

THE REORGANIZATION OF THE FAMILY SYSTEM AT THE TIME OF COVID-19: EDUCATIONAL RESILIENCE AND ASSISTIVE TECHNOLOGIES

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Abstract

In the life cycle of family systems, transition periods are important stages for the maturation of the individual and his family as it allows the reorganization of relational arrangements. The health emergency of recent months makes it necessary for us to reflect on resilience education, to cultivate more authentic educational relationships and to react to stressful and problematic situations with greater self-effectiveness. If rigid family systems risk of causing communicative and relational diseases, investing in emotional literacy and empathy means providing adults and children with the tools to deal with the painful situations, that are inevitably part of everyday life, to share negative experiences and bring out the inner resources. In this perspective, technologies play a significant role in the media, both because they are a bridge between the family context and the external social network, and because they potentially allow more inclusive and flexible learning-teaching processes. A meticulous analysis of assistive technologies is thus necessary in order to call for a reconfiguration of information flows, spatial-temporal arrangements, methodologies and tools that are to be reconfigured ad habitus of the new individual and social educational needs.

Keywords: *assistive technologies, educational resilience, emotional literacy, family system, health emergency, psychotherapy.*

Introduction to the role of family system through educational resilience and assistive technologies

With the science of complexity, linearity and Cartesian dualism were replaced by a dense network of interconnections that made it difficult to distinguish individual parts from the whole. Berthoz introduced a new way in the knowledge of man, who over time has developed increasingly refined strategies to process and manage information and to control the complexity of natural and cognitive phenomena. “Despite the complexity of natural processes, the brain has to find a number of solutions, and these come from simplifying principles. They allow complex situations to be elaborated very quickly, in an elegant and effective way, taking into account past experiences and anticipating the future” (Berthoz, 2011, XI).

Our brain organizes itself dynamically to develop a model of the self, that is consistent with the surrounding environment, a holistic construction characterized by relationships and very different socio-cultural situations (Annarumma & Fragnito, 2014). Within this scenario the socio-technological change has determined a new dimension of the family system and of the educational perspective; we are witnessing a new technological *humanitas*, a new techno-educational paradigm that, even if complex, has shown, especially in this emergency phase due to Covid 19, to be essential in family, social interactions and educational processes. Over time, every technological revolution has reorganized our way of life and thinking and we are experiencing it once again but very incisively, and absurdly determined by nature, the nature of a virus. It seems to be paradoxical; it seems almost to be surreal but actually it is reality.

This theoretical analysis aims at describing some aspects concerning the current transition period. In particular, it describes the main characteristics that emerged clearly during the lockdown when entire families were forced to live in the same place for a long time. From this situation a new concept of family relationship has emerged, as well as the inner power of resilience and the significant role of technologies, that have been decisive for developing both intrapersonal and extrapersonal skills. The answer to the following questions implies a rethinking of educational and pedagogical methods and above all through a conscious use of digital technologies.

So, how can we resiliently transform this critical phase? How can we provide an answer that can lead the family and the educational system towards a functional redefinition of relationships, rules and actions? This burning and challenging theme has been analysed through different perspectives, all facing in systemic terms this multi-faceted scenario. We are preparing, therefore, to a difficult epochal challenge and not without any hermeneutical complexity.

How the Family System Can Self-Analyse Resiliently

Jay Haley was a key figure in the development of a new conception of psychotherapy in the second half of the 20th century; he was part of the first group of scholars who, led by Gregory Bateson, introduced a series of studies on communication, particularly paradoxical communication within families with schizophrenic patients. According to Jay Haley the problem related to Covid-19 can be regarded as a para-normative event; two types of events can destabilize the family system: para-normative events and life cycle normative events (Haley, 1976).

The former concern everything that can happen to a family, but it cannot be foreseen as a car accident or the death of a child; the latter represent all events that, since they tend to belong to the phases of the life cycle of a family, may be provided for: the period of courtship, marriage and its consequences, the birth and education of children, the difficulties of the central period of marriage, the emancipation of children from parents, retirement and old age. Whatever the stage of the life cycle can be, the most important stage for the maturation of the individual and his family is the transition to the next stage.

According to Milton Erickson, the father of strategic psychotherapy, the symptoms appear when there is a deviation or interruption of the normal life cycle of the family; consequently the symptom becomes the emblem of the family's difficulty to overcome that stage: the anxiety of a mother who has just given birth to her baby as a difficulty in reaching the evolutionary stage of raising her baby.

These phases force the system to reorganize and to evolve towards new relational arrangements; but if the system is rigid in maintaining the same behaviours, the same rules, without reading in depth the process that is happening, there is a risk of starting a communicative and relational pathology within it; the complexity increases if we consider systems that interact with each other and the changes that can characterize societies over time (Zografova, 2016).

In this period, characterized by the problems related to Covid-19, there are several difficulties, families are facing with: the interruption or loss of work, the parent, who previously worked, is at home, children with online teaching, the management of dilated times, the break of the daily schemes and the general reorganization that involves the phase 2 of the Covid.

Overall, it is a general picture of important changes that provide positive a feedback within the system: a loss of interpersonal stability occurs within the system and, in order to regain a balance,

the system must change, or recalibrating relationships in different ways (Watzlawick et al., 1967).

As a result, it becomes strategic for the family to analyse the nature of the process, to detect changes, to identify what is needed to reorganize the family, to define new roles, to use functional, complementary or symmetrical communication methods, but never rigid or exasperated, to improve the ability to listen, to accept fears and insecurities, to redefine the formative and educational context of children by giving them new rules and communication tools.

At the same time, the system which, through personal experiences and the rigidity of relationships within it, fails to introduce a change, can ask for the support of a therapist, who should be open to all possible ways of life and at the same time have a vision of the development of the family process that can be regarded as a guide, that will make him be able to recognize the crucial stages: whether previous life cycles have been addressed and overcome and how the system is reorganising in order to face the para-normative event of Covid-19.

Therefore, the psychotherapeutic path can be seen as an introduction of a series of alternatives in the life of an individual and of his family, with the aim of freeing him from the restrictions and limitations of a difficult social situation.

How to use the critical phase in a resilient way? How to develop new learning, to learn new skills, to get on new paths of life, perhaps more inclined to the own passions and attitudes, how to value actions that were not given value and that now lack: what teachings are to be learnt from this critical experience and how to use them to provide a resilient response that can launch the system towards a functional redefinition of relationships, rules and communicative transactions. The resilient response of families to these questions also implies a reinterpretation of educational and pedagogical methods towards children and the use of new digital learning tools.

At the same time, the use of technologies to manage educational and learning changes in this historical phase of Covid leads us to an important reflection: we live in the digital era, in the era of social, emoticons, in the era where everything is possible through a “click”; if until a few months ago the psychologist in talks with parents tried to facilitate in them the process of recovery of relationships with their children, a recovery based on greater moments of live sharing, and not behind a screen, on a greater dialogue and an accurate management of everything that is “online”, now all this seems even more difficult.

Here, too, we need a resilient response: just as psychotherapists have begun to conduct online sessions via platforms, skype, zoom, redefining the setting with their patients and using these new experiences to continue the healing process anyway, in the same way parents and those involved in the learning process have to take action in order to use new technologies in a functional and non-pathological way: it is essential to contextualize the tools used, explaining advantages but also critical issues such as dependence, feeling that everything is easier or even to legitimate that from now they are allowed to use technology unlimitedly.

So, overall, we are witnessing an increase in the complexity of the family system, which is facing more and more para-normative events and, in order to avoid pathologizing the system, it is necessary to focus on the flexibility of roles and communication processes, complementary and/or symmetrical communication processes based on relational dynamics, the contextualization of events, listening and training to a healthy emotional intelligence in children (Goleman, 1996).

Paradoxically, the more the society develops with technologies, the more it emerges the need to remember how our brain works and thus the importance of relationships, of socialization processes (Rossi, 2012), of the contact, the importance of stopping and listening, not to be overwhelmed by the frenetic and competitive rhythms of today's society.

Jay Haley in his private office would put the family in front of the process that is happening, what is changing in the way of relating to their children and how to reorganize; therefore the importance of having a flexible approach that facilitates the learning of new educational and pedagogical methods, with reference to the current digitisation, that is even more accentuated today for the Covid problem, but that at the same time also aims at recovering games and dynamics of the past, in which it was essential to touch, to try, to feel and to observe the body.

Faced with these considerations, the new challenges for the agents of changing and learning, psychotherapists, educators, pedagogists, teachers emerge; but the main point is: reading the change, welcoming the fears of the family system and proposing tools aimed at slowing down in a

frenetic society, being able to talk about emotions and having the courage to be moved rather than use the emoticons with tears. It means new therapeutic objectives and new educational challenges, through the integration of past present and future.

Resilient Relationships in the Emergency: Empathy and Emotional Literacy

Among the contradictions of our time, it is clear that childhood is characterized by two apparently incompatible dimensions: a hyper-protection in the family nest and an early adulthood. If a protective educational style leads to the gradual conquest of autonomy through reciprocity, care, listening and dialogue, the hyper-protection of adults builds an artificial shield within which children and adolescents hide from difficulties, from the frustrations and negative experiences of everyday life, then being unprepared for adult life.

Psycho-pedagogical research have highlighted the problem and sometimes pathological aspects of a hyper-protective parenting style: the “helicopter parents” who constantly watch over their children, defending them from unpleasant and stressful experiences, tend to deprive them of responsibilities and hinder their autonomy (Glass & Tabatsk, 2014).

In the perspective of an education perceived as an instrumental investment, that the socio-economic successes of the future depend on, hyper-protection is accompanied by the acceleration of growth, which demands efficient and performing children and adolescents. In an increasingly competitive society, this model marks a fracture between the sphere of cognition, encouraged by adults, and the emotional sphere, insanely anesthetized.

In this regard, in neuroscience, some recent researches show the existence of a *warm cognition*, understood as a continuous tuning between cognition and emotion. From these studies it is evident that the functions of the right and left hemispheres work through synchronous flows: each cognitive activity corresponds to an emotional path (Mcgaugh, 2015). The human organism is organized at the neurophysiological level to recognize and avoid danger and pain, for this reason the emotions of fear, anxiety and impotence are promptly stored and activate *alerts* of defence.

These considerations clarify the need of rethinking about the educational resilience as an indispensable strategy to face uncertainty, risk-taking and disenchantment. As Morin wished, education should only focus on its role as an instructor after the appreciation of the individual and the consolidation of the relationship, since the unexpected and uncertainty are essential pedagogical categories (Morin, 2015). If education is an active and creative preparation for life, it is not possible to keep quiet about the unexpected, because it is an integral part of it. Encouraging resilience means, therefore, restoring the authentic contact between the individual and daily life, reconfiguring more ethical and less consumer pedagogical models (Jonas, 2009).

The ability of a child to react positively to a relatively stressful and painful event depends above all on the ability of the adult to support him in accepting the traumatic experience, managing and processing it. For this reason, the Covid-19 has undermined the already precarious equilibrium of the contemporary family system, emptying the chaotic time of everyday life, subverting the study routines-work, contracting the domestic space within a cohabitation destabilized by the challenges of smart working and of distance teaching.

Far from the office and the school, parents and children found themselves sharing the exclusivity of a relationship located in a binding and restrictive space-time, in which physical and psychological proximity has awakened weaknesses, insecurities and new energies.

In a recent study on the relationship between Covid-19 and the family system, the authors have analysed specifically the relationship between the maternal attitude and childhood fears. The study reveals that “the fear for the future of the child is the most extensive in the interpretation of participants and includes such factors as a complex epidemiological situation associated with the Coronavirus pandemic; economic and political situation in the country and in the world; deterioration of the quality of education and medicine. For the first time, in conditions of the Coronavirus pandemic, it is revealed that most young mothers reported significant fear associated with the disease, and this fear ranks third in the social-psychological fear rankings of this sample. Furthermore, it is determined that the emotion power of the Coronavirus pandemic fear is increased by such phenomena as: massovization and stereotyping of thinking and behaviour of individuals. It

has been shown that pregnant women are highly susceptible to the fear to be infected with Coronavirus” (Usak et al., 2020, p. 183).

The psychological and social fears are amplified by the media that contribute to the development of a new “consciousness of disaster” of adults, which inevitably feeds the fears of children. Now that the quarantine seems to be over, it is needed to have more educational strategies and tools available both to deal with the second phase of the pandemic, and not to find themselves unaware of any unexpected emergencies.

According to neuropsychiatrist Cyrulnik, there are four decisive factors for the development of resilient behaviour: the individual temperament - understood as the convergence of innate and acquired factors from the environment - the attachment style, the socio-relational context and the cultural meanings. Specifically, the author believes that the elaboration of stress and pain requires a job of redefining the meanings, through the symbolic expression (Cyrurnik & Malaguti, 2005).

Storytelling and - in the case of younger children - drawing become pedagogical tools to objectify the experience, share it and retrain it within a less frightening symbolic framework. Consequently, the relationship with the adult is the essential support to face the difficulties and integrate them into everyday life. Through the narration of the self, the autobiography and the story of experiences, the word becomes the main vector of the dimension of care, both in the psychotherapeutic setting and in the parent-child educational relationship and teacher-learner, across knowledge, competences and skills.

The role of the educator is to extend the concept of resilience to the teaching-learning processes, so that it becomes the integrating background. In this regard, just think of the depth of the reflections that could inspire literature, science and history. The narration of self, active listening, empathy and positive relational dynamics represent, thus, the “guardians of resilience”, that is to say, the instruments that should guide parents, teachers and reference figures in educational actions (Cyrurnik & Malaguti, 2005; Castelli, 2013).

Separation, illness, failure and frustration are unavoidable experiences for each individual and they require not only the ability to face and to react to pain, but the need to know oneself and free one’s emotions. We do not have to miss that if the word “resilience” comes from the verb *resilire* and means “to come out”, the word emotion, deriving from *ex-moveo*, implies that our feelings always correspond to the need to act. Resilience education is then grounded in the educational relationship, mainly in the household and it is actively connected to emotional literacy and empathy.

Family is the first school in which the individual builds the core of the emotional life: the perception of oneself and one’s own emotions develops in family intimacy, conditioned by the expectations and reactions of the other. Emotional literacy depends not only on the words and actions that the adult addresses to the child, but it develops mainly through the models offered to the child showing him how he manages feelings and relationships (Goleman, 1996).

During the pandemic and in emergencies, the way parents manage their feelings and react to stress is a valuable lesson for their children, who take the most subtle emotional exchanges. It is erroneously believed that adults should not show their own fragility; on the contrary, resistance, flexibility, courage arise from experiencing vulnerability, from dealing with emotional contact and a sincere emotional relationship. Only in this way is it possible to plan and implement those mental and physical actions that allow the rise.

Effective, empathetic, sincere and honest communication is the best form of educational relationship, based on care and not over-protection. An authentic educational relationship allows you to be yourself and live your emotions in an authentic way, thus making little girls and boys resilient in difficulties. As Vaccarelli (2016) pointed out, in resilience education, as well as in education in general, it is not possible to postulate adult-child dualism as an asymmetrical interaction, but it is more effective to build a transactional perspective, based on emotional sharing and empathy.

When parents and children share the alliance, the revenge, the challenge of overcoming an obstacle together, they discover resources probably ignored, through which courage prevails over fear and negative experience is retrained. Of course, the experience does not become positive, but takes on a new meaning, functional to the maturation of the individual and the relationship. Here, the growth of a person also depends on this: not only on the choices he makes intentionally, but on how he manages and reacts to random events - sometimes problematic and painful - that he

cannot control. Being a man means not only choice, action, intention but very often it means also case and contingency.

Assistive Technologies at the Time of Covid-19

The history of technology shows that, although destabilizing, the technological change has produced far-reaching cultural revolutions in all fields of knowledge (Annarumma, 2019). Any technology, once introduced, changes the “social place” that welcomes it (Learn, 2020). Information and communication technologies today shape the whole of society, becoming an integral part of everyday life, as well as being an important and indispensable tool of work.

Henry Jenkins (2009) in the report connected with the digital media and learning wrote about educational challenges related to problem solving, team work related to the tasks and developing new knowledge, for example during Wikipedia or digital games using. He indicated some benefits regarding these forms of participation culture, including the possibility of using each other, diversifying cultural expression, developing skills valued in the modern world and workplaces, and a more intense concept of citizenship. We are coming back to these ideas today by popularizing gamification, new learning programs through games and more and more frequent testing of such ideas during experimental classes (Potyrała, 2020).

This climate of health emergency that has affected the whole of humanity has “forced” teachers, managers and educators to reflect and reshape their teaching methods with education and learning technologies. When we look at what is currently happening from this perspective, it becomes evident that we all have to review ourselves, our fields of work and our point of view. Longlasting science and biology education will also have its share from this settlement. Hereupon, closer relationship will be established between fields such as health, medicine, biology, psychology (Usak et al., 2020) to which technology and education should also be added.

This scenario opens to the hypothesis of the use of assistive technologies, which are and can become, one of the most important elements for the realization of a truly inclusive pedagogy: they deeply affect both education and work, and determine the possibility of integration into school and society. Assistive Technology means any technology or system that is used to enhance, maintain, or improve people’s abilities. As for the devices, different categories are to be identified; they operate as an educational aid (such as autocorrectors or flow-chart managers), up to real IT devices: hardware and software.

The technologies falls both into the more traditional assistive ones as devices for sensory impairments, for mobility and communication, and in the ordinary technologies that exploit the wifi, transfer information and perform various digital support functions to the student. New trends are emerging in the field of assistive technologies, that are identifiable with a variety of particularly innovative tools (Besio et al., 2019). Assistive Technology tries to make an increasing number of instruments more accessible, and therefore easier to use.

The application of assistive technologies must take into account the actors involved, the most experienced students and students who do not have technological and digital skills. Teaching needs to be adapted by means of a pre, intermediate and post-training evaluation, both of knowledge and skills, and of the use of technologies. An important and very debated aspect in this period was the objective control and evaluation of students, in addition to purely disciplinary purposes, also taking into account the levels of constancy, participation, sharing and collaboration, that are key focus of European Horizon 2020 competences.

The comparison between capacity and performance allows you to verify the difference in impact between the current and the standard environment, and provides guidance on the changes to be made so that the environment makes it possible to compare performance to capacity (Scherer & Glueckauf, 2005). The evaluation through the use of assistive technologies must cover the entire bio-psychic sphere of the context in which the student is inserted (Federici & Scherer, 2017). The lockdown has made many of us real subjects with special educational needs, placed in front of a distance teaching.

The family in this scenario becomes a real mediator of technologies, modifying the mission of informal education, meeting the education system and closing the school gap, that has risen. Thus, a systemic family vision with its network of values and meanings has developed a sort of “principle

of subsidiarity”, using internal resources to find solutions to needs and problems, better understanding its needs, setting goals and making “good decisions”. Within this framework, the determining variables were personality, quality of life and personal well-being, expectations, social and economic support and the facilitation provided by the environment (Guglielman, 2012).

The primary network of the student (family, friends and other significant people) has an important influence on the use of technologies. Among the issues that emerged during this period of online learning, several difficulties have arisen. The devices and software that students use at home, often present configurations and updates, that are different from those required by teachers. The critical factors can be motivated by economic reasons, the difficulty of finding technological devices, the accessibility to a wifi network, the cultural level of the person and his family.

The situation cannot always be overcome because families do not have the necessary skills for this way of intervention. Similarly, the specific skills of the teaching staff are lacking. In fact, it is usual to make progressive adjustments, sometimes with the help of experienced external experts coming from assistance centres.

One of the greatest difficulties that has been encountered is the digital device that has affected the population with economic difficulties. In this regard, the Government as the school should and must still take care of the disadvantaged social levels and give the opportunity of the right to study, as stated in the Art. n. 26 of the ONU, which states that: Everyone has the right to education. Education must be free of charge at least for elementary and basic classes. Primary education must be compulsory. Technical and professional education must be accessible to all and higher education must be equally accessible to all on the basis of merit (ONU, Universal Declaration of Human Rights, Art. n. 26).

This historical event allowed the school to modify its *habitus*, in which it was accustomed to plan its didactic action. The assistive and ordinary technologies have allowed to reconfigure space and time frames, a greater flow of data and information, a learning time adapted to the needs of the learner. In all this chaos there was also a construction of new virtual communities put in place by collaborating, cooperating and sharing among the members of the family, between pupils and peers and between learner and teacher.

Conclusions

In conclusion this theoretical analysis shows how technologies are “extensions” of our being. We are permeated with tools that daily become more and more “ourselves”. Through them we rediscover and explore ourselves and we speak to each other. Some time ago, Derrick de Kerckhove (1993, 2019) described how instruments, whatever they may be, modify the way of living of man. From papyrus to paper, from TV to mobile, from the Internet to smartphone, all these tools have slowly modified the so-called *brainframe* and the logic of thought has undergone changes: from logical-analytical to associative-reticular, and now from individual to planetary.

This position, even if it is very important, seems to be a clear memory of the scenarios proposed by the current networked society and the so-called “converging technologies” designed to change humanity (Jenkins, 2009). Paradoxically, the more technology progresses, the more the need emerges to remember the importance of relationships, of socialization processes, of contact, of the importance of stopping and listening, in order not to be overwhelmed by the frenetic rhythms, sometimes chaotic and competitive in today’s society.

In a recent analysis on the relationship between technological innovation and Humanitas, Benati (2020) analyses the educational responsibilities mediated by technology, reflecting on how the latter affect the cognitive and emotional attitude of human beings towards the world. In the light of these reflections, starting from the human means founding a new cognitive and emotional ecology mediated by technology, but based on authentic and empathic relationships.

For this reason, educating in resilience means developing more ethical educational models and less consumers. We are faced with the emergence of new modes and educational dynamics determined by a reconceptualization of society that needs a reorganization of the family, social and educational relationship, and in which educational and academic institutions must have an important role in creating a holistic and harmonious vision of the society of the future.

Faced with these considerations, new challenges for the agents of change emerge, such as those of accepting the uncertainties, the problems and fears of the social system and transform them into new educational challenges by combining the moral values, that have made our existence worthy of being lived, with an impetus towards a better future.

Note

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References

- Annarumma, M., & Fragnito, R. (2014). *ANTROPOMEDIA Web, Comunicazione, Formazione*. [ANTROPOMEDIA Web, communication, education]. Aracne.
- Annarumma, M. (Ed.) (2019). *Infanzia, gioco e tecnologie* [Childhood, play and technology]. Pensa.
- Benati, P. (2000). *Le macchine sapienti. Intelligenze artificiali e decisioni umane* [Wise machines. Artificial intelligence and human decisions]. Marietti.
- Besio, S., Bianquin, N., Giraldo, M., & Sacchi, F. (2019). Le tecnologie assistive per la disabilità tra attualità e innovazione: una systematic review [Assistive technologies for the disability between current affairs and innovation: A systematic review]. In Caldin, R. (Ed.), *La società per la società: ricerca, scenari, emergenze, International Conference Proceedings SIRD 26-27/09*. Pensa Multimedia.
- Castelli, C. (2011). *Resilienza e creatività. Teorie e tecniche nei contesti di vulnerabilità* [Resilience and creativity. Theories and techniques in contexts of vulnerability]. FrancoAngeli.
- Cyrułnik, B., & Malaguti, E. (2005). *Costruire la resilienza. La riorganizzazione positiva della vita e la creazione di legami positivi* [Building resilience. The positive reorganization of life and the creation of positive relationships]. Erickson.
- De Kerckhove, D. (1993). *Brainframes. Mente, tecnologia, mercato* [Brainframes. Technology, mind and business]. Baskerville.
- De Kerckhove, D. (2019). *Seminario: Ricerca educativa e innovazioni didattiche* [Seminar: Educational research and didactic innovations]. Keynote Speaker Derrick De Kerckhove, University of Salerno, 17 maggio 2019.
- Federici, S., & Scherer, M. (2017). *Assistive technology assessment handbook*. CRC. Press. <https://doi.org/10.1201/9781351228411>
- Glass, G., & Tabatsk, D. (2014). *The overparenting epidemic: Why helicopter parenting is bad for your kids and dangerous for you too*. Skyhorse.
- Goleman, D. (1996). *Intelligenza emotiva. Che cos'è e perché può renderci felici* [Emotional Intelligence]. Bur Rizzoli.
- Guglielman, E. (2012). *Tecnologie per la didattica e tecnologie assistive nella dimensione dell'ICF* [Teaching technologies and assistive technologies in the ICF dimension]. *DIDAMATICA*, 7(7), 1-5.
- Haley, J. (1976). *Terapie non comuni* [Uncommon therapy]. Astrolabio.
- Impara, L. (2020). *Percorsi formativi per un rinnovamento educativo e pedagogico* [Training courses for an educational and pedagogical renewal]. Armando.
- Jenkins, H. (2009). *Confronting the challenges of participatory culture media education for the 21st century*. The MacArthur.
- Jonas, H. (2009). *Il principio di responsabilità. Un'etica per la civiltà tecnologica* [The imperative of responsibility: In search of an ethics for the technological age]. Einaudi.
- McGaugh, J. L. (2015). Consolidating memories. *Annual Review of Psychology*, 66, 1-24. <https://doi.org/10.1146/annurev-psych-010814-014954>

- Morin, E. (2015). *Insegnare a vivere. Manifesto per cambiare l'educazione* [Teaching how to live. A manifesto to change education]. Raffaello.
- Potyrała, K. (2020). A few reflections on contemporary science education and educational research. *Problems of Education in the 21st Century*, 78(1), 4-8. <https://dx.doi.org/10.33225/pec/20.78.04>
- Scherer, M., & Glueckauf, R. (2005). Assessing the benefits of assistive technology for activities and participation. *Rehabilitation Psychology*, 50(2), 132-141. <https://doi.org/10.1037/0090-5550.50.2.132>
- Secci, E. M. (2005). *Manuale di Psicoterapia Strategica* [Manual of strategic psychotherapy]. Carlo Amore.
- Usak, M., Masalimova, A. R., Cherdymova, E.I., & Shaidullina, A. R. (2020). New playmaker in science education: COVID-19. *Journal of Baltic Science Education*, 19(2), 180-185. <https://doi.org/10.33225/jbse/20.19.180>
- Vaccarelli, A. (2016). *Le prove della vita. Promuovere la resilienza nella relazione educativa* [Trials of life. Promoting resilience in the educational relationship]. FrancoAngeli.
- Watzlawick, P., Beavin, J. H., & Jackson, D. D. (1971). *Pragmatica della comunicazione umana* [Pragmatics of human communication: A study of interactional patterns, pathologies and paradoxes]. Astrolabio.
- Zografova, Y. (2016). Some of the challenges facing society and social psychology. *Problems of Psychology in the 21st Century*, 10(1), 4-5. <http://www.scientiasocialis.lt/ppc/node/113>

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