

PEDAGOGY OF EMERGENCY AND VULNERABILITY AND COVID-19: PSYCHOLOGICAL ASPECTS AND LINKS WITH TECHNOLOGY

PEDAGOGIA DELL'EMERGENZA E DELLA VULNERABILITÀ E COVID-19: ASPETTI PSICOLOGICI E LEGAMI CON LA TECNOLOGIA

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Abstract

The current COVID-19 emergency, the joint combination of environmental degradation, the geopolitical challenge of the international landscape, the increasing inequalities, and the deep economic interconnections have made the world more vulnerable.

The COVID-19 pandemic is having a multidimensional impact on our society, affecting human and social capital, institutions, communities, and the collective in general. "In a time of rapid and radical transformations and existential challenges, the Knowledge Society, globalized and risk-taking (Gallerani, 2016), calls for a resilient background for individuals in order to cope with shocks and persistent emergencies to structural change" (Beck, 2008).

The pedagogical/educational emergency and the post-emergency cannot ignore the potentially traumatic nature of the crisis that it generates: attention to "emotional capital (which generates and nourishes political, social and moral values of the community) is credited as one of the main levers of socio-educational reconstruction in contexts of fragility" (Isidori, 2012).

This study traces the lines that identify the salient aspects of the pedagogy of vulnerability and emergency, and individuates what its relationship with technology can be, considering resilience and coping strategies fundamental elements to deal with an unexpected situation.

L'attuale emergenza COVID-19, la congiunta combinazione di degrado ambientale, la sfida geopolitica del panorama internazionale, le disuguaglianze crescenti e le profonde interconnessioni economiche, hanno reso il mondo più vulnerabile.

La pandemia COVID-19 sta avendo un impatto multidimensionale sulla nostra società interessando il capitale umano e sociale, le istituzioni, le comunità, la collettività in generale. "In un tempo punteggiato da rapide e radicali trasformazioni e da sfide esistenziali, la società della conoscenza (Knowledge Society), globalizzata e del rischio" (Gallerani, 2016) richiede agli individui un background resiliente in grado di fronteggiare shock ed emergenze persistenti ai cambiamenti strutturali (Beck, 2008).

L'emergenza pedagogico/educativa e il post emergenza non possono prescindere dal considerare la natura potenzialmente traumatica dello stato di crisi che viene a generare: l'attenzione al "capitale emotivo (che genera e alimenta valori politici, sociali e morali della comunità) è accreditata come una delle principali leve della ricostruzione socioeducativa in contesti di fragilità" (Isidori, 2012). Questo studio traccia le linee che individuano gli aspetti salienti della pedagogia della vulnerabilità e dell'emergenza e quale possa essere la sua relazione con la tecnologia, considerando la resilienza e le strategie di coping elementi fondamentali per poter affrontare una situazione inaspettata.

Keywords

Pedagogy of emergency, pedagogy of vulnerability, resilience, digital pedagogy, antifragile
Pedagogia dell'emergenza, pedagogia della vulnerabilità, resilienza, pedagogia digitale, antifragile

1. Introduzione¹

The current COVID-19 emergency, the joint combination of environmental degradation, the geopolitical challenge of the international landscape, the increasing inequalities, and the deep economic interconnections have made the world more vulnerable.

The COVID-19 pandemic is having a multidimensional impact on our society, affecting human and social capital, institutions, communities, and the collective in general. “In a time of rapid and radical transformations and existential challenges, the Knowledge Society, globalized and risk-taking (Gallerani, 2016), calls for a resilient background for individuals in order to cope with shocks and persistent emergencies to structural change” (Beck, 2008).

Elaborating and experimenting models of educational intervention with features declined to contexts of high vulnerability and emergency becomes necessarily central to shed light on those psychic, behavioural, and emotional processes involved which occur during and after such critical events.

In this contribution, we wonder if it would be possible to think of a pedagogy, therefore, capable of rebalancing its traditional praxic and epistemological status.

The potential value that we intend to underline involves, from a more sustainable perspective, the need to transmute the usual training/education schemes that have proven to be inadequate in facing the current panorama of pedagogical fragility.

The need to open up to the unpredictable leads to rethink and redesign the educational and formative action: overcoming doubts, uncertainty, disorientation, in a perspective of relational mediation as well as dialectical conjugation, and generative relationship, presupposes to combine in a continuous and recursive relationship the individual formative development with life quality, sustainability, and relationship with the environment (Stiglitz, Sen, Fitoussi, 2009).

Educability, reinterpreted in the light of vulnerability, can therefore become fertile ground only if it is understood as openness towards what emerges, if it is foreshadowed as a path that is re-discovered on the threshold, as a condition of passage: an opportunity for challenge that transmutes every constraint into opportunities for a new educational potential (Crotti, 2013). In the light of these premises, this contribution fits into the context of the “Pedagogy of Vulnerability and Emergencies”.

The approach aimed at considering the conditions of personal and social “vulnerability” has the purpose of highlighting the negative and dysfunctional effects of traumatic events that recall conditions of anxiety, fear, anguish, trauma, limiting thoughts, resentments, and injustices that influence both individual and collective well-being (Keet, Zinn, Porteus, 2009). It would seem to be a radical action that is largely resolute and connectivist, both in humanitarian and pedagogical terms, that is in line with the “emerging design” – based on investigation –, that is adaptive and, at the same time, generative.

Consequently, integrating critical relational frameworks in an adaptive and complex pedagogical approach will imply a predisposition towards new skills that will be useful for the design of a “humanizing and transformative” approach (Elia, 2015).

2. The core factors: stress and coping strategies

It has been extensively described how the “resilience” factor can be mitigating, especially during situations of emergency pedagogy. In such a situation, stressful events are often the ones that can lead to “distract” attention from what could activate strategies to deal with the situation itself. Stress is not only a factor related to a particular situation, but it is very present in the pedagogical field both with respect to students and teachers.

¹ The manuscript is the result of a collective work of the authors, whose specific contribution is to be referred to as follows: Luigi Picci, paragraphs 2, 5, 6; Laura Cancellara paragraph 1, 3, 4, 6.

In the pedagogical domain, the stressful nature of the role of the university student is well known in literature. Stress among university students has been a topic of interest to many researchers who have also since long time recognized the stressful nature of the roles and expectations of the students they have to work with. Students, in return, experience many stress factors from different sources in their academic life, and usually respond to these stress factors in different ways (Hamaideh, 2011).

Stress has also proven difficult to define (Payne et. al 1982). Many researchers have been interested in the relationship between stress and stress response, although it is not always easy to separate these two concepts. It should be observed whether this phenomenon can be seen as a situational (internal) or behavioural response; moreover, there is evidence in the scientific literature that indicates that it is difficult to distinguish a behavioural response from the adoption of a coping strategy (Shilds 2001).

Coping responses can be positive and negative and also reactive or active. Reactive to active responses occur when reacting to one's thoughts or feelings or when dealing with real external events; they can also be identified as such depending on the situation and the content of the response. Similarly, Folkman (1982) distinguishes between problem-focused and emotion-focused coping.

Coping responses should not be confused with adaptation, as adaptation consists of reactions that are automatic patterns, whereas coping responses use psychosocial mechanisms with respect to events to which the individual has not adapted, all of which involves conscious effort. In many cases, positive responses to coping are active and problem-solving efforts (Lazarus, Averill and Opton, 1974). Research has shown that problem-focused coping, in addition to seeking social support, leads to better adaptation among different populations (Shields 2001).

As far as the teaching aspect is concerned, there is evidence in the literature regarding the relationship between the teaching profession and high levels of dissatisfaction and tension (Buric et al., 2019). In this context, stressors can lead to burnout. The work of the teacher is described by some authors as one of the most stressful professions (e.g. Johnson et al., 2005). Teachers are subjected to many sources of stress such as educational change and unsatisfactory working conditions (Kyriacou, 2001).

Stress emerges when the individual feels that their resources are endangered, or even when they believe that they may be exhausted, or when resources are used for an extended period of time without bringing about change. In cases such as this, there is a possibility of a stress event that leads to a possible burnout situation (Gorgievski & Hobfoll, 2008). In such conditions, it is necessary to use one's own resources in order to be able to strive for wellbeing, and, in order to do so, it is necessary to capitalise on one's own assets and also to acquire new factors that can lead to wellbeing. Resilience is one of the factors that can help in this mission.

Resilience is one of the ways that can lead to the solution by acting at a higher than average level even in unforeseen situations, and it is described as the ability to adapt to stressful situations without turning negative emotions into an organic type of disorder (Smith et al., 2008).

For the sake of scientific honesty, it should be pointed out that there are conflicting opinions in the literature on the relationship between burnout and resilience. For example, while Portzky (2014) argues that there is a relationship between resilience and burnout, Trethewey et al. (2020) have questioned whether resilience can be a useful tool to counter burnout. Portzky analysed the teaching and nursing staff and concluded that the lower the resilience score, the greater the risk of burnout. Trethewey, on the other hand, analysing the English healthcare staff, verified that resilience could be an intervention that does not manifest its results as lasting and that it would be necessary to focus on solving problems rather than other aspects.

Worth of mention is the concept of "antifragile" (Taleb 2013) which can be described as the ability to improve performance due to the presence of a factor of stress in the system or in difficult conditions. This is a term borrowed from Artificial Intelligence. This approach is used in the LAN area and, in particular, in systems that have to face attacks that are not predictable. In this context, antifragility refers to systems that increase resilience or robustness through experi-

ence due to errors, failures, or attacks. The concept of antifragility is related to the stress factor which is a “jammer” that intends to disrupt the underlying communications. The difference between antifragile and resilient is that the former benefits from the jammer, while the latter is related to a concept of robustness and resilience. In the cognitive field, there is an antifragile effect if the cognitive system is able to meet the criterion of increasing capabilities as an effect resulting from any negative condition (Lichtman, Vondal, Matthew Clancy, Charles; et al 2018). All this is interesting to report in the psychological field also because knowing the disorders can be exploited to increase people’s ability to develop self-knowledge in the field of resilience.

To do this, it is necessary to rely on a model that can be easily applied to different layers (individuals, families, and communities) such as the one proposed by Bonanno, Romero, Klein (2015) which consists of four basic temporal elements: (1) basic or pre-adversity adjustments of which the warning responses and ultimately resilient outcomes refer; (2) the actual adverse circumstances themselves; (3) achieving resilient results for adversity, referring to both the adverse circumstances and the basic adjustment; and (4) predictors of resilient results measured before, during, and after the adverse circumstances. According to the authors, this simplification, although it may not manage the complexity of phenomena in all contexts, offers essential advantages for advancing theory and research. The elementary approach provides a ready structure to integrate the various meanings of psychological resilience into a single process.

3. Emergency, trauma, context, and educational scene

The current international pandemic scenario sees us as actors in a polycrisis: an ecological emergency. The inability to manage the complexity, the conditions of gravity and urgency that qualify and quantify the current Covid-19 Health Emergency situation impose an urgent educational and didactic mandate in formulating reflections on possible intervention strategies.

Considering that “the spread of the new COVID-19 Coronavirus has brought profound changes in social interaction and in the social organization, and that the education sector has not been immune” (Murphy, 2020), the pedagogical and socio-educational context cannot overlook these personal and situational implications.

The pedagogical/educational emergency and the post-emergency cannot ignore the potentially traumatic nature of the state of crisis that it generates: the attention to “emotional capital (which generates and nourishes political, social and moral values of the community) is credited as one of the main levers of socio-educational reconstruction in contexts of fragility” (Isidori, 2012).

The individual risks, liable to a psychophysical, moral and/or social upsurge linked to anxiety, anguish, social distancing, the consequent fracture of social relations connaturalized by increasingly fragile ties, in the face of a contemporary society in itself “liquid” and vulnerable, configure an emergency situation of high existential instability and uncertainty.

The attention to the heterogeneous management of the crisis, to the science of complexity, to the theory of systems, and self-organizing networks of community practice must therefore become an integral part of the educational experience, especially in order to achieve adaptive, resilient educational objectives (Polowy, 2017).

An education/training system incapable of elaborating rebalancing strategies contravenes an ecological dynamic of adaptation to the context, proving to be inadequate, risking however to produce “closure” actions. It is therefore necessary to think of a dynamic system that is not stationary or sealed, rigidly predefined, and without external influence of context variables (Polowy, 2017).

A pedagogical approach that navigates and thrives in the perspective of prevention and education to “emergencies” is prefigured as an approach that considers the variables of vulnerability and that tends to resilience, that knows how to reunite real life, that knows how to operate in the fertile field of resources, attitudes, situational life-skills, creativity, and constant adaptation

to the context of belonging.

The possibility to adopt new behaviours, which are suitable for “emerging” contexts, implies the ability to review the pedagogical device understood as “space-time intentionally pre-disposed to support a subjective change, which depends on the perspectives with which the designer looks at a problem” (Rossi, Toppano, 2009). In other words, it must be reviewed in the light of arguments that reveal its positive value, both predictive and potential. This concept, of forerunner placement in the expression “*paraskeue*” elaborated by Paul Michel Foucault, refers to the preparation, open and at the same time finalized, of the individual to “the events of life [...] made up of unforeseen events, [in order] to be stronger, or in any case not to be “*hetton*””, that is to say, weaker (Foucault, 2003, pp. 283-87).

For these reasons, thinking about the sustainability of educational interventions in emergency situations that integrate teaching practices based on the use of new digital technologies requires to contemplate an approach to the “transformative” resilience of the whole teaching-learning process.

In general, it is necessary to examine the relationship between:

- contextual and situational (external or “emerging”) factors associated with resilience, recalling aspects of social ecology (environment) and promoting and protecting against the negative impact of exposure to traumatic events.
- individual factors (biological, genetic, developmental, cognitive, emotional, relational, etc.) that induce the equipping of personal, protective and adaptive resources against adversity.

To quote an example from the literature, J.A Downey (2008) in “Recommendations for Fostering Educational Resilience in the Classroom, Preventing School Failure: Alternative Education for Children and Youth” defines educational resilience as a multidimensional adaptation process, both individual and environmental. The author distinguishes 4 basic dimensions related to the concept of resilience, which, although different, are strongly intertwined:

a) resilience as the ability to face adversity, to adapt to the challenges of the environment by drawing on one’s own skills (according to intellectual capacity, coping styles, self-efficacy, motivation and orientation towards objectives);

b) resilience as not only an individual dimension, but as a reference to an intrinsic quality of the environment and its ability to facilitate proactive growth;

c) resilience appears in the same way and differently within and among populations, referring to the mechanisms that provide for positive growth sensitive to individual, contextual, and cultural variations (differential impact);

d) the impact that each individual factor has on resilience differs from the amount of risk exposure, referring to mechanisms that protect against the impact of trauma. This dimension entails contextual and cultural specificity (cultural variation) for particular individuals (Downey, 2008).

Karol Kumpfer (1999) proposes, instead, a theoretical model that considers resilience as a result of the relationship between six different factors. At the basis of this model, the correlation between the ability to provide resilient responses is also influenced by levels of self-esteem, self-efficacy, internal locus of control, optimism, and hope. The bibliographic review, extensive of international scientific studies, also refers to other resilient qualities such as motivation, planning, critical and creative thinking, flexibility, empathy, clarity of objectives, tenacity, other life-skills (Mariani, Marcolongo, Melchiori, Peluso Cassese, 2019).

Ultimately, rethinking the association education-resilience, as Vaccarelli anticipates (2017), means making oneself available to a pedagogical reflection that invites, to “pause”, to discernment, to individual responsibility for the choice, to the meaning of educational action in the educational-formative relationship. In this sense, the resilient pedagogical device helps us to face and confront situations, both ordinary and extraordinary, in the contexts in which, as educators, we remain in support of infancy, of childhood, of adolescence, in their never linear paths of growth (Vaccarelli 2017).

4. Pedagogy of Vulnerability

“How can Vulnerability Pedagogy respond to the learning/teaching needs during the Covid-19 Emergency and support the well-being and resilience of educational institutions during and after the pandemic?”

The question we are asking is in line with the current international guidelines of UNESCO IITE (Institute for Information Technologies in Education). In this regard, on 27th of April 2020, the board of the organizational task force of the Round Table “Building more resilient education systems: innovative experience and lessons learned during the COVID-19 pandemic” at the Moscow International Education Fair 2020 (MIEF-2020) focused on the pedagogical fragility of higher education systems and the consequent strategic design of resilient interventions.

The approach to consider conditions of personal and social “vulnerability” is intended to highlight the negative and dysfunctional effects of traumatic events that bring to mind conditions of anxiety, fear, anguish, trauma, limiting thoughts, resentments and injustices that affect individual and collective well-being (Gannon, Hattam, Sawyer, 2018). These basic considerations call into question the pedagogy of vulnerability with respect to the need and responsibility of proactively rethinking and redesigning educational and formative action: “It is in vulnerability that the essence of dignity is hidden; therefore, there is a real upheaval of the ideal of power and self-assertion that supports the need for resistance to weakness or its exclusion” (Crotti, 2018).

Speaking of “Pedagogy of vulnerability and emergencies” means referring to an “umbrella construct” that refers to a wider, dynamic, and multidimensional scenario that presupposes the implementation of an educational, formative, and didactic approach strongly anchored to life contexts connoted by high vulnerability and fragility. It is a real “pedagogy of emergency” and a “didactics in emergency” that addresses the issues of risk education and prevention, the management of the criticalities experienced following disasters of various kinds, the resilience of educational, didactic, and organizational activities in disrupted contexts or under reconstruction (Isidori, Vaccarelli, 2015). The aim is to exercise a proactive pedagogy, which takes into account the complexity of the context, which has the ability to face a new balance, in an original, resilient way with respect to the “emerging” event, namely to be able to face it, manage it, sometimes anticipate it. It is the search for strategic solutions that starts from the “attempt to activate one’s own resources or those of the community to overcome critical issues, [even if this] does not help the construction of a new existential balance, it will then activate a condition of vulnerability” (Bertin, 2011).

The training intervention, therefore, attentive to the condition of vulnerability and fragility experienced by the actors of the teaching scene, needs to implement methodological and educational-didactic strategies of pedagogical interaction that probably reflect both on methodological-didactic criteria and on the impact and importance of personological variables that intervene to modify the teaching/learning process.

The methodology of intervention to which we are referring recalls the indispensable capacity to be resilient by inviting educators and students to “look inside themselves” through the action of a recursive meta-dialogue, to look inward and undertake the uncomfortable journey of knowing its implications in the social as an opportunity for reflection and “empowered” growth (Schick, 2016).

In the light of these essential considerations, we speak of the “mutual vulnerability” of all the actors on the educational scene and how this declarative line is central to humanizing pedagogy. In the process of applying the principle of “mutual vulnerability”, therefore, the personal modalities of shared learning (mutually negotiated co-learning) and critical self-reflection are questioned and compared in a shared educational context: prefiguring dialogical processes, which improve and enhance the knowledge and insights of all those involved (Brantmeier, 2013).

It is intended to re-create a more “renewed and meaningful” space among all the actors involved in the teaching/learning process (Keet, Zinn, Porteus, 2009). Innovating with a pedagogical (antifragile) device in mind, therefore, means “to design an elastic system, capable of

absorbing the difference between planned and realized, treasuring the experience and enhancing it in terms of improving the system” (Signori, 2017). Teachers and students are called upon to share synergistic and profitable emotional processes that nourish trust and relationality, the capacity for self-regulation and the application of the skills acquired. It is therefore necessary to have an authentic, proactive, transformative learning, which lays the foundations of a co-constructed and shared educational responsibility.

It is a pedagogy, therefore, that accepts the challenges, that opens itself to risk, to the future, to the anxieties that the present brings with it, to complexity, to liquidity and that “with respect to them is set as legitimacy, as regulation, as – also – possible fulfilment” (Cambi, 2006).

5. Digital Pedagogy

In a situation like the one generated by the pandemic, the use of technology in education has taken a leading role. It has been directly observed how technology has been able to contribute in different forms of learning through the transition to online and digital education formats, triggering the rise of “remote” forms of teaching and learning as a result of mass closures of schools and universities. At this time of pandemic politics, when conflicts are being fought on multiple scales and levels on how to manage and resolve the crisis, distance learning has become both a “focus” and a source of concern for political authorities, teachers, parents, and students. Education has become a matter of emergency and, together with it, educational technologies have been positioned as a frontline emergency service (Williamson, et al. 2020).

We live in a time where the digital divide is very present. This phenomenon poses a socio-economic challenge worldwide and where technological literacy, understood as the ability of users to understand and use technologies, is one of the strands of scientific research (Piccini 2020). Efforts to reduce this gap are being pursued by governments. For example, in the European Union, the Digital Agenda for Europe has been created as part of the research and innovation programme “Horizon 2020”².

Prensky (2001) described digital natives as people able to handle parallel and multitasking processes using mainly visual images and having graphic awareness, multidimensional visual-spatial skills, careful distribution in multiple positions simultaneously, and quick responses to expected and unexpected stimuli. It could be inferred that they are people subject to hyperstimulation that they can manage. Still Prensky, in the same study, defines “digital migrants” as sequential, mainly focused on textual elements, and more characterized by a greater propensity for reflection and metacognition. The literature deals extensively with the issue of “natives” and digital “migrants”, but it should not be observed only from a dual perspective, as there is more and more evidence that shows many more facets than a simple binary subdivision and challenges this desire to characterize young people as ubiquitous and technologically experienced digital natives and older generations as digital migrants with technological problems. The use of e-learning is increasingly recognised as an important part of learning and it is therefore necessary to understand the current orientation of research on educational technologies with a vision that goes beyond the technological generation boundaries (Smith, 2013). Not all young people are really “digital natives”, as the rhetoric about young people suggests (Beckman et al. 2018), but there is a real contrast between those who can access, surf and use the Internet and other new technologies, and a significant minority who are completely excluded. The pandemic required the use of technology, and in pedagogy teachers had to quickly use and learn how to deliver distance learning by bringing under the magnifying glass how the digital divide was a cross age phenomenon. Technology is not a neutral entity that simply does good when people have access to it, but “it is a complex and social cultural artefact”. The technology that has predominantly entered homes by virtue of the pandemic has added both positive and negative factors. The Internet will provide access to the ability to provide and receive training at all levels, information and social support. However, the

2 Research ITALY. Il portale della ricerca italiana. <https://www.researchitaly.it/horizon-2020/#null> [Retrieved 25/06/2020]

Internet will also provide easier access to forms of Internet Addiction to people and young people who should not have it (Williamson et al. 2020). In addition to all of this, the use of technology takes place at a time of great urgency that inevitably generates stress and emotions.

6. Conclusions

The anti-fragile perspective and the resilient opening of the educational system to the wider social system recalls the integration of a systemic approach that takes into account both the complexity and interconnections, as well as the personalization of the educational-training processes. Thus, by providing for an integrated constructivist-humanist approach, the training practices and services offered now presuppose, more than ever before, a germinative space within which individual and collective processes of change can be promoted and negotiated.

Therefore, the “didactics of experience” presupposes the widening of boundaries and disciplinary horizons capable of offering opportunities and overcoming personal constraints, a change that requires adaptation.

Offering the possibility of realizing educational and formative paths that are helpful for emotional support, that are sharable and inclusive, that are capable not only of cognitive resonance but above all of emotional, social and collective resonance is an opportunity that pedagogical action must be able to convey.

In conclusion, the reflection on the quality of educational/training processes remains critical, open, debatable, and debated. Currently, the pedagogical fragility of educational agencies (Mozzanica, 2005), schools and universities, cannot avoid the risks and influence of the systemic and complex interaction of the current international pandemic scenario. For this reason, elaborating and experimenting models of educational intervention with characteristics declined to contexts of high vulnerability and emergency, can be a real prospective, strategic-procedural, and transformative ambition.

Combining in a dialectical and synergic way adaptability and reflexivity as a propensity to face unforeseen requests will therefore mean moving in the context of role transitions, in the negotiation of senses and meanings, in the implementation of coping strategies useful to face emerging changes (Savickas, 2005).

It is this personal mastery that will lay the foundations for the development of a reflexivity understood as “a form of heuristic-reflexive rationality”, the set of skills useful to “rethink one’s actions at the same time [...], its theoretical, practical, and ideological foundations and constantly bring them into focus” (Cambi et al., 2003, pp. 31 and 48).

In this frame of reference, the centrality attributed to a humanizing pedagogy, which starts from situational educational needs, which addresses “individual empowerment”, resilience, proactive participation, shared “self-etero responsibility”, contamination of competences – in function of full self-realization – remains in itself fundamental (Gallerani, 2016).

The COVID-19 experience will also manifest its effects with respect to the digital divide where many “digital natives” had to adapt to have social relationships in person, and many “digital migrants” had to use technology. The need to provide distance learning was certainly an unforeseen event in an emergency context such as the pandemic, which was also unforeseen. There is room for consideration for future strategic studies that require experimental research in the field in order to analyse all these elements and to be able to observe them over time.

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