

NEW GENERATIONS AND CRITICAL-CREATIVE SKILLS TRAINING. WORKING TOWARDS A RENEWED PARADIGM

NUOVE GENERAZIONI E FORMAZIONE DELLE SKILLS CRITICO-CREATIVE. VERSO UN PARADIGMA RINNOVATO

Francesca Pileggi
Università degli Studi di Torino
francesca.pileggi@unito.it



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ABSTRACT

The current challenges of social, ecological and technological nature require the new generations to exercise those critical-creative skills necessary for their critical and conscious management and orientation. This contribution aims to define the current spaces of problematic issues with regards to critical-creative skills and propose a way to overcome these issues through the reconstruction of some of the works of the pedagogue and philosopher John Dewey.

Le sfide attuali di natura sociale, ecologica e tecnologica richiedono da parte delle nuove generazioni l'esercizio di quelle *skills* critico-creative necessarie per una loro gestione e orientamento critico e consapevole. Il contributo mira a ricostruire gli attuali spazi di problematicità riguardo la questione delle *skills* critico-creative e ad avanzare una proposta volta al superamento degli stessi attraverso la ricostruzione di alcune opere del pedagogista e filosofo John Dewey.

KEYWORDS

Critical-creative skills, Transversal skills, Primary school, John Dewey, Challenges

Skills critico-creative, Competenze trasversali, Scuola primaria, John Dewey, Sfide

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1. Today's challenges: between uncertainties and spaces of possibilities

The existence of human beings is currently involved in the management and orientation of complex and unprecedented challenges, both in terms of their content and scope (Ceruti & Bellusci, 2023; Morin, 2020). Among them, there are at least three challenges that are considered to be priorities: the *social challenge*, the *ecological challenge* and the *technological challenge*.

The first challenge, the *social* one, mainly concerns increasing social and economic inequalities, as well as the conflicts that plague the modern society (Fuchecchi & Nanni, 2019; Raworth, 2017), causing feelings of anxiety and insecurity that now deeply inhabit the daily lives of each individual. These phenomena are linked to, among other factors, energy, food, and financial crises, job losses, the progressive fragility of social relations and solidarity, and forms of rebellion largely resulting from the globalization process (Beck, 1999; Chomsky & Waterstone, 2022; Giro, 2022).

The climate-environmental balance crisis caused by human overexploitation of natural resources constitutes the second challenge, the *ecological* one (Alici, 2023; Mortari, 2020). Urban settlements, waste, pollution, industries, hydrocarbon releases, deforestation, and fires are some of the main contributing factors that have generated unavoidable risks. Among these risks, the most relevant ones are: pollution of soil, atmosphere and water, ocean acidification, and habitat destruction of many living things (Almond, Grooten & Petersen, 2020; De Toni, Marzano & Vianello, 2022). This framework emphasizes the urgent necessity to act as responsible human beings and to advocate for change in order to prevent even more disastrous scenarios (De Toni, Marzano & Vianello, 2022; Dozza, 2018; Oreskes & Conway, 2015).

Digital disruption and the pervasiveness of Artificial Intelligence represent the third challenge, the *technological* one (Floridi, 2017; Rivoltella & Panciroli, 2023). These phenomena open up several problematic issues, including risks related to the security and privacy of data that are shared by users, the use of AI in military operations (an example is the use of autonomous weapons) or, again, the possibility of deceiving and spreading fake news through techniques such as deepfake (Lee & Qiufan, 2023). In addition, these aspects lead to unprecedented scenarios of uncertainty in the scholastic-professional area, including the gradual increase in the use of AI in schools with a consequent redefinition of the teacher's role (Rivoltella & Panciroli, 2023) and the possible replacement of "traditional" professions with jobs that are currently still unpredictable (IFTF, 2011; ManpowerGroup, Sanoma Italia & EY, 2023; World Economic Forum, 2023).

The three challenges all share specific characteristics, which allow humans to understand and manage them in different ways. The characteristics are: *interconnectedness*, *uncertainty*, and *scope of risk*.

The first of these characteristics is the *interconnectedness* of challenges that feed off and affect each other. To take an example, the Covid-19 pandemic led to joint and cumulative syndemic effects on a social, economic and environmental level (Adamson & Hartman, 2020; Giraud, 2022). Another phenomena to take into account is represented by the influences existing between the environmental and technological challenges (De Toni, Marzano & Vianello, 2022; Martins, 2018). On the one hand, if technologies represent one of the privileged means to find solutions for the environmental crisis (Ferilli *et al.*, 2021), on the other hand they can prove to be "very wasteful in terms of energy consumption, and in that sense potentially hostile to the environment" (Floridi, 2017, p. 244). In order to be able to analyze and grasp current phenomena, it is therefore increasingly necessary to adopt a transdisciplinary perspective (Ceruti, 2018; Jeder, 2014; Morin, 2020) by moving "among the reticular and labyrinthine structures of knowledge" that can delineate a more complete overview (Pinto Minerva, 2014, p. 125).

The second characteristic shared by today's challenges is *uncertainty* on the possible variables and indeterminate consequences of the challenges themselves (Arena & Hussenot, 2021; Fuchecchi & Nanni, 2019). The uncertainty used by individuals to approach today's society reflects the constitutive condition of insufficiency that characterizes his instrumental rationality (Quaglino & Varchetta, 1986). This rationality, given the current complexity, no longer allows the individual to lead reality back to fixed patterns (De Toni, Marzano & Vianello, 2022), also diminishing its degree of predictability. Starting from the distinction elaborated in the sociological field between a closed and stable system, characterized by an internal order of the various parts that compose it, and a complex, open, nonlinear and unpredictable system (Franceschini, 1985), the necessity for new generations to respond to this state of uncertainty by activating a process of questioning what already exists from their own experience is highlighted (Nelson & Harper, 2006). Through the "opportunities for synergies present in the relational context" (Quaglino & Varchetta, 1988, p. 167) the subject can formulate new meanings of what already exists and give rise to new visions of the future (UE, 2022, 2020).

Lastly, the third common feature of the current challenges is the scope of risk, considered at a planetary level (Beck, 2000). This kind of risk is difficult to calculate, as it is linked to unprecedented scenarios that potentially threaten the survival of all humanity and the planet. Considering such scope, which escapes human rationality and will to control, it becomes even more necessary to develop the personal and social dimension of responsibility. The society of risk is characterized

precisely by a predominance for real and instantaneous action, in which, however, the individual finds less and less room for confrontation with his or her most inner and sensitive part. Therefore, it appears urgent to promote and train an awareness of those skills and dimensions to be exercised in view of the human capacity to choose and act freely and in an ethically oriented way for the common good.

Consequently, society is facing a scenario of self-destruction and self-annihilation of humankind caused by the misuse and recklessness of tools and technologies that become increasingly sophisticated and powerful. This scenario emphasized the need to call for immediate action (Kolbert, 2014). It is precisely to combat unprecedented consequences that human beings are called for the first time to conceive and implement new perspectives and action plans (Baldacci, 2021; Pinto Minerva, 2014) aimed at promoting innovative practices to take care of the present in order to protect the future. A future that will be inherited by new generations (Malavasi, 2022) and will determine their very possibility of existence and coming into the world (Malavasi, 2020).

Therefore, in order for human beings to be able to critically, consciously and innovatively accept, manage and direct the current social, ecological and technological challenges, preventing the possible "destructive" consequences, it is necessary to systematically begin the training of specific skills from early childhood: critical-creative skills (Chiosso, 2021; Heckman & Kautz, 2017; Maccarini, 2021).

2. Skills under their critical-creative aspect: current potential and limits

Transversal skills training is now a widely studied and debated topic both internationally and nationally. In this regard, in Italy the legislative proposal C. 418 aimed at introducing skills training in schools is currently being considered in committee in the Senate.

Current theoretical-conceptual models of reference (*Life Skills, Soft Skills, Character Skills, LifeComp, DigComp, ...*), despite the several different perspectives, present a high number of skills characterized by a critical-creative component.

As far as the characteristics of the challenges themselves are concerned (*interconnectedness, uncertainty, and scope of risk*), the studies related to these challenges emphasize the central role of critical-creative skills in the management of these challenges (Beskorsa *et al.*, 2023; Glenn, 2019; Morin, 2020). Some of them are quite well-known and widespread, such as *decision making, problem solving* and *effective communication* (OMS, 1994). On the one hand, these dimensions are

useful for the individual to communicate, listen and identify the needs and problems of himself or herself and others in specific situations; while on the other hand, they help deal with and solve problems by exploring possible alternatives and the consequences of different options. Taking into account *conscientiousness* and *resilience*, the first dimension is understood as the ability to control one's impulses, to act prudently, and to respectfully and responsibly address to the other (OECD, 2014). In contrast, the second skill indicates the individual's ability to overcome specific difficult and problematic situations, resulting enriched in terms of understanding of the world and confidence in the future (Luthans, Youssef & Avolio, 2007).

Alongside these widely recognized dimensions there are some critical-creative skills emerging in the literature that are particularly promising.

Regarding the ability to understand the world, given the interconnectedness of phenomena, it is fundamental to exercise and promote the skills of discerning and judging new points of view on experience. These skills find significant expression in the dimension related to *openness to experience* (OECD, 2014) which enables the subject to embrace new aesthetic, cultural and/or intellectual experiences by relating critically, ethically, openly and dialogically to others' perspectives, beliefs and values (Kankaraš, 2017). Considering the soft skills model, the dimension of *transdisciplinary understanding* (ITTF, 2011), aimed at promoting the ability to "bind, to understand phenomena at the same time in their unity and diversity, as well as in their contextuality" (Morin, 2020, p. 50), meets the need for a global education that requires the individual to be curious and willing to keep learning. However, it is interesting to take into account also the dimension of *reconciling tensions and dilemmas* (OECD, 2019), which promotes in the subject the ability to consider the multiple interconnections between seemingly contradictory or incompatible ideas and positions, also broadening one's view of reality. Finally, it is important to consider the dimension of *sense-making*, that is, the ability to determine the deeper meaning or significance of what is uttered (ITTF, 2011). These are higher-order thinking skills that help the individual to have unique and fundamental insights that can guide his or her volitional and decision-making process. They are among those indispensable skills to be enhanced in the personal and occupational spheres (Matheson *et al.*, 2019).

The critical-creative skills of the broader current landscape that have been highlighted, even though they offer an interesting proposition, they present at least three levels of problematic issues: the *paradigmatic level*, the *content level*, and the *methodological level* (Chiosso, 2021; Brush *et al.*, 2022).

The first level concerns the theoretical-conceptual paradigms that constitute the background of the current models, where skills have been systematized. As a result, these paradigms predominantly come from bio-naturalist epistemological (Cicchetti & Rogosch, 2002; Durlak et al., 2015) and economist (McGuinness, Pliakas & Redmond, 2017) studies that do not fully value the significant role of critical-creative skills in the process of human formation and fulfillment. Sometimes, while emphasizing their ability to satisfy socioeconomic needs, they lack the link with the moral dimension and ethical-value orientation that are fundamental for skills to have a fully human meaning and positive purposes towards others (Maccarini, 2021; Nucci, Narvaez & Krettenauer, 2014).

The second level concerns the prevalence of meaning attached to the critical-creative component of skills. As a matter of fact, while the cognitive-rational dimension of the subject aimed at immediate action is valued, the creative dimension is predominantly translated into the skills of problem finding and problem solving. However, these are dimensions that, by restoring an idea through an investigation of reality, aiming at solving specific, immediate and measurable problems from an efficiency-based and productivity-based perspective, still do not fully reflect the idea of the critical-creative as a mental habitus that enables the subject both to stand before reality in order to problematize it and recognize possibilities for transformation (Dewey, 1938) and to initiate something absolutely new that appears for the first time on the world stage (Arendt, 1958).

The third level concerns the educational ways through which critical-creative skills are promoted and exercised in the school setting. These educational ways, as studies pointed out (West *et al.*, 2016), have wide spaces of criticality and fragility in terms of meaningfulness and effectiveness for the formation of the individual (Jacobs & Wright, 2021). In this regard, the literature highlights a vagueness regarding the very definitions of skills, which are sometimes contradictory due to the same epistemological paradigms that form their background, revealing the consequent impossibility of delineating a basic anthropological unified picture of the human being that can support an equally consistent translation into training activities. Currently, the training of soft skills is widely characterized by fields related to active teaching strategies based on cooperation (cooperative learning, circle time, debate). Strategies that require a high level of mastery to ensure the effectiveness of the training intervention, not infrequently presenting structural and operational limits related to their organization and management in the classroom (Boler *et al.*, 2004; Vermette & Kline, 2013).

3. John Dewey's contribution to the rethinking of critical-creative skills

Given the three levels of problematic issues previously identified, the need to rethink the meaning of critical-creative skills, in view of the human formation of new generations, is highlighted. John Dewey offers a fundamental contribution in this regard: he identifies the attitudes and capacities typical of human beings in those of "*observation*", "*judgment*", "*critical thinking*", "*self-control*", "*curiosity*", "*initiative*" investigating them in terms of the meaning they have in each individual's life when linked to one's values and active capacity to give meaning to experience and reality (Dewey, 1938, 1934). These capacities, identified by Dewey, have a strong critical-creative component that, if promoted and exercised in the new generations, lead the subject to activate that process of questioning and problematizing reality aimed at transforming and innovating it, starting from those spaces of problematicity identified in it. An essential training to create an active, aware and engaged citizenship within democratic societies (Pérez-Ibáñez, 2018).

These critical-creative skills, if recognized and exercised from childhood, are exactly what enables the subject to orient himself critically, consciously and creatively by taking action when society presents the individual with challenges (Dewey, 1930, 1938). Challenges delineated by Dewey himself in his work *Individualism old and new* (published in 1930), in which he identifies three central phenomena that are more recent than ever and arise from the "pecuniary culture" that dominates the society described by the American philosopher and pedagogue: the quantification of life, the standardization of thought and emotions, and mechanization (Dewey, 1930). These problematic spaces result in a feeling of insecurity with regards to the subject's own economic and professional sphere, and the phenomenon of crisis in culture, characterized by increasing intellectual poverty and widespread passivism.

As far as such phenomena are concerned, Dewey develops his considerations on the issue of critical-creative skills by emphasizing the need to overcome a view predominantly oriented towards the rational dimension of the human being that is put before the individual's sensitive and emotional dimension, characterized by openness to the other. This dimension is thereby "adapted to the needs and conditions of the external world" (Dewey, 1999[1930], p. 12). Given the subject's flattening on the level of individualism, flexibility and adaptation, Dewey recognizes that the essence of human life is actually "lacking in individuality" and deeply "attuned to the conditions of action upon matter, upon the world" (Dewey, 1999[1930], p. 12), emphasizing the value that social relations assume in the mental, emotional, imaginative and moral life of each individual. The exercise of critical-creative thinking and the personal and unique potentialities of each individual, thus, promote the reconstitution of the institutions of social life (Webb,

2008) in a democratic and emancipatory way (Dede, et al., 2017; Giroux, 2004; Vincent-Layton, 2019).

John Dewey's contribution, which enables scholars to deeply examine the issue of critical-creative skills by recognizing them as central to the human formation of the individual aimed at the transformation of the self and the society, helps overcome the three levels of problematic issues with regard to critical-creative skills (the *paradigmatic level*, the *content level* and the *methodological level*).

Starting from the paradigmatic level, Dewey's insight emphasizes the mutual nourishment link between society and the individual aimed at supporting the process of personal and reality emancipation. This analysis particularly refers to the works *Experience and Education* (1938) and *Individualism old and new* (1930), in which Dewey states that, while the original and unique capacities of each human being become concrete through social reality, these capacities are necessary for the evolution of society, as they enable the subject to imagine, think and create new meanings and new experiences by having an impact on reality itself.

In addition, Dewey's works *Reconstruction in philosophy* (1920; 1948), *Individualism old and new* (1930) and *Art as experience* (1934) give important insights on the level of the content, as they allow scholars to focus on a possible dimension of critical-creative skills, related to the tension of aspiring to ideal questions and working on big dreams, avoiding the current tendency to immediacy and short-range goals. This skill is recognized by Dewey as both central and fragile in its exercise, taking into account what is stated in the eighth chapter *Reconstruction as affecting social philosophy* of the work *Reconstruction in philosophy*, in which he highlights how an approach related to the "intellectualistic" experience was already consolidating during his time, which, however, deprived of the human capacity for reflection and aspiration to ideal questions, risked losing its transformative and emancipative force in an ethical-value way.

Finally, when focusing on the methodological level, Dewey's works, such as *Art as Experience* (1934); *Experience and Education* (1938); *Experience, Nature and Art* (1925); *The School and Society* (1900) and *How We Think* (1910), emphasize the possibility to claim the aesthetic area as the promising field for the formation of critical-creative skills in primary school. The aesthetic area is the educational experience par excellence, as it is significant for the integral human formation and the individual's social participation (Malavasi, 2020). As a matter of fact, it is from the exercise of one's own unique, creative and critical feeling (Montani, 2007) that the individual acquires greater awareness of the meaning of his actions, reprocessing it in relation also to reality and others (Dewey, 1934).

4. Towards a renewed paradigm

Dewey's considerations on the three levels of problematicity (analyzed in the previous paragraphs), support a renewed proposal, aiming at overcoming current critical issues and sustaining theoretical systems and educational practices for the promotion and exercise of critical-creative skills, which are crucial for the human formation of new generations.

It is through Dewey's insights that it is possible to consider, on a *paradigmatic level*, the union of the material and the ideal (Dewey, 1930, 1920) with a renewed paradigm, which aims at overcoming current limits. These limits concern the prevalence of the material component and the functionalist adaptation of critical-creative skills. In the 1900s, given this theoretical framework, Dewey had already stated that both the real and the ideal are necessary but "distant more than ever" (Dewey, 2002, p. 118). Therefore, the material component is to be placed within a relationship of interdependence with the component of ideals. Indeed, the latter, in order not to be reduced merely to "irrelevant dreams" (Dewey, 1999[1930], p. 72), but to be meant as meaningful ideals with concrete effects on reality, must be sustained by the individual's critical and conscious consideration on the circumstances of reality and its continuous changes. In this context, the component of ideals leads critical-creative skills to the imagination and the spiritual and visionary dimensions of human beings, representing their capacities to see, feel, love and imagine and encouraging new efforts and achievements (Dewey, 1920). These dimensions are intrinsically connected to the "matter of the world" (Dewey, 1997[1915], p. 167) that actually offers the possibilities and means necessary for human capacities to express and realize themselves by transforming reality.

Focusing on the *content*, Dewey's considerations offer the possibility to advance and support the proposal of a new dimension of skills – currently not included in the framework of current theoretical-conceptual models – which we could call *aspiring skills* (Dewey, 1938), considering also the interpretations that emphasize the need to awaken the free exercise of the capacity to aspire linked to feelings of hope and trust in the transformative power of the collectivity (Freire, 1968; Hart, 2016; Webb, 2008). Individuals are characterized by the tendency to aspire to ideals, resulting in the ability to go beyond one's immediate needs and reconsider, redesign and reconstruct reality through ethical-practical meaning and values (Calcaterra, 2011). The tendency to aspire would guide human beings' action towards both individual and social emancipation and transformation, aiming at the development of hopeful communities and "where all individuals are able to flourish" (Hart, 2016, p. 337). As a matter of fact, some social and political changes that have marked human history "would not have occurred without pushing the

limits of what was known to be possible" (Hart, 2016, p. 334) and without going beyond reality as it was in its status quo. Such skills enable individuals to cultivate ideals in daily life by increasing a feeling of gratification that is deferred since the thought and action to which it is linked involve an arduous effort that is not simultaneous with their outcome. This kind of effort should be increasingly cultivated and promoted in younger generations, where currently the individual's actions seem to be predominantly focused on immediately attainable and actionable goals (Appadurai, 2004; Nussbaum, 2016).

Regarding the *methodological level*, Dewey's contribution helps to consider and reevaluate a particularly promising area for the formation and exercise of critical-creative skills: the aesthetic sphere (Dewey, 1934). Indeed, training designed and conducted through experiences of aesthetic quality supports the broadening and enhancement of each subject's unique and divergent ways of experiencing and discerning reality (Dewey, 1934; Matteucci, 2007). This area promotes the "dimension of desire, of active-aesthetic feeling" and the self-awareness of individuals that contribute to the flourishing of "meaningful relationships with oneself and with the world's 'otherness'" (Pinto Minerva, 2014, p. 124). Preparing and conducting these practices, as far as they aim at the authentic expression of oneself, one's own potential and the recognition and respect for the sensitive way to implement when approaching the reality of others (Matteucci, 2007; Panciroli, 2012), significantly contribute to the realization of the experience of "life-in-common (Carmagnola, 2007, p. 177). While art expresses an ideal that embraces human experience in its entirety (Rothko, 2006), it is also necessary to take into account a constructive view of the actual needs, problems, and possibilities within the personal area of experience which inextricably situate the individual in his or her relationship with reality and society. For the ideal and hope to flourish, therefore, it is necessary for "the 'concrete' utopian kernel" to be "extracted from the ideological 'abstract'" in order "to be educated, guided and directed" (Webb, 2008, p. 198) towards collective actions that can affect the world by transforming it.

The educational aim, as indicated by Dewey himself, is to prepare new generations for their future responsibilities (Dewey, 1938) from a unified perspective, which takes into account each human being's ethical-value orientation towards goodness and happiness (Pellerey, 1998). In order to promote and exercise critical-creative skills, the aesthetic experience plays a significant role, as these skills are meant to be a space in which formative experiences do not dissolve in the present (Ceruti, 2019), but become possibilities for considerations on the meanings of one's own experience and that of others, and for the reconfiguration of the existing (Anderson, 2006; Dewey, 1938; Malavasi, 2020).

Conclusions

Given the challenges related both to each individual's daily life and personal growth path and to society and current social changes and challenges, it is increasingly necessary to train critical-creative skills through intentional, early and universal training starting from primary school. Despite the prestige and spread of studies on the topic of critical-creative skills, they currently present wide areas of problematic issues, which lead to three main levels (paradigmatic level, content and methodological level).

In conclusion, in order to overcome the current limits, John Dewey's considerations contributed to the proposal to rethink the meaning of skills as fully involved in the process of human formation in its ability to make sense of reality and emancipate it in an ethical-value way. Through Dewey's works it is possible to recognize and enhance those sensitive and value dimensions that are common to all human beings and that, as such, must be awakened and exercised, especially in new generations. These dimensions promote actions of value that, even though they are not strictly functional for immediate utility, are indispensable to form each individual's humanity and to preserve the human quality, through a mutual respect and the commitment to think and act in the name of great ideals.

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