, keeping the essential intersubjectiveness of its structure, determines the basic structure of the human mind when internalized.

Kovalev and Radzikhovsky add that the second variant contradicts tradition and requires new methodology. My work may be considered an attempt to develop such a methodology. Relying on philosophers of the 20th century, I argue that there is no sole owner not only of interpsychological functions but (radically speaking) of intrapsychological functions too. These functions may be considered as being in the individual’s body, but they may be used not only by the person whom we think about as the owner of the body. Other people can immediately influence them too.

We shall discuss now the subject who does not completely belong to himself—as opposed to the person with autism, who is self-sufficient. We shall follow J.-P. Sartre and M. Merlo-Ponti. Here we are interested not only in a child but in a normal adult as well.

Sartre notes that the main mistake of his predecessors is their considering the relation between the Subject and the Other as concerning *knowing* only. He insists that this relationship is mainly that between Being and other Being. In his book *Being and Nothingness* (1943) a minimal form of such a relationship is described. It is the influence by gaze. Sartre writes that a person who merely looks at me changes my conscious state immediately.

Sartre describes the situation of the sudden appearance of shame when a man does something that is not allowed by the rules of decorum. Immersed in his task, he supposes he is alone, but suddenly he sees himself under somebody's gaze. The shame that overtakes him shows that his subjectivity as such has an aspect that does not belong to him completely and that is connected with the Other in a special way. Sartre's formula is as follows: "To be seen constitutes me as Being undefended against the freedom that is not mine" (Sartre, 1943/2000, p. 295; see also Sartre, 1943/1992). My shame shows that the Other's gaze is an aspect of my consciousness, but it does not belong to me completely; it has one more owner—the Other.

The Other as a synthetic wholeness of one's experience, as a will, and more—as a passion—aspires to organize *my* experience. My experience in this case is not the result of the influence of *unknowable noumenon* [Sartre uses Kant's term here], but it is the result of the constitution of coherent groups of phenomena in the field of my experience that is made by a Being that is not me" (1943/2000, p. 250).

One finds a strange preference for conflictive situations in Sartre's text. His critics often point out that the human gaze can also immediately produce a completely positive state of consciousness in the recipient. For example, the gaze can have an encouraging effect. Many other gaze modalities can be found. We may add to them different situations with voice and touching. César (2014) calls them *inter-empowerments*. The connection of this process to the Vygotskian formula is evident for her, and she calls the next stage of the process an intra-empowerment. In all these cases, the Other is the source and even intentional initiator of my state of consciousness—its co-owner.

Hence, the sovereignty and autonomy of my consciousness and my subjectivity are in doubt, and it is not surprising. If the Other has his/her own interest in my communication, then I am not an exclusive author of the states of my own consciousness in the future. Thus the relations between consciousness autonomy and deep communication with other consciousnesses are antagonistic.

Notice the essential difference between my conclusion and Leontiev's and especially Ilienkov's position. They assert that communication is in principle mediated by objects, instruments. We now see some modes of immediate communication and poly-ownership of the consciousness state. Ideally in an elementary communicative act of such a kind, one participant is an active initiator, and the other is passive to some extent. To be more exact, last one, to some extent, actively acquires one's passivity. Sartre is right: dialogue is not inner silent or external sounded talk alone; its basis is the immediate mutual influence of one being and another being. So the interpsychological form of function may be thought of only as a hybrid of the activity and passivity of a subject where the "owner" of the passive aspect is another person. This description is applicable to any combination of adults and children.

My descriptions have a deficiency: all the kinds of communication I speak about do not transfer information, whereas Leontiev talks in the passage cited above about the transfer of a mode by using an instrument. So we have to introduce into the hybrid a third effector—the object: an instrument, a tool, information in any form. Thus our unit of communication is the same as that of Vygotsky and Leontiev. It is triadic with two subjects and an object in some form. This triadic entity may be reduced to two possible forms:

- the relation “subject-object” without the presence of another subject
- the relation “subject-subject” without the presence of any object

The first form is inherent in an almost pure form in autistic development, which is accompanied by the almost complete absence of relations of the second form and hybrids.

When learning with the help of another person, we perceive information in a way that depends on the attitudes that we have toward the person teaching us. If we really develop (I mean not only as a child but also as an adult of any age) with the help of another person, this attitude includes some kind of passivity, the readiness to be changed by the teacher. It requires desisting from being equal to oneself, from being self-identical.

Conclusions

The difficulty in developing a new methodology for research on interpsychological functions is simply the difficulty of accepting that development always is a sacrifice of self-identity. As Moris Merlo-Ponti says, it is impossible really to hear the Other if we stay in the Cartesian cogito position—in other words, if we keep self-identity in communication. To develop a new methodology means to hear what Vygotsky, Bakhtin, Sartre, and Merlo-Ponti really tell us. So we can summarize:

1. Vygotsky lost the important opportunity to develop his theory of the interpsychological state of psychological functions when he abandoned his investigation of nonverbal interpsychological functions.
2. It is possible to recover that lost opportunity and to develop successfully a theory of interpsychological functions only by rejecting the Cartesian self-identical subject as a philosophical basis for the psychology of a subject and by describing the subject's ontological dependence on the Other.
3. Psychological research of early ontogeny provides material that allows us to perceive the existence of interpsychological functions. This material can be interpreted in relation to the activity/passivity of the non-self-identical subject.

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Vygotsky and Piaget: Scientific concepts

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Jean Piaget's so-called biological perspective is often paired with the viewpoint of Lev Vygotsky when we speak of learning in humans. Both authors acknowledged the active role of children in the construction of knowledge. However, they differ in that, unlike Piaget, Vygotsky believed that the assimilation of new information does not have to wait for an appropriate level of development but must, on the contrary, produce that development through instruction; thus, cooperation between teacher and student promotes the development of higher psychological functions. The present research presents proof that school instruction is instrumental in this process. Samples of adults who had acquired distinct levels of schooling (from illiterates to university students) are differentiated experimentally through the use of four Piagetian cognitive problem-solving tasks created for adolescents and adults. The present research suggests that instructional level is the distinctive factor in the development of those problem-solving capacities that implicate higher psychological functions.

Keywords: Vygotsky, Piaget, learning, development, scientific concepts

Introduction: Basic distinctions

Jean Piaget's perspective is often compared with Lev Vygotsky's because both authors acknowledged the active role of humans in the construction of knowledge. However, they differ in that, unlike Piaget, Vygotsky thought that the assimilation of new information does not have to wait for an appropriate level of development but must, on the contrary, produce that development: "The organization of scientific concepts in children constitutes an important practical problem for schools" (Vygotsky, 1934/2007, p. 222).

Piaget framed his cognitive theory in a biological context, repeatedly referring to his intellectual roots in Immanuel Kant's, C. H. Waddington's, and Henri Bergson's thoughts, as well as focusing on evolutionism and structuralism. He based his orientation and his psychogenetic theory on five principles: reason is rooted in action; it stands on two "a priori" mechanisms, adaptation and organization; reason is "pure" and nontemporal; structuralism is an independent concept.

Piaget seems to have been mostly interested in spontaneous concepts. In his research, he stated that the development of formal reasoning and scientific concepts depends on the experience of cognitive conflict, which promotes imbalance, thus forcing the emergence of successive new assimilations. The reorganization of thought then takes place naturally. This description of the development of higher mental functions has been designated nonhistorical in opposition to Vygotsky's "historical," or cultural, understanding.

Vygotsky's work was strongly influenced by Karl Marx and Friedrich Engels, by Charles Darwin's evolutionism, and by Spinoza's dynamic insights on universal development. Based on the ideas of these philosophers he defined the five distinctive principles that should orient epistemological research: psychology is the science of a historical human being; higher psychological processes originate in social action; there exist three distinct classes of mediators: signs/instruments, individual acts, and interpersonal relationships; specific functions as well as social reality emerge from transformational acts or work; there exists a fundamental unity between body and mind—that is, people are global beings.

According to Vygotsky, spontaneous and scientific conceptual structures both develop through continuous interaction between individual partners in an historical context and don't result from cognitive conflicts between two thought processes. In his view, spontaneous and scientific concepts belong to a dialectical unity and become organized together along opposite paths: spontaneous concepts proceed from the concrete to the abstract; scientific concepts, from the abstract to the concrete.

Spontaneous concepts are primarily inductive, nonsystematic, and based on perceptual attributes; they embody elementary aspects of experienced reality and are imbued with life and dynamics. In turn, scientific concepts, culturally formulated and transmitted, provide structure; they elevate the horizon of consciousness and its ponderings. Scientific concepts grow downward through the involvement of spontaneous concepts; spontaneous concepts grow upward through the use of scientific concepts. In Vygotsky's words:

By forcing its slow upward trajectory, an everyday concept paves the way for a scientific concept and its descendant development. It creates a series of structures necessary for the evolution of the most primitive and elementary aspects of a concept, giving it body and vitality. Scientific concepts, in turn, provide structures for the upward development of spontaneous concepts in relation to consciousness and deliberate use by the child. (1934/2003, pp. 93–94)

Thus, everyday concepts emerge from dealings with concrete situations: these concepts "are ontological, intuitive categories developed by each individual not counting on formal schooling. Consequently, they are nonsystematic, qualified by contextual situations, their associations being affected by concrete analogies or related to isolated generalizations" (Damazio, 2000, p. 54).

Pozo (2002), quoted by Schroeder (2007, p. 24), defines scientific concepts as distinct from everyday concepts in that three important features appear in their construction: they are part of a system; they are based on internalization of the es-

sence of the concept; and they are based on mental activity promoting awareness while involving a special relationship with the object. Scientific concepts, which are formulated and transmitted culturally, emerge in the context of theories of objects and relational systems that establish associations among themselves—that is, they constitute systems mediating human actions on phenomena.

Vygotsky considered that children operate spontaneously with everyday concepts because attention is always directed toward the object. In turn, scientific concepts involve a mediated attitude of the subject in relation to its object, creating structures for an upward movement of everyday concepts. The formation of a conceptual system based on reciprocal generalizing relations points them out as arbitrary concepts: “Scientific concepts are gates through which awareness penetrates the realm of childhood concepts” (Vygotsky, Luria, & Leontiev, 1944/2001, p. 68). Thus, one may say that, according to Vygotskian reasoning, systematic cooperation between teacher and student provides the development of higher psychological functions and consequent intellectual development.

When applying everyday concepts alone, individuals apprehend only immediate reality. When they acquire the use of scientific concepts, they capture the world, understand the dynamics of human achievement prospectively and retrospectively. In Vygotsky’s words:

Only when a spontaneous concept has reached a certain level can the child absorb a related scientific concept. For example, the historical concepts can begin to develop only when the everyday concepts that the child has of the past are sufficiently differentiated—when their own life and the lives of those who surround it can adapt to the elemental generalization “before and now”; their geographical and sociological concepts must be developed going from the simple format “here and in another place.” (1934/2003, p. 93)

In Vygotsky’s view, the effective learning of a scientific concept then gives people deliberate choices and the ability to justify them; having internalized the concept, they are able to reflect on the rules involved: “The issue lies just there because development consists in this progressive awareness of the concepts and the operations of thought” (1934/2007, p. 279).

Scientific concepts don’t emerge directly from everyday concepts, but as Castorina, Ferreiro, Lerner & de Oliveira (1990, p. 5) underline, teachers introduce them explicitly in schools. Systematic cooperation between teacher and student allows the development of higher psychological functions and consequent intellectual development. Thus, it is my contention that adequate schools are essential mediators of culture, not only as transmitters of information but essentially as the social context in which the dialectical regulation between empirical and scientific concepts becomes shared between students and their teachers in the common ground of learning.

The concept *zone of proximal development* defines the terrain of constant psychosocial transformation. “The modification of the functional structure of consciousness is what constitutes the central and fundamental content of the whole process of psychological development” (Vygotsky, 1934/2007, p. 285).

This concept introduces the role of the teacher in provoking progress in students; progress is not a random happening in educational performance but is to be understood as an area of action exchange with students because, from the beginning, human nature is essentially social: it emerges and evolves through multiple practical interactions.

In summary, in Vygotsky's reasoning, the whole of human development relies on appropriation and enactment of competencies found in this context and is always related to the time and the historical conditions experienced by the social group and by humanity. Consequently, according to him, good teaching places itself one step ahead of spontaneous development, pointing the student toward activities that promote scientific reasoning.

Language occupies a central position in social processes. Appropriating the meanings conveyed by language (and not only the physical instruments built by people throughout history), the individual grasps the available knowledge in a cultural framework and builds on it. Precisely in this double aspect of language—as a tool of thought and of communication—lies its potential for promoting learning processes through exchanges among children, among children and adults, or among adults; these processes are important ingredients in cultural differentiation and social progress.

Method

Experimental procedure

Participants

The present research submitted to four rigorous tests Piaget's psychogenetic theory of the inherent relationship between spontaneous and scientific concepts as compared with Vygotsky's theory of the sociohistorical dynamics of empirical and scientific structures of thought (each test is described briefly for the present purpose). The intention was to be able to discriminate levels of cognitive development in populations with distinct levels of schooling.

Method

The following hypotheses were clarified using Piaget's "clinical experimental method":

- H1: The subjects' responses will vary in accordance with their degree of instruction (thus proving the Vygotskian proposition).
- H2: The subjects' responses will *not* vary in accordance with their degree of instruction (thus disproving the Vygotskian proposition).

We chose five distinct groups of adults (ages ranging between 34 and 45 years): 16 illiterate subjects; 16 subjects who had just completed elementary school; 16 subjects registered in 9th-year secondary school; 16 subjects registered in 12th-year secondary school; 16 subjects registered as university students (a "conveniency" sample of 80 subjects). All responses were registered and later submitted to analysis.

Test 1: *Class inclusion*

A test intending to distinguish class inclusion and hierarchical class was created initially by Piaget and Szeminska (1941) and was described in 1959 by Piaget and Inhelder (1966/1986). The aim was to determine the subject's understanding of class extension and to verify the reversibility of preoperational thought as well as its mobility—in the sense of accepting that, once a certain act is executed, it is always possible to revert to a starting point. To this end, each subject was presented with a bunch of flowers (four roses and two buttercups) and asked whether there were more buttercups, more roses, or the same number of each. This test is based on the original questioning by Piaget (Piaget & Szeminski, 1941), using wooden beads. To verify the degree of (logical) necessity that is attributed by the subjects to their knowledge of what is being inquired about, the experimenter uses counter-suggestion, confronting the subjects with a different point of view and even with other reasoning: "Look, yesterday, another person said to me that the bunch of flowers became bigger. Do you agree with that person?" The intent is to establish whether subjects change their outlook or maintain it even if they are mistaken. Reversibility equally refers to the conservation of all subclasses when the subject is required to compare one subclass to a more extended class: "Let's imagine that two people are standing beside me; this person on this side is going to make a bunch of roses, and that one on that side will make a bunch of buttercups. Which bunch became bigger? The bunch of roses or the bunch of buttercups?"

The criteria for the classification of responses were:

Level 1: Does not seem to grasp the critical question.

Level 2: Does not quantify "inclusion"; not capable of using a scientific concept.

Level 3: Maintains "some" alternating with "all."

Level 4: Quantifies "inclusion" only in the second part of the test.

Level 5: Responds correctly every time.

The results, presented in Table 1, show that the test differentiates populations according to their level of literacy (although an unexpected exception appears in the Illiterate sample).

Table 1. Results for test of class inclusion

Level	Test 1				
	1	2	3	4	5
Illiterate	1	11	2		2
4th year		5	4	6	1
9th year		1	4	7	4
12th year			1	8	7
University			1	4	11

Test 2: *Transference of elements between wholes*

Piaget classified preoperational intelligence as incapable of constructing the concept of negation, although this characteristic is mentioned in a systematic fashion only in the last phase of his work (Piaget, Meylan, & Bovet, 1974/1977). The task centers on differentiating the format of perception and the subject's ability to understand the inverse of certain transformations. Putting in front of the subject two equal sets of chips with a barrier separating them, the experimenter asks the subject to give a chip to an observer and to say how many more the observer has now than the subject has and to explain why. If the response is correct, the procedure is repeated without the barrier and a justification is asked for anew, with countersuggestions added.

The criteria for the classification of responses were:

Level 1: Does not seem to grasp the critical question.

Level 2: Understands the critical question, but is not capable of constructing negation.

Level 3: Does not predict at first but ends up doing so by orienting by means of perception.

Level 4: Predicts specifically through coordinating empirical statements with negation.

Level 5: Predicts and justifies conclusions adequately.

The results, presented in Table 2, show that the test differentiates distinct populations according to their level of schooling.

Table 2. Results for test for transferring elements between wholes

Level	Test 2				
	1	2	3	4	5
Illiterate	3	7	4	1	1
4th year		10	4	1	1
9th year		5	2	4	5
12th year		3	6	3	4
University		1	1	5	9

Test 3: *Pendulum task*

The pendulum task emerges in Inhelder's and Piaget's (1958) research between 1955 and 1958. They intended to clarify adolescents' formal-operational thought and aimed at evaluating subjects' competence in determining and isolating factors conditioning the frequency of the oscillation of a pendulum. To that end, the experimenters, taking into consideration the various alternatives, hypothetical pos-

sibilities, and logical deductions leading back from manipulations of the material, evaluated formal operations as executed by the subjects.

Each subject was shown how to construct a pendulum (a small object hanging from a string) and then was asked whether changing the length of the string or changing the weight of the object would make the pendulum oscillate faster. The subject was given time to experiment and was supported with questions of the type: "What are you trying to understand now?" "In what way can it oscillate faster?" "What did you discover about the weight?"

In the replication of this experiment in the present research, the criteria for the classification of responses were:

- Level 1: Does not seem to grasp the critical question.
- Level 2: Is unreflective when intending a rational understanding or explanation.
- Level 3: Searches for practical laws but cannot find them; justifies this failure or gives practical examples from perceptual experience. Does not provide any verification.
- Level 4: Searches for practical laws and criticizes experience; is still unable to dissociate factors and thus is unable to find a systematic procedure for discovering the solution.
- Level 5: Constructs experimental techniques, working through all the factors; scrutinizes facts a posteriori, seemingly intending to find proof for reasoning.

The results, presented in Table 3, show that the test differentiates distinct populations according to their level of schooling.

Table 3. Results of pendulum task

Level	Test 3				
	1	2	3	4	5
Illiterate		5	11		
4th year		6	7	3	
9th year		1	4	11	
12th year			1	14	1
University			1	14	1

Test 4: *The possible and the necessary*

Starting from Piaget's (1981) original task relating to the "possible lines of travel of a car" when trying to understand a subject's concrete operational evaluation of the real, the possible, and the necessary, this test aims at understanding whether the

concept of the possible is an extension of the perception of reality or if it originates in a mix of conceived virtualities in which the seen and otherwise apprehended are but one of its possible forms.

Subjects are asked to indicate how many routes can be taken to arrive at a lake. The experimenter is trying to establish whether the subjects initially consider several possibilities at the same time or whether they proceed by successive trial and error and only afterward try to analyze those trials. The experimenter also tries to determine whether the subjects rapidly arrive at an indefinite number of co-possible solutions or whether they reduce the trials to a modest number. To make this analysis easier, concrete objects are used, like a small figure to represent the subject and a miniature to represent the lake. At all times, justification of procedures is required of the subjects.

The criteria for the classification of responses were:

Level 1: Does not seem to grasp the critical question.

Level 2: Gives responses extending from 1 to 100 possibilities.

Level 3: Gives responses extending from 100 to 10,000 possibilities.

Level 4: Gives responses extending from 10,000 to infinite possibilities.

Level 5: Gives an immediate response and justifies infinite extension.

The results, presented in Table 4, show that the test differentiates distinct populations according to their level of schooling.

Table 4. Results of test of the possible and the necessary

Level	Test 4				
	1	2	3	4	5
Illiterate		15		1	
4th year		12		3	1
9th year		4	5	4	3
12th year		4	1	6	5
University			2	7	7

Results

Summarizing results, one can see that the selected tests confirm the hypothesis that subjects' levels of cognitive responses vary in accordance with their degree of instruction—that is, on the whole, one may observe a gradual increase in efficacy accompanying increasing levels of schooling. As the complexity of the tasks increases, the difference between the results presented by groups that received more rather than fewer schooling opportunities become larger.

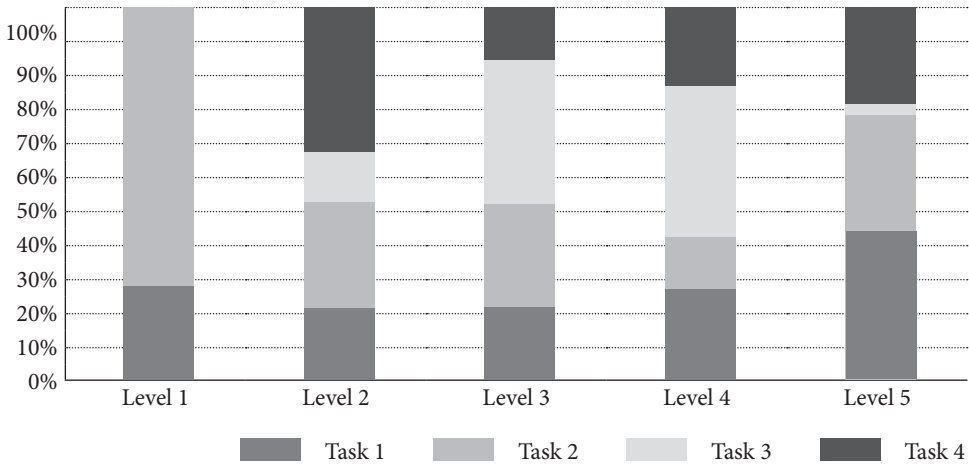


Figure 1. Variation in the levels of cognitive responses

Isolated contradictory results found in several groups may be attributed to ignorance of the empirical matter or even to impulsivity.

Conclusion

The research here presented does not attempt to point out all possible matches and mismatches between Piaget and Vygotsky in respect to developmental processes and learning. It rather intends to show that the two authors developed fundamentally divergent readings of some of these phenomena. According to Piaget's theory, the development of intelligence is at first essentially sensorimotor and individual; it advances slowly and is gradually formalized. The constitution of forms of thought (psychogenesis) is independent of historical transformations or contextual variations.

Although Piaget considered the ceaseless activity of the subject as the dynamics of intelligence, Vygotsky saw the relationship between practical action and the symbolic thought of the child as the key to understanding the genesis of higher psychological functions as they occur in ongoing development. Devoted entirely to the subject and concerned with the construction of logical reasoning, Piaget did not deepen the discussions about the human and social world with which the child interacts and on which the child depends. According to Piaget, because they possess a self-regulatory mechanism, cognitive structures ensure auto maintenance and hence the cognitive system. Thus, mental development is oriented toward ensuring the proper maintenance of cognitive structures. This orientation emphasizes a secondary aspect attributed to historical context by Piaget: cognitive structure tends to preserve itself, whatever the context in which it is found.

Vygotsky was interested mainly in demonstrating that the development of higher mental functions is related mainly not to biological laws but to social laws, and therefore is historical. The whole development of people, with their typical capabilities, depended (and depends) on their appropriations and objectifications, which are always related to the time and the conditions experienced in sociohis-

torical circumstances by the social group and by humanity. It is understood that human nature is, from the beginning, essentially social in as much as it emerges and develops from work and from human beings.

According to Vygotsky, development and learning condition each other: people are constructed and evolve as they interact socially, appropriating and re-creating the culture developed by earlier generations. People and society make up a whole, and dialectical movement produces learning and development. It is a unity in which the two poles complement and influence each other through social and historical interactions among people and between them and nature.

When studying the results of the performance of the five different sample groups on Piagetian problem-solving tasks and confirming that their responses seemed to vary according to levels of schooling, I was centered on making more visible the synthesis, or dialectic unity, between learning and development as found in consciousness.

The results of the experimental study and its interpretation point us to the genetic law of cultural development: the construction of consciousness, the highest reflection of reality, is entirely subordinated to the law of double development. This general law of psychology, proposed by Vygotsky (1929/2000), states that every psychological function appears twice in human experience: first in an interpsychological dimension and then in an intrapsychological format. In the interim, he defines higher psychological functions in their relations with lower psychological functions as being genetically, structurally, and functionally different.

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CLINICAL PSYCHOLOGY

Contribution to postnonclassical psychopathology

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Any psychological paradigm needs a psychopathological system that helps professionals to describe and explain the behavioral expressions that deviate from “normal” (whether this term is used with the semantic property of statistical or ideal adaptations). In this work, I seek to present the system that I have been developing since 1998 among the psychologists at the Instituto Vegotsky de Lisboa (Vygotsky Institute of Lisbon), Portugal, to understand psychopathology with regard to the vygotskian approach. It was conceived and designed according to the work of Rita Mendes Leal and her contribution to socio-emotional development theory, AR Luria’s systemic and dynamic theory of the human brain, the theory of Activity (dyatel’nost) of AN Leont’ev, and the psychopathological German school of E Kraepelin, presented and disseminated in Portugal in the early twentieth century by Professor Sobral Cid. It is intended to be a proposal to colleagues who are interested in postnonclassical psychology and a request for arguments.

Keywords: psychopathology, development, vygotsky, Luria, postnonclassic, syndromic analysis

“... the patient attitude to a situation and
to himself should become an Object of study
[of psychopathology]” (B.V. Zeigarnik, 1971, p. 29).

Introduction — Why a new contribution?

I remember the time, as a psychology student at the University of Lisbon in the 1980s, several of my professors of Psychiatry told me that it would not be possible to understand psychopathology or to prepare to be a psychiatrist without a good understanding of psychology. Recent advances in molecular biology and biochemistry, including the old discovery of chlorpromazine in the 1950s, have been met with enthusiasm by professionals in psychiatry and even in clinical psychology. Because of this, in last the 20 years, the psychopathological training in academic and professional settings has forgotten psychology.

In recent years, I returned to university as a student dedicated part of my time to the study of health sciences (molecular biology and medical biochemistry). Soon, I realized that the enthusiasm for molecular biology, which is popular in many areas of health sciences, in the case of the study of mind and behavior is an illusion (Quintino-Aires, 2014).

On the other hand, and in parallel with paths not touched for years, the epistemology of psychology has advanced remarkably. The disclosure of the historical cultural psychology of L.S. Vygotsky, beyond the borders of the former Soviet Union, generated an interest within an extraordinarily heuristic paradigm and accelerated research. Classical psychology was quickly surpassed by nonclassical psychology, which was used to build postnonclassical psychology (Zinchenko & Pervichko, 2013).

Today, I believe that just as it would not be possible for a doctor to work without knowing physiology and molecular biology nor a surgeon to work without knowing human anatomy, it also does not seem possible that someone working in psychopathology, whether as a psychiatrist or a clinical psychologist, could work without a conceptualization of the mental and behavior functioning of their clients that goes beyond the description of symptoms and grouping them into extremely artificial categories to be verified after spending enough time with each client because, in reality, the categories are further apart than the natural history of the disease.

Psychopathology is redeemed by concepts such as syndromic analysis, primary and secondary symptoms, minus and plus symptoms, and the understanding of these concepts according to the fascinating reasoning that postnonclassical psychology presented to us as a continuation of the works of Vygotsky, and it seems that it is mandatory to overcome confusion in the science of mental health.

Just observing the difficulties of the adaptation of some humans to simple different behaviors is an extremely reducing form. The recent financial crisis that arose in the United States of America and crossed the Atlantic and settled in Europe has shown in a very clear way that the differences in the skills of adaptation of human beings are beyond simple individual differences.

Any psychological paradigm needs a psychopathological system that helps professionals describe and explain the behavioral expressions that deviate from “normal” (whether this term is used with the semantic property of statistical or ideal adaptation). In this work, I seek to present the system that I have been developing since 1998 among the psychologists at the Instituto Vygotsky de Lisboa (Vygotsky Institute of Lisbon), Portugal, to understand psychopathology with regards to the vygotskian approach. It was conceived and designed according to the work of Rita Mendes Leal and her contribution to socio-emotional development theory, A.R. Luria’s systemic and dynamic theory of the human brain, the theory of Activity (*dyatel’nost*) of A.N. Leont’ev, and the psychopathological German school of E. Kraepelin, presented and disseminated in Portugal in the early twentieth century by Professor Sobral Cid*.

* Portuguese psychiatrist and politician (1877–1941). As a university professor, he created the Portuguese school of clinical psychology, which was based on psychiatric semiology, the definition of psychological concepts, and on a humanized clinical practice that values the relationship between doctor and patient without losing the sense of medical psychiatry and its biological basis.

The integration of these scientists is made separately. First, the paradigm of the Cultural History theory is synthesized in the thesis of Lev Vygotsky. In this grouping, the work of L.S. Vygotsky, A.R. Luria, A.N. Leont'ev and R.M. Leal fit naturally. The integration of Rita Mendes Leal in this group is due to the understanding that I reached in 1989, when I began my studies of Vygotsky and Luria, when I was her student and after I was as a psychologist supervising the Relational Dialogical Psychotherapy Society. Later, I realized that my understanding had been previously suggested by the examiners of her doctoral thesis, defended at the University of London in 1975, specifically by Professor Tony Bufery, from the Institute of Psychiatry. After 1999, it was stated and written by her.

The second group includes the psychopathological school of E. Kraepelin and Sobral Cid. I conducted the integration of this school in a Cultural History paradigm with the study of texts by B.V. Zeigarnik, and, particularly, texts by the Czech psychologist Eva Syristova. I separate these two groups because they are epistemologically distinct. However, conceptual bridges build something new, overcoming the boundary that separates them, and allowing communication between professionals from different approaches. This destruction of the border is possible due to syndromic analysis.

The psychological paradigm of Emil Kraepelin and Sobral Cid is still rooted in the Cartesian philosophy (which makes sense for two authors of the late nineteenth century and early twentieth century^{*}). The psychological paradigm of Vygotsky in the philosophy of Spinoza is monistic (the body and mind are two categories of the same substance^{**}).

Vygotsky's thesis in relation to the human brain and higher nervous functions (Vygotsky, 1930) was later demonstrated experimentally both in psychology and in neurosciences and is the core of what is understood to be the vygotskian paradigm^{***}. Introducing fundamental concepts, such the Law of Double development, the Zone of Proximal Development, and the discussion on Signal, Meaning and Sense (Vygotsky, 1934), the psychological paradigm of Vygotsky presents an understanding of psychology that is compatible with the XXI century; which it is as an independent science that supports the discussion of Biology (thesis), Sociology and Anthropology (the law of double development) and Linguistics (with the introduction of the categories Sign, Meaning and Sense).

Psychopathology I — The classical approach

Working in Clinical Psychology suggests having a system that allows the performance of psychopathological diagnoses, in which it is possible to have a general orientation of the prognosis and to design a plan of care and treatment. Primitive psychiatric classifications were necessarily symptomatic because the authors, with all of the value of their pioneering, were ignorant of the true causes and underlying

* Cartesian philosophy, in my opinion, is only overcome in the psychological sciences by Vygotsky and Luria in studying the structure and origin of higher neurological functions.

** RM Leal monistic understanding comes from a philosopher of the fourth century, St. Augustine.

*** Although often poorly framed, they are sufficiently documented, so I will not concern myself here in their presentation.

the disease processes of mental illness, seeing themselves forced to rank them according to the similarity or difference to the clinical symptoms offered them (Sobral Cid, 1924).

However, as all other artificial classifications, as noted by Sobral Cid, symptomatic classifications have the drawback of being included in the same group (...) [pathologies], “that, despite their apparent similarities outside, have intrinsic characteristics that clearly separate them (...), and different species disperse clinical syndromes that — notwithstanding their diversity — only express different modalities, or successive stages, of the evolution of the same morbid process” (Sobral Cid, 1924, p. 76).

Sobral Cid criticized the theory of degeneracy that was adopted by Morel. Because of the misleading connotation attributed to the idea of heredity, “in which sense is woefully confused with biological heredity itself, which is the tendency to repeat the progeny of characters ancestors, and so-called morbid heredity, that is, the set of disturbing influences during the ontogenic development that are incidentally introduced by the parent and pathological conditions that might damage the germ reaching the nervous system in the developing fetus and in the immature brain’s children in the early years of child life” (Sobral Cid, 1924, p. 84). Morbid heredity, in the language that we use in our team, has been discussed in the “theory of the mold of form.” By this, I mean that those with whom we interact continuously and significantly in some sense work in behavioral and psychological terms to “mold” our “forma”. We come to present behavioral characteristics and similar structures, even when we dpreviously criticized them. As Vygotsky wrote, “The social and class lines are formed in man from internalized systems, which are nothing more than systems and social relations between persons transferred to the personality” (Vygotsky, 1930, p. 133). Basically, this “theory of the mold of form” is no more than the Vygotsky’s Law of Double Development.

The misconception presented in Sobral Cid’s first critique is better understood and accepted after the work of Vygotsky and Luria. This is especially true after they indicated that consciousness and higher neurological functions were objects of psychology.

In the second critique, Sobral Cid refers to evolutionary nature in mental pathology. “The *evolutionary law* of a specific morbid process is one of its most essential characters and surely has more taxonomic value than the cause, which is not always specific, or that its symptomatic form, which is often accidental” (Sobral Cid, 1924, p. 89). He adds, “In addition, under the practical point of view, a purely etiological or symptomatic classification does not enable the clinician to deduce from the nosographic item the prognosis of each case” (Sobral Cid, 1924, p. 89). The evolutionary law seems to me to be an old alert to the genetic analysis of clinical psychological phenomena (Zinchenko & Pervichko, 2013).

Sobral Cid notes the fact that Valentin Magnan*, despite having assumed the evolutionary nature of a mental illness, constituted nosographic specific groups

* French psychiatrist (1835–1916). Even today, it is known for its importance in the history of French psychiatry in the second half of the nineteenth century and especially for expanding the concept of degeneration that was introduced in psychiatry by Bénédict Augustin Morel (1809–1873). Magnan’s degeneration theory was influenced by biological theories of evolution and heredity (“*Considerations générales sur la folie des héréditaires ou Dégénérés*” published in 1887).

and givengave them clinical individuality. This choice was quite different from that made by Karl Kahlbaum* (1863), who introduced the evolutionary criterion in his classification (which, curiously, he called *Gruppierung* and not *Klassifikation*), which helps us transitions between psychology and psychopathology and psychopathology and psychology, as is proposed here.

The evolutionary law was patiently studied and demonstrated by Emil Kraepelin (1899). That is why Sobral Cid wrote that if Magnan (French School) had the greatest number of alienated people, Kraepelin (German school) had observed their patients for a prolonged period of time and with a greater *esprit de suite*. This enabled Kraepelin to realize that what was indicated as different frames corresponded to different phases of the disease (leastways, in the case of their studies on psychosis). As is known, this method led him to classify only two forms of psychosis: schizophrenia, in 1893 (he called it *dementia praecox*), and the manic-depressive psychosis, manic-melancholic, as it is best known, in 1899.

Psychopathology II — Beyond the classical approach

In the psychopathological system proposed here, I allocate the two critiques Professor Sobral Cid defended in 1924, which are also still the most commonly used systems today (the ICD-10-R and the DSM-IV). The diagnosis is not of the symptoms but of the pathognomonic vector (primary symptom).

Also presented in this natural classification submitted here, and in contrast to the artificial classifications, variants do not have the value of *nosographical species* per se but only represent *evolutionary forms* of the same species.

In turn, the various nosographical species are not completely independent of each other. In 1884, Hunghlings Jackson** offered a very new neurological theory of the “evolution and dissolution” of the central nervous system. This theory, which received little attention at the time but is now perfectly integrated in neuroscience, explains the physiological function and the organization of the CNS into three levels that undergo a process of evolution during development but that can also undergo a process of dissolution.

The first level, or the lower level, corresponds to the medulla and the brain stem and has a primarily fixed and organized functioning level, is less complex, and is more resistant to pathology. The upper level, corresponding anatomically to the association areas (parieto-temporo-occipital and prefrontal), is still less organized, more complex, and particularly susceptible to pathology. The intermediate level, with an intermediate level of operation, corresponds to the cortical sensory and motor areas, the subcortical nucleus and gray matter.

Jackson’s theory would suggest a lower level with a function such as a “single piece” that is scheduled biologically, i.e. by genetic information, and an upper level with a run type “contraption” that is artificially programmed, i.e., by a relationship with other humans, and is mediated by historical and cultural instrumentalities, as we may say today. This thought was skillfully introduced by Luria in 1966 and was and was more recently discussed by Homskaya (2003), and it can also be under-

* German psychiatrist (1828–1899).

** English neurologist (1835–1911).

stood based on Ivan Pavlov's (1924) work on generalized reflexes (in the species) and specific reflexes (in the individual). It is not completely foreign to the cronogenetic principle of location (Anokhin, 1973).

In the neurological theory of the "evolution and dissolution" of the CNS, Jackson also included the principle of the duality of the symptom, whereby the pathological functioning shows the extent of the commitment, or rather, what the patient has not acquired or lost (minus or negative symptoms), but also the extent of the evolution, or what the patient has acquired and endures (plus or positive symptoms). In other words, basically what we understand today to be adaptation and compensatory potential (Zinchenko & Pervichko, 2013).

Following the theory of H. Jackson, I would like to share the words of the Czech psychotherapist Eva Syristova: "The unconscious emotional eruptions, the thought and the dissociated behavior do not have the character of a child or archaic psyche. Psychosis cannot be reduced to these regressive forms because it has its own originality and is an evolutionary or historical neologism" (Syristova, 1971, p. 51).

She also wrote: "The symptoms of mental illness simultaneously express the fact that the individual is unable to resolve and consciously master a particular life situation and satisfy their needs in a real way" (Syristova 1971, p. 49). She adds, "this positive conception of mental illness as a defense mechanism, even as a spontaneous effort to heal is the fundamental approach of dynamic psychopathology" (Syristova, 1971, p. 49).

Cristina Canavarro (1998), from the University of Coimbra, showed that mental health is a function not only of relations with former caregivers, as we can infer from the work of S. Freud, but also of the relationships with friends in childhood and adolescence (second heroes or caregivers) and love partnerships in adulthood (a third hero or caregiver). In this context, we extract from the term "pathogenic parent", in Eva Syristova's terms, and the concept of the "pathogenic caregiver".

Psychopathology is not the result of a predetermination of the genome or the condemnation suffered at some point in a bad relationship in childhood; rather, it is formulated and reformulated within relationships mediated by culture, as indicated by the hypothesis of the changeability of personality structures by Rita Mendes Leal (1975; 1997; 2007), a hypothesis that I prefer to call a *theory*, as it has over forty years of intense experimental demonstration, received several awards from the scientific community, and has about twenty years of clinical verification by myself and the clinical group that I work with.

According to what I have presented here, there is a clear need for a new psychopathological system that allows us to hear and think about each client in consultation within the psychological postnonclassic paradigm. A psychopathological system that considers that, as written by Zeigarnik evoking Vygotsky, "the psychological processes arise in the joint activity of humans and their mutual communication ... [and for which] the action principle is split between two people, and converts depending on the personal conduct of the individual" (Zeigarnik, 1971, p. 110). A psychopathological system in which, "The pathological material allows the establishment of the laws of modification of human motivational sphere, which result in a change of views, interests and personality values" (Zeigarnik, 1971, p. 156).

Continuing from Zeigarnik: "The views, the acts and the person's reactions are not an immediate response to external irritants and instead depend on attitudes,

motives and needs. These attitudes will be formed throughout life, under the influence of education and teaching (broad sense); once formed, they themselves determine the actions and acts of healthy or sick people. The attitudes of the person are related to the structure of personality, needs and the emotional and volitional characteristics. Although the latter are considered by psychology as processes, they, in essence, form part of the personality structure" (Zeigarnik, 1971, p. 29).

"We can speak of a pathological personality change when under the influence of the disease, which diminishes the person's interests, whether making their needs narrower; when it remains indifferent to things that troubled him/her before; when their actions have no purpose, the actions are not controlled; when the person ceases to regulate their behavior, they may not adequately value their capabilities; and when it changes his/her attitudes towards him/herself and the world that surrounds him/her. This changed attitude is indicative of personality change" (Zeigarnik, 1971, p. 29). In this sequence, followed by B.V. Zeigarnik stating that "the very attitude of the patient relative to a situation and for him/herself must become the object of study (of psychopathology)" (Zeigarnik, 1971, p. 29).

With these assumptions, it seemed to make sense to look at the suggestion of Mary Rita Mendes Leal (1988), of a Genetic Affectology theory, which was presented in seven 'steps' of socio-emotional development, to and to use this rationale as a research tool in psychopathology in an attempt to propose a natural classification system based in vectors (the main activities — D. Elkhonin, 1978 — in the healthy development) and not pathognomonic symptoms, approaching a postnonclassic version of psychology.

Psychopathology III — From the theory of development to a psychopathological system

I first presented this proposal of a psychopathological system at a training course on Clinical Psychology and Psychotherapy at the Instituto Vygotsky de Lisboa (Lisbon Vygotsky Institute) in September 1998. At that time, the proposal was only a logical and accessible system for clinical psychologists in postgraduate training. However, at this time, several colleagues, based on their own clinical work, contributed important critiques and arguments that sustain this proposal.

As Rita Mendes Leal (2006) wrote, "life is linked from the beginning until its end, a pattern of attendance and contact relationship with an "object" that responds and establishes a meeting with the world beyond it and which transcends the relationship" (Leal, 2006, p. 10). This pattern of relationship works as the "broth" within which the mental apparatus is structured because an organism (a human) operates according to the laws of biology until the construction of a human being (a person), which operates under the laws of psychology.

This route is not predetermined and is based only on a condition of biological heredity (genomic). Rather, this route unfolds according to the "relational format", living with others leads to the relationship, and also according to the cultural instrumentalities created in cultural history — in terms of things, activities and standards that are also embodied in the idiom that serves speech.

It is clear, therefore, that this route is not fixed/rigid or mandatory. As Vygotsky wrote, the development of mental apparatus does not occur in the same way that

a plant grows. When the gardener sows the seed in the earth, we know in advance what will be born at the end of a given time; for example, a red rose or a blue lily. At the birth of a human being, we only know that he comes with “the capacity for human relationships and for appropriating culture.” Therefore, we can only make predictions about how the anatomy and physiology of his brain will develop and how he will relate to himself and with others and the world. We can only make these predictions if with respect to the adults of their culture.

Throughout life, a human goes through different stages of social and emotional growth, each one different from others, even if each stage contains the characteristics of the preceding ones. The change to the next stage (“step”, as Rita Mendes Leal called it) requires an intercourse social pattern with a caregiver, which “lends the relationship” like a human “veteran”. The pattern of relationship that characterizes the operation at each step realizes the personality style (stage) of that human. This offers us the opportunity to perceive different typical structures of personality at each step and the possibility of identifying each vector operation at each personality structure. In practice, the vector is the essence of operating at a specific step.

Throughout the development of the human psyche, each stage corresponds to a psychological age, with a normal operation (in terms of a real standard, that also could be statistics) corresponding to a chronological age with its historical, cultural and social demands. The interruption of this movement (development) by the triangle commitment of the Self (I) — Other (Caregiver) — Object (historical-cultural instrumentalities) leads to a personality that in a relational-historical context is assessed as pathological (less adaptive). According to the evolutionary law referred to above, the *vector* that identifies the personality structure is the “pathognomonic vector”, which identifies psychopathology.

Thus, the “Steps of Genetic Affectology”, by Maria Rita Mendes Leal, serve as the “grammar”, *morphology* and *syntax* of personality that allow us to listen/read with sense the *phonemes* produced by the patient, which are then the symptoms expressed in actions and speech.

Psychopathology IV — A proposal for a system

We therefore deduce a psychopathological system from natural sequencing, in what is currently observed as an usual development in Western society, which is possible from the pathognomonic vector by predicting symptoms without being dependent on only one them for diagnosis; inferring a therapeutic attitude; and developing a prognosis. Obviously, in the space of an article it is not easy to synthesize and clarify a new proposal for a possible future psychopathological system. In another work, a book, I presented the various relational formats that we have identified. Following the Marxist proposal *from the most complex to understand to the simplest* (we cannot understand human from ape, but we can probably learn something about apes from studying the human), in that book I focused on the types of romantic love relationships between adults to address different personality structures that suffer because they have not adapted (Quintino-Aires, 2009). Unlike the traditional route from childhood to adolescence to adulthood, here I chose to start with the adult romantic relationship in order to understand adolescents’ friendships and the affection between the child and their parents.

Psychosis

The vector pathognomonic of psychosis is the *difficulty of entering into a relationship*. It develops in personality structures in which the vector operation occurs as an analogy with the first and second steps described in the Genetic Affectology. This vector corresponds to two different psychopathologies: autistic psychosis and affective psychosis.

Autistic psychosis has as reference the vector of the first step of personality: the **orientation to contingency analysis**. It is understood that autistic psychosis features an operation in which the initiatives are dramatically reduced due to the absence of previous contingency to his/her previous initiatives but are not completely disappear. Thus, discomfort is organized in the physical and social presence of another human, which is needed (biologically) to successfully enter into a satisfactory relationship. This type of operation is recognized in autistic and Asperger children and in schizophrenic adults. The difference that we observed between autistic and Asperger children or a schizophrenic adult corresponds to a different brain structure, according to *the principle of the heterochonous anlage of components of a functional system* by Anokhin (1974) and Vygotsky's thesis of systemic and dynamic organization, as documented experimentally by Luria (1966; 1973) and, more recently, by many others, including F. Ostrosky-Solís (2004) using the modern methods of neuroimaging.

Affective psychosis manifests during the second step of personality development, which has an **attention circular reaction** vector of operation. The affective psychotic person already has the ability to be contingent on the initiative of another person, and this novelty becomes the main activity (Elkhonin, 1978). However, *another one* is more a *Phantom* (French psychoanalytic school) than real, so it is functionally unavailable. This operation is recognized in hyperactive children and in adults with manic depression, or according to the terminology suggested by Sobral Cid, the manic-melancholic. H. Jackson's neurological theory and the *principle of "equal simplicity"*, a dynamic theory of localizations by N. Bernstein (1967), allow us to understand the nature of the motor symptoms in hyperactive children and its ideational character in manic-melancholic adults. Hyperactivity in children requires the availability of intermediation by brain regions (the frontal motor region), while the manic-melancholic operation requires the availability of (prefrontal) upper regions that are only available after 12–13 years of age. However, both forms have the same pathognomonic vector.

To understand the vector (personality structure) that is discussed here, I suggest reading the biography of the Portuguese singer Amalia Rodrigues, written by Pavão dos Santos (2005), recently reissued.

Psychopathy

The pathognomonic vector of psychopathy is the **feeling of injustice** resulting from an encounter with the "self-other-object (thing, person, or event)" that does not function as a vehicle of consensual meaning. It develops from the structure of the third step of personality, Genetic Affectology.

Psychopathy is the evolution of the third step, and the vector is **joint naming and referencing**. The inability of the psychopath to name the act of another, which

sometimes does not coincide with its own (the self), is the injustice of another, an operation that we can recognize in the **defiant-oppositional child (omnipotent child)** and in **adult psychopaths**. The unavailability of shared mutual consensus meanings in vygotskian terminology hinders the understanding of the Act (*dyatel'nost*; *Tätigkeit*; “action” in the terminology of Rita Leal) of the other, leading to interpreting it as injustice.

In the training of clinical psychologists at the Vygotsky Institute of Lisbon, we propose as activity for understanding how this works as a personality structure and psychopathology in which each element of the group of trainees evokes the most intense experience of injustice that he/she has committed. Following the proposed group dynamic, which is always accompanied by the trainer, descriptions that demonstrate the difficulty of the meaning of being unfair to another arise, and behaviors (thankfully only verbalized fantasy) that match the psychopathic symptoms also arise.

Clinical practice often shows two evolutionary moments in psychopathy. An earlier moment, characterized by passivity resulting from the perception of “powerlessness” to restore justice, and a more evolved moment, characterized by the activity to repair injustice that resembles a moral guardian. We call the first form **passive psychopath**, and the second **active psychopathy**, and the second are included *serial killers*, who are commonly associated with psychopathy.

The identification of a pathognomonic vector, corresponding to a vector operation, leads me to consider psychopathy as a nosographic species, a clinical entity, to and to reject terms such as *border-line*. We have performed some discussion on this issue at the Vygotsky Institute of Lisbon, and the term psychopathy has a negative connotation in our culture, and that the vector operation and the pathognomonic vector — restoring justice — are well presented in stereotypes and substantial cultural and social figures. For example, the classic college student of Coimbra University, who several years after he entered university continues without graduating and who every summer in his hometown engages, seduces and impregnates some poor girl who works as a servant in his house without worrying about what will happen to her and the child after, and in the opinion of everyone in the small village, he is an admired play-boy. Alternatively, in another case, in some religious priests and nuns, who advocate that truth is different from practice acted, realizing a pre-symbolic function, and separated the “active role” and “knowledge function” (in the terminology of A.N. Leont'ev and B.V. Zeigarnik). It is reminiscent of the famous phrase by E. Kraepelin: “with the Bible in hand and a stone in her lap.”

Neurosis

Neurosis has a pathognomonic vector, the **need to control**, which begins with the need to control the attention of the Other, and then, by a process of generalization, becomes the need to control things, people and events. It develops in personality structures during the fourth, fifth and sixth steps of Genetic Affectology, thus appearing in three different psychopathologies: anxious-phobic, hysterical and obsessive-compulsive neuroses.

The **phobic anxiety neurosis** is an evolution of the fourth step, which has as a vector of operation of the **pre-symbolic elaboration of losses and meets again**

with a caregiver, as discussed by Rita Mendes Leal. This neurosis is experienced as a figure of unreliable appearance and has to be “controlled” so that it can suddenly disappear. Thus, the personality with this vector operation systematically searches for the physical presence of another, affecting the activity of exploration and enjoyment of the world during this presence, even if illusory. These individuals can serve as caregivers because sometimes it is “just” a child or a voice on the phone required that can allow them to enjoy a bit of sun on the esplanade.

In phobic anxiety neurosis, the pathognomonic vector is accompanied by an **inhibitory strategy** that reduces anxiety (commonly understood as the problem to solve), a condition shown in studies of neurophysiology in rats that were trapped without the possibility of escaping from a potential aggressor to reduce the brain's electrical activity recorded on EEG, corresponding to fainting or even to a coma. Thus, we hear the phobic-anxiousness that neurotics refer to upon non-entry into elevators or airplanes, not because they fear that they might fall, but to avoid the situation of wanting to go out and not being able to; not passing the bridge on the “25th April” for fear of shooting up by himself; not going to a bank or a government agency because of the waiting context is intolerable; and not entering a motorway because no one can prevent a traffic jam and the consequent impossibility of getting out if desired. That is, individuals avoid events that take place outside of their own control because they does not appear in their consciousness to be masters who address the confusing world full of the unforeseen need, such a single that ensures a stable relationship with the world of external and internal objects.

A rather evolved form in the pathology of phobic-anxious neurosis is called Post-Traumatic Stress Syndrome, with which I had the opportunity to work with in the years I worked at the Military Hospital in Lisbon. When placed in a situation where it is impossible to have control over the events in which a person is involved (in war it is impossible to predict when the enemy attacks or who will be hit by the bullet), the phobic-anxious personalities rapidly develop pathology and express the symptoms we all know.

The interaction of the events with separation between the “active role” and the “knowledge function”, using the terminology of A.N. Leont'ev and B.V. Zeigarnik, denounces a symbolic operation where the social meaning of events have not yet turned in to the personal sense** of the same events. In other words, where the non-appropriation of the *personal sense* of the event prevents the discernment of control for himself and his life, it becomes a Principal Activity in the terminology of Elkhonin.

Hysteric neurosis is an evolution of the fifth step, which has as operating vector, the **differentiation of its live relative to their parents (Self live meaning)**. The person embodied the narrative of their parents and presents it to other peers, sometimes combined with dissatisfaction of the consensual meanings. Finding themselves bereft of the dream to be the world's center to “others”, the person embodies the narrative of adults in terms of social meaning, but not in the personal sense, which results in immature acts.

* Bridge in Lisbon, similar to Bridge of San Francisco, USA.

** Here, we distinguish “social meaning” and “personal sense”, when what someone says or advocates (social meaning) is different from how she acts (Personal sense).

As also happens with a child, in this step, the person is dependent in many ways on the emotional charges that transcend him/her. Involvement with the face to face scenario with adults (the dramatization has already been addressed many times) presents (the incorporation of character) what is observed, and they copy the adults who they grew up with (their values and their talking). Throughout this process, it is possible to distance his/herself enough to “discover” and evaluate their ancient heroes (even though peers comment on these heroes ...) and to perceive them (ancient heroes, parents) as imperfect people. Often, this is a painful process but provides the freedom to own a personal search of consistency.

In hysterical neurosis, the pathognomonic vector is accompanied by a **strategy of theatricality**, which reduces the anxiety produced by the main activity (Elkhonin) dictated by the vector of operation. Stuck between the proposal of the adult character and the condition of being younger than they are the frequent sexuality and sensuality contents (some type of crisis typical of the Zone of Proximal Development). These are not experienced in life but are *phantasmatically* tested without the experience that dramatization permits without compromise, while holding the other's attention. I recall here the words of Professor Manuel de Matos: ... “The hysterical woman induces, induces, induces; but when a man opened to her, she runs away”. This makes us think that the adult character created too much anxiety when approaching real life. What can be dramatized and neutralized (because it is the main activity), dictated by the vector operation, could not be tried. Once again, this reveals the separation between the “active role” and the “knowledge function”.

The **obsessive-compulsive neurosis** is an evolution of the sixth step, while the vector operation is the **discovery of pleasurable partnership outside the family (attachment with peers)**. As a result of the evaluation and disappointment of his oldest, and having distanced himself enough to assess parents among peers, he increases the perception of belonging to the group and seeking mates who speak the same language and have the same customs, thus solidifying social rules. They are still without a symbolic force of personal sense, which is not an appropriation by itself but is a new embedding narrative. No further incorporation of the narratives of the parents, but the narratives of couples, with the problem that they are plural (a group of peers) and present relative diversity, which causes anxiety (*we cannot please Greeks and Trojans ...*).

In obsessive-compulsive neurosis, the pathognomonic vector is accompanied by a **rationalization strategy** to reduce anxiety. Obsessive-compulsive neurosis works for the acceptance and attention from all others within the social norms, which he takes as personal, but are not personal in a sense.

In the training of clinical psychologists at the Vygotsky Institute of Lisbon, a dynamic is proposed by the trainer in which each student must imagine a dinner at the home of someone important from another culture. With the help of trainers, trainees are directed to enhance the admiration of the owners of the house where the dinner takes place. The absence of cutlery (suggested by the trainer) creates a situation in which control is lost. Even without knowing the psychopathological system under study, the responses of learners to solve the situation reveal exactly one of the three typical strategies to reduce anxiety in neurosis: inhibition, theatricality, or rationalization.

Depression

Depression has as a pathognomonic vector of **hopelessness** resulting from the simultaneous presence of a desire that the world could be otherwise and the certainty that it is not possible. Depression is an evolution of the seventh step, the vector operation of which is **creating personal meanings (self live sense)**. Again, as a test plan, testing approaches/creates separations with older persons and with peers (because they also disappointing), alternating between being a caregiver and being cared for. A new format of dialogical relationship begins to occur, rehearsing the experience of romantic love and passion. The test of reality is operationalized and raises awareness that the intention of the other, *any other*, can not only be different from his/her own but even feigned and deceitful. The world is seen in its real hue, and this finding causes woe and the hopelessness prevails.

This is the least common psychopathology and has been observed in only a few cases over the last two decades. In one case, I worked with a thirty-two-year-old woman who was brought to my practice after wandering between the bed during the night and the living room sofa during the day for the past year. The change of location was caused by her mother, who tells her: "It is day, get up" or "It's late, go to bed to sleep." During the four years of therapy, the main activity (or theme) was just one aspect of her life that she could not give up but was one that she had absolute conviction of not being possible: her homosexuality!

This is the reason why the depressed individual does not cry: because he/she knows that there is nothing to change while the desire does not disappear or change. Is thus tied to the drawing of something in the future that is unable to be resolved in the present.

Table 1. Summary of the proposed psychopathological system

Step	Personality Vector	Pathognomonic Vector	Psychopathology in Children	Psychopathology in Adults
1	Contingence orientation	Difficult to connect with others/uncomfortable	Autism and other infant psychosis	Schizophrenia
2	Attention circular reaction	Difficult to connect with others/grief	Hyperactivity	Maniac- Depressive Psychosis
3	Joint naming	Omnipotence	Defiant-Opposer	Psychopath
4	Loss and meet again	Control/Inhibition	Phobic Anxious Neurosis	Phobic Anxious Neurosis
5	Self live meanings (from family)	Control/theatrical	Hysteric Neurosis	Hysteric Neurosis
6	Attachment with peers	Control/Rationalization	Obsessive Compulsive Neurosis	Obsessive Compulsive Neurosis
7	Self live sense (from friends)	Despair	Depression	Depression

Conclusion

This work is a proposal. It is not a finished theory, as no proposal yet exists in this field of science. It reflects a desire that psychopathology return to the field of psychology, in this case, a postnonclassical approach in psychology. Moreover, it is also intended to be a contribution to psychiatry, as a medical science, as it enters into the twenty-first century, such as other medical specialties. This work implies overcoming classifications based on lists of symptoms. Naturally, therefore, it is also a request for argument.

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Is the oncology patient a participant actor?: Designing psychosocial profiles

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Oncologic disease should be considered one of modern society's dominant pathologies because of its chronicity. Estimates of a patient's adaptation to chronicity shapes the information given to the patient, which is a powerful strategy for changing the patient's social representation from a mere clinical case to a psychosocial being. In this article, the patient's persona, when captured in the social processes and relations involved in therapeutic acts, is conceptualized as the main actor on the stages and sets of hospitals. The informative act, in which information is given to a patient in a hospital, allows identification of the psychosocial profile inherent in the patient's role; this profile describes some relevant categories, among which the "informed patient" and the "uninformed patient" stand out.

Keywords: oncology patients, psychosocial profiles, informed patient, uninformed patient

Introduction

In this article, I analyze the information given to patients with breast cancer throughout a processual medical chain in a health-care institution; this study covered patients from their first contact with the institution to the execution of a therapeutic strategy. The negotiations among the different actors involved in the interactions are also identified.

The empirical results analyzed are based on an investigation carried out during 18 months. The methodological strategy was field research through participant and continued observation of the selected unit. Content analysis of structured interviews with doctors, nurses, social workers, and patients who agreed to be interviewed was carried out as a complementary information-gathering technique.

From medical paternalism to patient autonomy

Relaying a diagnosis to any patient presents an ethical dilemma to doctors. If, on the one hand, patients have the right to know the truth about their disease, doctors, on the other hand, have the duty to inform patients, trying at the same time to

keep their hopes and spirits up and striving for the recovery of their autonomy. Is the performance of this task possible in the case of oncology patients? Although the questions related to giving out information to patients are not specific to oncology patients, in this particular situation they seem to become more dramatic as well as deserving of more attention (Goldberg, 1984).

The controversy around informing or not informing oncology patients about their condition goes back to ancient Greece (Reiser, 1980) and has lasted throughout the history of medicine. Increased emphasis on this controversy has been promoted mostly by changes in the traditional roles of doctors and patients and the increasing life expectancy of oncology patients and by concern for the quality of their survival, which is made possible by improvements both in diagnosis and in the strategies adopted for cancer treatment.

The radical change in mortality rates through the conquest of epidemic disease led to the outbreak of chronic diseases at all age levels, most of them being sequels to infectious diseases whose mortal power has been successfully controlled (Coe, 1984). What seems to remain are the most chronic conditions, which now are the dominant pathologies in our societies (Baszanger, 1986) and for which there are no effective methods for disease remission. Adaptation to the disease—more than its cure—becomes the goal to achieve, and providing information is one of the most effective strategies for doing so.

However, social values, the meaning of the disease, and the role of the doctor have developed radically from the time of patriarchal societies to our own day. From a historical point of view, the doctor/patient relationship has been dominated by the traditional Parsonian model, in which the doctor solves problems by giving out orders that are passively followed by “good patients” (Parsons, 1951), to the extent that the “active-doctor-responsible-for-passive-patient” is still the predominant model in most cases (Sharf, 1988).

The traditional concept of the doctor/patient relationship places patients in a passive, dependent role that involves cooperating with doctors to effect a cure (Brody, 1980). Doctors set the priorities, take the initiative in evaluating patients’ health conditions, and control the process through their autonomy and professional dominance, thanks to the corpus of knowledge they possess.

Szasz and Hollander (1956) suggested the active involvement of patients in the decision-making process as an alternative to the passive-patient role defended by Parsons (1951). Observers with a progressive focus countered the Parsonian model of the paternalist doctor, seen as a one-sided authority for decisions concerning health care, with a new pattern for doctor/patient relationships that included individualism and shared responsibility without, however, a loss of recognition of doctors’ knowledge, capability, opinions, and experience (Boné, 1992; Goldfield & Rothman, 1987; Mackillop, Stewart, Ginsburg, & Stewart, 1988; Schain, 1980).

According to this perspective, patients are not passive spectators of disease. On the contrary, they contribute psychological and social aspects to the doctor/patient relationship, thus participating in the process of cure.

In the future the doctor/patient relationship must be conceptualized as an intervention based on real and genuine mutual respect. Medical authority should be replaced by a collaborative approach, and the wisdom of bio-medical and social

sciences should be applied to the preservation of that delicate balance we call health (Roter and Hall, 1992).

The trend toward specialization, although leading to fragmentary medical assistance, has promoted, in an unquestionable way, the technical levels of this same assistance. The path forward lies not in confrontation but in a continued search for compatibility between the best qualities of the house doctor and the technical virtues of the specialist (Coe, 1984).

The emergence of movements for increased patient participation in medical decisions has resulted in a higher level of information being given to patients so they can participate in an adequate and informed way in their own healing. Such participation can be achieved only if patients are prepared to play an active role in the medical dialogue in order to become acquainted with the different therapeutics available. If alternatives are proposed, they will be able to choose those that are most congruent with their values. Sometimes therapeutics do not make much difference for physical survival but make a significant difference for quality of life. Thus, information has become a mechanism through which the patient acquires the status of a person capable of making decisions in the field of doctor/patient relationships.

Another factor that has awakened the growing interest in doctor/patient communication and information and that also flows from greater life expectancy is the fact that cancer can be increasingly framed within the category of chronic diseases. This change implies periodic and prolonged contact between doctor and patient and naturally hampers health professionals' practice of hiding information. For their part, patients should participate in an increased way in the making of therapeutic decisions, so that they can have a more or less deep knowledge of their diseases, of the available treatments, and of the respective consequences, whether physiological or psychosocial.

In the hospital context, beyond the multidisciplinary that causes differentiated health professionals to intervene, the role of the patient as an "expert informant" emerges (Roth, 1963). Former patients build their status as privileged informers, whether to those who are admitted to the hospital for the first time or to those who find themselves in similar clinical situations, for they themselves have observed the way they have been treated in previous hospitalizations. From this development, Carapinheiro (1993) created the double-sided "professional-patient" category. Through successive hospitalizations, patients acquire the know-how to increase their control of their disease; and they also acquire a specialized sophistication in dealing with hospitalizations. In this way, patients assume the role of protagonists, playing the role of teaching agents in the informing act. In this performance, they make use of common wisdom and nontechnical speech that, although not erudite, becomes understandable when one realizes that these patients are "secondary messengers" of given information.

On another plane, in line with the increased level of public education and with a change of peoples' attitude toward the disease, since the 1940s there has been a proliferation of associations of treated patients: people who have had mastectomies, laryngectomies, or other ostomies (Conde, 1992). In particular, the volunteer associations for those with mastectomies constitute a trusted source of information based on their experience: they are naturally closer to the patients than

are medical personnel. By playing a “veteran-patient” role, they become natural consultants, assistants in the formal care provided by any institution; they help crumble the “wall of silence” that usually arises between oncology patients and health professionals.

Medical care has become increasingly socialized and institutionalized; medical work develops nowadays in a complex context with high specialization levels. The hospital, the main component of the institutionalization process, is the stage for complex interactions that have significant effects on individual and collective experiences of living and working with the disease (Carapinheiro, 1993).

Despite the visibility of the spectacular steps forward in technologies and therapies, one must not forget that health care is based on a less modern but not less important human activity: the dialogue (Larsson, 1989). This dialogue takes place in an institutional environment where the patient sometimes finds it difficult to be heard. When in a context where communication is institutionalized and framed according to different social “choreographies,” both patients and health professionals, particularly doctors, mutually adjust their proximities and distances (Aronson & Larsson, 1987).

The interaction patterns in the medical setting can be conceptualized as institutionalized communication needs, which can be perceived and understood only through eye contact, not only by the interlocutor but mainly by a large spectrum of people; these needs induce constraint at the interactional level.

Barnes (1973) believes that, in a hospital context, the doctor personifies the “hospital mission” to the patient. However, the social representation of the doctor is of a “guardian” of the health-care system; the doctor’s signature is frequently the only means for accessing medication and hospital services. The nature of a health problem is defined by the medical profession, which also defines the appropriate interventions and provides access to the required resources. The patient is left with little influence and becomes the subject of professional dominance when placed in the field of medical practice and its institutions (Freidson, 1970).

Providing medical care is a social-control process. The provider/patient relationship can be seen as an attempt by a powerful and independent expert to change the behavior and attitudes of an ignorant receptor of the communication, who is not allowed to be an actor in the system (Friedman & DiMatteo, 1979). The health professional, owner of superior knowledge and a technical, specialized language, usually retains the right to make decisions in the name of patients and considers them the subject of a professional service (Roth, 1963). This reality, independently of how professional dominance expresses technical skills, does not however legitimate each and every asymmetry in the doctor/patient relationship, which tends to make the health professional a single leading player and systematically deprives the patient of a participant-actor role.

On the interactional level, the patients, subjects of an inexorable relational asymmetry, are therefore assigned a passive role. Their participation in the work carried out around them is denied because their knowledge is of a nontechnical nature and is depreciated by the health organization; in this way patients are incapable of penetrating the hegemonic model of central knowledge, which is medical knowledge. The only possibility of patient expression at the healing level is in rela-

tions with those in the professional execution categories, nurses and other hospital medical staff, to whom a primary role in the humanization of care is normally attributed (Carapinheiro, 1993).

Approached by the doctor as a subject of research, carrier of a disease perceived by health professionals as a topic of the health-care system, and perceived by the organization as a consumer of services, the patient is dehumanized by the structure of the system (Wiener, Fagerhaugh, Strauss, & Suczek, 1980). Therefore, patients are normally deprived of the possibility of participating in decisions about or even giving opinions about the interventions concerning their bodies.

The doctor sees the patient as a clinical case (Friedman & Di Matteo, 1979), a scientific subject (Chauvenet, 1973) because the dominant focus in the institutional context is the treatment of disease and the management of clinical cases; the ill person is left behind (Benoist & Cataebras, 1993; Chauvenet, 1973).

As a “body,” the patient, individually considered, is unknown to the different health-care providers; each patient becomes “known” to a group of actors with diversified competencies who perform on the patient a multiplicity of professional acts in an interactive environment. Therefore, the social construction of the patient’s status is composed of a variety of separate and incoherent identities, a matrix of signs and symptoms configured as an administrative unit.

Freidson (1970) refers to the existence of a conflict of perspectives between the patient and the health professional, especially the doctor, which reinforces the structurally asymmetric position of each of the parties involved in the relationship. As a matter of fact, doctors usually seek a biomedical definition for a disease using a symptom lexis through which they place a patient’s individual condition in standardized categories necessary for the application of their professional competencies. Patients, however, are much more concerned with the personal experience of the disease and, as a result, make possible on the relational level the intervention of values and expectations significantly different from those of the doctors (Cassel, 1976; Hundt, 1994).

Underlying the patients’ and the health-care providers’ standpoints are different experiences and conceptions of values. For health-care professionals, knowledge comes from a specific framing of scientific, standardized practice, which defines and regulates the activity of the hospital as an institution. For the patients, perspectives emerge from their laypersons’ knowledge, from their familiarity with scientific models and popular beliefs about the disease, as well as from previous personal experiences in health-care-providing contexts.

The conflict may therefore be located between two incomplete perspectives. While the biomedical insight points to “fighting to kill the disease” and lacks references to patients’ life contexts, in the patients’ experience scientific insight is missing as well as knowledge of the potential value of medical intervention (Roter & Hall, 1992). Even though the importance of the psychosocial dimension in the care given to oncology patients is increasingly recognized, doctors often underestimate patients’ needs in this area (Fallowfield, 1991).

In fact, hospitals are professional organizations that in several respects assume themselves to be worlds of their own, with multiple configurations unknown to most of the people who seek care. Patient psychosocial dimensions are somehow invisible to the health-care professionals in the hospital context.

The adaptation of oncology patients to their disease is strongly influenced by the psychosocial support they are given. Adaptation comes from the network of interactions among the patient, health-care professionals, and other patients. Providing oncology patients with information benefits their psychosocial adjustment and is obviously relevant to the quality of their health care because it reduces their feelings of vulnerability in regard to the disease. Various research projects show patients' preference for being informed about their diagnosis and all other aspects of their disease (Cassileth, Zupkis, Sutton-Smith, & March, 1980; Durà, 1990; Reynolds, Swanson-Fisher, Poole, Harker, & Byrne, 1981; Spencer, 1981).

Not all patients, however, wish to assume an active role in the health-care services they are given. Although many prefer to receive the most information possible, others want to know the least possible, placing all the responsibility for decision-making in the doctors' hands (Schain, 1980). Although a great number of patients strive to be highly informed through communication transmitted with sympathy and support, others create obstacles to communication, perhaps as a way to avoid the stress of making decisions. The role of the information given to oncology patients has, therefore, to be conceptualized according to individual preferences, for they modulate how adaptive or nonadaptive the information is.

Oncologic disease is a stressor, and information is a mechanism for coping with it (Ibañez, 1988). In the same way, individual differences in preferences for the level of information provided can be conceived as coping styles or idiosyncratic adaptation strategies.

The strategic negotiations

Talking about the responsibility of patients in the health-care process may seem strange (Entralgo, 1982; Siegler, 1981; Smith & Newton, 1984). Therefore, it is not surprising that empirical data on patients' participation in medical decisions are few (Love, Wolter, & Hoopes, 1985; Silverman, 1987). Besides, some studies have shown in a consistent way that the power of the health-care consumer is limited when dealing with the medical profession (Maurin, 1980).

The progressive socialization and institutionalization of medicine have broadened the range of the medical act in a decisive way. The patient is usually faced with a highly technological order of intervention along with a predominantly technical perspective; in this environment the trend is to establish a net of depersonalizing relationships that distort patients' experiences in their daily social relations. Thus, the doctor/patient relationship in the institutional context is far from having the deliberately personal character of a dialogue between doctor and patient, which can be experienced as a "singular colloquy."

Facing the dominant position of medicine within the health-care system, the patient perceives the doctor as a "guardian" of the care system (Freidson, 1970). The surgeon, however, as opposed to the doctor, embodies a superhuman dimension (Barnes, 1973) and is capable of being a symbolic vision of deification; this configuration elicits an attitude of passivity and true devotion from the patient because of the charismatic surgeon's magical authority.

Patients' blind confidence in surgeons is partly supported by the patients' view of their disease. Once limited to having a layperson's knowledge of their condition, patients consider the disease to be a phenomenon that requires professional knowledge and thus place their care in the hands of the "good trades," of professionals legitimately certified to exercise the healing art.

Denied their active participation in decision-making, patients withdraw, a move unconditionally supported by the technical quality of the given medical assistance. They consider themselves partners in the therapeutic dialogue, but their decisional incompetence is legitimated by their secular knowledge as expressed in terms of "benefits" and "ignorance advantages" (Dias, 1996). The category of "compliance and collaboration ideology," developed by Carapinheiro (1989), fits this analysis because it assists in the emergence of social control of patients' behaviors by doctors with social and scientific authority who consider patients subjects of medical knowledge.

Incapable of producing a phenomenological disease knowledge system, patients retreat from the negotiation process inherent in participant decision-making and take shelter in their role as passive actors inevitably sentenced to acquiescence and collaboration before the authority emanating from the doctor:

I didn't ask any questions. ... I really didn't ask any questions. ... I resigned myself. ... And then, when we come here, we see so much. ... And we conform ourselves. ... I didn't ask any questions. [ED g3 4]

The growing complexity of hospitals leads inevitably to increasingly difficult communication among the different members of the organization. The division of work shatters and hardens relations between doctors and patients.

The patients in the study imagined a "conspiracy of silence" (Barnes, 1968) on the doctors' part; this conspiracy translated into a deliberate refusal, at certain moments, to give information concerning therapeutic decisions:

You doctors don't like telling us things. ... You eat too much ... that's why you are so fat. [n.t.c]*.

Also, in the frame of scientific medicine, medical knowledge and wisdom are discerned as control mechanisms that make an active and effective intervention viable for controlling the natural processes of the disease. Within a paradigm in which diseases are considered uniform entities, which is the opposite of the holistic approach, the oncologic disease presents a threat to the basic assumptions of the model because it presents itself as a scientific challenge, without any apparent consistent patterns that are either etiological or that arise from response to treatment (McIntosh, 1976).

On the margins of uncertainty and indetermination, which in the case of oncologic diseases assume a special relevance, the image doctors have of themselves and the medicine they practice survives devaluation of medical authority and challenges to their professional prestige and status. This fact assumes particular relevance in doctors' reports of their role in giving information to oncology patients. Concealing information from patients or abstaining from directly com-

* Fieldwork notes from the researcher.

municating the truth seems to reveal all the contradictions embodied in doctors' charismatic power.

The doctors in the study who never, or almost never, disclosed diagnoses to their patients justified their choice by claiming that they did not have the ability to face them. Some doctors referred to this justification as "moral cowardice," while others reported that the halo of uncertainty involving this kind of pathology forces them to be defensive. A "biomedical conflict" then arises from the contradiction between the power of medical knowledge and the scientific impotence lying underneath this knowledge-power; this impotence defies the scientific authority of the physician, which is therefore susceptible to being threatened.

It's cowardice ... surely it is. ... It's facing someone who knows what she's suffering from and not being able to give her anything; ... so there come the lies ... and the false hopes. I feel really bad. I think I've been studying all these years for nothing. ... I mean, when you graduate in medicine you're supposed to keep people alive, not help them die. ... The doctor should help his patients die but that is not what we learned. ... We are all defensive. ... No one, not even the ones who claim they say every single thing to the patient, really says anything, no! This kind of pathology allows [us] to be defensive, sure! [EM 12]

In the social relations involved in the medical act, obstructive traces of patients' protagonist role arise, and they are "religiously" placed in a passive-outcast role, in the condition of being merely a "silent care receptacle" (Carapinheiro, 1993).

Information, which is a power-raising dimension of patients' participation in medical decision-making, is warded off and undisclosed by medical authority; in this way conditions are created for subordination and uncritical acceptance by the patient of the health care provided:

Because I get orders from the doctors. I don't make questions, right? I get them and I do what I'm told to do. Get orders and obey. What he tells me to do I'll do. I have placed myself in their hands, I haven't asked anything. [ED g2 3]

In the presence of strategies for blocking patients' participation as active and conscious agents and also before the barrenness symbolized by their nontechnical knowledge, patients become advocates for medical authority. They have no choice but to submit to that "untouchable symbol" of all the work produced around them.

In fact, in regard to information confined to the clinical dimension in the study, the fundamental piece that determined the information flow between doctor and patient was whether the patient questioned the doctor (Dias, 1994). The physicians, in their role as privileged informers, seemed to suppose and expect that if patients wished for information, they would look for it and ask questions during their medical appointments:

If the patient asks what's wrong with her and wants to know. . . and how it is going to be, obviously we talk. But if they're the silent type and don't even want to know anything, one has not much time to be there. ... Maybe those are the ones who don't understand things because they really don't want to know. [EM 17]

In this same sense, the following statement by a patient seems to reaffirm the gratuitous character of the informative act, which doctors considered a waste of time for patients who did not exhibit the will to be informed:

I also feel that, when it comes to them, it's really a bit like wasting time. ... Talking or being quiet would be the same thing. ... What I consider here is this: If people ask they will be informed. Some people ask and they are given explanations. The ones who don't ask ... well ... they are not informed; it's no use. [ED g3 7]

The criteria usually mentioned for giving or holding back information are often related to structural and institutional variables. The physicians claim time unavailability when faced with increasing demands from the patients' side. However, giving patients an opportunity to ask questions subverts the avoidance technique, for it may bind patients, making them dependent on the source of medical information. In a more deprecating way, the physician as an "interrogatory" recognizes the inquisitive attitude of the patient but describes the information given as a "cold shower," as can be observed in the following interview sample:

'Cause they don't have time. ... 'Cause many times the person tells the patient the truth and he thinks he's going to tell the truth then he talks for 5 minutes and the patient leaves; ... it has happened to me several times and I spend an hour there with a patient who expected 10 minutes. 'Cause after you give a person a cold shower, you can't also ... leave and slam the door. I have to accept any questions the patient wants to ask me and digest it all 'cause despite all it's a burden placed on us people. [EM 17].

Another physician pointed out the uncomfortable "risks" of patient dependence:

A patient to whom you talk too much is a patient who is going to hold on to you immediately, that way giving you more work, seeking us more than the others. [EM 13]

Information is seen not as a patient's right to receive but as a physician's privilege to give; "good patients" are those who follow medical prescriptions without questioning them, those who remain silent about the routines and rhythms of hospital activities:

I was operated on, had very good doctors and nurses. But if you want them to be good to you, you have to collaborate with them, don't you think? That's why I am a very quiet person and I'm not rude or have ever been and I accepted everything they told me to do. [ED g3 1]

Such patients, described as "dissimulated actors," turn to cunning mechanisms in order to subtly control the gathering of information:

Patients understand the information when they want to understand it. I think the patient is a lot smarter than we think. Sometimes they act as if they don't understand the information [and] then act foolish. [EM 12]

While going through the medical chain, the patient proceeds to gather detailed information from the diversity of institutional agents in order to test the coherence of the information given by them. “Inquisitive patients” attempting to have information disclosed are “stage actors” whose entrance into the social set of the hospital is made difficult by the avoidance strategies used by health-care workers. They then have no choice but to act as “good patients” as a conciliating strategy:

Some patients ask only [in order] to confront [us] with other opinions. They go inside and ask the assistant, then the nurse, then me, then my colleague. So, they go asking around to see whether the information matches or not. There are many patients like this. I think [they do this] exactly for that [reason], to see if someone ... if the doctor isn't telling the truth or if he knows something else she hasn't been told. [EM 17]

Here enter the “fortune-teller patients,” who make their own diagnoses and prognoses based on scrutiny of the therapies prescribed as well as on the possible outcomes they symbolically run through the institution:

We're not all that silly, because if I had a surgery and I was sent to have radiotherapy, it couldn't be good. [ED g3 11]

Patients complain about doctors who seem more interested in fighting technical-scientific battles with the body and the disease, privileging medical-clinical information, than in providing information about the social management of the disease:

Yes, they are quite busy and it's very hard to interrupt a doctor when he is on duty. I thought that, when we are operated on and discharged, ... even after or during treatments, ... there would be a date for us to get an appointment [to discuss] some doubt we might have or something we want to ask or some problem ... so we can be informed and alert to other problems that may come. [ED g3 22]

This dissonance seems to be consistent with the dissatisfaction many patients reported about the information they got from physicians, whom they accused of withholding and manipulating the information they really needed.

By becoming part of the organizational structure of the hospital as nonprofessionals among those with medical power-knowledge, patients negotiate some privileges that allow them to create “survival strategies in an institution not designed for patients to live in ... but only to physically survive” (Carapinheiro, 1993). Patients also develop powerful mechanisms for seeking information about their disease; these strategies allow them to increase their negotiating power as actors in the healing process:

I mean, sometimes I don't understand the medical information that well. But I haven't had any problems because I've been getting information from patients who are already informed at their own expense. That's why self-experience also says a lot and that is why I haven't paid much mind when they don't pass on information. [ED g2 6]

"Informed patients" break the barriers and limitations of a formally instituted process; they overcome their position as passive spectators of the disease, unfailingly carrying out the doctors' orders. Thus, the "professional-patient" category, devised by Carapinheiro, includes several kinds of patients: "inquisitive patients," who desperately uncover information; "dissimulated actors," who resort to sinuous mechanisms to gather the information they need; "fortune-teller patients," who scrutinize diagnoses and prognoses according to the possible outcomes they symbolically run through the institution. Even patients who "specialize" in medical curricula can be inscribed in the "professional-patient" category.

Oncology patients, involved in the chronicity of their diseases, are forced to learn so much that they gain a "specialization" based on their knowledge of their condition. That was how one of the patients in the study, in a humorous mood, illustrated the setbacks of spending too much time waiting in hospitals:

Since I came to this hospital, I became a doctor too. ... I majored in waiting.

Throughout their careers as chronic patients, they personify the "professional patient" *par excellence*. Because of prolonged stays in institutions, time spent running from one department to another, patients assemble and connect knowledge and can negotiate with health professionals the exchange of professional knowledge for lay knowledge; they can then proclaim themselves patients "enrolled" in the institution:

And he said: I can't find anything now. So tell me. And I did this in my breast [reproduces the gesture]. It's here! ... And the poor fellow went and palpated it, and said: "Indeed!" He palpated my whole body—he's a really good doctor—from head to toe. But it was so small, only I could feel it. I myself became aware of it; I'm already enrolled. [ED g3 5]

In this tumultuous strategic convergence of these demanding and nondemanding movements by patients as protagonists before the information is given to them, the profiles of "informed patient" and "uninformed patient" rise; they are configured by delimiting pole ranges that are formally and informally established (Dias, 1996).

In the negotiation between actors in their assistance networks and their adopted strategies, typical behaviors of "informed patients" and "uninformed patients" are revealed; these behaviors indicate the existence of patients with differences of an individual nature when they are faced with the information that is given to them.

Thus, it is possible to regard "informed patients" as those who assume a protagonist role throughout the course of their chronic-patient career; they automatically establish a monopoly on information strategies, whether in informal ways or in formally institutionalized ones. Resorting to assistance from a multiplicity of privileged informers, whether institutionally legitimated or not, or even from other patients with whom they establish a relationship based on equality among peers, these same patients turn themselves into active and vigilant agents through their assistance networks. They acquire specialization degrees on their disease, while a

bio-psycho-social entity allows them to shape their knowledge-power role as “professional patients” and “expert informants.”

In the daily experience of their condition as patients in hospitals, they assume their role as information-seeking agents, converting the information obtained through the use of psychosocial adjustment strategies to their status as ill people. Patients who fit the “informed patient” category are great opponents of the “conspiracy of silence,” which subverts the informative process. They consider informative bankruptcy as a threat to their survival, for it does not allow them to build up “protections” and adopt a preventive attitude:

I want to know the truth. ... Never hide anything from me. I think that if they hide something from me I can become suspicious and then I get annoyed, which is not good at all. ... If I know everything, I can warn my organism about a particular situation. ... If they hide it from me, ... I can't protect myself; ... and this way I can. So then ... when I go for an exam and I don't understand, I want him to explain everything and where the nodules are. They show me everything in the exams. I think that is great for a patient. ... I wouldn't want anyone hiding anything from me because I think it's a protection, since the beginning. I think that's the only way I can create my own defenses, by being told the truth and receiving information. [ED g3 16]

In the dialectical reading of the features of patients' profiles, a certain patient did not fit the “uninformed-patient” category but did assume a passive attitude, submitting to the physician's authority, withdrawing from any and every process of informed and shared decision-making. When confronted with strategically placed patients in waiting rooms, this patient adopted avoidance and deliberate-escape techniques so as not to face uncertainty and doubt; she took shelter in the ignorance “advantages”:

I'm like this. Look, there's an old Chinese saying ... that the fool is happier than the wise [person]. So I ... well, I let it pass. I'm here ... they know best, I don't ask or talk to [other] patients. [ED g3 2]

And another patient adds:

I didn't try to know anything. I was better off like this, in uncertainty, in doubt, and I keep running away. ... When I was undergoing radiotherapy I would sometimes run off, because there were patients I would pretend to. ... I would come in and I wouldn't talk. ... I'd go sit at the back and when I looked, they'd go sit next to me. [ED g3 10]

The group of patients who identify themselves as “uninformed patients” is the group that resorts to information-denial techniques, rarely formulates questions about their clinical condition and instead chooses the subliminal resort of using euphemistic language as an expression of defensive avoidance.

Health professionals differentiate these two categories of patients. “Informed patients” participate in the medical work, although this form of collaboration may place them in the “cooperative-patient” category. They show a high level of adhesion to the prescribed therapeutics and a predisposition for shared decision-

making, where they act as intervening social partners. Patients who categorize themselves as “informed patients” also aim to take control of the informative act; they have a nonconformist attitude toward the absence of information and confront health professionals with questions about their disease in order to obtain information:

Yes, I was informed. Maybe I was more informed because I ask. ... But I was informed and I ask all the questions. So, I attend to all the information because I don't want not to know. [ED g3 20]

On the opposite side, “uninformed patients” assume a “weary” attitude and “dodge” the administered therapeutics, eventually walking out of their assistance course:

I think the informed patient who wishes to be informed is a patient much more interested in taking part in the therapeutic decisions and she cooperates with us much more easily. ... The uninformed patient is a patient who normally develops a more loose, frail relationship with us, more tenuous, and is normally a patient who skips more appointments, who misses more appointments, is capable of saying, “Yes sir, I'm having the treatment,” and then she doesn't. ... Therefore I think that, indeed, the informed patient is the best one from all points of view. I don't think of information as having a negative effect on the patient. ... Also, of the hundreds of patients with cancer I've treated, at least 90% ... are well informed about the disease they have; none has ever committed suicide. [EM 4]

There is a certain unanimity among doctors concerning the benefits of patients' collaboration with medical work; this collaboration arises from the vigilance strategies of patients as “active observers” of their career as chronic patients. The same cannot be said about the impact of the given information for patients' psychosocial adjustment. The interview sample and the following quotation illustrate different opinions about the psychological impact, positive or negative, of the information given to patients:

The badly informed patient has one advantage over the informed one. She lives more carelessly, [is] less anxious, less depressed. I mean it's holy ignorance. It's not all advantages. ... The informed patient is a more conscious one, maybe more careful, doesn't skip her follow-up, doesn't miss the exams, doesn't stop coming ... has her breast-check done every year. She's a more vigilant patient in regard to her disease. ... She can perfectly easily continue with her daily routine if she's well informed ... while the other can't. [The other] is a much more failing patient ... who may walk out, who never comes back to pick up the medication, who leaves therapeutics. [EM 5]

The patient who fits the “informed patient” category is usually feared by health professionals who take shelter, on a regular basis, in escape strategies, adopt defensive behaviors, and are evasive when dealing with patients' annoying questions, as can be gathered from the following excerpts from interviews with a doctor and a nurse:

If people have the knowledge to answer and do it, there's nothing wrong with that. If the person is not quite at ease, he's afraid of the informed patient! [EE 14]

To me, it's easier to treat a patient who doesn't know than a patient who does. If a patient knows, I'll get really afraid of her. If the patient doesn't know, I'm much more comfortable, you see? Because the patient who doesn't know, usually doesn't ask, but there's the one who asks all sorts of questions ... how's it like ... how many months. ... I'm really afraid of the patient who knows. ... To me, they are people who cause me problems at the dialogue level. [EM 12]

At the end of this analytic reflection it must still be mentioned that, from the negotiations between actors and the strategies regarded as cooperative in the information-giving process arise psychosociological profiles of patients who do not surrender their layperson's knowledge. They are holders of knowledge resources that allow them to develop strategic adjustments of confrontation and resistance to other knowledge-powers (Carapinheiro, 1993).

Patient may have different degrees of information ranging from total knowledge about the disease to complete ignorance; this range includes being suspicious or having ambiguous knowledge (Dupont, 1978; ; Durà, 1990; Szmajke, Hans, & Kaiser, 1987). These different levels of information have distinct consequences for patients' psychosocial adjustment; it has been empirically proved that suspecting a cancer diagnosis has many more negative consequences than having perfect knowledge of a diagnosis.

Conclusion

The trajectory of the patient in the medical chain assigns the sick person to a dependency status in relations with the specialized medical act. The category of the paternalist doctor is embodied in the defensive institutional philosophy of hiding information; it is an expression of the traditional doctor/patient relationship model, which belittles the patients' central role in the decision-making process, basing itself instead on a relational asymmetry in which obstructionist features of the patients' protagonist role survive.

The reality of hospital practice encourages abandonment of the informative process. Nevertheless, in the stages and sets of hospitals emerge a fringe of patients who take a pro-active stand toward the lack of information by letting loose, in a systematic way, a panoply of information-disclosing strategies, whether by informal means or by the formally institutionalized ones.

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Dynamics of the psychological features and clinical symptoms in mitral valve prolapse patients receiving long-term integrative psychotherapy for anxiety disorders

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The purpose of the study was to investigate the dynamics of the psychological features and clinical symptoms in mitral valve prolapse (MVP) patients receiving long-term integrative psychotherapy for anxiety disorders (AD) and to investigate the psychological factors of their improvement in mental health as a result of psychotherapy. Thirty-two MVP patients with AD attended long-term integrative psychotherapy. Psychological and clinical examinations of the patients were made before and after the therapy courses and in a follow-up study after 2, 5, and 10 years. Data from the study show that 78.1% of the patients who attended psychotherapy sessions demonstrated valid improvements in self-rated psychological well-being and a reduction in their anxiety levels. Analysis of emotion-regulation strategies showed that psychotherapy encouraged the use of strategies effective for solving adaptive tasks. Positive dynamics in the development of personality reflection, the recognition of one's emotional experiences, improved skills of self-regulation, and growing awareness of actual needs, individual purposes, and personality resources—all were associated with the reduction of MVP clinical symptoms. The psychiatrist who interviewed the patients reported that most of them were in sustained remission.

Keywords: long-term integrative psychotherapy, emotion regulation, personality reflection, self-regulation, mitral valve prolapse (MVP), anxiety disorders (AD), quality of life (QOL), psychological well-being

Our research interest in mitral valve prolapse (MVP) patients is far from being accidental. MVP is widespread, affecting between 30.8% and 42.0% of the population (Barlett, Kirtley, & Mangham, 1991; Devereux, Kramer-Fox, & Kligfield, 1989; Scordo, 2007; Stefanadis, & Toutouzas, 2000).

Researchers note a pronounced dissociation between numerous subjective complaints of the patients, on the one hand, and the scanty data from objective studies, on the other (Joiner & Cornman, 1986; Scordo, 2007); they also present indications of widespread anxiety disorders (AD) accompanying MVP and the

unpleasant inclusion of the formation of “functional MVP” within panic disorder (some authors assert that panic attacks not only may be “triggered” by MVP but may lead to its development: Coplan, Papp, King, & Gorman, 1992; Gorman et al., 1988). There are cases of a significant reduction in the intensity of clinical symptoms after psychotherapy and antidepressant or anxiolytic treatment (Gonzalez et al., 2002; Pariser, Reynolds, Falko, Jones, & Mencer, 1981; Scordo, 2007; Stavrakaki, Williams, Boisjoli, Vlad, & Chassé, 1991); there is even some evidence that such treatment may be symptomatolytic—that is, it may result in the complete disappearance of echocardiographic MVP indicators in patients suffering from panic disorders (Coplan et al., 1992).

Research objectives

The purpose of the study was to investigate the dynamics of psychological features and clinical symptoms in MVP patients with AD receiving long-term integrative psychotherapy and to investigate the psychological factors of their improvement in mental health as a result of psychotherapy.

Research design

Thirty-two MVP patients with AD attended integrative psychotherapy on request (1 to 2 sessions per week, individual assessments). Among them 18 (56.3%) received psychotherapy in addition to Alprazolam medication (with a fixed dose 1.5 to 4.5 mg per day, with dose titration if necessary depending on the severity of the AD, within periodical treatment).

The therapy courses were conducted from 1997 to 2012. The duration of the psychotherapy ranged from 5 months to 2 years. The age of the patients during therapy ranged from 25 to 37 years. Most of the patients were women (28 people; 87.5%).

Psychological and clinical examinations of the patients were conducted before and after the therapy courses; the follow-up study was undertaken after 2, 5, and 10 years.

The types of AD and their frequency in the MVP patients are presented in Table 1.

Table 1. AD in patients with MVP before therapy

Disorders	Percentage of patients (%)
Panic disorder without agoraphobia	28.1
Panic disorder with agoraphobia	25.0
Generalized anxiety disorder	46.9

Research methods

Psychological testing embraced assessment of the following indicators:

- Anxiety level was assessed on the Spielberger State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983).

- Quality-of-life (QOL) indicators were assessed through the Visual Analog Scale (VAS) (the “well-being” dimension); the Disability Scale (DISS) (the dimensions of “work,” “social life,” and “personal life”) (Sheehan, 1983); and the Ryff Scales of Psychological Well-Being (PWB) (Ryff, 1989; Ryff, & Keyes, 1995).
- The study of emotional experiences and emotion regulation employed our modified version of the Rosenzweig Picture Frustration test (Rosenzweig, 1978; Zinchenko & Pervichko, 2012).

The medical part of the study involved a complex of procedures aimed at establishing a diagnosis for each patient (all patients had an ultrasonic cardiogram) and at assessing the degree of intensity of MVP clinical symptoms and signs (MVP level, intensity of symptoms in the dysautonomic nervous system, frequency and intensity of vascular disorders, and so forth).

An assessment of psychopathological status and its dynamics was conducted using data from a psychiatric examination conducted in accordance with ICD-10 procedure-coding criteria, from the Clinical Global Impression Scale (Guy, 1976), and from the Marks-Sheehan Phobia Scale and the Sheehan Panic and Anticipatory Anxiety Scale (Sheehan, 1983; Sheehan & Harnett-Sheehan, 1990).

Statistical analysis consisted of the calculation of descriptive statistics and frequencies, significance testing with the Wilcoxon signed-rank test, and calculation of the Spearman's rank correlation coefficient.

Long-term integrative psychotherapy program: Theoretical backgrounds, goals, and milestones

The suggested pattern of psychotherapy was developed on the basis of multitheoretical psychotherapy (Brooks-Harris, 2008). We used an integrated cognitive and dynamic psychotherapy model applied to somatoform and anxiety disorders by Alla B. Kholmogorova and Natalya G. Garanian (1997, 2006). The model comprises various techniques: cognitive behavioral therapy and psychoanalytic therapy, as well as gestalt therapy and systemic family therapy.

In the psychotherapy considerable attention was paid to stimulating personality reflection, working on traumatic experiences, using personal problems and personality features to reveal inner resources, and extending the range of emotion-regulation strategies. The psychotherapy was undertaken within the theoretical framework of the cultural-historical concept developed by Lev S. Vygotsky. The following theses comprise the theoretical background of the study:

1. Emotions as psychic phenomena can be attributed to the class of higher mental functions. Therefore, they reveal the following features: lifetime social development, mediated structure, and voluntary motivation in functioning (Vygotsky, 1935/1993, 1931/1997).
2. The basic essentials of Vygotsky's cultural-historical concept of mental development may be of theoretical value for psychosomatics and corporality psychology: human corporality may be interpreted as a cultural-historical phenomenon (Nikolaeva & Arina, 2003; Tkhostov, 2002).

3. Personality reflection is regarded as a basis for self-regulation in accordance with key points of the concepts of Vygotsky, Aleksey N. Leontiev, and Bluma V. Zeigarnik (Vygotsky, 1935/1993, 1931/1997; Leontiev, 1978; Zeigarnik, 1972).

The main goals of the psychotherapy were as follows:

- to offer assistance to MVP patients in recognition of the psychological mechanisms in the clinical performance of the disease
- to provide training in emotion recognition, in mastering emotional states
- to extend the range of emotion-regulation strategies
- to stimulate personality reflection by working on traumatic experiences and on personality problems meant to reveal inner resources
- to work through the context of life and family problems
- to work through interpersonal problems
- to extend one's repertory of coping processes

The psychotherapeutic program was provided in five stages:

1. *Receiving information and motivation.* This level embraced the following tasks:

- to bring about the operative (psychotherapeutic) alliance, confidence-building
- to inform patients of the connection between emotions and somatic symptoms and of the mental and somatic after-effects of the negligence of "emotional hygiene"; to reveal the "cultural conditionality" of neurotic disorders; to destroy the myth of the somatic nature of MVP and AD
- to present the model of psychotherapy, its tasks and methods
- to clarify the methods of self-regulation of psychological states and their aidless application in case of an emergency between treatment interviews (respiratory gymnastics, autogenic training); to demonstrate their efficiency in the treatment of anxiety fits
- to caution against the manifestation of countertherapeutic factors in the process of treatment; their work-up: marking primary resistance

2. *Receiving training in emotion recognition.* This level had the following objectives:

- revealing problematic situations that cause negative emotions
- uncovering the difficulties patients can meet in marking, differentiating, and verbalizing emotions; these obstacles should be recognized as a psychotherapeutic problem
- shifting the presently adopted negative social mindset "it is unsafe to feel"
- distilling separate emotions within the complex inventory emerging in traumatic situations

3. *Developing the skills of personality reflection and emotion regulation.* This level required the following:

- revealing the interrelationship of emotions and thinking, on the one hand, and the interrelationship of emotions and vegetative reactions, on the other; encouraging shifting a dysfunctional mindset
- presenting the structural-dynamic model of emotion regulation
- presenting cognitive models of affective and somatic disorders
- leading the patient through the method of diary-keeping to register sensations, thoughts, and emotions that emerge in traumatic situations
- modulating emotiogenic situations during therapeutic meetings in order to name the experienced emotions, automatic thoughts, and somatic changes; empathically resolving anxiety; removing the inner ban on the expression of feelings and encouraging their open expression (“unfreezing”)
- analyzing “cognitive distortions”; providing training in methods of “cognitive mediation of emotions” to provide distance from dysfunctional thoughts (separating thinking and objective reality)
- developing “alternative logics”: turning one’s thoughts and emotions into the object of study, setting them within a broader system of relations and meanings, confronting them, relying on a new system of personal meanings
- working through personal resistance; discussing the “secondary gain” of disease
- detecting basic “distorted *beliefs*” and the primary formulation of personality problems, which become targets for further treatment

This stage meets increased resistance as patients face the imperative to change habitual ways of thinking and corresponding ways of behaving that are backed up by worldly philosophy. Another commonly recognized reason for resistance is patients’ improvement in general well-being, which contradicts the “secondary gain” of disease.

Therefore, it is important to warn patients of the difficulties they may encounter and to seek together for personality resources to negotiate them. It is important to inspire patients’ confidence in their ability to solve problems, to support and encourage them, and to help them find inner resources.

4. *Analyzing previous experience, family context, and interpersonal relations.* At this stage the patient (together with the therapist) explores the inner sources of dysfunctional thinking and reveals personality problems. The analysis of family context takes into consideration the following: family myths, values, roles, rules, expectations, plans, and so on. Patients get a cathartic loosening of their traumatic experience. A survey of sources for basic beliefs and convictions is conducted. “Stereotypes of culture” are analyzed according to cultural-historical theory as an important source of beliefs and family myths. For example, the value of high-achievement motivation, typical for most patients, requires special attention.

5. *Analyzing and working through personal problems; searching for resources for personality development.* This level includes the following tasks:

- working on personal problems and looking for resources to resolve them
- setting urgent problems against a broader life context
- stimulating patients to shape alternative mindsets by relying on the analyzed consequences of negative beliefs, including shifting one's view of oneself, of others, and of the world
- discussing the therapeutic effect achieved in the course of treatment; extending one's repertory of coping processes and strategies of emotion regulation; broadening one's range of psychological defense mechanisms, coping strategies, and strategies of emotion regulation, which provide for stress resistance and personal growth

Results

Analysis of the data obtained on the VAS, DISS, and PWB scales before and after therapy indicated that 78.1% of MVP patients demonstrated valid improvements of self-rated quality of life (QOL) after therapy and in the long term (Tables 2, 3, 4).

Table 2. Average values of well-being dimensions on the VAS in MVP patients with AD

Index	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
Well-being dimension	53.2±7.1	89.9±6.3**	77.2±11.0*	72.1±6.9*	73.4±8.6*

Note. *Differences are significant when the data from the follow-up examinations are compared with the data of MVP patients examined before therapy ($p<0.05$). **Differences are significant when the data from the follow-up examinations are compared with the data of MVP patients examined before therapy ($p<0.01$).

Table 3. Average values of QOL indicators on the DISS in MVP patients with AD

Index	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
Work dimension	3.2	1.7*	2*	2.3	2.3
Social life dimension	2.9	1.9*	1.9*	2.3	2.0*
Personal life dimension	2.6	1.7*	1.9	2	1.9

Note. *Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p<0.05$).

Table 4. Average values of well-being dimensions on the Ryff Scales of the PWB in MVP patients with AD

Areas of well-being	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
Self-acceptance	42.82	72.38**	59.18*	53.32*	55.84*
Positive relations with others	49.27	65.24	56.55*	58.37*	57.91
Autonomy	40.00	57.45*	52.76*	49.09*	52.12*
Environmental mastery	50.06	59.01*	58.37	55.12	54.31
Purpose in life	46.12	63.76*	64.32*	59.86*	56.48*
Personal growth	47.72	66.83**	67.14*	61.38*	52.14

Note. *Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p<0.05$). **Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p<0.01$).

Analysis of the dynamics in the emotional state of patients (before and after therapy and in the long term) with application of psychological dimensions revealed a tendency toward reduction of the anxiety level: trait anxiety indices went down from 49.0 ± 6.1 to 43.4 ± 3.5 ; state anxiety was reduced significantly from 47.1 ± 5.9 to 39 ± 3.8 on the Spielberger Scale ($p<0.05$). Processing of the follow-up data brought evidence that in two years the level of the mean-group indices of trait anxiety and state anxiety stayed within the range of moderate anxiety. In addition, the level of trait anxiety went down within two years of course completion. After both five and ten years, the level of anxiety was maintained within moderate range (Table 5).

Table 5. Average values of anxiety level on the Spielberger Scales in patients with MVP and AD

Index	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
Trait anxiety	49.0 ± 6.1	$43.4\pm 3.5^*$	$38.1\pm 6.4^*$	45.3 ± 4.9	$42.9\pm 4.2^*$
State anxiety	47.1 ± 5.9	$39\pm 3.8^*$	$40.2\pm 5.1^*$	44.6 ± 3.6	45.2 ± 4.4

Note. *Differences are significant when the data from the follow-up examinations are compared with the data of MVP patients examined before therapy ($p<0.05$).

Analysis of the emotion-regulation strategies used by the patients before and after therapy showed that psychotherapy encouraged the use of strategies effective for solving adaptive tasks, such as:

- positive revision of the meaning of an event
- consecutive actualization of new meanings
- transformation of an experience through the use of humor
- change in the expressive characteristics of emotions with transforming catharsis

As a result, such strategies as rumination and catastrophization, comparison and devaluation of the meaning of events and personal experience, and direct catharsis and repression of emotions grew increasingly rare (Table 6).

Table 6. Strategies of emotion regulation in MVP patients with AD (frequency analysis, %)

No.	Strategies of emotion regulation	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
1.	No changes in answer when the instruction has been changed	26.8	6.3**	10.1**	9.9**	9.2**
2.	Cognitive changes: total	73.2	93.7*	89.9	90.1	90.8
2.1.	Ruminations and catastrophization	19.6	12.1*	11.3*	12.6	16.9
2.2.	Comparison and devaluation	26.5	20.5	14.4*	11.1**	17.8*
2.3.	Positive revision	8.3	11.0	10.4	15.8*	16.8**
2.4.	Consecutive actualization of new meanings	18.8	40.5**	39.5**	35.3*	31.4*
2.5.	Transformation of experiences through the use of humor	0	9.6**	14.3**	15.3**	7..9**
3.	Change in the expressive characteristics of emotions: total	100	100	100	100	100
3.1.	Direct catharsis	27.6	12.7**	15.3*	16.9*	16.2*
3.2.	Repression of emotions	31.9	20.3*	15.6**	18.9*	25.3*
3.3.	Communicative catharsis	23.8	26.8	26.9	27.3*	23.8
3.4.	Transforming catharsis	16.7	40.2**	42.2**	36.9**	34.7**

Note. *Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examination before therapy ($p<0.05$). **Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p<0.001$).

Psychiatric diagnostics revealed a significant ($p<0.05$) reduction in the frequency and intensity of panic attacks and in anticipatory anxiety of panic attacks (PA); the frequency and intensity of phobias went down, and there was a considerable decline in the avoidance of phobic situations (Table 7).

Table 7. Frequency and intensity of PA and phobias and frequency of avoidance of phobic situations in MVP patients with AD (points, $M \pm m$)

Indices	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
Frequency of severe situational PA (per week)	0.4±0.1	0.1±0.08**	0.2±0.09*	0.2±0.06*	0.3±0.03
Intensity (points)	1.4±0.3	0.7±0.3*	0.6±0.2*	0.9±0.1	1.0±0.1
Frequency of severe spontaneous PA (per week)	0.5±0.2	0.08±0.02**	0.2±0.09*	0.3±0.09	0.3±0.08
Intensity (points)	1.8±0.5	0.6±0.3**	1.0±0.6**	1.3±0.09	1.5±0.06*
Frequency of light situational PA (per week)	0.9±0.1	0.2±0.07**	0.7±0.2	0.6±0.09	0.9±0.2
Intensity (points)	1.5±0.4	0.5±0.2*	1.1±0.4	1.0±0.2	1.4±0.4
Frequency of light spontaneous PA (per week)	2.9±0.1	0.8±0.1*	1.6±0.09*	2.0±0.1*	1.9±0.3
Intensity (points)	4.7±0.5	0.5±0.2**	3.3±0.4*	4.0±0.4*	4.1±0.4*
Anxiety caused by expectation of PA (points)	4.6±1.9	1.2±0.4**	2.1±0.6**	2.5±0.5*	2.9±0.7*
Phobias (points)	1.2±0.4	0.5±0.2*	0.7±0.09*	0.9±0.09	1.0±0.1
Avoidance of phobic situations (points)	0.7±0.4	0.3±0.5*	0.4±0.1*	0.5±0.07	0.6±0.09

Note. *Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p < 0.05$). **Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p < 0.01$).

After therapy there was a significant decrease in the severity of dysautonomic symptoms. The number of patients with severe dysautonomic symptoms dropped more than 4.5 times. The follow-up study showed relative retention of this therapeutic effect (Table 8).

Table 8. Intensity of dysautonomic symptoms in MVP patients with AD (frequency analysis, %)

	Before therapy	After therapy	2-years Follow-up	5-years Follow-up	10-years Follow-up
Severe dysautonomia	71.9	9.4**	9.4**	12.5**	17.9**
Moderate dysautonomia	18.7	46.9**	53.2**	50.0**	57.1**
Light dysautonomia	9.4	37.4**	37.4**	31.2**	17.9*
Absence	–	6.3**	0	6.3**	7.1**

Note. *Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p < 0.01$). **Differences are significant when the data from the follow-up studies are compared with the data of MVP patients examined before therapy ($p < 0.001$).

Physical examination of the patients revealed a significant ($p<0.05$) reduction in the frequency and intensity of chest pain (especially pain provoked by emotions), in psychogenic gastrointestinal disorders, in loops of thermal control, and in neurogenic hyperventilation syndrome. The differences are significant when we compare results of the survey before and after therapy and 2, 5, and 10 years after the completion of therapy (Figure 1).

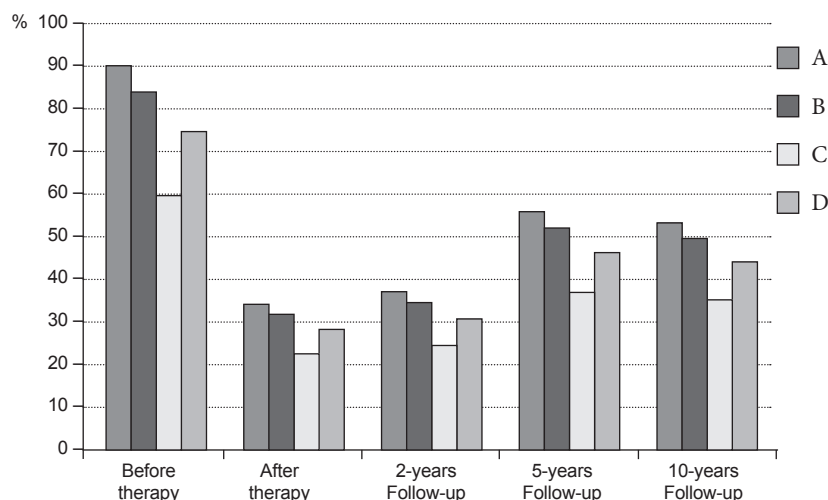


Figure 1. Intensity of dysautonomic symptoms in patients with MVP before and after therapy and in the follow-up study. A: chest pain; B: psychogenic gastrointestinal disorders; C: loops of thermal control; D: neurogenic hyperventilation syndrome.

Psychotherapy encouraged reductions in the frequency of a considerable number of analyzed vascular disorders and, to a considerable extent, in the frequency of tension-type headaches; differences are highly significant ($p<0.001$) when we compare the results of the survey before and after therapy and 2 years after the completion of therapy, and the differences are reliable 5 and 10 years after the end of psychotherapy ($p<0.05$) (Figure 2).

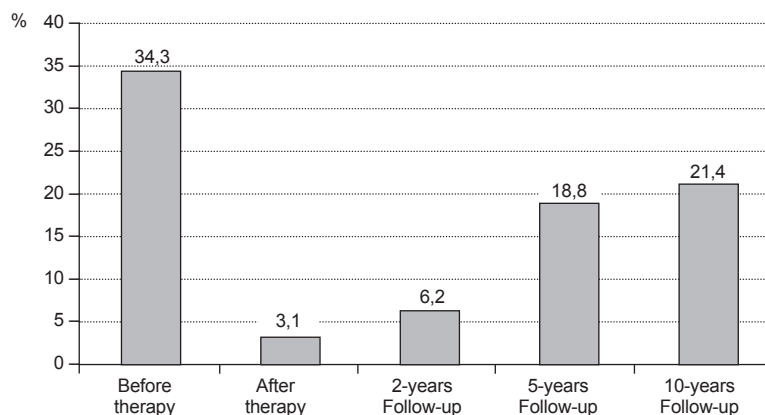


Figure 2. Frequency of tension-type headaches in MVP patients before and after therapy and in the follow-up study

An estimate of the psychiatric index of therapeutic efficacy was carried out on the Clinical Global Impression scale. It revealed significant efficacy for 78.6% of the patients, a medium index for 14.3 %, and a minimum index for 7.1%. Clinically significant efficacy of therapy for general symptomatic relief was reported for 73.7% of the patients. The follow-up study showed that high indices of the achieved therapeutic effect were retained for 2 to 3 years after the course of therapy. After that time frame, patients usually resorted to psychological care whenever they were caught in emotiogenic situations.

The control group did not reveal any increase in psychological and physical indices during 15 years.

Thirty-two MVP patients who volunteered for the course of individual integrative psychotherapy provided results for the follow-up study.

Remote catamnesis data revealed the following:

- 81.3% of the patients had a stable job after the course of psychotherapy.
- 75% of interviewed patients were reported by the psychiatrist to be in sustained remission.
- 78.1% of the interviewed patients reported positive dynamics in their family relations (marriage, childbirth, conflict avoidance, and stability of family life) for a long period of time; the achievements were associated with the positive impact of the therapy.
- 68.8% of the interviewed patients described their state of physical health as good; 31.2% of the patients believed it to be satisfactory.
- 68.8% of the interviewed patients described their current psychological state of health as good, 6 patients (18.8%) described it as satisfactory, and 3 people (9.4%) described it as bad.
- 93.8% of patients showed an increase in frustration tolerance.
- Most of the patients associated all positive changes with the course of psychotherapy.

Thus 23 people (71.9% of those interviewed) described the psychotherapy as having a considerable effect, 7 patients (21.9%) assessed it as having a moderate effect, and only 2 people (6.3%) denied any positive effect of the therapy.

Discussion

Results of the study may be summed up as follows: MVP patients with AD who attended courses of long-term psychotherapy showed definite improvement in both psychological and clinical features. They experienced a considerable decrease in their level of anxiety, and the indices of well-being were higher after the courses of therapy than before. As for emotional regulation, the patients revealed a considerable increase in the use of effective and complicated cognitive strategies, such as positively revising the meaning of an event, consecutively actualizing new meanings, and transforming an experience through the use of humor. In addition, such strategies as rumination and catastrophization, comparison and devaluation of the meaning of events and personal experience, direct catharsis and repression of emotions grew increasingly rare.

Discovered changes in the conceptualization of traumatic events and the selection of strategies for emotion regulation vividly testify to increased personality reflection and ability to regulate emotions and to growing awareness of actual needs, individual purposes, and resources of personality. Positive dynamics in the development of personality reflection, recognition of emotional experience with improved skills of self-regulation, and growing awareness of actual needs, individual purposes, and resources of personality were associated with positive dynamics in clinical symptoms. Psychiatric diagnostics revealed a reduction in the frequency and intensity of panic attacks, in the anticipatory anxiety of panic attacks, and in the frequency and intensity of phobias, and also a considerable decline in the avoidance of phobic situations. Most of the interviewed patients were reported by the psychiatrist to be in sustained remission.

The follow-up study showed that high indices on the achieved therapeutic effect were retained for 2 to 3 years after the course of therapy; relative retention of therapeutic effect was also reported in reexamination after 5 and after 10 years. When compared, the data of psychological and clinical follow-up examinations of MVP patients with AD who attended the courses of long-term psychotherapy and the data of those patients who refused to attend the courses or who undertook only short-term psychotherapy reveal evidence of positive dynamics in patients' psychological features and in their patterns of disease after the long-term psychotherapy. These dynamics include an increase in well-being dimensions and personality reflection, an extension of the repertoire of emotion-regulation strategies and coping strategies, and a reduction in anxiety and clinical presentations of MVP in the group of patients attending the courses of psychotherapy (Pervichko, Zinchenko, & Martynov, 2013; Zinchenko, Pervichko, & Martynov, 2013a, 2013b).

Results of the study are in accordance with the data presented in the scientific works of Stavrakaki, Gonzalez, and others. They describe cases of genuine reduction in the intensity of clinical symptoms in MVP patients after psychotherapy and antidepressant or anxiolytic treatment (Gonzalez et al., 2002; Pariser et al., 1981; Scordo, 2007; Stavrakaki et al., 1991).

The results lead us to the conclusion that features of anxiety disorders displayed by MVP patients in combination with disorders of personality reflection and emotion regulation may be regarded as "psychological risk factors" that aggravate the clinical symptoms of MVP. An increase in clinical MVP presentations appears mostly in emotionally loaded situations when no medication and psychological treatment is provided (Zinchenko & Pervichko, 2012, 2014).

The data suggest an urgent necessity to extend the medical treatment of MVP patients with long-term psychotherapy. The results make way for new strategies of psychotherapy for MVP patients with AD. The results were obtained through application of the theoretical and methodological principles of Vygotsky's cultural-historical theory and the principles of the Vygotsky-Luria concept of syndrome analysis (Vygotsky, 1935/1993; Luria, 1973).

Conclusions

MVP patients with AD who attended courses of long-term psychotherapy showed distinct improvement in both psychological and clinical features. Positive dynamics of clinical symptoms were associated with the development of personality re-

flection, recognition of emotional experience, improved skills of self-regulation, and growing awareness of actual needs, individual purposes, and resources of personality.

The results suggest an urgent necessity to extend the medical treatment of MVP patients with long-term psychotherapy aimed at stimulating personality reflection, working on traumatic experience, and working on personal problems and personality features in order to reveal inner resources and to extend the range of emotion-regulation strategies.

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Art-therapy as a method for mobilizing personal resources in the elderly

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Aging can be viewed as a continuation of development and an active interaction with the environment during which regressive changes are combined with progressive new formations. It is believed that the self-determining nature of subjectivity in the elderly mediates self-awareness and favors self-acceptance as an active agent that determines the outcomes of one's own life at this age as an autonomous self-regulating subject of one's own activity. A formative experience proved the efficiency of using art therapy as a method for mobilizing personal resources during aging.

Keywords: subjectivity, personal resources, latent resource of personality, elderly, art therapy

Problem

The social-demographic structure of contemporary society is characterized by an increased proportion of the elderly population. A current social problem involves prolonging the period of labor and social activity among the elderly to enable positive adaptation and personality development, autonomy in elders and possible dialogue between generations (A.I. Podolsky et al., 2010). These factors determine the activity and attitudes of an elderly subject and preserves his control and self-determination.

Most psychologists currently consider human aging to be the *continued development* of an active subject who interacts with society, during which involution symptoms are persedinterspersed with progressive changes that help to surmount the destructive phenomena of gerontogenesis and help to achieve a new level of self-realization of thean individual's personality (Korsakova, Balashova, 1995; Antsypherova, 2001; Ryff et al., 2004). With this the aspect of personality realization in the elderly own need in using personal experience of relations with environment, of self-understanding and self-regulation, this experience appropri-

ated at the previous stages of personality development — in childhood, adolescence and adult age, is underestimated by psychologists. Some authors consider this experience to be a personal resource (Antsypherova, 1996, 2001; Ermolayeva, 2007; Erikson, 1982). No individual uses all of their potential personal resources over the course of one's life because some resources were not needed or available (Hekhauzen, 2003; Druzhinin, 2005). All of the possible resources combined form "the space of potentials" (Leontiev, 2011). These as yet unused personal resources can be considered to be a latent *resource of personality*, which is possible to achieve only through a self-determined choice made on one's own (Leontiev, 2011). During aging, use of the appropriate personal experience is complicated by increased feelings of inability and incertitude and decreased levels of self-regulation.

Based on these issues experienced by the elderly, we *the aim of this study* is to search for possibilities and special conditions for mobilizing personal resources in the elderly.

The task of this study is to use a specially organized art environment as an external factor for mobilizing personal developmental resources in the elderly.

The following **theoretical foundations** form the basis of this study:

- Previous stages in personality development and previous forms of its existence gradually provide a hierarchic structure in which the new psychological formations, strategies and tactics are not eliminated, but instead, they are qualitatively changed. The previous formations are enriched, limited, or become more dominant due to their inclusion into new systems of personality that are linked with the environment and into new life attitudes. This personal potential permits an elderly person to realize productive changes in their own life and to perform new meaningful activities (Antsypherova, 1996).
- Subjectivity in the elderly involves a process of self-determination through an actualization of the purpose of life, preserved control functions, a stable and flexible self-image, self-acceptance and the possible search for a new identity (Alexandrova, 2000).
- Each "generating activity" (Antsypherova, 2001, p. 95) in the elderly favors an actualization of new meanings in the social world of objects surmounted by the state of incertitude at this stage of ontogenetic development. It requires the stimulation of mental potentials to force the personality to use both actual and potential life experience, which forms the "zone of proximal development in the elderly" (Ibid).
- The participation of an elderly individual in an integrated mental activity (Tatenko, 1995, p. 33) transforms some structural functional units. Among them, the unit of motivation for development and purpose-making abilities are first decreased as well as their motivation and useful abilities "the results and meanings of one's own mental activity in own experience" (Ibid).
- Psychological resources of self-regulation include the ability to become an autonomous subject of regulation of one's own activity, the ability to per-

form purposeful modifications in the external world, and the ability to be resistant to external circumstances (Leontiev, 2010, 2011).

- Art therapy is a traditional method in gerontological practice that is believed to activate creative potential in the elderly (Filosop, 2005; Beregulina, 2009; Dmitrienko, 2010; Kolpakova, 2010), to stimulate an active lifestyle (Druker, 2001; Glukhanuk, Gershkovich, 2003; Windle, 2013) or to provide an education through art (Ermak, 2009). We believe that the psychotherapeutic aspects of art therapy influence personality in the elderly due to the functions of preservation, compensation and adaptation.
- The art therapy method is based on the theory that the self-determining personality is a system of relationships with the environment. This theory considers an elderly person to be a subject and a creator of culture (Kopytin, 2010). The advantages of this method include its polymodality, interactivity, orientation to personality and bio-psychological organization. Its visual and sensual character of activity, orientation to self-development of personality through a creative activity, and use of active group interactions (external resource) can be considered to be an universal factor (under integrated conditions) for mobilizing the personality resources of development in the elderly.

To achieve the proposed task we designed an art therapy program including *three units* of group psychological work corresponding to the stages of mobilizing the personality resource:

1. *“Activation of the potential personality resource”* — increase in the reflexivity level and the stimulation of creative activity, life resistance, and the tolerance of incertitude. A structured and not structured art activity were used together with some elements of life resistance, creativity and psychosomatic regulation training.
2. *“Solving contradictions and incoherence in life”* — developing a concordant attitude in the one’s present and for the future, discovery of new meanings in life, and the activation of anticipation processes. We used the methods of phototherapy, musical therapy, sand therapy and corporal therapy.
3. *“Self-realization and self-presentation of competence in life”* — realization of one’s active attitudes and one’s own competence in life, self-acceptance in the new state, and the realization of the importance of social units. We used therapy composed of well-known pieces of art, elements of performance, installations, and mandalas.

The consecutive complication and enrichment of sessions in the art program were aimed to stimulate a need to use latent personality resources, leading to positive personality development in the participants. The effect of this development depends upon the degree to which the respondent becomes a subject, a creator of one’s own life, and their sense of contentment and organization in space and time.

Subjects

The study was performed in the Kamchatka regional scientific library named after S.P. Krashennnikov, in the Psychological Counseling Service and in the Center of Applied Psychology at the Psychological Department of Vitus Bering Kamchatka State University. A total of 120 subjects (45 men and 75 women) took part in the study, aged from 57 to 80 years: 47,5% — 65–70 years; 45 % — 71–75 years; 7,5% — 76–80 years. A total of 40,8% of the subjects were married; 30,9% — were divorced, and 28,3% — were widows. A total of 5 % of subjects had a primary education, 70% — had a secondary school education, and 25% — had a college education. A total of 47% of the participants were retired. We excluded from the study subjects with chronic neurological diseases or mental disturbances.

Study design. The study followed the rules of a training experience with a control group of subjects (Experimental Psychology..., 2003)

The constituting part of the experience included 2 units:

1. *Personal Subjectivity* (PS) was evaluated by measuring the individual level of *reflexiveness* (Karpov, 2004); the level of *subjective control* (Rotter, adopted by Bazhin et al., 1984); *self-attitude* (Panteleev, 1993); theand *sense of life relations* (SLR) (Krambo & Maholik, adapted by Leontiev, 2006).

2. *Evaluation of the psychological resources of self-regulation* (life resistance, reflexiveness, coping strategies, tolerance of incertitude) using the following methods: “Test of life resistance” (Maddi, adopted by Leontiev & Rasskasova, 2006); “Evaluation of individual reflexiveness” (Karpov, 2004); “Index of coping strategies” (Amirhan, adopted by Yaltonsky & Sirota, 2008); “Evaluation of the tolerance of incertitude (Budner, adopted by Soldatova, 2003); “A questioner of artistic hobbies” (Kopytin, 2011).

The results of the tests of the first unit allowed us to form 2 groups of 40 subjects each, experimental (E) and control (C), with polar indexes in the level of Personal Subjectivity (Table 1).

Table 1. Personal Subjectivity in the experimental and control groups

Measures	Scales	Experimental group (N=40)		Control group (N=40)		Coeff. t
		median	dispersion	median	dispersion	
Reflexiveness	Individual level of reflexiveness	115,02	82,2	124,6	79,9	2,24*
Type of locus control	General internality	21,37	29,7	24,07	19,5	2,45**
Self-attitude	Self-direction	6,4	2,65	7,35	6,64	1,71*
Sense of life relations (SLR)	General sense-fulness of life (GS)	97,6	140,7	108,7	102,1	4,46**

*p<0,05, **p<0,01

Social and demographic characteristics of the experimental and control groups are shown in Table 2.

We **le 2**. Social and demographic characteristics of the subjects in each group

Characteristics	E-group (N=40)	C-group (N=40)
Age		
57–65	19 (47.5%)	18 (45%)
66–75	18 (45%)	20 (50%)
76–80	3 (7.5%)	2 (5%)
Education		
Secondary school	15 (37.5%)	10 (25%)
College.	16 (40%)	18 (45%)
University	9 (22%)	12 (30%)
Marital status		
Married	10 (25%)	15 (37.5%)
Widows	25 (62.5%)	15 (37.5%)
Divorced	5 (12.5%)	10 (25%)
Social status		
Continue previous work	6 (15%)	22 (55%)
Changed work	6 (15%)	9 (22.5%)
Stopped working	28 (70%)	9 (22.5%)

The further analyzed the indicators of self-regulation in each group using the methods described for unit 2.

Tab subjects from *E group* exhibited a decrease in the levels of reflexiveness and life-resistance, dominant maladjusted behavioral strategies, and intolerance of indetermination. They showed reduced independence and subjective self-control, poor life purposes, and rigidity in interactions with other people, which was consistent with poor functional well-being. A deep feeling of one's own insignificance in society and limited social contacts and activity can be considered to represent dissatisfaction with the social aspects of development.

The subjects from *C group* show a higher level of reflexiveness and life resistance, dominant active behavioral strategies, and a tolerance for incertitude. Successful functions were revealed in these individuals due to their attitude toward autonomy, positive self-acceptance, life purposes, and the ability to structure one's own life. Acceptance of this new status permits these individuals to increase social relations and to evaluate one's own experience life with a wide range of emotions, which indicates that these people are satisfied with the social aspects of development and have personal subjectivity at this step of development.

The training experience was performed with the members of the *E group* divided into 4 subgroups with 10 subjects each. Art therapy was used in a thematic group as a psychological intervention and a determining external resource. The group was characterized by high organization, active participation in the social interaction and orientation on a permanently changing reality. The order of topics in the art group depended upon the main stages of dynamics in personality behavior in the group interaction: preparation, realization, new evaluation and action. Feedback was achieved through a discussion at the end of each session.

The control portion of the study used the methods described for the second unit of the constituting part of the study. The control portion aimed to reveal the dynamics for indicators of self-regulation in members of the E group after art therapy with consecutive comparison with members of the C group.

Results of the study. Significant dynamics were revealed in the indicators of the psychological resources of self-regulation in the *life-resilience* test in the subjects in the E group. A comparison of medians in all scales of this test in the E and C groups after the training experience proved approximation of values for both groups (Figure 1).

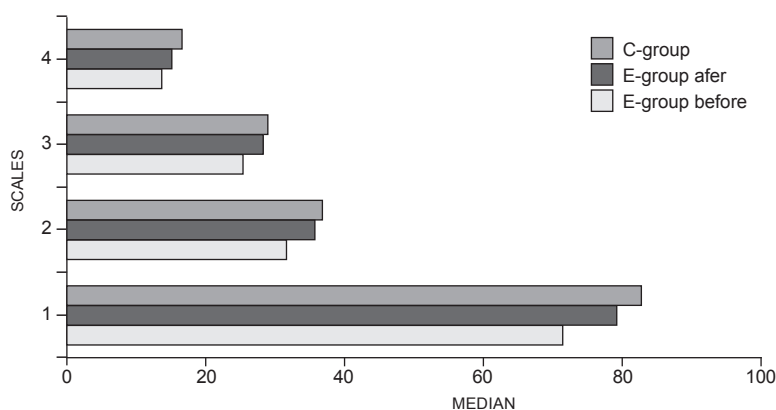


Figure 1. A comparison of medians in the life-resilience scales in the E and C groups before and after the training experience

1 — general life-resilience; 2 — inclusion; 3 — control; 4 — risk-acceptance.

We can suppose that these dynamics of the indicators of life-resilience in subjects from the experimental group are due to inclusion in an organized creative activity. The possibility of initiating a personal choice and to regulate and plan a creative activity probably decreases the internal tension and favors self-satisfaction with one's own actions and external activities. New skills from the acquired creative experience increased the possibility of actively enlarging the frames of personal choice.

A significant increase in the level of individual reflexiveness in the E group after art therapy reveals a very important regulative component of personality that allows the individual to consciously construct his or her own life (Table 3).

Table 3. Comparison of median levels of individual reflexiveness in subjects from the C and E groups before and after art therapy

Measures	E-group			C-group	
	Before Median	After Median	Coeff. t	Median	Coeff. t
Reflexiveness	115,02	125,62	5,46**	124,6	1,66

**p≤0,01

Table 4 presents the dynamics of coping strategy selection in subjects from the C and E groups after the training experience.

Table 4. Comparison of the median scores of coping strategy selection in subjects from the C and E groups before and after art-therapy

Coping-strategies	E-group			C-group	
	Before Median	After Median	Coeff. t	Median	Coeff. t
“problem solving”	21,8	22,0	0,92	24,5	1,99*
“social support”	18,5	21,7	2,04*	20,0	1,69*
“avoiding”	27,4	25,9	3,20**	19,4	5,6**

* $p \leq 0,05$, ** $p \leq 0,01$

We should note that when the subjects became more familiar with the techniques and experienced a stimulation of their creative activity, and there was a tendency for their coping strategies to transform from maladaptive to adaptive.

A study of tolerance to incertitude in the E group revealed significant differences on the scale “new” ($t = 3,69$; $p \leq 0,05$), indicating the subjective value of perceiving the new, unknown situation as stimulating and comfortable; on one hand, because it provides creative security, and on the other hand, as an installation, assuring the phenomenon of “paradoxical control” (Lushin, 2002) and changing the personality through self-regulation and self-organization.

An analysis of the data of the *inventory of creative hobbies* (Kopytin, 2011) revealed that after art therapy the subjects from the E group reported an increased number of creative activities (“systematic painting”, “submerged in jazz music”, “learned the frivolity technique and prepared an exposition”, “group singing”, “take photos and design an album”, “compose a graphic family history (genograms), all family is already interested”, “dancing tango”, “became familiar with computer design”, “so many years passed after the War — the whole life, but only now I became able to restart my lessons of German”, “I visit ski centers”, “I organized a party of poetry in our geriatric service. Not everybody was happy, but it is just a beginning”, “I hesitated for a while, but I learned that my poetic congratulations and jokes are very popular”, “I write an art diary. It organizes and stimulates me, and it makes me proud of my originality”). These statements are direct quotes.

Qualitative changes were also revealed by the emotional reactions to the creative activity. Here are some examples of the answers to the question: “What do you feel at our art sessions?” — “They make me happy and satisfied.”; “They distract me from unpleasant thoughts.”; “They provoke astonishment, admiration, curiosity, excitement”; “They create a feeling of fullness, happiness, and quietness”). Therefore, an analysis of the inventory data also proves that the creative activity transforms the quality of life of subjects in the art therapy group. For instance, a comparison of photo-collage titles at the beginning of art therapy (“Everything is not like I want”, “Stop”, “My memory”, “I lived as I could and not as I wanted”, “Everything is not OK”) and at the end of it (“Look at the world differently”, “Life with a smile”, “My life is a pleasure”, “The life continues”, “A clever owl”, “A volcano woke up”, “Eternity”,

“World”, “Intelligence”, “Good and bad”) proves that the respondents evaluate their lives more positively, realize their productivity and meaning, and accept the present as having the possibility for a full and polymodal life. Comments in response to the answers for the “Feedback” inventory also confirmed the above suggestion. The majority (90 %) of subjects wrote that the systematic creative activities in the art group actualized a “*new understanding of life*” and helped one participant “*to love himself again and even to have a positive opinion of himself*”, to feel self-respect and self-evaluation that favor harmonic interactions with surrounding people and the world. It should be noted that new artistic skills, reconstructed or acquired, permitted some (25%) of the subjects to solve the problem of personal utility and to use their experience in the art group to gain an interesting job.

Conclusion

A study of the dynamics in the psychological resources of self-regulation in the elderly proves to have a great effect on the inclusion of personality into an organized creative activity in a thematic art group. Participation in new typeskinds of activities actualizes latent resources in the participants, with a consecutive enhancement of personal experience and a new enrichment of life resources. A.I. Kopytin (2010, 2011) also suggested that participation in an art group stimulates the realization of regulation mechanisms both in oneself and in others that enables successful functioning in the real life. A temporary and adequate activation with the consecutive realization of the psychological resources of self-regulation in the elderly can be an efficient mechanism for the mobilization of personal resources for the further development of personality, progressive strategies, and life restructuring.

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Lev Vygotsky's ideas in family group logopsychotherapy

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According to Lev Vygotsky's theory, every bodily deficiency not only changes a person's attitude to the world but also entails social consequences, which makes its social and psychological rehabilitation so important. The way in which problems of deformity compensation and supercompensation are solved, is largely determined by a patient's motivation. The paper deals with stuttering (logoneurosis) as an extreme form of broken communication; it analyses the peculiarities of stutters and their families, and the specific features of treating this defect; it also dwells on issues involving family co-participation in social rehabilitation. The multilayered system of family group logo psychotherapy - treatment of stuttering children, teenagers and adults - is based on Yu.B. Nekrasova's method of group logopsychotherapy. It also employs non-traditional techniques: Nekrasova's dynamic psycho-therapeutic diagnostics and biblio-, kinesi-, symbol-, video- and cinema therapies.

This system may serve as a model for forming motivational involvement and intragenic activity by patients and their relatives in social rehabilitation processes. The paper describes the levels and psychological structure of motivational involvement and mechanisms of its formation in logopsychotherapeutic processes. Motivational involvement is understood as a source of a subject's intragenic (inner) activity, the paper maps out strategies to form intragenic activity. The family group logopsychotherapeutic techniques may also help optimize communication between parent and child, doctor and patient, teacher and pupil, professor and student.

Keywords: logoneurosis, motivation, social rehabilitation, family group logopsychotherapy, supercompensation

Introduction

Lev Vygotsky noted that every physical deformity not only changes a person's attitude to the world but also has social consequences, which makes its social and psychological rehabilitation so important. 2.5-3.5% of the world's population suffers from speech disorders in the form of stuttering (logoneurosis). In most cases, stuttering leads to development of personality changes in a patient which makes the problem not only a medical issue, but also a psychological and social one.

From the early 1960s Yulia Nekrasova, as a speech therapist and later on as a psychologist, began to elaborate a technique of group logopsychotherapy for stuttering adolescents and adults aged 14-40 on the basis of the emotional and stress therapy by Doctor K.M. Dubrovsky, who used a suffering person's internal psychological resources.

In addressing the problem of broken speech communication through organization of intensive multifaceted speech communication we base ourselves on Vygotsky's theory of supercompensation as the highest degree of compensating an individual's physical, psychological and personal deficiencies. It is a "paradoxical organic process which transforms disease into super-health, weakness into strength, poisoning into immunity... vaccination of super health through disease, rising to a new height through overcoming dangers (Vygotsky, 1983, V.5, pp. 34-35).

Since the late 1980s we have been developing Nekrasova's technique in the direction of family group logopsychotherapy for stutterers aged 7-45. Alongside with patients every stage of social rehabilitation actively involves their parents and relatives who creatively acquire the biblio-, kinezy-, and art therapies. It corresponds to Vygotsky's idea that children with various health problems should not be brought up and taught solely in specialized institutions. An isolated environment only sharpens a child's focus on its deficiency and generates certain character traits that are bound to hamper its adaptation in an open social medium (*ibid.*, p. 41).

Stuttering and stutters

We understand stuttering as an extreme form of broken communication. Patients who come to us for treatment, can be described as individuals with a highly sensitive attitude towards the issues of communication and recovery, acute emotional suffering from their stutter and, as a result of it, they all display a high level of dissatisfaction with their self-actualization. Many of them blame their failures on their stutter (speech impediment) which only serves to emphasize the psychological aspect of stuttering.

The main psychological mechanism of stuttering is inability to change one's pathological psychic state in a speech communication situation. This pathological state includes the following three complex processes: firstly, a patient can hear his defective speech, secondly, he feels his muscular tension, and, thirdly, he sees himself as a failure through the eyes of people around him. As a result, the patient deprives himself of the opportunity to freely change his psychic state. An analysis of stutterers' self-reports about their perception of the disease showed them to resort to an iceberg metaphor, where speech is the tip of the iceberg, whereas the greater part of it, i.e. a stuttering individual's problems, remains hidden under the water (Nekrasova, 1992, 2006). With time these impediments come to be supported by their close family circle as they parents and relations tend only to exacerbate it.

A study by Polish psychologist B. Adamczyk suggests that a mere 10% of stutterers have a strong motivation for recovery and willingness to exert much effort during their treatment. Most patients rapidly discontinue their speech therapy lessons, and with time put up with their handicap, or tend to shift the burden of their own personal problems which they see related to their speech impediment, onto

their doctor's shoulder. As British psychotherapists L. Rustin and A. Kurn (XXII World Congress, 1992) suggest in their study, some stutterers are convinced of their unresponsiveness to treatment while others use their speech impediment both for defense and offense to hurt others. While emphasizing the need to be constantly cognizant of a patient's true goal, Rustin and Kurn say that a stutterer wants his therapist to exhibit affection, consideration, understanding, confidentiality, and even expects their doctor to accept his problems as one's own. But the latter is only supposed to provide aid and support instead of making decisions on his patient's behalf.

The above specific features of this particular patient category point to the fact that before embarking upon a course of active treatment it is necessary to create in patients and his relatives a strong motivation for achieving success in an effort to overcome the deficiency, in other words, they should be brought to reconsider their attitude toward their impediment, treatment and self-awareness in the process to secure as much inclusion as possible.

First and foremost, speech disorders in logoneurosis manifest themselves in communication situations of great importance to the patient and in the majority of cases lead to profound personality changes. Research into the motivational aspect of logoneurosis suggests antagonism between a stutterer's level of aspiration and his adaptive capabilities, which leads to the justification of his low in-group and in-family status, since all his life problems get focused on his speech impairment.

Family members' participation in social rehabilitation

In viewing the social rehabilitation process as a whole it is necessary not only to rehabilitate a patient himself but also to include his immediate environment, i.e. his parents and relatives, in this process. To increase the effectiveness of a social rehabilitation process among stuttering patients we analyzed their interfamilial relationships and identified a number of the personality peculiarities and speech behaviors of the patients' parents; we singled out some of their characteristic features that support or aggravate their stuttering and we also analyzed the degree of their interest in the results of the treatment.

Many years of practice in speech neurosis therapy have shown that:

- a) Disharmony in family relations (between parents and children, husband and wife, etc.), which has been normally left out of consideration, serves only to further aggravate the speech deficiency and a patient's subjective perception of it;
- b) If allowed to go unchanged, the pathological nature of the family relations proves to be a brake on the remediation process during therapeutic group classes;
- c) Completion of the treatment course is likely to trigger off a relapse of stuttering.

It is the profound motivational personality inclusion of both sides (patient and family members) in the ongoing therapy that constitutes a sine qua non condition for overcoming logoneurosis as a systemic disorder not only in speech but also in interpersonal communication.

System of family group logopsychotherapy

The system of family group logopsychotherapy consists of four stages: a propaedeutic one, a séance of emotion-stress psychotherapy, active family group logopsychotherapy and control supportive logopsychotherapy.

Stage I (propaedeutics) lasts at least six months and is built on dynamic psychotherapy diagnostics based on the bibliotherapeutic method. This type of non-traditional diagnostics was elaborated by Nekrasova to treat stutterers. But in our family group logopsychotherapy both patients and their close relatives read texts of fiction and make written comments about them. In his book *The Psychology of Art* Vygotsky analysed catharsis as a special personality effect produced by a work of art. We make use of this effect by offering patients and their families for reading specially selected books including those by Hans Christian Andersen, Anton Chekhov, Ivan Turgenev, Bernard Shaw, Alan Marshal, Ray Bradbury, Richard Bach, etc. Bibliotherapy is used in combination with specially selected psychological tests and questionnaires.

Traditional methods: Tests (Rosenzweig, Wesman-Ricks, Taylor, Kelly et al.) aimed at identifying such personality features as anxiety, aggressiveness, reactivity, ways of coping with critical situations, etc; questionnaires (self characterization, leadership qualities, speech diary, etc.) and picture tests that give us a most complete and comprehensive idea about the patient.

The tests were carried out in writing, which was not traumatic to our patients with speech communication disorders. Another feature of this diagnostics was carried out "at a distance", in the absence of a psychotherapist as many of our patients come from far away places. The tests are structured in the ascending order of psychological complexity. This fact, however, remains unnoticed by the participants as it enhances their motivational involvement in the unusual therapeutic process.

To identify interfamilial relations and motivation for communication and recovery we also used the Orlov and Thomas tests and specially designed tests and questionnaires and the essay *My Family and I*. This data was compared with that obtained in the bibliotherapy. This diagnostics was aimed not only to identify *The Internal Picture of Health*, (Nekrasova, 1992) but also to compose *The Family Portrait*.

Treatment Stage II is based on K.Dubrovsky's method of emotional stress psychotherapy aimed at "removing stuttering" within 1-1.5 hours. It is both individual and group hypnosis directed at a group of stuttering patients. The séance is conducted on stage in a frustrating situation in front of an audience. The psychotherapeutic encyclopedia edited by Karvasarsky (St Petersburg, 2000) describes this séance as "Dubrovsky's directive group impact in an awaken state". Our séance employs all the materials of the propaedeutic stage.

Treatment Stage III is active group family logopsychotherapy. Classes are conducted with patients involving active participation by their parents and relatives on a daily basis for a period of 1.5 months. We call this therapy intensive because its daily classes last 7-8 hours.

Vygotsky's idea about *the zone of proximal development* in child upbringing and education and the role of a teacher (an adult), without whose help the child will be unable to cope with new tasks and learn new skills, has also been implemented in

Nekrasova's logopsychotherapeutic system. Here the stuttering-removal session is followed by learning a new, hitherto unknown pleophonic speech style which is impossible to master without the help of a professional - a team leader.

This stage also employs non-traditional treatment methods in group form:

Bibliotherapy is a method of treatment through guided reading. This technique is designed to perform a dual function of psychotherapy and diagnostics. It makes it possible to reveal each patient's uniqueness, and get a portrait of his personality not shaded by his disability.

Kinesitherapy is a method of treatment by movement. It is designed to produce an effect on the patient's condition and personality through working with his body. It is also called dynamic relaxation. One of speech psychotherapeutic techniques, kinesitherapy employs paradoxical respiratory gymnastics elaborated by the Strelnikov mother and daughter, Günther Ammon's humanely-structured dance therapy and special speech and movement exercises.

Symbol therapy is a method which uses healing symbols for treatment. It is a process of group communication via healing symbols, created by patients themselves. Defining art as "a *social technology of feeling*" Vygotsky emphasized that it was created by society in order to influence an individual's emotional sphere through inherently specific "tools". He introduced the concept of "an aesthetic sign" as a cultural element. Unlike animals, humans see sign systems as a means of cultural development of their psyche, and among human psychic functions the sign-mediated one has the highest level of organization. Based on Vygotsky's thesis we can explain the fact that in her system of logopsychotherapy Nekrasova has made a great use of the symbol therapeutic method.

Cinema therapy employs the therapeutic potential of specially selected films (for more see below). Active use of film and video recordings and broad employment of these techniques in our groups allow us to speak about developing a new cinema therapeutic method as well as its diagnostic capabilities.

These non-traditional methods of overcoming disordered speech communication enable patients to realize their hypercompensation potential according to Adler's and Vygotsky's theories. Individual and group biblio-, kinesi-, symbol-, video-, and cinema therapies are also used for fixating and developing patients' artistic potential. The work results not only in the restoration of normal speech but also in the formation of good communication abilities and skills.

Treatment stage IV is a control and supportive logopsychotherapy provided six months after the main treatment course, it lasts two weeks and repeats, on a new higher level, the chief elements, techniques and methods of the group family speech psychotherapy. It also features traditional diagnostics (tests, individual and group reflection, etc.) and non-traditional diagnostic methods including biblio-, kinesi-, symbol, video- and cinema therapies in group form.

Motivational inclusion of stutterers and their relatives in social rehabilitation

The main issue in social rehabilitation, as Vygotsky points out, is motivation. In his *Thought and Language* (1934) he emphasized the importance of studying motives that drive thought and those motives and emotions without which thought

cannot occur or evolve. Addressing the problem of effectively overcoming disordered verbal communication we examined motivational inclusion of stutterers and their families in all type of complex multidimensional social rehabilitation activities.

Practice shows the effectiveness of any personality transformations, be it in learning, training or remedial re-education (psychological correction or therapy), depends not so much on a student's, or client's or patient's IQ level, culture, or extent of the disease, and even not so much on the level of their abilities as on how much emotionally, intellectually and personally he is active and involved in the process.

In our study of the problem we arrived at a concept of motivational involvement in activity. We define motivational involvement as a special psychic state which characterizes a person's involvement in the process of an activity.

Motivational involvement consists of four components: a) the degree of one's awareness of a motive; b) the force and sustainability of this motive; c) a person's actions to realize the motive; d) the emotional aspect of the motive. There are four levels of motivational involvement.

Table I shows levels and psychological structure of motivational involvement in the process of social rehabilitation (Karpova, 1998, 2003).

Table 1. Levels and psychological structure of motivational involvement in the process of social rehabilitation

Levels	Psychological structure			
	Degree of awareness of motive	Strength and stability of motive	Actions to realize motive	Emotional aspect of motive
I	Non-awareness	Amorphous dissatisfaction and desire for change	Absence of actions	Positive, weak, unstable, short-lived, field-dependent
II	Partial awareness	Unstable motivation for change	Situational activity to realize motive	Positive, unstable, longer-lasting, field-dependent
III	Clear awareness	Sustainable motive for change	Active steps to realize motive both as part of specially organized activity and independently	Positive, stable, long-lasting, field-dependent
IV	Clear and full awareness	Motive turns into a compelling need for change	Active actions directed at realizing the motive both in the framework of specially arranged activities and beyond it	Positive, strong, stable, long lasting, field-independent

The motivational involvement of the participants in the family logopsychotherapeutic groups was studied using a method of expert evaluations and Karpova's own method of motivational involvement assessment: the participants were to assess the level of their own motivational inclusion at each stage of social rehabilitation by using graphs where the vertical axis marked levels of motivational inclusion (0 - 4), and the horizontal one measured time (micro - and macro-) it took to pass each of the four stages.

Table 2 provides comparative results of a study we conducted among patients and their relatives at the propaedeutic stage of social rehabilitation (This study was carried out in groups of family logopsychotherapy in 1993-1997. The results and description of the methods used have been presented and published in the Doctor's thesis (Karpova, 1997, 1998, 2003)).

Table 2. Comparative results of patients' and their relatives' involvement in propaedeutic stage

Number of patients: 66 Involvement		Parents and relatives: 64 families Involvement	
HIGH 45 people (68.2%)	High	30 (45.5%)	
	Medium	10 (15.2%)	
	Low	2 (3.0%)	
	N/A	3 (4.5%) 2 of them from orphanages	
MEDIUM 18 people (27.3%)	High	5 (7.6%)	
	Medium	7 (10.7%)	
	Low	3 (4.5%)	
	N/A	3 (4.5%)	
LOW 3 people (4.5%)	High	0 (0%)	
	Medium	1 (1.5%)	
	Llow	1 (1.5%)	
	N/A	1 (1.5%)	

High involvement indicates fulfillment of all or more than 50 % of the tasks given. As can be seen in Table 2, over 70% of the patients registered high motivational involvement. All of them overcame their impediment with best results. Importantly enough, only 30-40% of the patients have stable results, however, all of them also demonstrated high motivational involvement at every stage of social rehabilitation.

Mechanisms of forming motivational involvement in social rehabilitation

Our continuous efforts to investigate and understand how patients and members of their close circle form high motivational involvement in a social rehabilitation process have made it possible to single out and describe some psychological mechanisms for formation of motivational involvement in a speech psychotherapeutic process.

1) *A co-participation mechanism.* We examined the specifics of this mechanism at different stages of social rehabilitation and demonstrated ways of creating “a co-participation environment”, enabling each participant to attain a high motivational involvement and to concentrate their efforts on self-improvement. A.S. Makarenko was a master at creating such “a co-participation environment”.

2) *Adequacy Mechanism.* A mechanism of adequate attitude towards one's impairment (shortcomings). The problem of a person's attitude toward one's impediment was analyzed from the point of view of motivational inclusiveness formation based on child-parent relations in stutterers' families. This is a most fundamental issue and is traditionally examined by psychologists as a level of aspiration and self-estimation, inadequacy affect and, in broader terms, at a level of self-concept formation. In social rehabilitation the formation of an adequate attitude helps attain a high level of self-rehabilitation.

3) Mechanism of forming an aspiration for “an ideal ego”. We have identified it based on the A.Bodalev's thesis about the potentials difference between “the ideal” and “the casual” egos. If he lives his life at his “casual ego” level a person leaves much of his potential untapped. During his treatment the patient overcomes his “casual ego” and seeks to attain an ideal “super-ego” devoid of his handicap.

4) Mechanism of embodying one's goals in an ideal image. As a regulator of a state, the role of an image in an activity has been investigated in psychology by D.A. Oshanin, N.D. Zavalova, V.A. Ponomarenko et al. Family group speech psychotherapy singles out three main functions of an ideal image: a) an image as a regulator of a state; b) an image as “an initiator” of development; c) an image as a factor creating a common “semantic field” both for patients and their relatives. The propaedeutic stage creates a special imagerial world in patients by using main characters from bibliotherapeutic books and thus promoting their speech and communicative progress. The patients traverse a path from Andersen's *Ugly Duckling* to R. Bach's *Jonathan Livingston Seagull*.

Problems of intragenic activity

We consider motivational involvement to be a source of a person's intragenic (inner) activity. The analysis of motivational involvement as a “tiny cell” of intragenic activity has shown ways of forming a common semantic field for patients and their relatives as a major direction in the formation of motivational involvement in the social rehabilitation process. Our research team has determined several types of intragenic activity enabling it to propose a general classification of the strategies for its formation in patients. Three strategy types have been singled out: 1 — semantic, 2 — psychotherapeutic, 3 — specific methodological.

On social rehabilitation in general

After one of her visits to our group the famous theatre critic and teatrologist N. Krymova said: You have a theatre, too, but it's a special one. Here dramatics, stage direction and acting occur simultaneously”. We highly appreciate the Master's concise and precise definition.

Similarly to using specially selected books in bibliotherapy we tap the therapeutic potential of specially selected films. In the first place, they are scientific documentaries describing our method: *Human Abilities Unlimited* (1986), directed by A. Shuvikov, and *Human Abilities Unlimited – 2, or 15 Years Later* (2001), directed by A. Shuvikov. The first film received a Grand Prix at a documentary film festival in Polezo (France) in 1987.

Today we are very happy to use the wonderful film *The King's Speech* (2010), directed by Tom Hooper. This film is also based on real facts and may serve as a good illustration of Vygotsky's theory of social rehabilitation and hypercompensation. Albert, Duke of York, suffered from a grave form of stuttering. With the help of a former actor called Lionel Logue and his paradoxical methods the Duke overcame his stutter. Another important thing is that Albert's wife took an active part in his recovery. When he became King George VI, he made great public speeches. This is a good example of hypercompensation. Logue's methods seem very similar to ours.

We have worked with more than 70 groups of family speech psychotherapy in different cities from Moscow, Taganrog, and Samara to Vladivostok and the results have borne out the effectiveness of this system of social rehabilitation. These methods of family logopsychotherapy are not only beneficial in extreme cases of communication disorders of the stuttering type, they also serve as a model for optimizing effective communication between parent and child, doctor and patient, teacher and pupil, professor and student.

While considering stuttering as a model of a systemic disorder in speech communication we also regard the process of social rehabilitation of patients with this handicap as a model of restoring full-fledged dialog communication, a model for transforming an ailing, unsteady, communicatively limited personality into a healthy, sociable, stress-resistant and socially active one.

Conclusion

In conclusion, as emphasized by every scholar who studies Lev Vygotsky's works, none of the world's eminent psychologists has been able to enrich his science in a more profound and versatile way than Vygotsky did in his short 37 year long life. And we would like to thank the organizers of this wonderful International Conference, which has for many years been bringing together scientists from different countries, and thus preserving and enhancing the memory of our illustrious compatriot whose scientific discoveries are now an integral part of the world heritage.

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SOCIAL AND EDUCATIONAL PSYCHOLOGY

Crafting a neo-Vygotskian approach to adult education in Portugal: Collaborative project work in an alternative curriculum

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Collaborative project work facilitates social interactions among peers and between them and their teachers. It allows students to work in their zone of proximal development (ZPD), promoting their knowledge appropriation. It empowers adult students, allowing them to express their voices and their cultures. Inter-empowerment mechanisms are part of this process, facilitating the internalization of intra-empowerment mechanisms. Both of them shape students' life trajectories of participation (César, 2013a). This work is part of the *Interaction and Knowledge* (IK) project. During 12 years (1994/1995–2005/2006) we studied and promoted social interactions in formal educational scenarios. We assumed an interpretative paradigm and developed an action-research project (three-year alternative curriculum, 7th–9th grades) and a 10-year follow up. The participants were the seven students who completed this course, their teachers, and other educational and social agents. Data collecting instruments included observation, interviews, informal conversations, tasks inspired by projective techniques, students' protocols, and documents. Data treatment and analysis were based on a narrative content analysis. The results are mainly focused on one student: Ernesto. His legitimate participation in this course facilitated his inclusion in school and in society. It promoted his socio-cognitive and emotional development and allowed him to internalize intra-empowerment mechanisms. This enabled him to improve his life trajectory of participation.

Keywords: inclusion, alternative curriculum, collaborative project work, life trajectory of participation, inter- and intra-empowerment mechanisms

Contextualization

Since the mid-1970s Portugal has received many citizens from African countries in which Portuguese is the instruction language (PALOP). The presence of children, teenagers and adults from the PALOP has shaped learning experiences in

schools (César, 2009; César & Oliveira, 2005). Curricular and cultural differences between the countries of origin and the hosting country create the need for cultural mediation, adequate practices according to students' characteristics, interests and needs, and the use of inter-empowerment mechanisms (César, 2013a). Regulatory dynamics, particularly between the school and students' families, are also needed (César, 2013b).

The 3rd cycle of basic recurrent education with credit units (7th–9th grades) was targeted at adults and was part of the educational system (Ministério da Educação, 1991). The curriculum was organized by subject and divided into credit units. This educational system was designated as SEUC. Students worked individually on each credit unit and could request an evaluation whenever they wanted. However, this system, sustained on emancipatory theories (Freire, 1921/1985), led to school underachievement and dropouts. According to Pinto, Matos, and Rothes (1998), only 5% or fewer concluded the course within the expected time (three years). Thus, the Ministry of Education authorized the creation of curricula conceived by teachers as an alternative to SEUC (Secretaria de Estado da Educação e Inovação, 1996). Curricular innovation happened when teachers committed to inclusion, and working collaboratively, created the conditions for its fulfilment (César & Oliveira, 2005; Courela, 2007; Sebarroja, 2001; Teles, 2011).

Theoretical background

Culture, curricula, and inclusion

In Portugal, the curriculum was mono-cultural at first, as if every student participated in the mainstream culture. Those from other cultures had to adapt to the mainstream culture in order to access school achievement. Then came the multicultural curriculum, in which several cultures coexisted but with no sense of sharing and mutual recognition. In an intercultural curriculum, the sharing of knowledge and solving strategies is assumed, as is the wealth deriving from interaction among cultures (Leite, 2002). When the importance of culture in thinking and performances, in solving strategies and/or in responses was realized, the need for differentiated curricula and practices was understood. Teachers should take into account the particularities of each culture, particularly the mother tongue and the symbolic systems (César, 2009, 2013a, 2014).

In an intercultural and inclusive approach, the curriculum becomes emancipatory (Freire, 1921/1985), allowing vulnerable cultural minorities to share their own knowledge and ways of thinking, to appropriate knowledge, to develop and to mobilize abilities and competences, promoting school and social inclusion. Positioning itself as a mediational tool between school cultures and the other cultures in which students participate, the curriculum can contribute to the development of regulatory dynamics, allowing students to act as legitimate participants instead of peripheral participants (César, 2009, 2013a, 2013b; César & Oliveira, 2005; Lave & Wenger, 1991).

Dialogical self, collaborative work, and project work

The theory of the dialogical self (Hermans, 2001, 2003, 2008) is a lens (or one more lens) that allows us to understand learning processes, students' access to achievement and to school and socio-professional inclusion. Hermans (2001, 2003) conceives of the self as being constituted by the *I* self, the subject who acts and thinks about his/her experiences, and the *Me* self, the object of these very experiences. Each person assumes different *I*-positions, for instance, as mother, daughter, wife, friend, professional, or student. These identity positions may be assumed successively or simultaneously, and they are more or less dominant in that space and time (César, 2013a), that is, in the architecture that characterizes a given situation. The different *I*-positions are endowed with one or more internal voices (Bakhtin, 1929/1981). According to César (2013a, 2014), voices may also be expressed externally when participants are empowered. These voices engage in dialogical interactions that are sometimes conflicting (César, 2009, 2013a; Courela & César, 2012). The voices of those who participate in cultures detached from the school culture are often silenced (César, 2009, 2013a, 2013b, 2014; César & Santos, 2006). They are the ones who also usually experience stronger conflicts between the different *I*-positions, which may cause significant suffering (César, 2009, 2013a, 2014).

Collaborative work has to do with promoting social interactions among peers and encouraging autonomy and personal responsibility, and also with the respect for the diversity of the different solving strategies and ways of reasoning (César, 2009, 2013a). In the school context and in formal educational settings, it also promotes interactions between teachers and students. It allows teachers to form dyads and/or small groups and to propose tasks that allow each student to work in his/her zone of proximal development (ZPD), facilitating knowledge appropriation and students' development (Vygotsky, 1934/1962). Peer interactions foster access to peers' reasoning and solving strategies, thus facilitating intercultural dialogue. In formal educational contexts of adults who experienced early school dropouts, collaborative work may be used as a mediational tool between cultures, facilitating knowledge appropriation and their access to school achievement.

Project work is long and phased. The authenticity of the project and its social insertion make it suitable for adult students (Badalo & César, 2007; Courela, 2007). Project work is a privileged form of promoting collaborative work (Badalo & César, 2007), so we chose to propose this way of working to the students (Courela & César, 2004, 2006, 2012). When we link project work to collaborative work, we call it *collaborative project work* (Courela, 2007). Collaborative project work must be supported by a didactic contract (Schubauer-Leoni, 1986) that allows a distribution of power among participants, especially in the way this power is used by those who have a more significant amount of it (César, 2013a; Courela, 2007): the Ministry of Education, the school, and the teachers. The didactic contract corresponds to the sometimes explicit, but more often implicit, set of rules that regulate the didactic relationship and the expectations of the different participants. It facilitates students' engagement in tasks and working in their ZPD (Vygotsky, 1934/1962). The tasks should allow each participant to assume, on an alternating basis with his/her pair, the role of more competent peer (César, 2009, 2013a). Together with

the mobilization of abilities and competences for carrying out certain tasks, this leading role promotes agency (Kumpulainen, Krokfors, Lipponen, Tissari, Hilppö, & Rajala, 2010). Students assume their voices (Bakhtin, 1929/1981; César, 2009, 2013a), particularly in their learning community, and participation becomes legitimate (Lave & Wenger, 1991).

Participation and power issues

To César (2013a), who coined the constructs of *inter- and intra-empowerment mechanisms*, empowerment processes begin in the social realm (hence mechanisms of inter-empowerment are created first of all), and only then can they be internalized by the participants, that is, take the form of intra-empowerment mechanisms. Examples of inter-empowerment mechanisms are the processes of power distribution among participants. These processes are provided by the didactic contract and by the pedagogical practices, by presenting tasks open enough for members of different cultures to express themselves, and by resorting to self-regulated assessment systems (César, 2013a; Oliveira & Courela, 2013). As César (2013a) points out, to address empowerment as something more than simply external to the individual and to allow it to have a transforming power regarding attitudes, social representations (Marková, 2005), and students' access to school achievement, its mechanisms must be internalized and take the form of intra-empowerment mechanism. These last mechanisms can be inferred when we realize that there was a development of a positive general and academic self-esteem, commitment and persistence in carrying out tasks, or resistance to frustration when a solution to a problem is not quickly found (César, 2013a). These mechanisms relate to reflection, thinking, feelings, and life trajectories of participation (César, 2013a, 2013b).

The empowerment mechanisms that each individual is capable of appropriating shape his/her life trajectory of participation, another construct coined by César (2013a). This author conceives of the life trajectory of participation as being broader than the concept of life project. The construct of *life trajectory of participation* illuminates the movements that characterize an individual's trajectory in different contexts, scenarios and situations (César, 2013a). It combines two dimensions: time and space. It stresses the importance of different types of participation in different cultures, making use of their knowledge funds (Kumpulainen et al., 2010). Thus, it allows them to (re)construct their life trajectories of participation, leading to socio-professional inclusion and mobility.

Method

This study is part of the project *Interaction and Knowledge* (IK), which studied and promoted social interactions in formal educational scenarios during 12 years (1994/1995–2005/2006) (for more details see César, 2009, 2013a; Hamido & César, 2009; Ventura, 2012). We assume an interpretative paradigm (Denzin, 2002) and a historically and culturally situated approach (César, 2009, 2013a). This is an ethnographic-based research (Hamido & César, 2009), based in the existence of a design of flexible research, prolonged fieldwork, use of thick descriptions, and emergence of inductive categories of analysis.

During the course, which lasted three years (7th–9th grades), we developed an action-research project, as it was suitable for solving concrete problems, with a strong focus on intervention (Mason, 2002). After the course there was a 10-year follow up, making this a longitudinal study through which we could study and understand the impacts that those practices had (and have) on the participants' life trajectories of participation. The research questions we focused on are: (1) How does an educational community construct an inclusive and emancipatory curriculum?; and (2) How do the mechanisms of inter- and intra-empowerment, developed during this alternative curriculum, shape students' life trajectories of participation?

The participants were the seven students who completed this course, their teachers, and various elements of the educational community. We focus mainly on one student: Ernesto. The names are fictional, to guarantee anonymity. The most used data collecting instruments were: participant observation (audio- and video-recorded, as well as in photos and in researchers' diaries), interviews, informal conversations, tasks inspired by projective techniques (TIPT), students' protocols, and documents. Data collection took place throughout the course and during the follow up. Data treatment and analysis included codification. For instance, the excerpts of the interviews carried out during the course are identified by the letter I, followed by the order in which they took place (I1, I2, and so forth), by the name of that participant, and, for teachers, by the subjects they taught and the years of the course in which they participated. In the follow up interviews we also used the letter I, the interview number, follow up (*fu*), and then the name of that participant. Therefore, I2*fu*, Ernesto, refers to the interview carried out in the 2nd year of the follow up with Ernesto. In the transcripts, we use ... after a word for a small pause in the account (less than 3 seconds), and (...) for longer pauses. For purposes of data treatment and analysis we resorted to a narrative content analysis (Clandinin & Connelly, 1998) in order to understand each participant's life trajectory of participation (César, 2013a).

Results

Construction of an inclusive, emancipatory curriculum by the educational community

The elaboration of this alternative curriculum occurred in 1999/2000. Students with repeated school underachievement in SEUC were invited to apply for the course. Candidates chose the vocational areas they were interested in. The selection of two vocational areas resulted from these choices. Thus, the students participated in the construction of this curriculum from the start, as several authors recommend (Knowles, 1986; Secretaria de Estado da Educação e Inovação, 1996; Zittoun, 2004). The teachers were invited by the school board. This was an important step to promote innovation based on teachers (Sebarroja, 2001).

The course included: (1) a general component—Portuguese, English, and Mathematics; (2) a socio-cultural component—Environmental Education, Citizenship Education, Social Sciences, Physical and Chemical World, and Hygiene, Health, and Safety at Work; and (3) a vocational component—Chemistry and Physics Lab Techniques, Biology Lab Techniques, Organization and Classification

of Techniques for Library Documents (TOCDB), and Introduction to Computer Technologies and their Application in the Lab and in the Library (ITIALB). The course was called laboratory assistant / technical librarian. It was one of a kind on a national level. It took place between 2000/2001 and 2002/2003 and provided the conclusion of the 3rd cycle of basic education (7th to 9th grades).

The innovation in the pedagogical practices was mentioned in students' accounts, as illustrated below:

Ah! Alternative curricula because they're always more practical. At least for someone who stopped studying a long time ago and is starting, I always thought it was more practical. (...) What advantage do I see? The advantage is, well, the teachers have more time. There's more attention, isn't it!? Like this... well, they've got more time for us. (I3, Tânia)

This student felt that those practices facilitated learning. She referred to the existence of practical activities, such as those carried out in collaborative project work, developed in Environmental Education (Courela, 2007).

The teachers valued that they could act as curriculum constructors, as shown in one of their accounts: "It was the first opportunity to work with a syllabus that didn't come from the Ministry of Education" (I1, Mathematics teacher, 1st and 2nd years). The collaborative work that took place among the teachers, which was facilitated by a weekly meeting, was still quite unusual in schools (Lima, 2002; Teles, 2011). This work turned out to be essential for the construction of this curriculum, contributing to the development of complex professional competences (Perrenoud, 2000).

Ernesto's life trajectory of participation

Ernesto was from São Tomé. He lived in Angola, with his mother, until the age of 17. In 1999 he came to Portugal to live with his father. In 1999/2000 he started attending SEUC. One of his teachers stated: "I remember he was always on his own and he was someone... He looked like an animal! He didn't talk... I remember walking into a classroom one day and the place was dark and Ernesto was sitting there all by himself!" (I1, ITIALB teacher, 3rd year). Ernesto was completely isolated from a social and educational point of view. Neither the school was inclusive, nor was he capable of trying this inclusion, revealing lack of confidence in the interest he might arouse in his peers. This lack of confidence has been stressed by other authors who have studied and developed alternative curricula (César, 2002; Oliveira, 2006). Thus, Ernesto had not internalized any intra-empowerment mechanisms he could use in the school context.

During the course, Ernesto's progress was noticed by the teachers, his school-mates, and himself. One teacher highlighted: "to look at this kid now and remember the one I saw in that dark classroom, it seems like two different people! Ernesto is just so different, he's so much more communicative" (I1, ITIALB teacher, 3rd year). Another teacher added: "We got him to integrate the class quite well and even feel motivated to the point of saying he'd like to continue to study!" (I2, TOCDB teacher, 1st and 2nd years). Thus, he began internalizing and using some intra-empowerment mechanisms. This had impacts on his life trajectory of participation.

If we seek to understand the impacts of the inter-empowerment mechanisms on Ernesto's ways of acting, we find them in his discourse, in the observations and interviews we carried out, during which he stressed the importance of the interpersonal relationships he established with his classmates and teachers. He highlighted the importance of collaborative project work, which he called group work. This work led him to communicate increasingly with the others. Thus, in a follow up interview, when we asked him whether he felt he was part of a group, he answered: "Yes, and I even miss the whole group, the way they treated me..." (I3fu, Ernesto). Initially, Ernesto did not seem to engage in the collaborative project work. His curiosity was clear, but he was reluctant to interact with his classmates. Several times we observed them calling for his attention, encouraging him to work, and we also acted in a similar way.

In a class that assessed one of the collaborative project works, Ernesto was questioned about his participation. Gesturing with his hands at the same time, he replied: "Because I'm not very good at assembling all those things" (videotaped class observation, March 15, 2002). As the classes went on, the time he took to start working decreased. He began to discuss procedures with his classmates, to engage in collaborative project work, and to accomplish it while interacting with the other participants. Progressively, he increased his persistence and the effort he put into the tasks (see Figure 1). This constitutes empirical evidence of his internalization and use of intra-empowerment mechanisms, which was facilitated by the work developed in his ZPD (Vygotsky, 1934/1962). Thus, a change was observed in his ways of acting and reacting in class. There was greater engagement in the tasks and in accessing school achievement.

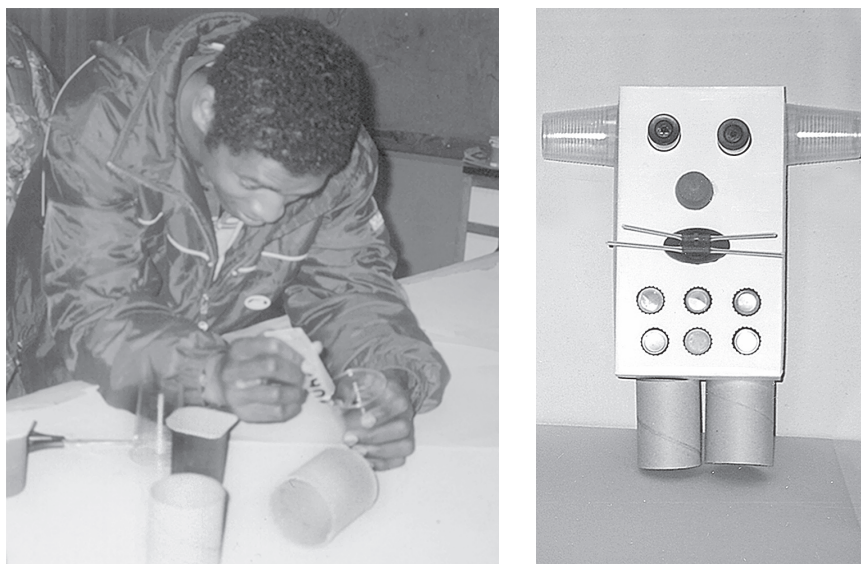


Figure 1. Building a robot (left) and final product (right)

When asked about what he enjoyed the most in the course, he mentioned the collaborative project works carried out in Environmental Education, showing the desire to return to that time. His account illuminated how well he felt by then and

how that time was important to him: “I enjoyed... the group work... I really liked working with the puppets [one of the collaborative project works] (...) I’d like to repeat it all again, go back to that time!” (I3, Ernesto).

As recommended by Favilli, César, and Oliveras (2003), we sought to create space for the expression and recognition of African cultures, very close to this student’s childhood and teenage experiences. At the start of the 2nd year of the course, in a task inspired by projective techniques (TIPT) that Ernesto carried out, the presence of a strong connection to the African cultures was clear, for he associated science with an African landscape, where various cultural elements are visible (animals, plants, landscapes, stars) (see Figure 2). As he would mention later on, this drawing represents the African jungle at night.



Figure 2. Ernesto’s TIPT: The instruction was “Draw or write down what science is to you”

In another task, he told a rather original story involving an alligator. When asked about the origin of the story, he said:

I must have been about 15 (...) It was an old man, at night, telling stories... He told the children this story, and I was also listening and I heard that story like that. And I remembered that story... (...) The adults started telling stories... Each one would tell the story he knew and that’s how I heard that story. (I1fu, Ernesto).

This excerpt shows his confidence in valuing a specific, important aspect of one of the cultures in which he participated. It illuminates the importance of using intercultural practices in school activities. Ernesto’s growing legitimate participation in the different communities (social, school, class) allowed him to overcome his learning difficulties, initially mentioned by his teachers: “Ernesto was a tough case (...) it was hard to work with him in the sense that he took a long time (...) at the start I had to explain many times (...). So it was a challenge” (I1, English teacher, 1st

year). His teachers underlined Ernesto's learning difficulties and the lengthy time it took for learning to take place. Teachers' remarks illustrate how different rhythms are from one student to the next and how these shape their life trajectories of participation (César, 2013a).

Two students from that class stressed the importance of Ernesto's socio-cognitive development in his school performances: "Ernesto had... I think he had good results because he, his life changed a lot after he finished the course" (I3, Daniela) and "Ernesto was better than when I first met him, right? He already had more knowledge, more grounds! He was much better" (I3, Alzira). Daniela's claim that Ernesto's life changed a lot illustrates how practices have impacts on one's life trajectory of participation.

The follow up we carried out, starting one year after the conclusion of the course, illuminates how inter- and intra-empowerment mechanisms continued to develop and to shape this young man's life trajectory of participation. This illustrates the transitions between different contexts that he is already able to do. When asked about suggestions for a future course with an alternative curriculum, Ernesto replied: "More English. English and Portuguese. They're the subjects I found the hardest. [I'd put in more] Portuguese, Maths, and English" (I1fu, Ernesto). He also thought that the school should diversify its educational offer: "I'd do it differently. I'd do another type of course. Instead of technical librarian (...) lab assistant. Something different would be included. So it's not always the same thing, Miss" (I1fu, Ernesto). This student also felt it was preferable for the course to have two vocational areas: "Two technical areas are better!" (I1fu, Ernesto). These accounts illuminate the mobilization of intra-empowerment mechanisms, as Ernesto showed he was capable of reflecting upon his experiences as a student and of presenting proposals. These mechanisms are also present in the management of his life trajectory of participation and of the choices this bears. During the first year of follow up, he began a professional training course in accounting and management, in which he experienced school achievement.

In 2004/2005 he decided to enrol in recurrent secondary school (10th grade). Because classes began in September, he stopped going to the accounting and management course. In the second follow up interview, we wanted to know how he had adapted, and he told us: "I felt, I felt a little different. (...) I did, but it was more with the teachers. With my classmates, I got on well with my classmates..." (I2fu, Ernesto). This account illuminates two vital points: (1) his gains from a socio-cognitive and emotional viewpoint, for in this class Ernesto no longer kept away from his classmates, as he did at the start of the 3rd cycle; and (2) the essential role played by emotional aspects as an inseparable component of the learning processes, particularly the role played by the affectivity established (or not) between the various participants in educational activities. This finding was also stressed in other studies (César, 2009, 2013a, 2013b; César & Santos, 2006).

In this second interview of the follow up, Ernesto was the only student who seemed to have some knowledge about the changes foreseen for the educational system, for he declared: "They talked about education and from 2005 onwards education's going to change. Compulsory education will be up to the 12th grade. I read that in the papers and also watched it on the news" (I2fu, Ernesto). This topic continues to be present in Ernesto's life trajectory of participation, even after

his dropout from recurrent secondary school. In this interview, he seemed quite downcast. This illuminates his constant struggle for a better quality life, something that characterizes his life trajectory of participation, inside and outside of school. César (2009, 2013a) also mentions this struggle with regard to another student who participated in vulnerable minority cultures that were socially undervalued. When Ernesto was asked about the existence of certain changes in his life, he stated: "I'd like to be better off. To be better, if my residency is issued, you know? I'd like to get my driver's license, I couldn't do the [theoretical] exam because my visa wasn't valid" (I2fu, Ernesto).

As for professional projects, Ernesto mentioned he continued to look for information: "I see loads of courses in the newspaper" (I2fu, Ernesto). During this interview he illuminated a change regarding his future projects: "I'd like to say it's like this: I would definitely like to go to school. I want to see if I can go back to school and see if I finish the 12th grade. So I can do my hosting [hotel management] course" (I2fu, Ernesto). As this was the first time he did not mention computers, we tried to expand his explanation: "Yes, yes. So I can speak languages" (I2fu, Ernesto). This change in his professional plans may have to do with contacts he established and with losing interest in computers, lacking the incentive to develop abilities and competences that are not necessary in his daily life, an incentive that is vital in adult education (Perret-Clermont & Perret, 2006).

In the third interview of the follow up, Ernesto was happier, for his legal situation in Portugal had already been worked out. This was a long and rocky process, and it also illuminates the internalization of various intra-empowerment mechanisms, which helped him not to give up, even when he had to start the whole thing over again. He enthusiastically revealed the desire to continue studying: "Yes, yes, I want to carry on. I want to see if I get my driver's license to see if I go back to school. (...) I've already done the theoretical part. (...) I've just started the driving part" (I3fu, Ernesto). Ernesto is very pleased to be getting prepared to get his driver's license. He also stated: "My projects for the future are going back to school and doing what I want but... but to say the truth I still don't know what I want to do. Whether I want to do computers. I also want to take a course in restaurants" (I3fu, Ernesto). We sought to understand where this interest came from, so we asked him if he liked to cook, and he replied: "I'm really crazy about it. I really enjoy cooking. I like the whole thing of hotel management. But also (...) to do the course in computer engineering. I liked the course I did and would like to go on" (I3fu, Ernesto).

Ernesto got a fresh boost with the legalization of his situation, but he revealed some disorientation regarding his professional development. His references to hotel management and restaurants seem to arise as a result of certain personal interests, contacts with friends and information he gathered about the job market. The course he said he'd already done and that got him thinking about continuing his studies in the computer domain was a course in accounting and management. It included a computer component, which he succeeded in.

Ernesto was aware of the difficulties of the job market and, when the third follow up interview was carried out, he had not yet managed to find a job other than in construction sites. But some progress could be found in his professional situation. As he told us, in an informal conversation, he already had a working contract for 40 hours per week, that is, full-time. He still wanted to go further professionally, so he

wanted to get higher-level qualifications in a quicker way, as he expressed when he declared: “Of the experiences I want, I’m going to want to go back to school. But if I could enrol with the schooling that I have. I’d like to see if I can, get into university, but I’ve realized that to get into university I’ve got to finish the 12th grade. But if I could find a way of getting in” (*I3fu*, Ernesto).

We later learned, during the 4th-year follow up interview, in 2006/2007, that, in March 2007, Ernesto obtained his driver’s license for light vehicles and, in 2007/2008, for heavy vehicles. Later, in 2012, Ernesto became unemployed because the company he worked for went broke, a frequent situation in the economic crisis Portugal is facing. However, the mobilization of intra-empowerment mechanisms helped him find a solution: in July 2013, he emigrated to London, where he is studying English, working, and living with his girlfriend.

Final remarks

The case of Ernesto illustrates how an educational community can elaborate and put into practice an innovative curriculum that facilitates (adult) students’ access to school achievement and school and professional inclusion, thus countering life trajectories of participation marked by poverty and exclusion. Such trajectories are visible, for instance, in school underachievement (César, 2009, 2013a, 2013b) and in socio-professional exclusion. Access to school achievement and to socio-professional inclusion is enhanced by the development of regulatory dynamics (César, 2013b) that facilitate mutual recognition, allowing students to express their voices (Bakhtin, 1929/1981), especially those who are often excluded and silenced. In a world that is increasingly multicultural, learning to live with the others is one of — if not the greatest — challenges of education (Delors et al., 1996). The ease shown by Ernesto in the informal talks and in the follow up interviews, as well as the emotional bonds he still has with several of the participants in this alternative curriculum, make us believe that he will develop a life trajectory of participation in which he will continue to fight for his socio-professional inclusion and for a career that satisfies him.

Collaborative work is prone to intensifying social interactions, the starting point for the development of inter-empowerment mechanisms (César, 2013a), particularly in the school context. These mechanisms are then internalized, giving rise to intra-empowerment mechanisms that also shape the life trajectory of participation (César, 2013a). From a past of repeated school and professional underachievement and exclusion, and from being clearly excluded at school and in society, Ernesto now reveals a positive general and academic self-esteem, more developed complex cognitive abilities, broader socialization competences. These achievements show that he can mobilize intra-empowerment mechanisms. That is why the socio-cognitive and emotional gains that we observed while he participated the alternative curriculum, and were clear in his own accounts and in those of his peers and teachers, tend to be observed throughout in his future participations (Courel & César, 2012), that is, during the follow up. This aspect is an essential feature of an alternative, innovative, inclusive and emancipatory curriculum (Freire, 1921/1985). It is part of a school that contributes to the inclusion and to the empowerment of those participating in it.

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Reaching Conversation Through Play: A Qualitative Change of Activity

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This article illustrates the process of reaching conversation in the case of Anna, a 10-year-old girl, in a countryside Portuguese primary school, through neuropsychological habilitation and psychotherapy. This case identifies the theoretical and methodological concepts from Vygotsky's cultural historical conceptualization in psychotherapy practice. Vygotsky introduced a new form of thinking in psychology, the concept of play, as a cultural and relational tool on the child's (consciousness) development. During psychotherapy, Anna progressed through the following stages: 1) not playing (deploying the toys, with no relations between them or awareness of social rules); 2) worldplay (building worlds using wooden blocks and other toys, establishing relations between the characters and their possessions); and 3) imaginary situation (with no toys). At the end of this process, she was able to talk about her issues, communicating in a more adaptive way, especially in a schooled society. When she reached conversation, Anna's activity was also changed. Therefore, there was a qualitative change regarding her needs, motives and ways of acting and reacting to herself, others, and cultural tools or events.

Keywords: Vygotsky, play, activity, consciousness, language

Introduction

Nonclassical psychology, based on Lev Vygotsky's cultural-historical conceptualization, differs from other approaches by proposing that through the help of a significant other and by acting upon culture's instruments, the mind is developed. By highlighting culture's role on building higher human mental processes, becoming a human being is a likelihood but not a certainty of *Homo sapiens sapiens*. This likelihood is derived from the social division of labor (Leontiev, 1978^a; Oliveira, 1993, Rego, 1995; Vygotsky, 1989).

As Zinchenko et al. (2013) exposed, Vygotsky's theory proposed new concepts and paradigms of psychology, enabling progress in our way of perceiving and acting on maladaptive functioning (Quintino-Aires, 2012). Maladaptive functioning is not caused by the lack of abilities to acquire culture but rather by the lack of practical opportunities to self-develop, which, in turn, are a consequence of social inequalities (Bourdieu, 1974; Marx, 1844; 1985; Quintino-Aires, J., 2006).

Vygotsky's cultural-historical approach studies the human conscience, which is defined as an unfinished process and not a product of a phylogenetic evolution (Vygotsky, 1925/1999). This approach is characterized as a co-construction, which initially stems from biological necessities and motives and evolves through action and reaction into a culturally specific context.

According to Leontiev (1978a), if culture demands the individual to act upon cultural tools, human conscience will evolve in the following way: from the *stage of an elementary sensory psyche* (sensorial consciousness), to the *stage of the perceptive psyche* (perceptive consciousness), passing through the *stage of animal intellect* (elementary mental processes), until reaching *human consciousness* (higher mental processes).

Human consciousness is neither a ready-made cultural product nor a spontaneous development in the individual at birth. Transitioning between the different stages of conscience and activity is not a natural or spontaneous process. The process results from the effect of human activity on culture that has its own objective laws in labor and social relations. Despite this objectivity surrounding the construction of human consciousness, subjectivity exists in the way humans acquire new necessities, means, motives and *modus operandis*; i.e., that is, human consciousness is as mutable as cultural instruments in a given historical time and context (Bock, 2001).

This idea is supported by Jomskaya (2005), who contended that personality and human consciousness problems can be assessed using neuropsychological analysis because the mind, which is not an abstract entity, and has concrete and objective brain connections.

Becoming a person and accessing psychological needs produce results from the construction of internalized systems, which are transferred from social relationships to personality. Because human consciousness emerges as an external and effortful process, psychotherapists can facilitate this function (Quintino-Aires, J., 2006).

Despite differentiating us from animals, human consciousness is a developmental stage that not everyone attains; it is not a necessary and predictable human feature because it is primarily a historical co-construction that is culturally mediated, allowing subjectivity (Vygotsky, 1925/1999; Quintino-Aires, 2012).

The present article describes the development of a child's consciousness through play from a psychotherapeutic perspective. In this approach, play as well as conscience are not understood as an innate and spontaneous process. On the contrary, play is a construction, similar to every other human possibility, which means that it becomes a likelihood in the individual's ontological development through culture. Culture, in its turn, is immersed in a historical context and provides certain instruments to which the individual will have different possibilities to interact, access and integrate, depending on the historical context. These possibilities for development and appropriation of cultural instruments through play are dependent on the stage of development of human consciousness (Monteiro, Ghedin, & Krüger, 2007).

Bordieu (1982) stressed the impact caused by social and cultural reproduction phenomena; for example, individuals who do not possess the interpreting instruments (brain structure) that allows access, fruition and full ownership of cultural experiences (i.e., cultural instruments) will not perceive cultural goods as well as its

potentials, although these experiences are available to all social classes. This reason explains why historical relational therapy does not allow for the reproduction of these social inequalities; each individual who undergoes intervention is capable of developing and possessing cultural tools (means of production).

Language, which is culture *per se*, plays a central role in an individual's psychological development, despite the fact that the likelihood of becoming a conscious human being is associated with the available valorizations, incentives and (likely) cultural accesses, to a given individual, in a specific historic and cultural context. This idea is present in Vygotsky's writing (1989, p. 36–37), as shown below:

The child begins to understand the world (...) also through speech. (...) "Natural" perception's immediacy is surpassed by a complex mediation process; speech as such becomes an essential part of the child's cognitive development. (...) The elements are separately categorized and, afterwards, connected to a phrase structure, allowing for speech to become essentially analytic.

Therefore, Vygotsky as well as Leontiev (1979a; 1978b) emphasized the role of culture in brain (re)organization, especially in the transition from the original brain to the emergence of higher mental functions. These authors proposed that what makes individuals act upon the world and cultural objects (language, events, objects, and persons) are our needs and motives. These needs, which are primarily of a vital nature, if properly guided by culture and the demands that are presented to individuals in a schooled society, transform into cultural needs.

Based on the studies of Marx (1985) and Vygotsky, the way through which individuals appropriate (*modus* of production) these motives (means of production) might likely depend on the state of consciousness development.

According to this perspective, play is interpreted as a construction; when a child is born, he does not possess an interpreting instrument capable of translating cultural items, which explains why it is not possible to perceive a toy as a replica of social possessions. First, the child needs to achieve a certain amount of brain structure to perceive these cultural instruments (real or play make). Consequently, this allows the emergence of needs and motives to act on the human conscience, as indicated in this expression: "Play provides a background for changes in needs and in consciousness of a much wider nature" (Vygotsky, 1933/2002).

Therefore, Vygotsky's theory deliberately ascribes a different role to play, placing it, together with language, as a catalyzer of child's development. This perspective sharply contrasts with a more classical view on play, in which its primary drive is the search for pleasure, as indicated in this statement: "Only theories maintaining that a child does not have to satisfy the basic requirements of life, but can live in search of pleasure, could possibly suggest that a child's world is a play world" (Vygotsky, 1933/2002).

Playing is not innate, it is a demand from the primary caregivers from whom a need is generated and whose nature is (primarily) cultural (and not exclusively vital). This need drives the individual to attend to these cultural objects and later on, to play accordingly to the cultural rules that are imbedded in the created narrative.

In play the object, to win, is recognized in advance (...). At the end of play development, rules emerge; and the more rigid they are, the greater the demands on the child's application, the greater the regulation of the child's activity, the more tense and acute play becomes (Vygotsky, 1933/2002).

Based on these premises, when analyzing play activity, one must focus on one's own needs and motives as well as the cultural and relational incentives and tendencies (i.e., the system of values). Play is a place where development occurs as explained in the following: "This is the transitional nature of play, which makes it an intermediary between the purely situational constraints of early childhood and thought that is totally free of real situations" (Vygotsky, 1933/2002).

Supporting the claim that playing is not innate is the observation that children do not (actually) play; they (simply) handle objects, which cannot be considered evidence that they are playing, in a sense that neither relations nor social rules nor imagination are established. Transformation, through play, evolves in opposition to the biological directive prescribed by the principle of pleasure and immediacy as described in the following manner: "This is the way a very young child behaves: he wants a thing and must have it at once (...). I think that if there were no development (...) of needs (...) there would be no play" (Vygotsky, 1933/2002).

Therefore, playing has a relational origin and a cultural character in the sense that to play, it becomes necessary to comply with rules that govern social interaction and to control impulsiveness and to access imagination.

Additionally, playing evolves into having an affective nature, which is one of the reasons why, as a demand, it drives the individual to act, allowing for new needs. Spinoza (1677), referring to this process, stated that "It is clear that we neither strive for, nor will, neither want, nor desire anything because we judge it to be good; on the contrary, we judge something to be good because we strive for it, will it, want it, and desire it." When we act upon an object (or a person, or an event), we build an attachment (affect, according to Spinoza) to it. When attached, we become capable of tolerating the unpleasant parts of (culture) life, i.e., that is, while playing, we endure losing.

On the previous premise, children react affectively to relationships in which they are a part of as well as to the demands made by others. Playing is the means through which the child acts on those relationships, facilitating the generalization and the development of new concepts and brain connections.

Playing constitutes an essential component in the process of categorization, primarily through generalization. This categorization process allows the child to compare and organize the world. Only through acted experience on these cultural objects, is an individual capable of making this comparison. Therefore, this acting-upon-the-world can be considered as a fundamental developmental instrument, enabling the growth of imagination as a higher mental function. According to Oliveira (1993), this developmental process is neither linear nor closed:

Culture (...) is not thought by Vygotsky as something that is definite, in a static system, in which the individual submits himself, but as kind of "negotiation stage", in which its members are in a constant motion of recreating and reinterpreting information, concepts and meanings.

In the Marxist view of man, there is an active part in appropriating cultural reality (Lenin, 1914):

The great basic thought, Engels writes, that the world is not to be comprehended as a complex of ready-made things, but as a complex of processes, in which the things apparently stable no less than their mind images in our heads, the concepts, go through an uninterrupted change of coming into being and passing away... this great fundamental thought has, especially since the time of Hegel, so thoroughly permeated ordinary consciousness that in this generality it is now scarcely ever contradicted. But to acknowledge this fundamental thought in words and to apply it in reality in detail to each domain of investigation are two different things.... For dialectical philosophy nothing is final, absolute, sacred. It reveals the transitory character of everything and in everything; nothing can endure before it except the uninterrupted process of becoming and of passing away, of endless ascendancy from the lower to the higher. And dialectical philosophy itself is nothing more than the mere reflection of this process in the thinking brain.

Through play, qualitative changes arise, namely, in cultural meaning; human perception is more than the sum of details essentially because of language. At the first stage of human perception development (a lower level of consciousness with only elementary mental processes), an object has no social meaning attached to it and language is not fully developed in the human's brain. Language, or social meanings, does not yet regulate the child's behavior. As the development of human perception progresses, social meanings become attached to objects and social events. From this period, social rules and language regulate the ways of acting and reacting to the world. Social meanings govern the individual's activity by accessing abstract thought and becoming emancipated from concrete and elementary perceptions. In an initial phase, the real situation is reproduced (through imitation) by resorting from little to no imagination. Imitation is simply memory in action because higher mental functions are not developed nor new needs, motives and desires, as expressed below:

(...) the essential of play is a rule that becomes an affect. "An idea that has become an effect, a concept that has turned into a passion" – this ideal of Spinoza's finds its prototype in play, which is the realm of spontaneity and freedom. To carry out the rule is a source of pleasure. The rule wins because it is the strongest impulse (...) a rule is an internal rule, i.e., a rule of inner self-restraint and self-determination (...) play gives the child a new form of desires, i.e., teaches him to desire by relating his desires (Vygotsky, 1933/2002).

According to Vygotsky (1989, p. 25), language "has an essential role in organizing higher mental functions" because it develops the ability to classify. Language activity, in addition to being a necessary prerequisite for play activity, enables the conceptualization of the social world and its tools. As a system organized by cultural rules, rules become progressively integrated into consciousness; i.e., that is, to speak implies to complicity with its rules, potentialities and restrictions. Addition-

ally, social meanings are transformed in the sense that it becomes possible for them to acquire as many forms as there are levels of consciousness.

This is the reason why interpretation is so idiosyncratic, despite culture's agreed, shared and objective meaning for every word (in the dictionary); everyone has his or her own subjectivity on how to incorporate rules, words and life experiences because personality allows the person to perceive and to (re)act.

Social meanings are appropriated by an individual according to his or her own conscience structure. The different stages of conscience are associated with qualitative differences in needs, motives and feelings. Consequently, there is a relation between *sensible contents* (due to sensorial or perceptive consciousness), *social meanings* (brain transformed by language) and *personal meanings* (human consciousness supported by higher mental processes), as expressed in the following manner: "Meaning attribution is a result of crystallization of human experience, representing the multiple ways through which Man appropriates generalized human experience" (Leontiev, 1978a, p. 94).

Therefore, language can be used to refer to objects and identify their characteristics, actions and relations, enabling an individual to become emancipated from social meanings and to create personal meanings. Words organize things into systems, i.e., that is, words code and attribute meanings to our experiences (Quintino-Aires, 2006).

Introduction to the case

Anna is a 10-year-old girl in the third grade at a countryside Portuguese primary school. She should be in the fourth grade; however, she can neither read nor write; she has relational and emotional problems. Anna's case fulfilled the criteria to be included in Instituto Quintino Aires's Project – Psychotherapy at School Project. This project was established for children who have problems with school adaptation, namely, learning and connecting with others.

Furthermore, Anna had problems that compromised her school adaptation, e.g., for example, she did not speak much, only several words or short and grammatically incorrect phrases, which did not belong to socially accepted categories; she was easily distracted; she did not play with her peers; and she did not answer her teachers' questions, becoming very distressed when she had to talk in public. During these moments, she always remained absolutely silent, looking detached, until she broke into tears and became completely despondent. She was always alone, both on the playground and in the classroom, confining herself to silence and not using language.

Psychotherapy at School Project typically began with an initial neuropsychological assessment, followed by the first series (twelve sessions, weekly) of neuropsychological habilitation and psychotherapy. At this point, we made another neuropsychological assessment and moved to the second series (making a total of twenty-four sessions, in this case, due to the school's calendar). In the initial sessions, it became obvious that Anna had a language problem.

The adults around her thought she would eventually grow out of her problems and spontaneously develop language. Therefore, the people around her did not offer enough incentives for optimal language development, believing that just being

around people who talked with each other would make her develop new needs, motives and therefore conversation as a new form of activity.

Anna's caregivers believed that she did not speak much because she had lived in another European country, in an urban zone, from birth until she was four years old. They considered the child's lack of language development as a consequence of changing countries and languages.

These beliefs were maintained by the parents despite Anna's lack of progress. First, contrary to their expectations, she did not develop language skills since they relocated to Portugal (from age four onwards); second, although she lived in a foreign country between birth and her fourth birthday, she was primarily "exposed" to the Portuguese language, which was not a foreign language.

These theories concerning the problem and its solution sharply contrasted with our case conceptualization. Anna was not capable of expressing herself to another person, not because she was born in another country but because language was not fully organized in her brain. Throughout her history, there was a lack of language incentives from the adults around her, and therefore, her cognitive functions were as elementary as her language. Her developmental phase did not allow her to use language as a cultural tool to interact with others in a cultural way, with social rules, which is one of the reasons why she was always alone. Consequently, there were no demands that impelled her to practice verbalizing her thoughts or emotions to others; neither her thoughts nor her emotions were organized through verbalization within a secure relationship.

Because she was unable to organize her thoughts and emotions through language, she became distressed when questioned in the classroom. She did not have the cultural tools to interact with adults. Thus, her world view, motives and needs were only *vital*, not cultural, as well as her ways of acting and reacting. She still had a biological *Dyatel'nost* (activity) without the cultural tool for classifying the world using language.

Anna's development through play: Language and activity

Anna was far from meeting "the basic requirements of life," as proposed by Vygotsky (1933/2002), which are necessary to sustain an adaptive life in a schooled society, i.e., that is, she was not adapted to performing the school's tasks and its social demands. That type of achievement required the development of high mental functions, and she was at the elementary level, without proper language development.

Because the most important cultural tools, according to Vygotsky's cultural-historical approach, in promoting development are language, play and *obschenie* (authentic therapeutic relationship), we chose to emphasize these aspects in therapy; e.g., for example, in the psychotherapy phase, Anna could always choose between playing, drawing or talking.

During her initial sessions in November 2013, she chose to draw. It was difficult to access her drawing intentions by relying solely on her own verbalizations, as illustrated in the following example:

– "I'm going to draw a fruit that is a tree," she said.

After being questioned, she replied:

- "It's a fruit that has some kind of spikes and I think it's called a pine."

In the example, her intentions were to draw a chestnut in its thorny shell; however, she was unable to express it in her own words; the categories for "fruits" and for "trees" were not separated as a cultural accepted classification. Because the categorization of the world and, consequently, activity depend on how people organize different categories, this exercise illustrated that her world view and activity were still undeveloped. Her drawing was poor, which was congruent with Anna's elementary perception of the world and vital activity at this stage of therapy.

From her 3rd session until her 7th session, she chose to play with the Worldplay box. The purpose of this box is to build worlds with wooden blocks and toys belonging to different categories (elements of nature, including animals; elements of everyday cultural life, including human figures) to establish relations between the characters and its possessions.

Because the Worldplay box has these cultural categories, the child needs a certain brain structure to build the relations with those objects to construct a "habitable" world, according to social rules. Therefore, through this activity, Anna was able to develop mental categories within a therapeutic relationship, acting and reacting to the unfolding narratives created by dialogues.

Before she was able to attain those achievements, Anna was unable to perceive cultural relations between those objects; she could perceive only vital relations (e.g., animals eating other animals). In our perspective, she needed first to be a part of a therapeutic relationship where social rules, language and cultural artifacts (*grosso modo*) could be shown to her.

During the first sessions with Worldplay, Anna did not actually play. During this initial phase, she did not know how to play; she simply deployed the toys, displaying neither relations nor social rules between them. In fact, there were no architectural rules on deploying the world. It simply was not a world by itself.

Based on these initial observations, the first therapeutic task for the therapist was to name the toys as *replicas* of the human world and to initiate action and reaction from Anna with simple questions, such as: "Oh! That's a house... Who lives in this house?" This question involves a cultural relation because houses are built for humans to live in. These questions were composed with the explicit purpose of enabling Anna to look into her own world and, by acting, to change her perception and activity.

By repeating this task, Anna slowly progressed into building a world conjointly with the therapist, even though she was still not playing. At the end of her 6th session during the first series, she displayed imagination and social rules. Anna started building worlds with wooden blocks and other toys as well as establishing relations between characters and their possessions.

However, despite progress, dialogue during play was lacking. Few words were shared between the characters and, perhaps more importantly, she did not fully include the therapist in playing (e.g., Anna held all of the toys in her hands and did not assign any play role to the therapist).

– “I’m going to eat you!” said Anna, grabbing the toys (an alligator and a fish) with both hands.

– “Oh! No!”, replied the therapist, who was interrupted as the alligator devoured the fish. If not interrupted, the goal was to continue to apply the non-classical cultural historical approach techniques, used with Anna from the beginning of her therapy, such as contingency, *engenwelt* and nominating (Quintino-Aires, 2006).

Eventually, as therapy progressed, she reached the required mental structure that allowed her to play. From the 7th session until the 3rd session of the second series, several imaginary situations were enacted (within the same theme) using no toys, resorting only to imagination and dialogues, which constitutes the essence of play.

At this stage, Anna was emancipated from her biological perception; she no longer required the use of visible toys to guide her play narrative. As a higher mental function, her imagination and her language allowed her to play freely regarding vital activity. She acquired new needs and motives that guided her activity, namely, social rules that always play an intrinsic role in the play activity.

In the imaginary situation, Anna assumed several roles, whereas the therapist, following Anna’s script, always played the police officer role. Furthermore, at the beginning of the session, Anna after choosing to play “Mr. Little Green Frog” always assumed this character. “Mr. Little” lived in an imaginary village where animals, with human-like features, lived in houses, establishing social, family and work relationships.

We consider this development to be an important milestone in Anna’s therapy because it indicated not only that her world view became organized into categories but also that she could establish relations between them. In other words, she was able to develop imaginary social relations that fit her own social and cultural context.

In a typical therapy session, the following play narrative unfolded. Action began with “Mr. Little” presenting a theft complaint to the police station. In the initial sessions of the imaginary situation phase, the stolen goods, although congruent and befitting the rural background in which Anna lived in, belonged to different categories: flowers, fruits and trees were stolen from him, as though they were part of the same classification.

The “police officer” role played, in our view, a fundamental part in organizing these thoughts, helping her to question her own verbalizations. For instance, the police officer said: “So, they robbed your flowers, fruits and trees. Suspicious! How is that possible? No one could rob from you a tree and a flower in the same way!”

As therapy progressed, the progressive organization of the complaint from “Mr. Little” became evident. During the last session, the thieves had only stolen items belonging to the flower category: tulips and roses.

Second, an important change occurred as far as the therapist’s integration in playing is concerned. Play developed from a one-person perspective to a two-person, co-constructed perspective, where dialogues became longer and more organized.

Through play activity, Anna practiced not only her language but also different ways of relating to authority figures because she played the role of different charac-

ters *while* interacting with the police officer. In every imaginary situation session, Anna never became blocked or avoided interaction with the “police officer.” On the contrary, she defended her characters’ points of view.

Finally, these therapeutic gains were observed outside the therapy sessions, as Anna started enacting this play narrative with her newfound friends, whom she had befriended. She was now able to interact with them in an adequate and adaptive way, in real-life situations.

The first time Anna “entered” the “police station,” she did not even knock on the door, nor did she say “good morning,” as prescribed by social convention. On the contrary, she started interacting by yelling her complaints through a speech that was difficult to understand.

By playing, Anna was able to express herself by gaining the structure she needed, which is likely why she chose to talk instead of play from the 3rd session in the second series.

When she reached conversation and was capable of conversing, she was able to talk about her difficulties and emotions relating to her peers, adults and herself, as illustrated in the following examples: “I cried when the other girls from my class wouldn’t play with me...” “I’m always afraid that my mother will get angry and shout at me and I can’t take that.” “When I have to tell something to my mother, I just can’t do it. Words just seem to get stuck. They just don’t come out.” “I’m unable to talk. I can’t handle my feelings and it gets stuck here.”

Discussion

Anna came a long way until she was able to talk about herself, although the process is still unfinished. She still needs to acquire further self-knowledge through language activity, especially through peer relationships. Later, if her development unfolds as expected, she will develop other needs and motives as well as develop another level of consciousness. Anna has already acquired the basic cultural tools required to interact with others. This process became possible through the development of new needs, motives and activity.

Through therapy and play activity, Anna developed a new form of consciousness, needs and motives. Play, as Vygotsky (1933/2002) conceptualized, involves relationship, tension (drama), social rules and imagination in action. During therapy, imagination requires an external activity and is not solely a mental acquisition. This acquisition will eventually occur as the individual acts in the external world, transforming the brain’s connections and developing high mental functions.

Vygotsky (1933/2002) said that in the play phase, the child starts by imitating the real situation because of the constraints of the elementary mental functions. “Mr. Little’s imaginary situation was, at first, an imitation of a real robbery. Although real in a certain way, it could only be considered a fantasy because an animal “talked” to a human figure and there was tension in the dialogues and the enactments followed social rules.

Therefore, in Vygotsky’s terms, Anna played. This was only possible because in a previous stage, Anna formed a relationship with a therapist, which allowed her to build worlds, organizing her perception of the world.

Through play, Anna developed her own cultural concepts and meanings, which provided a unique but socially adequate way to position herself before different persons in diverse hierarchical levels (adults and peers). Simultaneously, she learned how to act and react when she experienced distressful emotions.

Play activity acted on Anna's developmental process in a parallel fashion; she was forced to articulate her speech to be understood by another character. Play activity also organized her thoughts and developed her brain structure, allowing her to attain high mental functions.

Anna's primary activity, her needs and motives (tools of interacting with the cultural world) as well as her ways of acting and reacting had changed; Anna did not play at the beginning of therapy because as long as her needs remained vital, she could not access social demands and incentives. It became necessary to feel safe in a mutually contingent therapeutic relationship to achieve playing as a social tool in a child's development.

Play activity progressed through two distinct phases. In the first phase, Anna was still exclusively guided by perception; i.e., that is, toys commanded the narrative development because the likelihood of imagining (due to the absence of brain structure) did not exist. In the second phase, by relating with the therapist, Anna developed by the skill to imagine, emancipating her from immediate perception, as illustrated by the imaginary situation of "Mr. Little."

At the end of this stage, she talked about her issues, communicating in a more adaptive way, especially in a schooled society. As she reached conversation, Anna's activity was also changed. Therefore, her progress constituted a qualitative change in her needs, motives and ways of acting and reacting to herself, others, cultural tools or events.

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Meaning in couples relationships

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Based on psycholinguistics and L. Vygotsky's (2007) theories on sign, meaning and sense categories, as later discussed by A. Leontiev (2004, 2009), we present a case study that focuses on the intricacies of a love relationship for a woman who remained in a painful marriage. Interview material is presented in a Relational-Historical Psychology theoretical framework to provide central categories of meaning and sense. This is understood as a privileged method for apprehending the uniqueness of a human being. To segment the qualitative material, we used the "Analysis of the Nuclei of Meanings for the Apprehension of the Constitution of Sense," by Aguiar and Ozella (2006, 2013). This approach seeks to discriminate the meanings and senses that constitute the content of a speech sample.

Keywords: meaning, sense, core meaning, activity, love, relationship

Introduction

This research project studies the relationship between adult humans, an artificial historical product, which mediates a unique and singular relationship between human adults — marriage.

A case study details a woman's subjective experience of remaining in a prolonged marriage that has caused continued suffering.

A semi-structured interview was used to collect data, and an "Analysis of the Nuclei of Meaning for the Apprehension of the Constitution of Sense" by Aguiar and Ozella (2006, 2013), segmented and deepened the qualitative material. This method applies a Relational-Historical Psychology theoretical framework, which is a privileged method for apprehending the uniqueness of a human being.

Concept of family and marriage

History has recorded various forms of relationships between humans, which has led to the emergence of new, metamorphosed intimate relationship formats.

Engels (2012) notes that historical artifacts are a common inheritance of humanity that provide a perspective on the past and lead towards understanding

progress over the course of time. Historical artifacts also demonstrate that phases of development run parallel to the invention of new subsistence and labor instruments.

The democratization of personal relationships profoundly affected marriage relationships (Giddens, 1993). Modern marriages correspond to an epoch of crisis, that is, transformation, because they incorporate historical characteristics based on socioeconomic contracts between families and newer perspectives on relationships. In the modern sentimental marriage, passion is the motivation for an alliance.

Marriage now finds its origin and reason in love. Society's development opened new possibilities for expanding consciousness and psychological development. In marriage, the individual and couple's projects are shared, and sex is a permanent indicator that maintains the relationship. Psychological marriage implies that temperament and personality are compatible and only accessible if two people are living together in a marriage. As such, intimacy becomes structured on new values, which no longer include only friendship and love but also sex (Aires, 2007).

Meanings in the relationship between couples

Love embodies a conscious choice and provides personal fulfillment. However, the decision-making process is not natural or direct. It is necessary for society to develop and address several historical products (such as divorce and marriage for love) for these to become options. One should not conclude that culture provides an answer, but that it can make different choices available. Therefore, society needs to understand different historical products that act as alternatives, to develop a competency that implies will.

Reality should be made clear for a person may deal with a problem, but it is equally necessary that culture makes alternatives available, thus opening the possibility for choosing one of many ways of life. For example, divorce (as a love marriage) is a recent historical product in the progress of mankind. Divorce legalization was a step forward in Portugal, and it is now a less socially condemned option.

Language is the gateway for socio-cultural heritage, and it channels an understanding of the present human world. Thus, studying expressed meanings and senses allows us to grasp the human essence. Language is the psychological tool that allows access to consciousness.

Method

The research project — the interview method

This qualitative research project used a semi-structured interview that was contextualized as a dialogue. This method demonstrated the socio-historical perspective in qualitative research. Reliability was obtained through associative exchanges and interactions. Therefore, in the interview, consistency was the discourse experience between the interviewee and the researcher (Bakhtin, 1992).

In the interview, the subject expresses oneself, but what he articulates reflects the culture in which he is immersed, revealing his socio-historical reality.

The goal of qualitative data analysis is to understand the implicit sense of linguistic production (Freitas, 2002; Aguiar and Ozella, 2006, 2013).

Interviews provide access to meanings and senses because they provide a structured space in which individuals may construct reciprocal and alternating implications (Freitas, 2002; Aguiar and Ozella, 2006, 2013).

Instrument: Core meaning analysis

Discourse analysis provides access to the implicit and explicit substance in the interview. According to Aguiar and Ozella (2006, 2013), the core meaning should reflect the empirical facts and also signal the subject's inner hidden discourse, including his thoughts, the process of meaning construction, or in the present case, the subject's understanding of marriage.

Elements of the discourse as pre-markers

The material transcribed from the audio-recordings was attentively and repeatedly re-read to construct pre-markers. Each time the interviews were reviewed, recurring and highly valued content were highlights, as they revealed a greater emotional charge or ambivalence. The pre-markers provide a range of possibilities for further specifying core meanings.

Markers

The next step in the analysis process is to assemble the pre-markers in constitute markers. Similarity, complementarity and opposition are the criteria for aggregation. Indicators are not static, but are dynamic because they depend on the context in which they are initiated. For example, the life course phases or stages, the types of relationships established, professional experiences, etc. (Aguiar and Ozella, 2006, 2013).

Markers only acquire meaning because they are inserted and intimately associated with a global thematic content as envisioned by the subject in the moment.

Construction of the nuclei of core meanings

This phase initiates, "...a process of articulation of nuclei of signification through the act of naming" (Aguiar and Ozella, 2006, 2013).

Transformations and contradictions are unraveled through this process. This is an analytical approach of the subject's perception because it moves beyond what is evident and circumscribes *mediators* that provide access to the individual. Thus, one becomes closer to sense formations. The nuclei of core meanings expresses fundamental constitutive determinants of the individual and his emotional dynamics.

Thus, six cores of meaning were inferred from the interviews and were systematized, with respect to love relationships in adult life. They were applied to a descriptions of a subject who belonged to a group of women who remained in long-standing, unhappy marriages.

Case study

We named the case: "Solange, an Unhappy Marriage." The name is fictitious but all other data are real. The interviewee provided consent to use the data for the case study. Solange is 44 years old, had been married for 22 years, and has three children who are 16, 14 and 4 years old.

Organization of pre-markers and markers

Pre-markers were structured according to the similarity, complementarity or opposite-position criteria, as proposed by Aguiar and Ozella (2006, 2013). Markers are congregated from the narrative, agglutinating several themes that were found in the subject's description that inferred systematic indicators.

The process of isolating nucleus III is presented below to demonstrate the organization process:

Table 1

Pre — Markers	Markers
4. Husband betrays her with lovers. 5. Husband betrays her with sex professionals 6. Husband frequently uses websites for encounters. 7. Husband has mobile telephones to organize his extra marital encounters. 8. Uncommon preoccupation with physical appearance and husband's sexual distance. 9. Has been betrayed for 18 years. 10. She undervalues his infidelities. 11. The husband undervalues his infidelities. 12. He is opposed to divorce. 13. Husband's existing professional absences. 14. Her pregnancies are desired by husband despite his infidelity. 15. She feels that she was never resigned to the situation.	a) Experience of being betrayed.
16. He has an emotional problem. 17. He does not accept therapeutic help. 18. Friends believe that something strange can explain the husband's behavior. 19. The husband's childhood problems. 20. Prostitutes seduce him. 21. He speaks of himself as having the vice of sex. 22. Men have a gene that leads to betrayal. 23. Absence of physical violence. 24. Recognizes the value of understanding and freedom that the husband gives her. 25. Recognizes value of the role of father. 26. Recognizes value of the good social status of the couple. 27. Over-valuation of the project of constructing a building for the home.	b) Does not accuse husband of being irresponsible.
60. Her marriage has positive sides. 61. She tries not to look for indications of infidelities. 62. She has an almost perfect family except for infidelities. 63. She has already tried couple and individual therapy, but he abandoned it. 64. She hoped that, after each discussion, things would change. 65. She has looked up sex professionals trying to understand what in them is more attractive than in herself. 66. She recognizes the values of her marriage compared to others. 67. She is afraid of becoming intolerant of her husband. 68. She still maintains hope in her marriage 69. Her husband constantly incentivizes her to participate in his athletic activities and sport.	j) Preserve marriage.

Pre — Markers	Markers
70. Suffering for the children.	k) Fear of consequences of divorce.
71. Sorrow for the “in-laws”.	
72. Divorce destroys the family.	
73. Feeling of loss of an almost perfect family vs infidelities.	
74. Fear of taking care of children alone.	
75. Fear of lacking help if the children are ill.	
76. Fear of not being able to maintain the same financial comfort.	
77. Fear of never finding a new companion who will love her.	
78. Friends counsel her not to make hasty decisions.	l) Does not consider herself responsible for decisions in respect to her own life.
79. Fear of an abrupt decision.	
80. The husband must decide because it is he who is at fault.	
81. Example of divorce suffered by sister in law.	m) Negative and restricted vision of divorce.
82. Children suffer when stepmothers enter the scene.	
83. Her children suffered when their aunt became divorced.	
84. Divorce does not only affect the couple, but the entire family.	
85. Divorce represents an abrupt rift in life.	
86. Divorce evidences failure of life project.	
87. All of her friends are married.	
88. Examples of persons who regretted having divorced.	

Organizing markers

This level of analysis borders sense formation, that is, in the present case, it permits an understanding of the interviewee's lived experience of marriage. Articulating different meanings through organizing the markers resulted in inferences and constructions, which led to the nuclei of meanings formulation:

- I. Lack of personal project.
- II. Not responsible for decisions regarding her own life/fear of the future.
- III. Contradictions and an ambiguous sense of being married and betrayed.
- IV. Confusion between parenting and marital status
- V. Confrontation with her own marital state
- VI. (In) Decision relative to divorce

After the nuclei of meaning have been adequately organized, it is followed by an analysis of inter- and intra-nuclei (Aguiar; Ozella, 2006, 2013). Of these nuclei, nucleus III was chosen as an example of how the subsequent analyses were conducted:

Table 2

Markers	Nucleus of Meaning
b) Experience of being betrayed	III. Contradictions and ambiguities between being married and being betrayed
j) Preservation of marriage.	
k) Fear of consequences of divorce	
l) Does not consider herself responsible for decisions in respect to her own life.	
m) Envisages divorce as negative and limited.	

Internuclear and internuclei analyses

III. Contradictions and ambiguities of being married and betrayed

b) The experience of being betrayed

Let's say that the positive aspects of our relationship have weighed the most, though some may find this strange, because because there is the question of **betrayal** over time

The first time I was betrayed, looking back today, I feel as if it were an almost non-significant episode: we had been married three to four years.

During the years, **a few episodes of infidelity** occurred...

Then, **these occurred anew**. During those episodes, he always made efforts to charm me.

Bratus (2005, 2005a) clarifies that sense formations are not always available to conscious verbalization. However, in the context of the relationship with another person, the interviewee will envision the scenario of her experience: she has been betrayed for 18 years.

To disentangle the sense implies the intuition of double senses. It is crucial to note what the subject says and also her behaviors because because the sense formation cannot be independently discriminated from the action process. According to Leontiev,

"studying the individual psyche, it is the analysis of the activity of individuals in given social conditions and concrete circumstances that are the lot of each of them."

(2009, p.42)

III. Contradictions and ambiguities of being married and betrayed

j) Preserving marriage

"... completely distant, repeated sexual distance, you're always tired (...) you never want to be with me."

"Because he says I am the woman of his life. And I myself, as time goes by, our involvement, our friendship because I have a very beautiful family life, not counting these aspects..."

This woman does not make a decision because she does not integrate two contradictory pieces of information: the physical and emotional absence of her husband and her perception that there is still involvement between the couple:

However, because she has established a relationship with the interviewer (a woman), there are moments in which the double sense comes through (Bakhtin, 1992). Both facets of experience become integrated in that moment, and the interviewee clarifies for herself and the other how she experiences the betrayals:

III. Contradictions and ambiguities of being married and betrayed

b) The experience of being betrayed

Interviewee "(...) if I were able to isolate this problem because it **does not affect me very much at this moment ...**"

Interviewer: "Does not affect you anymore?"

Interviewee: "It does! It does! **It affects me a lot!** Because the situation has come in cycles, shorter each time (...) Up to the moment, these last years it has been difficult to bear."

The interviewee demonstrates how she manages her life, which is reflected in the popular social saying: *"He goes around with others, but he loves me."* The inheritance of the *stoic* moral philosophy is shown in the following verbalizations:

III. Contradictions and ambiguities of being married and betrayed

b) The experience of being betrayed

"That was it, that is what hurts, when I perceived that there existed various contacts (...) with Brazilians mixed in, this becomes a serious question! (... laughs)!"

"... he confounds me when he says I am present here, this is where I eat, this is where I come, these are my things and everything that is my home, my work. We have many things in common ... It is difficult to separate myself from him because of all these things."

Social meanings sustain personal senses and support the psychological construction of this woman's life, while questioning her way of living. The meanings are the most important originators of conscience, and they confront her with other's worlds, which may not match her subjective world. When confronted with different meanings, this woman is affected by her reality. In this case, the guidelines she builds for her orientation become crushed.

We demonstrate an inter-nuclear analysis and present core V, followed by cores II, IV, and back to illustrate this confrontation:

V. Confronting personal marital life states

f) Negative external opinions on her marriage

"In respect to this situation, my daughter is more ... she thinks I forgive too much. She thinks I should already have been more radical with what shows up. I always say to her that I am waiting (laughs) for things to become different."

The interviewee laughs because motives "are not separated from conscience" *"... Even when motives are not recognized, that is when the person does not apprehend what makes him do one thing instead of another, acts still retain a psychic reflection, but in a specific format — the form of emotional coloring of action"* (Leontiev, 2009, p. 168). The act of laughing demonstrates this reasoning's fragility in the hope that has endured for 18 years.

The interviewee continues and reveals that it is difficult to integrate this painful information, so a different social meaning appears to support the decision to maintain the marriage: that *"you never abandon a sick person."* This social meaning is presented in nucleus II:

II. Personal responsibility / Fear of the future

c) Does not accuse husband of being irresponsible

"... it is equally difficult for me to separate from him at this moment because I feel he is not well. I feel I am dealing with a person who has a problem, or is personally unbalanced ..."

Motives mediate the act. According to Leontiev (2009), human activity is multi-motivational that simultaneously responds to two or more reasons that are either

oriented to society or geared towards oneself. Thus, in accord with Bratus (2005), we cannot analyze personal sense in isolation, but only the sense-based formations that are connected to activity, which are more general and universal and belong to a whole. Consequently, everything becomes worth preserving in a person's marriage, even a motivation that accommodates syncretism between parenting and marital relationships.

To illustrate this, an excerpt that presents the basis of nucleus IV. is presented below:

IV. Confusion between parenting and marital status

e) The experience of being a parent

"My brother-in-law's divorce is an example of what I don't want for my own life. (...) Because it is children who are divided, sent from one side to the other living with unexpected people, the youngsters suffer in the process. It is perceiving my children's suffering ..."

Making sense only exists in the movement of acting on reality, the world of people, things and events. Solange defends marriage in her initial interview, however; linguistic expression was still on a superficial level. After relational engagement materializes between the interviewee and interviewer, we are able to access an authentic internal response:

III. Contradictions/ambiguities between marriage and betrayal

k) Fear and consequences of divorce

Interviewer: "As of today, what is your feeling for your husband?"

"At the moment, I cannot exactly say. I believe I have love as I would have for a friend ... That feeling of respect of woman to man, which I would like to feel for him, has evaporated because he constantly disillusions me — do you follow me?"

"But to leave a marriage searching for a new relationship and to expect very special things of other situations: which may happen or not. I don't know what is really better or not — because I don't feel myself. I am still examining my marriage and trying to have my family, together, convincing my husband to accept help."

It is not difficult to implant falsehoods in speech; however, it is \difficult to do this in acts, especially when they are repeated, because one is experiencing an internal, authentic response. In the above verbal description, Solange expresses losing feelings of respect that should be complemented by friendship in couple's relationships. She also describes her fear related to risking a new relationship.

In the relationship built by this couple, it made sense to preserve a distorted relationship with the world. This relationship is stronger than what they had intended or could comprehend.

This woman presents an uncertain form of conscience because she does not integrate the two contradictory information types — each are equally valued when they appear. She is able to proceed with new information as if no former information existed. The next excerpt demonstrates this as she confronts her marital experience.

V. Confrontation with her marital experience
h) Ambiguous feelings of the husband for his wife

*"He feels very much when I am absent. Now, I don't know. I don't know. I think that when F. doesn't respect me **it seems he doesn't love me**, you see."*

*"But when he perceives that I might leave, **he seems to like that**, but I feel he will suffer very much, I understand he is very hurt."*

Conclusion

Turning sense into meaning is a profoundly intimate and psychologically meaningful process. Because meanings take place in a personal conscience, they are movements that provide consistent significations for the subject in the current situation.

Given these considerations, personal meanings, which reflect motives created as relational actions of humans, may not adequately incorporate the objective meanings of the concrete subject (Leontiev, 2009).

The way this woman perceives the phenomena of her reality –marriage, merely results from the assimilation of ready-made external, meanings, i.e., stereotypes. This makes it possible to introduce representations and distorted ideas or fantasies into her conscience at any moment, including ones that are not based on her concrete, practical experience of reality (Leontiev, 2009).

Restructuring personal meanings into more appropriate narratives is possible with reconciliation (negotiation) between social representation and personal sense, allowing a new sense to emerge from conflict. Conscious meaning (subjective sense) is not an individual consciousness as opposed to social consciousness, but it is my social conscience. Hence, there is a need to have healthy friends who share ones understanding of oneself, others and the world. This sharing generates a conflict between visions and ways of being that motivates the emergence of new motifs that give birth to new senses.

Final reflection

The case and analysis presented here illustrates a method for applying the Relational-Historical Psychology theoretical framework to apprehend the uniqueness of a human through a process of discriminating meanings and senses, which constitute the content of a speech sample.

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MEDIAPSYCHOLOGY

The information security of children: Self-regulatory approaches

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The 21st century has been characterized by tremendous changes in mass-media systems. The rapid growth of the Internet, inspired by the progress of communication technologies and digitalization, has resulted in the rise of new interactive media. Developments contributing to the scope and speed of media production and distribution have drawn particular attention to the information security of audiences – in particular, to protecting children from content that might be harmful and not appropriate for their age. Unlike adults, who are accustomed to living in an information-rich society, children cannot understand and filter content. Digital media, with their profound effects on a young audience, definitely affect children's psychology and emotions.

Recognizing this development, the most economically advanced countries have elaborated specific media policies to ensure that children receive the advantages of new media and simultaneously are kept safe from harmful content. These policies, aimed at traditional media (press and analogue broadcasting), have been based on legal approaches, but in digital reality laws do not always produce the same desired effects because the law-making process often does not keep up with technological change. Governments, therefore, have to share their responsibilities with the nongovernmental – private business and civil– sectors. Even countries with strong government influence over public life, such as Singapore, are working toward a co-regulated and self-regulated mass-media industry. Many foreign countries, including those in Western Europe, North America, and Asia, already have experience with these policies.

The article reviews practices in the field of media aimed at guaranteeing children's information security and at opposing harmful content. It points to key aspects of the regulation of market-driven media content in different countries.

Keywords: mass media, children's information security, children and the mass media, self-regulation of the mass media, Internet regulation

Introduction

The digital revolution: New opportunities and new problems

The previous decades have brought significant changes in perceptions of children's safety in their access to information. Technological progress, by inspiring a rapid development of the Internet, radically changed the traditional media environment. Digital technologies "mixed" conventional media: TV programs today might be easily watched on the screens of personal computers and tablets; connected TV sets become "windows" to the Internet; and a traditional newspaper text is transformed into a convergent multimedia product combining video and audio.

The digital revolution has opened endless possibilities for creating and disseminating news and entertainment content. However, it has also posed new problems for mass media and audiences by increasing the amount of accessible information and fostering competition between the old/analogue and new/digital media; by challenging existing legislation, business models, and copyrights; and by disregarding the traditional roles of journalism and the values of audiences. At the core of the crucial issues of the digital age stands the problem of children's information security: the need to secure children's rights to safe media and a safe Internet in order to prevent serious threats to their psychological health. Unlike adults, who have gotten used to living in an information-rich environment, children, because of their age and social position, remain vulnerable to intense media and are unable to filter the content coming from different media sources and technological platforms, which are always increasing their influence on the younger audience (Fenton, 2010; Tornero & Varis, 2010).

TV programs, net video resources, digital games, and other new media options constitute a big threat today because they are the most accessible types of content. In the analogue era parents could limit children's access to media by hiding inappropriate publications, but it becomes rather complicated to control what children watch on multichannel TV sets or multiscreen media devices in digital reality today.

Unattended interaction between children and television or the Internet may cause serious harm to their health and age-specific development. Realizing this threat, the majority of North American, European, and Asian countries, including Russia, have taken a number of measures to regulate media content targeted to children. Different types of harassments, child prostitution, child pornography, drugs, production of explosives, demonstrations of violence—these are some of the kinds of media content countries are trying to prevent children from watching (Roskomnadzor, 2013).

At the same time surveys of children, who spend more and more time on the Internet, show that they often face other threats, of which many parents are unaware. One example is the so-called cyber-bullying phenomenon, which involves deliberate assaults, threats, use of offensive language, mocking, and swearing on the Internet. In some countries – for example, Canada – the struggle against cyber-bullying stands at the core of children's information-security policy. However, in other countries, including Russia, the state and media do not pay enough attention to it, although, for example, about 11% of the users of the most popular Russian social network, Vkontakte, are younger than 18 (TNS Web Index, 2014).

One of the main current problems is that in many countries legislative initiatives in the sphere of Internet regulation lag behind the rapid development of information and communication technologies. In previous decades the protection of children's interests in the mass media included a comprehensible set of measures: restricting children's access to adult movies in the cinema, not showing action movies on television in the daytime, hiding adult magazines in special packages. However, today, because of the rapid progress of the digital media, many of the established measures have become obsolete, and misunderstanding exists even in defining the agencies that should be responsible for such regulation.

Nowadays one regulatory body often integrally controls the information technology, media, and telecommunications "ecosystem" (De Prato, Sanz, & Simon, 2014). This is the case in the United States, Canada, the Republic of Korea, and Japan, for example. Singapore has a single watchdog for all media; it was established by merging three separate regulatory bodies. Russia is also moving in the same direction since the establishment of the Ministry of Communications and Mass Media and its controlling agency Roskomnadzor (the Federal Service for Supervision of Communications, Information Technology and Mass Media). Thus, the ongoing convergence of media technologies has resulted in the merger of state agencies that regulate previously independent mass-media sectors.

However, state regulation of the traditional media and the Internet cannot always secure control over content in a way that is effective and relevant to public demand. That is why a movement toward co- and self-regulation of the media and journalism is topical right now, especially the new media (Vartanova, 2006). The efficiency of such control mechanisms is vividly illustrated by the experience of Canada. There, government policy in the sphere of the Internet has always been oriented toward limiting state interference and encouraging self-regulation. For this reason the challenge of new media has become a spur for the development of public initiatives and self-regulatory organizations. As a result of their activities, for instance, in Canada a system for filtering Internet content has been created. It appears to be rather efficient in blocking harmful content compared with the systems designed in China and the Republic of Korea under conditions of strong state control (Roskomnadzor, 2013).

The movement toward self-regulation seems to be a universal trend even for countries with strong state influence in the media, where the governments try to share responsibilities in regulating new technologies with the nongovernmental sector. This is especially true for Singapore, a country with total state regulation.

Self-regulation of the media: main features

Nonlegislative regulation of the media has emerged under the influence of different factors, including the concept of democracy and freedom of speech, but has been implemented in different ways because of state structure, level of democratic development, historical prerequisites, and cultural, religious, and moral environments (Fedotov, 2009).

In one way or another, self-regulatory practices allow the professional community in many countries to define independently the rules according to which mass media operate; these rules are based on the principles of public well-being, journalistic professionalism, and ethics. In some cases the need to form internal standards

emerges inside the journalistic community in a voluntary way, without any kind of interference from the state or other external societal forces. In other cases authorities encourage the emergence of a self-regulation institute, using the support of “decent” media outlets, or adopt laws that oblige the journalistic community to create self-regulatory bodies and allow them to develop documents regulating the activities of the mass media; such arrangements are called “legislative self-regulation” (Roskomnadzor, 2013).

In countries such as Denmark, Germany, France, and Lithuania the main principles of self-regulation are prescribed in the laws, while their elaboration, specification, and practical realization are the responsibility of representatives of the media. This approach is based on the concept of a “legislative framework” (Roskomnadzor, 2013). Sometimes journalists and the state create a regulatory body in the sphere of mass media together; an example of such an approach is the independent regulator and competition authority for the UK communication industry, Ofcom (Office of Telecommunications) in Great Britain.

Practice shows that the participation of the state in the creation of mass-media self-regulation institutes is often justified. The history of the emergence and development of voluntary self-regulatory bodies in the mass media of countries in Western Europe indicates that in conflict situations between the society and the mass media the state played a key role in solving conflicts and relieving tensions. The experience in Western Europe proves that the region might be considered a pioneer of self-regulation. Based on media practice in many countries, the initiators of self-regulation at present include the following actors:

- media enterprises (internal guidelines, media critique)
- corporate journalistic organizations (codes of professional ethics)
- organizations/professional associations of media owners and managers (the business community) (unwritten codes of conduct, labeling system for audiovisual content)
- the advertising industry (codes for advertising activities)
- public organizations of a mixed nature (press councils, industry ombudsman)
- the academic community (mid-career training programs, research)
- the audience itself (nongovernmental organizations, associations for the protection of consumer rights, organizations of parents and teachers) (Vartanova, 2009, p. 162).

Media self-regulation in most cases has been organized as a nongovernmental independent system; this arrangement ensures that the media are accountable for their activities not to the state but to society. Legal responsibility in the system is replaced by ethical responsibility based on moral and cultural norms.

In the media business self-regulation has become a voluntary recognition of its social responsibility to safeguard the conditions of legislatively guaranteed freedom of speech. In return for their independence from the state the media companies in their operations have assumed certain duties to establish a dialogue with the society, to react in due time to its needs, and not to neglect the coverage of issues that raise public concern.

Within a mature self-regulation system, making a claim to self-regulatory bodies usually does not require any particular efforts or financial expenses from the complainant and results in a quite fast resolution of the problem without bureaucratic delays. In addition, tackling an issue connected with correcting factual errors or violating human rights within the framework of the journalistic community decreases the work load of the court system of the country.

All societal stakeholders accept that in this case the criticism of irresponsible journalists comes not from the state or its agencies but from the journalistic community. Representatives of the media industry and professional communities should create quality standards and set the required boundaries. The mechanism of complaints submission to voluntary media bodies and ombudsmen helps in many ways to eliminate the disadvantages of content control and to sort out controversial issues. An objective consideration of a complaint by the professional community allows it to make an error correction. This mechanism also guarantees that self-regulation stays outside politics and encourages conducting internal control of the mass media with the support of civil society.

In a number of states in continental Europe self-regulation allows effective control of the content of printed and audiovisual materials without state interference. This mechanism is also ensured by the fact that journalists, editors, and other members of the media business with practical experience have a good understanding of the information needs of their audience, possess an insider's knowledge of the situation in the market, and know the hidden hazards in the media industry. Government officials, who observe media activities from the outside, do not possess this kind of knowledge.

The reasons for self-regulation are numerous. The professional journalistic community itself has a profound interest in creating an effective system of self-regulation because it gives media representatives some clear reference points in their work for using professional norms and ethics. Besides, extralegislative restrictions seem too tough and inefficient for Western European and North American mass media. When freedom of speech is well established, the press and other media may fight for abolishing the restrictive clauses only if they convince society of their conscientiousness and responsibility. There are also other reasons for the development of self-regulation in the media sphere. The Organization for Security and Cooperation in Europe defines five main motives: (1) self-regulation preserves editorial freedom; (2) it helps minimize state interference; (3) it encourages enhancing the quality of the mass media; (4) it serves as proof of the responsibility of the mass media; (5) it encourages audience access to the mass media (Haraszti, 2008).

A developed self-regulation system, on the one hand, increases the quality of journalists' work and, on the other hand, protects the interests of the mass media, providing them with competent help in solving conflict situations. As a result, it is a useful instrument both for mass-media companies as content creators and for the audience as consumers of media content.

Best practices of contemporary media self-regulation to protect children

The wide distribution of digital media makes it possible that in many countries attempts to fight legally against media content that could be harmful to minors might

be ineffective. Current methods of receiving media content are making the user less connected to particular geographical locations and nation-states. Media globalization makes internationally adopted rules and instruments for protecting children from undesirable content a topical issue.

To protect children from harmful content many countries have elaborated specific strategies using experience with self-regulation mechanisms already established in the media. The most widespread measures are content-labeling systems, “watershed” (or “safe-harbor”) systems, and V-chip technology.

Content-labeling systems can be considered the most developed widely used tool for marking media content with regard to age differences. It is also a method of dividing TV content into “programs for everyone” and “adult programs” (this method is usually called “watershed”). Content labeling is a formal indicator of the audience a certain information product or media content is aimed at. Such labeling indicates that the product may be harmful for audiences who have not reached the age indicated on the label or is too complicated for them to understand. In European countries special regulatory bodies deal with content labeling. In Great Britain this is the task of the Committee for Film Classification; in Germany, the Federal Service for Checking Information for Youth; in Austria, the Commission for Protecting Children’s and Youth’s Rights; in Latvia, the Expert Commission under the auspices of the Culture Ministry.

The decisions of these bodies in different countries vary. An example of such differences is the classification results of the independent European system Kijkwijzer (from the Dutch expression meaning “watch wisely” or “video guide”), which labels all kinds of content: television, cinema, DVDs, video games, mobile TV, and others. Thus, the movie *The Wolf of Wall Street* in Great Britain is recommended for people from 18 years; in Germany, from 16; in Sweden, from 15; and in France it can be watched by children 12 and older (NICAM/ Kijkwijzer, 2014).

Table 1. “Watershed” time for TV channels in selected countries

Country	Time of “watershed”	Comments
Great Britain	5:30 am–9:00 pm	Ban on programs showing erotic content or violent scenes
France	6:00 am–10:30 pm	Ban on programs showing erotic content or violent scenes Until 8:30 pm commercials for such programs are banned
United States	6:00 am–10:00 pm	Ban on programs showing erotic content or violent scenes
Canada	6:00 am–9:00 pm	Ban on programs showing erotic content or violent scenes
Italy	7:00 am–10:30 pm	Ban on programs and films “14+”
Australia	5:00 am–9:30 pm	Ban on programs and films “15+”
Germany	5:30 am–8:00 pm	Ban on programs and films “12+”
	5:30 am–11:00 pm	Ban on programs and films “16+”
The Netherlands	6:00 am–8:00 pm	Ban on programs and films “12+”
	6:30 am–10:00 pm	Ban on programs and films “16+”

A “watershed,” or “safe-harbor,” system sets a special time slot during which all programs, excluding those that are broadcast under special conditions, must meet general criteria and be suitable for a general audience, including children. The “watershed” time is spelled out in a special law. There is an exception for some paid TV channels if they are accessible only via pin-code.

These rules are currently followed by the TV channels almost without violation, and self-regulatory bodies usually control compliance with the rules. However, in some cases concrete sanctions have been enforced against violators. For example, in 2004 CBS TV had to pay a fine of 3.63 million dollars for showing scenes with violations during the watershed time. These rules are in most cases a recommendation for parents. They decide whether to allow their children to watch labeled films or films broadcast during the “watershed” time. These methods do not work without control from the parental side.

V-chip technology is a tool for regulating television content for children regardless of whether they are alone in front of the screen or with their parents. In the United States a rule adopted by the Federal Communication Commission mandates that all TV sets with screens wider than 13 inches be equipped with special devices that allow viewers to block the broadcasting of programs by using age-labeling technology known as the violence chip (V-chip) (Federal Communications Commission, 2007, p. 32). The V-chip is used in the United States, Canada, and Brazil. It recognizes coded information about a film or program category, and when violent or sexual scenes are shown, it dims the screen, thus protecting minors from information that is not appropriate for them. However, according to a TV Watch Survey, 88% of parents do not use the V-chip, despite the fact that this technology is available on almost all TV sets (Luntz, Maslansky Strategic Research & Hart Research, 2007).

Children’s safety on the Internet

The expert and academic communities widely recognize that the Internet has profound effects on the audience, both positive and negative. For young audiences it can be considered as both a powerful educational and pedagogic tool and as a major threat to their psychological safety and moral values. For this reason the creation of tools to regulate content flows on the Internet is nowadays extremely urgent, and in this field many agents, both state and nongovernmental, cooperate in diverse ways. This collaboration produces an extension of the self-regulation system—co-regulation mechanisms.

One of the interesting examples is the Safer Internet Program. The project is aimed at extending the rights of children and young people in the global network and at protecting them by raising the awareness level of users and fighting against dangerous and destructive content as well as illegal behavior on the Internet. Within the framework of the European Union (EU) program “Safe Internet” Safer Internet Centers were founded in 30 European countries in order to create conditions for the safe and responsible use of the Internet and mobile devices by children. Several types of centers based on a functional criterion can be distinguished:

- awareness centers, which disseminate information and conduct campaigns and information meetings involving children, parents, teachers, and train-

ers for the purpose of raising their awareness about the potential online risks for children and methods for safety control on the Internet

- helplines, which give personal advice to children, parents, and teachers about methods of safety control on the Internet
- hotlines, which accept messages about cases of detected illegal content on the Internet

The work of the hotlines is coordinated by a special international association of Internet lines, INHOPE. It includes all EU member states, the United States, Canada, Japan, and some other countries (in total 43 members in 2013). According to data from the association, in 2013, 1,210,893 messages were received regarding harmful or illegal content; 71% of the affected were children under 13 years. In Russia the Centre for the Safe Internet and the Friendly Runet Fund are members of the organization. For the development of the Safer Internet Program during 2009–2013 the sum of 55 million euros was allocated (INHOPE, 2013).

The need to protect minors from harmful materials on the web was recognized in the late 1990s. In the beginning of the 2000s there was an attempt to label Internet content (in the same way as TV content). In the United States a standard for site labeling—RSACi (Recreational Software Advisory Council for the Internet)—was developed. From the start the idea was welcomed, and Microsoft joined the system (at that time the company controlled a significant share of the Internet-browser market).

However, with the further development of the Internet it became obvious that such labeling could not fulfill its aims. The system could not catch up with the quickness of the Internet, and the emergence of social networks and personal pages downgraded its effectiveness even more. It turned out to be impossible to develop the scheme on an international scale, as it did not take into account the cultural particularities of the users.

In addition, research done by the BBC Guidance Content Labeling System showed that a label marking sexual materials or violent scenes attracted teenagers to a site. In 2009 the European Commission issued a report saying that labeling content on the Internet, unlike labeling other forms of media content (films, videos, games), was ineffective (Sparrow, Bazelon, & Jackson, 2009).

In 2009 the EU member states adopted a declaration entitled “Self-Regulation for a Better Internet for Children.” Many media and key Internet players have joined the declaration, including Google, Microsoft, Facebook, Yahoo, Deutsche Telecom, RTL Group, Samsung, Vivendi, Vodafone, MySpace (all in all, 21 companies). According to the document, all Internet companies take the responsibility of developing and building in safety technologies that allow parents to limit the access of children to undesirable content. For instance, the Google settings now include the option “Safe search,” which when activated enables users to choose from two variants of filtration: either strict (filtering both indecent images and text) or moderate (filtering only indecent pictures).

The Russian search engine Yandex also has special tools for filtering “adult” content. The system provides two limiting options: the “safe” one, which deletes from the search results sites for adults if the user is not searching for them deliber-

ately, and the “for children” option, which totally excludes from the search results sites that include swearing or pornography.

Microsoft, which traditionally fights against Internet threats, has embedded the function of “parent control” in the Windows 7 and Windows 8 packages. It allows limiting the time during which children can log into the system as well as limiting access to some applications. Microsoft has also made an attempt to control access to video games that may be harmful to children. The company uses tools to limit access to unsafe gaming programs; the tools are integrated into the company’s software. It is possible to use “parent-friendly” settings in the play sets X-box 360 and X-box LIVE.

Apart from safety settings, companies that have supported the declaration have also agreed to provide users with the possibility of informing the company about illegal or harmful content on the Internet. An example of such cooperation is presented by the video hosting site YouTube. The service allows users to mark videos that might contain dangerous information (elements of violence, child pornography, interference in private life). A claim is automatically sent to an analytical center, where the video is reviewed by experts. If the content is harmful, it is deleted from public access, and its dissemination is sanctioned.

Conclusion

To conclude this analysis of the existing self-regulating practices for the new media aimed at children, it might be argued that even though many countries have been doing a lot to create universal and effective tools for protecting minors from harmful information, this goal has not yet been successfully achieved. Technologies for disseminating digital content have been developing much faster than methods for limiting and filtering it. Despite the existing system of labeling and filtering Internet content, an important and probably more effective means of protection lies in parental control and media education and literacy programs. For instance, in Russia survey results prove this statement. About 68% of respondents over 21 years believe that the decision to forbid watching TV programs should be made by parents themselves; only 22% are ready to rely on the recommendations of TV channels (FOM, 2012).

However, the need to protect children from media content that can be harmful for their health and development remains urgent. Generalizing the experience on self-regulation of audiovisual and multimedia content in different countries, one can identify the following main strategies:

- developing media literacy and digital competence among children, teachers, and parents
- helping users become acquainted with the safety technologies on the Internet
- giving users an opportunity to be informed about detected dangerous or illegal content (through special hotlines or interactive forms on sites)
- organizing quick and specific reactions when users relay such information

- modernizing and stimulating the active use of tools for detecting banned content in the activities of Internet providers and major Internet companies

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Playing life away: Videogames and personality structure

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This study aims to fill a gap in the current research on the personality organization of frequent videogame users. The scientific literature in this area refers only to the existence of risk factors that increase the likelihood of abusing videogames and their negative consequences on the mental health of users (Gentile et al., 2011; Lemmens, Valkenburg, & Peter, 2011; Rehbein & Baier, 2013). In this study, a sample of patients who reported spending an excessive amount of their time playing videogames were recruited from Instituto Quintino Aires–Lisbon/Oporto and took the Rorschach Personality Test (Exner, 1993, 1995). Two other samples—one consisting of patients who reported not playing videogames, and the other of patients who were discharged from the institution after psychotherapy—also took part in the study. The patients in the first sample revealed less exposure to the relational sources of stress that are necessary for socioemotional development and less interest in others than did patients in the other samples. Other results regarding the personality structure of the subjects in the three samples are compared and discussed in light of cultural-historical psychology.

Keywords: clinical psychology, cultural-historical psychology, personality psychology, Rorschach Personality Test, videogames

Introduction

The personality of frequent videogame users has been inconsistently studied in the existing literature. Furthermore, the literature lacks a sufficiently relevant theoretical framework for explaining the implications that excessive use of videogames can have for the development of personality. The present study, based on the theoretical framework of cultural-historical psychology, provides the first step toward understanding this problem.

Lev Vygotsky, founder of cultural-historical psychology, postulated that human development is the product of two evolutionary processes: a process of biological evolution and a process of cultural-historical evolution (1930/1994). The process of biological evolution concerns the hereditary transmission of all the inherent features of the *homo sapiens* species from the standpoint of the

bodily structures, organ functions, and certain types of reflexes and instinctual activities. The process of cultural-historical development relates to the personal transformation that results from mediated activity on cultural artifacts (objects, people, events), the products of the development of human societies. According to Vygotsky, cultural-historical development is the dominant factor in human development, specifically with regard to the transformation of higher nervous functions and the formation of personality. The link between the higher psychological functions in the individual and in the culture was theorized by Vygotsky in the General Genetic Law of Cultural Development. According to this law: "Every function in the child's cultural development appears twice: first, on the social level, and, later, on the individual level; first, between people (interpsychological) and then inside the child (intrapyschological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals" (Vygotsky, 1978, p. 57). Thus, for Vygotsky and at the heart of cultural-historical psychology is the idea that the human brain undergoes a process of transformation when a human being performs an activity on the world, on cultural tools, in a relationship with other humans.

What is this activity that promotes human development? Leontiev (1945/1981) postulates that activity is the process that meets the special needs of the subject; this process arises from the relationship the subject has with the world. It is characterized by: an object, which is what this very process is directed to as a whole, is what is modified and explored by the subject; a motive, which is what stimulates and moves the subject toward the activity; and emotions and feelings, which are always governed by the object of and motive for the activity. Object and motive must match for this process to be considered an activity. When this is not the case, the process is called an action. The object does not have its own capacity to move the subject. So, for triggering the action, it is necessary that the object be perceived as related to the motive of the activity, which the action will eventually be part of. The object within the action will have to coincide with a direct goal, which will be connected to the motive for the activity. According to Leontiev, the motive for the activity can even be transferred to the object/goal of the action, its result being the transformation of the action into activity. This particular relationship between action and activity provides new relationships with reality, with new needs and motives; ultimately psychological development occurs. The conceptualization of these relationships with reality was also important for the study of human consciousness and the sense-based formations of personality. Distinguishing himself from Leontiev, Bratus (2005) postulates that a sense-based formation is not a personal sense—that is, the reflection in consciousness of a relationship between a motive and a goal—but rather a dynamic system that integrates the mutual relations of one or several general motives with various less general motives and, correspondingly, of a more general activity with a less general activity.

Vygotsky (1933/1976) studied in detail one of the forms of the main activity of personality development: play. Vygotsky argued that play is the imaginary and illusory realization of unattainable desires and is the main factor in the development of children. When the child is confronted with a demand for the nonimmediate

gratification of her needs, she must create an imaginary situation in order to perform her activity and to satisfy her needs. Throughout psychological development, play continuously reflects the complex forms of relations with reality and with others, with newer and also increasingly demanding rules arising from this complex interaction. In parallel with the development of play, the gradual conversion of this complex activity in internal psychological processes takes place. The child learns to obtain increased satisfaction by submitting to the rules of play and at the same time by refusing to act immediately on impulse. The rules thus become self-determinations and internal self-limitations, which overlap the strongest impulses and, if appropriately met, bring the utmost satisfaction to the future adult personality. Also, in addition to providing a new way to desire, play enables the transformation of perception, an increase in active decision-making, the emergence of a sense-based orientation, and the resolution of conflicts between volitional motives and the development of abstract and moral thinking.

One can therefore assume for the theoretical framework of cultural-historical psychology that psychological development is synonymous with demand. It occurs only when the future person, always confronted with culture's demands, has to mobilize himself to meet the recurring needs that arise from this relationship in the course of his life.

Having revised the main concepts of cultural-historical psychology, we will now briefly review the literature on investigations with videogames, one of the most dominant leisure industries today, forecasted to constitute a \$111 billion market by 2015 (Gartner, 2013).

The existing literature does not explore the personality structure of videogame users in a comprehensive manner. Park and Lee (2012) confirmed the influence of personality traits (the "big five" personality dimensions) on the experiences of gratification of videogame users. They identified extroversion as the strongest predictor; it influenced three of the four domains of gratification: entertainment, education, and escapism. Agreeableness was also found to have an impact on educational and esthetic gratification. Wei (2007) showed that playing violent videogames on the Internet was associated with greater tolerance for violence, lower empathic attitude, and more aggressive behavior. Rehbein and Baier (2013) systematized a set of risk factors and protective factors related to addiction to videogames (American Psychiatric Association, 2013). The risk factors were a TV set in the children's room, a gaming console in the children's room, ownership of a hand-held gaming console, much gaming time, use of violent games, problematic videogame use in childhood, single-parent family, and male gender. These variables were predictors of videogame addiction in adolescence. Misuse of videogames was found to be regulated only by protective factors that reduce the frequency and impact of use. The protective factors were parental devotion, parental supervision, general integration into the child's social class, and school-related well-being. In another longitudinal study, Gentile et al. (2011) found that longer gaming time, lower social skills, lower level of empathy, and lower impulsiveness control were risk factors for gaming addiction. Depression, anxiety, social phobias, and inferior school performance were outcomes of problematic gaming behavior. Pathological gaming also increased loneliness (Lemmens, Valkenburg, & Peter, 2011).

Starting from the need to provide a comprehensive and holistic analysis of the personality of frequent videogames users and resorting to the explanatory power of the cultural-historical conceptualization, we can verify the hypothesis that the personality structures of frequent videogame users and sporadic users/nonusers are significantly different: frequent videogame users are not exposed to the needs that originate from the demands that human development makes.

Method

Participants

The study included three samples of patients from Instituto Quintino Aires, an institution in Portugal known for cultural-historical clinical psychology and neuropsychology. Sample 1 consisted of 23 patients who spent excessive time playing videogames. Sample 2 consisted of 23 patients who had various types of clinical complaints but who did not spend excessive time playing videogames. Sample 3 was composed of 23 subjects who were discharged from the institution after successful psychotherapy. Tables 1 and 2 report age and gender distributions for the subjects in the three samples of the study.

Table 1. Mean age (*M*) and standard deviation (*SD*) for the three samples

	<i>M</i>	<i>SD</i>
Sample 1 ^a	16.4	10.7
Sample 2 ^b	16.5	3.1
Sample 3 ^c	16.4	6.1

Note. ^{a, b, c} *N* = 23.

Table 2. Frequency distribution of subjects' gender

	Frequency			Percentage		
	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3
Male	20	18	14	87.0	78.3	60.9
Female	3	5	9	13.0	21.7	39.1

Instruments

The Comprehensive System (CS), developed by Exner (1993, 1995) for the Rorschach test, was utilized in order to study the personality organization of the participants. This system evaluates personality structure taking into account seven dimensions, or chapters: control and stress tolerance, affective features, self-perception, interpersonal perception, information processing, cognitive mediation, and ideation. Each dimension consists of specific variables. The CS also evaluates the presence of personality disorders using six psychopathological constellations: the Perceptual-Thinking Index (PTI), the Depression/Apathy Index (DEPI), the Coping Deficit Index (CDI), the Suicide Constellation (S-CON), the Hypervigi-

lance Index (HVI), and the Obsessive Style Index (OBS). All variables and chapters as well as four of the psychopathological constellations are treated quantitatively. Only the HVI and OBS constellations are analyzed qualitatively, as being present or not present. In order to obtain an individualized understanding of the patients, Quintino Aires (2009a) provides maladaptation and clinical-reference values and a clinical-oriented interpretation for the variables, chapters, and constellations of the CS. The results obtained in this investigation are presented and discussed in light of this clinical interpretation.

Procedures

Information related to the time playing video games was acquired through the normal first consultations of patients performed by Professor Joaquim Quintino Aires. After exposure of the clinical complaint, when asked how they spend their leisure time, the subjects in the first sample reported spending time solely playing video games. This information was then recorded on the first-consultation sheet and included in the patients' clinical process. After initial consultation and, if the complaint brought was so justified, the patient performed a personality assessment based on the Rorschach test. Subjects for the second sample were selected taking into account the mean age for the first sample. These patients did not report spending time playing videogames in the first consultation. The characteristics of subjects in the third sample corresponded to those of all patients discharged from the institution after successful psychotherapy. The data of the CS for each subject were collected with the aid of the Clinical Management Team of the institution. The data for the first and second samples came from their first evaluation upon entrance to the institution. The data for the third sample came from their last reevaluation prior to discharge from the clinic. All evaluations were conducted at the institution and were performed by psychologists with extensive experience in the administration and coding of the CS. All psychologists on the team receive theoretical and practical training in the CS as part of the institution's cultural-historical clinical psychology and neuropsychology course. They are also subjected to regular supervision by Professor Quintino Aires with a view toward providing a uniform coding procedure among psychologists. It is assumed that in this study the scoring method for the CS was similar for all the psychologists. After all the CS protocols were gathered and their data were entered into the statistical analysis software, mean comparison measures were taken (Field, 2005; Maroco, 2007).

Results

The results are organized in two parts. The first part concerns the significant differences in the CS's variables and constellations between subjects who spent excessive time playing videogames and the sample of patients who did not play videogames. The second part concerns the significant differences between Sample 1 and the patients who were discharged from the institution. The differences are accompanied by the clinical interpretation postulated by Quintino Aires (2009a).

Comparison Between Sample 1 and Sample 2

For the variables of the various chapters and constellations of the CS, Tables 3 to 11 present the parametric and nonparametric results of the comparisons made between the sample of patients who spent too much time playing videogames (Sample 1) and the sample of patients who did not spend time in this activity (Sample 2).

Significant results for *control and stress tolerance* are shown in Tables 3 and 4.

Table 3. Parametric significant differences for the CS's *control and stress tolerance* variables

Variable	Samples	N	M	SD	t	df	p	r
FM	1	23	4.61	2.44	2.38	44	<.05	.34
	2	23	2.87	2.51				

Table 4. Nonparametric significant differences for the CS's *control and stress tolerance* variables

Variables	Samples	Mdn	U	p	r
es	1	8.00	167.00	<.05	-.32
	2	13.00			
SumC'	1	1.00	158.00	<.05	-.36
	2	2.00			
SumV	1	0.00	142.50	<.01	-.49
	2	1.00			
SumT	1	0.00	141.00	<.01	-.43
	2	1.00			
SumY	1	1.00	132.50	<.01	-.44
	2	4.00			

Explanation of results:

Variable es: Subjects in Sample 1 ($Mdn = 8.00$) experienced lower levels of stress than subjects in Sample 2 ($Mdn = 13.00$), $U = 167.00$, $p < 0.05$, $r = -.32$.

Variable SumC': Subjects in Sample 2 ($Mdn = 2.00$) had more difficulty verbalizing their emotions than subjects in Sample 1 ($Mdn = 1.00$), $U = 158.00$, $p < .05$, $r = -.36$.

Variable SumV: Participants in Sample 2 ($Mdn = 1.00$) focused more on the negative characteristics of their self-image than participants in Sample 1 ($Mdn = 0.00$), $U = 142.50$, $p < .01$. The effect was medium sized, $r = -.49$.

Variable SumT: Subjects in Sample 1 ($Mdn = 0.00$) showed no need to touch or be touched by others, revealing an exacerbated conservation of their vital space when compared with subjects in Sample 2 ($Mdn = 1.00$), $U = 141.00$, $p < .01$, $r = -.43$.

Variable FM: In comparison with subjects in Sample 2 ($M = 2.87$, $SD = 2.87$) subjects in Sample 1 ($M = 4.61$, $SD = 2.44$) showed more propensity to elab-

orate about their day-to-day situations and to engage in greater ideation activity originating from nonsatisfied basic needs; this ideation activity interfered with their ability to maintain voluntary attention. The difference was significant $t(44) = 2.38$, $p < .05$, and represented a medium-sized effect $r = .34$.

Variables SumY: Participants from Sample 1 ($Mdn = 1.00$) reported lower levels of situational stress originating from others than participants in Sample 2 ($Mdn = 4.00$), $U = 132.50$, $p < .01$, $r = .44$.

Significant results for *affective features* are shown in Table 5.

Table 5. Nonparametric significant differences for the CS's *affective features* variables

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
S	1	1.00	84.00	<.01	-.59
	2	4.00			

Explanation of results:

Variable S: Participants in Sample 2 ($Mdn = 4.00$) showed greater need for autonomy than participants in Sample 1 ($Mdn = 1.00$), $U = 84.00$, $p < .01$, $r = -.59$.

Regarding *self-perception*, no statistically significant differences were found between Samples 1 and 2 on all variables.

Significant results for *interpersonal perception* are shown in Tables 6.

Table 6. Nonparametric significant differences for the CS's *interpersonal perception* variables

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
SumH	1	4.00	146.00	<.01	-.39
	2	7.00			

Explanation of results:

Variable SumH: Participants in Sample 1 ($Mdn = 4.00$) revealed less interest in others than subjects in Sample 2 ($Mdn = 7.00$), $U = 146.00$, $p < .01$, $r = -.39$.

Significant results for *information processing* are shown in Tables 7 and 8.

Table 7. Parametric significant differences for the CS's *information processing* variables

Variable	Samples	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>r</i>
Zd	1	23	-1.00	3.37	-3.66	44	<.01	.48
	2	23	3.94	5.52				

Table 8. Nonparametric significant differences for the CS's *information processing* variables

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
Dd	1	2.00	72.00	<.01	-.63
	2	7.00			

Explanation of results:

Variable Zd: Subjects in Sample 2 ($M = 3.94$, $SD = 5.52$) had more efficient emotional functioning, devoting more effort and energy to exploring their environment in a more meticulous and less erroneous way than subjects in Sample 1 ($M = -1.00$, $SD = 3.37$). The difference was significant $t = -3.66$, $p < .01$, $r = .48$.

Variable Dd: On average, subjects in Sample 2 ($Mdn = 7.00$) showed a predominance of attention to detail when processing information from the environment in comparison with subjects in Sample 1 ($Mdn = 2.00$), $U = 72.00$, $p < .01$, $r = -.63$.

Significant results for *cognitive mediation* are shown in Table 9.

Table 9. Nonparametric significant differences for the CS's *cognitive mediation* variables

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
S-%	1	0.00	162.00	<.05	-.35
	2	0.20			

Explanation of results:

Variable S-%: On average, participants in Sample 2 ($Mdn = 0.20$) felt there was more injustice in their relationships with peers than participants in Sample 1 ($Mdn = 0.00$), $U = 162.00$, $p < .05$, $r = -.35$.

Significant results for *ideation* are shown in Table 10.

Table 10. Nonparametric significant differences for the CS's *ideation* variables

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
2AB+(Art+Ay)	1	1.00	154.50	<.05	-.37
	2	2.00			

Explanation of results:

Variable 2AB+(Art+Ay): Subjects in Sample 2 ($Mdn = 2.00$) made more use of intellectualization as a defense mechanism to conceal their emotions than subjects in Sample 1 ($Mdn = 1.00$), $U = 154.50$, $p < .05$, $r = -.37$.

Significant results for the *psychopathology constellations* are shown in Table 11:

Table 11. Nonparametric significant differences for the CS's *psychopathology constellations*

Variable	Samples	Mdn	U	p	r
DEPI	1	3.00	115.00	<.01	-.50
	2	5.00			

Explanation of results:

Constellation DEPI: Subjects in Sample 2 ($Mdn = 5.00$) revealed more signs of lack of energy when relating to the world than subjects from Sample 1 ($Mdn = 3.00$), $U = 115.00$, $p < .01$, $r = -.50$.

Comparison Between Sample 1 and Sample 3

For the variables of the various chapters and constellations of CS, Tables 12 to 18 present the parametric and nonparametric results for the comparisons made between the sample of patients who spent excessive time playing videogames (Sample 1) and the sample of patients who were discharged from the institution (Sample 3).

Significant results for *control and stress tolerance* are shown in Table 12.

Table 12. Parametric significant differences for the CS's *control and stress tolerance* variables

Variable	Samples	N	M	SD	t	df	p	r
EA	1	23	5.00	2.12	-2.56	44	<.05	.36
	3	23	6.89	2.84				

Explanation of results:

Variable EA: On average, participants in Sample 3 had more resources for coping with stress ($M = 6.89$, $SD = 2.84$) than participants in Sample 1 ($M = 5.00$, $SD = 2.12$). This difference was significant $t(44) = -2.56$, $p < .05$, and represented a medium-sized effect $r = .36$.

Significant results for *affective features* are shown in Table 13.

Table 13. Nonparametric significant differences for the CS's *affective features* variables

Variable	Samples	Mdn	U	p	r
Afr	1	0.50	155.00	<.05	-.36
	3	0.60			

Explanation of results:

Variable Afr: Participants in Sample 3 ($Mdn = 0.60$) showed more capacity for exposure to emotionally triggering situations than participants in Sample 1 ($Mdn = 0.50$), $U = 155.00$, $p < .05$, $r = -.36$.

Significant results for *interpersonal perception* are shown in Table 14.

Table 14. Nonparametric significant differences for the CS's *interpersonal perception* variables

Variables	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
COP	1	0.00	100.50	<.01	-.55
	3	2.00			
SumH	1	4.00	148.50	<.05	-.38
	3	5.00			

Explanation of results:

Variable COP: Subjects in Sample 1 (*Mdn* = 0.00) revealed more difficulty creating emotional connections outside the family in comparison with subjects in Sample 3 (*Mdn* = 2.00), *U* = 100.50, *p* < .01. The effect was medium sized, *r* = -.55.

Variable SumH: Participants in Sample 1 (*Mdn* = 4.00) revealed less interest in other persons than subjects in Sample 3 (*Mdn* = 5.00), *U* = 148.50, *p* < .05, *r* = -.38.

Significant results for *self-perception* are shown in Table 15.

Table 15. Nonparametric significant differences for the CS's *self-perception* variables

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
FD	1	0.00	171.50	<.05	-.33
	3	1.00			

Explanation of results:

Variable FD: Subjects in Sample 1 (*Mdn* = 0.00) were less involved in self-examination than subjects in Sample 3 (*Mdn* = 1.00), *U* = 171.50, *p* < .05, *r* = -.33.

Significant results for *information processing* are shown in Table 16.

Table 16. Parametric significant differences for the CS's *information processing* variables

Variable	Samples	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>r</i>
Zd	1	23	-1.00	3.37	-2.81	44	<.05	.39
	3	23	2.13	4.13				

Explanation of results:

Variable Zd: Subjects in Sample 3 (*M* = 2.13; *SD* = 4.13) had more efficient emotional functioning, devoting more effort and energy to exploring their environment in a more meticulous and less erroneous way than subjects in

Sample 1 ($M = -1.00$; $SD = 3.37$). The difference was significant $t(44) = -2.81$, $p < .05$, $r = .39$.

With regard to *cognitive mediation*, no statistically significant differences were found between Samples 1 and 3 on all variables.

Significant results for *ideation* are shown in Table 17.

Table 17. Nonparametric significant differences for the CS's *ideation* variables

Variables	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
M	1	2.00	159.50	<.05	-.36
	3	4.00			
Ma	1	1.00	157.50	<.05	-.36
	3	3.00			

Explanation of results:

Variable M: On average, subjects in Sample 1 ($Mdn = 2.00$) made less use of ideation than subjects in Sample 3 ($Mdn = 4.00$), $U = 159.50$, $p < .05$, $r = -.36$.

Variable Ma: On average, participants in Sample 3 ($Mdn = 3.00$) reported more active ideation than participants in Sample 1 ($Mdn = 1.00$), $U = 157.50$, $p < .05$, $r = -.36$.

Significant results for the *psychopathology constellations* are shown in Table 18.

Table 18. Nonparametric significant differences for the CS's *psychopathology constellations*

Variable	Samples	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i>
CDI	1	4.00	93.50	<.01	-.57
	3	2.00			

Explanation of results:

Constellation CDI: Subjects in Sample 3 ($Mdn = 2.00$) revealed less difficulty confronting situations than subjects in Sample 1 ($Mdn = 4.00$), $U = 93.50$, $p < .01$, $r = -.57$.

Discussion

The data suggest that the personality structure of patients who spent too much time playing videogames was significantly different from that of patients who did not play videogames and of patients discharged from the institution. The most significant differences came from the dimension of control and stress tolerance, specifically in the variables related to various sources of stress. Patients who reported spending excessive time playing videogames showed lower stress levels than patients in the second sample. The levels of those in Sample 1 came only from some elaboration of everyday situations and from excessive maintenance of their vital space and

avoidance of interpersonal relationships. Their relationships were characterized by superficiality and caution. This characteristic may create vulnerability to stress because the patients do not feel the support and proximity of others (Exner, 1993, 1995). Patients in the second sample, however, exhibited different sources of stress than the subjects in the first sample. Already revealing conservation of their living space—that is, a necessity of touch from others (Quintino Aires, 2009a)—within the clinical-reference value range, they had greater difficulty verbalizing emotions and a greater focus on the negative aspects of their self-image.

One can raise the hypothesis that these sources of stress could have originated in confrontation with demands from their increased focus on relationships. Therefore, subjects in the second sample were faced with newer developmental requirements than were patients in the first sample. In the interpersonal perception dimension, despite the fact that subjects from both samples demonstrated difficulties creating emotional connections and being assertive, they revealed an important difference: the patients who played videogames showed less interest in other persons than did patients in the second sample. Patients who played videogames did not yet reveal a significant level of need for autonomy from others, feelings of injustice in relation to their peers, or pessimism, as did patients in the second sample. Rather, those in the second sample revealed making an effort to withstand the demands of others; they manifested a tendency toward opposition and pessimism—that is, the belief that no one can change what is wrong. These differences, expressed in different dimensions of personality in the CS, emerged from the type of interpersonal relationships that patients of both groups could establish in accordance with the level of socioemotional development they had reached (Leal, 1995). Patients who spent most of their time exclusively playing videogames did not have an opportunity to deal with the adversities that come from relationships with one another; such difficulties are essential for the development of personality. Thus, they were prevented from trying out new formats for relationships, which have specific requirements: mourning parents, investing in and losing friends, and seducing and confronting them. For example, in socioemotional development, when an individual relates sufficiently often with other humans who have different needs and desires, she eventually has to create a representation of the other as a psychological other, not only as a physical other. This landmark in development enables the emergence of new relational needs—in particular, the need to capture the attention of others. These others are the first and second caregivers successively, who now may or may not like her (Quintino Aires, 2009b).

Another significant difference between the two groups was the impact of the emotional function on the intellectual function of the subjects in the information processing dimension. Our data suggest that the emotional function in the excessive users of videogames was wearing out their intellectual function. This process did not take place in subjects in the second and third samples. Being deprived most of the time from performing an activity on the world in a relationship with others, either in play in early in childhood or later in adolescence through a relationship with a third caregiver—that is, in a loving relationship—these patients can manifest blocks in their emotional, intellectual, and moral development (Quintino Aires, 2009b; Vigotsky, 1933/1976).

In addition, the subjects in the first and second samples were patients who checked into the institution, and therefore the differences found still represent an overall maladaptation of their personality structure to external demands. However, when comparing the personality structure of discharged patients and patients who spent too much time playing videogames, we can see that the differences were even more expressive. Contrary to the patients in the first sample, the patients who received a clinical discharge had more resources for coping with stress, reported more use of active ideation, had more capacity for exposure to emotionally triggering situations, were more involved in self-examination, had more efficient emotional functionality, and in the interpersonal perception dimension revealed no difficulty creating emotional connections outside their family and more interest in other persons. In general, subjects who were discharged from the clinic revealed less difficulty confronting situations. Although the quantification of the specific causes that led to the results reported by discharged subjects was not within the scope of this research, one can hypothesize that these results were due to the effect of psychotherapy. Only through a contingent relationship with a competent veteran trained to promote social relationships did psychological development retake its normal route (Quintino Aires, 1999, 2009b).

Thus, what happens when an individual plays videogames? Is the need for social relationships satisfied? Given the need that humans have for interpersonal and social relationships, we argue that playing videogames is closer to being an action rather than an activity, according to the conceptualization of Leontiev (1945/1981). The motive (and object) of this activity would have to be social relationships themselves, and that relationship is not verified. While playing videogames, the individual is only performing an action because what she is using as an object does not satisfy her need for social relationships. Playing videogames becomes only an action with a goal in itself and not a transforming activity. Such an activity would be constituted by these elements: need, the social/contingent relationship with others; motive, the relationship with another person; object, the relationship with another person. However, playing videogames is an action that is constituted by these elements: need, the social/contingent relationship with another; goal, playing videogames; object, playing videogames. What keeps the subject invested in the action of playing videogames is the indirect connection that this action has to the original need for social relationships. However, this action will never be sufficient for the subjects in the first sample because they will never be truly performing an activity and therefore their original need for social relationships will never be satisfied. Another characteristic linked to the use of videogames is that, unlike play, it does not promote the use of imagination because the developing person must submit to the framework and rules of the videogame software. Thus, it does not contribute actively to the creation of the kind of imaginary situation that emerges spontaneously from play activity (Vigotsky, 1933/1976). Without the promotion of social relationships, the transformation of higher nervous functions and the socioemotional development of personality, as postulated by cultural-historical psychology, are compromised.

Conclusion

The personality structure of the patients who frequently used videogames was significantly different from that of the patients who didn't play them and the patients who were discharged after psychotherapy. The data show that the patients who frequently used videogames manifested excessive caution and conservation of their vital space, avoided getting into meaningful relationships, and showed little interest in others. Thus, in accordance with the theoretical framework of cultural-historical psychology, they were deprived of experiencing relational sources of stress that are necessary for the socioemotional development of their personalities.

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