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# **The International Emergence of Educational Sciences in the Post-World War Two Years**

**Quantification, Visualization,  
and Making Kinds of People**

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**Part 2**

# **Locationless Logics and Fabricating Differences**

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## 5 Post–World War Two Psychology, Education, and the Creative Child

### Fabricating Differences

*Catarina Silva Martins*

#### Introduction

Creativity and playfulness seem to be “natural” classifications to think and talk about what childhood is about and what a child is and should be. The making of this articulation goes back, at least, to the end of the 17th century. Names such as John Locke, Jean-Jacques Rousseau, Johann Pestalozzi, Friedrich Froebel, Maria Montessori, and John Dewey circulated internationally and were assimilated at local levels as indigenous foreigners and traveling libraries (Popkewitz, 2000), contributing to the Western notion of the child and childhood as a time of play and imagination. It means that knowledge about the child traveled and formed grids that ordered the scientific rationality of childhood and adapted and transformed it in each place to give rise to local specificities. The chapter will not contextualize different positioning about what the creative child “is” in the post–World War Two years or how that notion developed throughout history. Rather, the focus is on the conditions of possibility for considering the child as naturally creative kind of person. As argued in the introduction of the book, the two notions of indigenous foreigner and traveling libraries allow to perceive how, in this case, the creative child was an assemblage of historical cultural patterns that generated principles about what was being seen, thought, and acted on as the ideal citizen of the future.

Imbedded in this way of thinking about the child were comparative ways of reasoning. The imaginative child of the 18th and 19th centuries, for instance, was mainly white and male, and the quality of imagination was constructed side by side with the construction of the “Other”: the “non-European,” the “primitive,” the “non-white,” the “artist,” or the “insane.” In 1744, the Italian philosopher Giambattista Vico argued that “the first men, the children as it were of the human race, not being able to form intelligible class-concepts of things, has a natural need to create poetic characters, that is, imaginative class-concepts or universals” (Vico, 1948, p. 66). This argument led him to conclude that “in children memory is most vigorous, and imagination is therefore excessively vivid”

(Vico, 1948, p. 67). The comparison established here was based on a new notion of history, in which evolution was key to think about progress. However, the connection of the child, the primitive, and imagination was there as a way of talking about a “Western self” that was close to and simultaneously distant from a “premodern” world.

In the project of modernity, the imaginative child of the Western part of the world would be “civilized.” By the end of the 19th century, for instance, the child’s development was one of the new inventions of the pedagogical and psychological sciences that was naturalized in the civilizing project of modernity, and that has to be considered a cultural practice within the practices of state governmentality and the fabrication of the modern citizen (Martins, 2017). By the beginning of the 20th century, the notion of imagination was progressively used, and sometimes replaced, by the notion of creativity. In this chapter, I focus on showing how the post–World War Two boom in creativity research and usage was produced through the naturalization of earlier constructions about the child (as naturally creative and playful or closer to creativity’s “origin”) and new ways of thinking about the human that included creativity as a quality and field of investment that differentiated kinds of people. The investment in creativity research and the raising of a creative child was part of the post–World War Two horizon of the reconstruction of society.

The study of the “creative” mind, of behavioral and personality traits, and of ways of measuring and increasing creativity emerged as the right mixture of nature and science. The child became a focus for creativity investment, because what was in question, particularly in the United States, was the promotion of the open-minded citizen in opposition to the authoritarian one. At the same time, creativity turned into a “commodity” that was presented to educators and parents as absolutely necessary. Post–World War Two creativity turned into a programmable quality that should be encouraged through certain practices, objects, and environments.

In this chapter, I first situate creativity research from the 1950s onwards in the field of psychology. For psychologists such as J. P. Guilford and Frank Barron, it was important to find the traits that allowed for identifying the creative person and enhancing strategies to improve creativity, or, better, a certain kind of creativity that was not politically, militarily, socially, or educationally neutral. And so, even if they approached creativity in a more instrumentalist way or in a more humanist way (Bycroft, 2012), it was the bright side of creativity that flourished.

In the second section, I focus on how these practices in psychology—and particularly through the figure of the test—were making a certain kind of person (cf. Hacking, 2006). The creative as a particular kind of person was promoted against the authoritarian personality. The creative person was believed to be close to the notions of democracy, freedom, open-mindedness, flexibility, diversity, and tolerance (Adorno, Brunswik,

Levinson, & Sanford, 1950). Artistic practices, particularly in abstract expressionism, were used as grids to think about the characteristics of the creative citizen.

Creativity was understood as an object of research that had strong social purposes, and soon it became a hot topic in several fields and one of the preoccupations in children's education and childrearing. Post-World War Two science was conceived through a tight articulation with the possibility of change, in terms of acting in daily life and the making of the nation and its citizens. In the third section, I observe how the ordering of knowledge about creativity was not a representation of the creative person; it was the fabrication of that person as a certain kind of human (Hacking, 2006; Popkewitz, 2018) that governed the ways of seeing, saying, and acting on the child. At the same time, the ways of thinking about the child as a creative being inscribed a comparative gaze, producing differences in terms of who did not fit into this discursive figure for an imagined future and nation.

Hopes and fears are present in the making of the European child and the US child as a creative being. Earlier notions of the "nature" of the child were naturalized and taken in the deepening of the field of play as a field of the government of children's creativity and who was the creative child. The taking of the field of children's play and artistic expression as an arena for the study, government, and making of the creative child inscribes the possibilities of a knowledge that had as its primary goal the transformation of the child.

The final part stresses that the "design culture" (Highmore, 2014) and the abstract expressionist ideals, which configured the artist as a creative being, also promoted and fabricated the creative child. It took shape through a series of objects and practices that materialized the psychological concerns on childhood creativity. These ideas governed, until today, the practices of childrearing in the home and the school, in the choices of children's toys or play activities and time spaces for the making up of the creative child in arts education (Nelson, 2014; Ogata, 2013).

### **Hopes and Fears About the Future: The Boom of Creativity Studies in the Space Age**

In 1967, Guilford, one of the most prominent names in the study of creativity during and after the Second World War, opening the pages of the new *Journal of Creative Behavior*, stated that, by the end of the war, a number of forces were at work. The war

had called forth great efforts toward innovation in research and development, culminating in the atomic bomb. . . . We were on the eve of the space age, and rockets were already taking trial flights, stirring our imaginations of things to come. The stage was well set,



then, ready for the psychologist to play his proper role in trying to fathom the creative person and his creative processes.

(Guilford, 1967, p. 6)

In Guilford's words, on the one hand, is the idea of change toward an unknown and, on the other hand, is the explosion of a concern in science for investigating creative processes and detecting creative traits, to better master the production of what was yet to come and of a specific kind of "creative human." This human was driven by moral principles, not only in terms of the government of society and the nation's exceptionalism but also through the ways of reasoning from psychologists themselves and the tools available and chosen to produce the knowledge that counted about this creative human.

Desires for the future presented themselves side by side with the fear of what was not controlled, and the sciences were projected through the epistemological desire to control the domain of change and the future. As argued by Cohen-Cole (2009), post-World War Two science provided tools both to understand the kind of person who threatened a social order through authoritarian traits, but also the exemplary autonomous, rational, tolerant and open-minded citizen. This was the creative person. Creativity, meaning, in this context, new inventions made possible through freedom and democratic character, was a positive feature but it did evolve within certain contradictions.

If the question, particularly in the United States—where the creativity research movement started—was Guilford's "Why do we not produce a larger number of creative geniuses than we do?" (Guilford, 1950, p. 444), it did not develop without some tensions. Norbert Wiener, in 1947, published an open letter in which he confronted invention with ethics:

I do not desire to participate in the bombing or poisoning of defenseless peoples. . . . I must take a serious responsibility as to those to whom I disclose my scientific ideas. . . . I do not expect to publish any future work of mine which may do damage in the hands of irresponsible militarists.

(Wiener, 1947/1989, p. xxvii)

The rationality of post-World War Two science was part of a way of reasoning through a theory of systems, in which a cause produces an effect that must be known in advance and not left to human reason alone. There was a side of creativity that laid between the two poles of "reason" and "rationality." What was specific of postwar science's rationality "was the expansion of the domain of rationality at the expense of that of reason" (Erickson et al., 2013, p. 2). Creativity was thus conceived as part of human reasoning that was tamed through science in order to become more "rational."

The economic and social anxieties felt after the war led to a particular rationality that required specific knowledge of the human mind. Science was envisioned as the possibility of solving all kinds of problems, those detected within the social body but also those that originated in human behavior. And if creativity had a dark side, in terms of its effects and prediction, it was especially its brightest face that was promoted. Thinking machines and artificial intelligence, for instance, started to be developed with war purposes, but what was highlighted was the making of an imaginary future distant from horrific values. It is not rare, in the key literature about creativity, to start with the social purpose of investigating the creative human. In military environments, it was necessary to detect and stimulate creativity, not only for survival reasons in extreme conditions but also for “thinking the unthinkable,” in the words of the military strategist Herman Kahn, the model for Stanley Kubrick’s *Dr. Strangelove* (Eekelen, 2017, p. 98). For industries, the recognition of inventive potentialities was a concern.

For marketing and advertising, the focus was to generate novel ideas. For psychology, it was a mission that was based on a conviction: “all individuals possess to some degree all abilities” and “creative acts can therefore be expected, no matter how feeble or how infrequent, of almost all individuals” (Guilford, 1950, p. 446). So the conclusion appeared as transparent as water:

Once the factors have been established as describing the domain of creativity, we have a basis for the means of selecting the individuals with creative potentialities. We also should know enough about the properties of the primary abilities to do something in the way of education to improve them and to increase their utilization.

(Guilford, 1950, p. 454)

The study of creativity and the creative mind were areas of investment that crossed the field of psychology with social, political, military, industrial, management, educational, design, and advertising concerns. After World War Two, creativity studies constituted a movement that penetrated public life. The studies around creativity were developed at the expense of their utility and problem-solving.

From the 1950s onwards, the concept of creativity and its naturalization as an object of research fostered itself as a style of reasoning about humans. It was not anymore only an adjective to talk about the early ages of childhood, or a property of genius, but it grew up as a classification that could be applied to all. As Hacking (2002) demonstrates, it is not “naming” alone that creates new objects. Naming occurs in sites, particular places, particular times, and practices, and it needs to be used in institutions that legitimize its existence as a “natural” entity. Even if the idea of creativity had a past and associated meanings, it had been

largely developed and sponsored in the United States since the 1940s, and if today the concept of creativity has become naturalized and part of the common language in several fields at the international level, it was only in the late 1960s that creativity research reached countries like Portugal or Spain. Today, creativity is one of the buzzwords of OECD agendas and a technology of government that, through a positive notion of progress and self-development, meets and manages the unpredictability of the future, by governing the present (Martins, 2014).

### **Creativity as the Fabrication of a Human Kind**

Neither the topic of creativity nor the techniques to its detection were invented after or because of the war, but the naturalization of creativity as a specific human characteristic that should be scientifically studied and supported proliferated by then. Guilford's inaugural address at the 58th Congress of the American Psychological Association is commonly pointed to as the voice shouting about the urgency of the topic, until then neglected by psychologists. To obtain a more precise portrait, Guilford gave his audience the evidence in numbers. In the 23 years before 1950, only 186 titles in the Index of Psychological Abstracts were related to creativity, and these did not refer exactly to the word "creativity" but rather topics like imagination, originality, and creative thinking (Guilford, 1950). In the 19th and early 20th centuries, creativity in itself was not yet considered a remarkable feature to be achieved, even if imagination, play, and curiosity were already part of the construct of Western childhood.

In the beginning of the 20th century, Théodule Ribot published *The Essay on Creative Imagination*, and in the book's preface, an argument similar to Guilford's was used:

The study of the creative or constructive imagination, on the other hand, has been almost entirely neglected. It would be easy to show that the best, most complete, and most recent treatises on psychology devote to it scarcely a page or two; often, indeed, do not even mention it.

(Ribot, 1906, p. vii)

If, to Guilford and other psychologists at the middle of the 20th century, the creative personality was studied on the basis of certain behavior or personality traits, in the beginning of the century, creativity, as it got naturalized, was not yet important as a specific trait of human behavior. It was studied more as the result of certain factors, such as emotion, than as a human property, and authors such as Ribot were more concerned about differentiating the reproductive from the productive imagination than about investigating the traits contributing to its detection and

development. In 1919, *The Trait Book* published by the Eugenics Record Office did not list “creativity” among the characteristics inherited by a person, being closer to the traits of curiosity and imagination. If creativity became a trait of personality by the 1950s, it never became a question of inheritance.

Contrary to the 19th century’s notion of genius as an organic property, creativity was theorized as a property that could be learned and fueled to make the creative person. The creative person was designed as the model to be promoted and followed, and it corresponded to a certain way of being. Ian Hacking’s notion of “making up people” is useful to consider the creative person as a specific and constructed kind of human. Creativity as a scientific object of inquiry brought into being a new kind of person, one that was conceived and experienced as a way of being a person (Hacking, 2006). After the Second World War, the search for creative traits in mind became a matter of faith in a rational knowledge.

A field of tension was opened up in the study of creativity. If creativity, the fruit of human reason, should be encouraged, it was necessary to discipline this field of human action. The brain was the new field of research in cybernetics, and it was being conceived of as a performative organ of thinking but particularly an acting organ. The new notions of systems and cybernetics brought new ways of thinking about creativity as an effect and response to several inputs surrounding the subject. A subject that was seen as complex and was transformed into sequential and simple steps to show that the complexity of the human mind and its nature should be put at the service of a rationality that brought into action the notions of systems, environments, and feedback. If creativity was related to the imagination of what was yet to come, this was not different from the capacity of reacting and surviving in situations and environments that had never encountered before (cf. Pickering, 2010). The creative person was emerging through this new notion of a brain that could be analyzed into parts, whose actions were arranged through steps and whose function was performative and adaptative in relation to the environment.

In the field of arts, it is interesting to observe how the new kind of creative human was being imagined as one element in a broader environmental system. In 1968, *Play Orbit*, was organized as an exhibition of toys, games, and playable artifacts made by artists. The space and the design of the exhibition was disruptive in terms of how an art exhibition was organized at the time. More than the gallery room, the materiality of the space and the objects were “cybernetic,” in relation to the notion of play participation and looping feedbacks between the nonhuman actors and the human actors. Conceived as “Black Boxes,” most of the objects designed for the exhibition could “behave” in unpredictable ways and asked from the visitor its participation to make creative work happen (Stott, 2018).

*Play Orbit* can be seen as the materiality of the creative dispositive that was being developed after World War Two. Creativity became programmed and predictable because it was conceived of as a field of behavior. The government of creativity as a field of behavior implied the prescription of the “good” and the “bad” traits to be developed in the name of the future. Artists and scientists began to be studied but also the child, naturally seen as creative, “naturally” appeared as an object of study and site of intervention.

Torrance adapted some of Guilford’s tests to what was judged as more appropriate to the nature of the child. Specific play materials, such as “nurse’s kits, fire trucks, and dogs” were introduced to the child, and the child was asked to “think of the most interesting, unusual, and exciting ideas” to change the toys (Torrance, 1975, p. 174). The scores produced “an extremely interesting set of growth curves” (Torrance, 1975, p. 176). The curves distinguished between more-creative and less-creative kids, but gender issues were also traced, boys being represented as performing increasingly superior to girls. In the making of a certain kind of creative human, there was a comparative style of reasoning. This style of reasoning operated through the separation of types of people, creating zones of inclusion, exclusion, and progression in a hierarchy. The hope of creativity was accompanied by the fear of its death or disappearance. The shortage of creative talent was directly linked with poor educational systems. In 1950, Guilford formulated two questions that seemed to control the direction of creativity research: “How can we discover creative promise in our children and our youth? How can we promote the development of creative personalities?” (Guilford, 1950, p. 445)

If education had been linked to the development and testing of intelligence, it was time for the creative turn:

We frequently hear the charge that under present day mass-education methods, the development of creative personality is seriously discouraged. . . . Our methods are shotgun methods, just as our intelligence tests have been shot gun tests. It is time that we discard shotguns in favor of rifles.

(Guilford, 1950, p. 448)

Psychological tests of creativity, like IQ tests, allowed for the ranking of different kinds of people (Cohen-Cole, 2009). The traits to be analyzed were based on hypotheses “concerning the nature of creative thinking [that] have been derived with certain types of creative people in mind” (Guilford, 1950, p. 451). The psychologist had to construct a test “which he thinks will measure individual differences in the kind of ability, or other quality, he thinks the factor to be” (Guilford, 1950, p. 449). This comparative way of reasoning about individuals was making the creative person and crystalizing its characteristics through certain kinds of expected behaviors that produced differences among different kinds of people.

Creative people, for instance, were more likely to enjoy modern art, particularly abstract expressionism. The artists, the psychologist Frank Barron explained, “liked figures free-hand rather than ruled, and rather restless and moving in the general effect” (Barron, 1953, p. 164). The figures enjoyed by the non-artists were classified by the creatives as “static,” “dull,” and “uninteresting.” Barron was reporting the results of the Barron-Welsh Art Scale, a figure preference test that aimed to search for measures of the ability to discriminate “good from the poor in artistic productions” (Barron, 1953, p. 164). The test was composed of an adjective checklist, from which the participant had to select those adjectives which they thought described themselves, and of 105 postcard-size reproductions in color of European artworks. On the basis of the obtained results, two kinds of people emerged: the simple and the complex. This was due to, Barron explained, a level of complexity, flexibility, and openness to the new that only creatives possessed:

The preference for Complexity is clearly associated with originality, artistic-expression, and excellence of aesthetic judgement. . . . The Complex person is seen as more original. . . . Complexity is also related to Basic Good Taste as measured by a test which presents various alternative arrangements of formal design elements. . . . What can be said is that originality and artistic creativeness and discrimination are related to the preference for complexity.

(Barron, 1953, pp. 166–167)

Geographically situated in the United States, in Barron’s study, two brains were in dispute: the authoritarian brain was representational and the creative brain was performative and adaptive to unexpected situations and it was at least said to be open to diversity. Abstract expressionism, as it suppressed representation, was the representation of freedom of expression in an open society. Simultaneously, this was the kind of art that was prohibited by the “Hitlers” and “Stalins” (Cockroft, 1974). Creativity was thus fabricated, having specific kinds of people in its agenda, and worked as a classification that was based on individual capacities that marked the line between inclusion and exclusion. These capacities were, in Guilford’s (1950) factor analysis, for instance, originality, fluency, uncommonness of responses, and cleverness. The procedures to identify the creative person relied on testing, and individuals were scored according to their performance on answering and then were inserted into tables that were open to comparison and intervention or were represented through creativity developmental curves. The psychologists Drevdahl and Cattrell argued that “The differences and similarities in personality profiles” would provide subgroups of creative people to be compared to “standardization population” (Drevdahl & Cattell, 1958, p. 107).

If, according to Bycroft (2012), in the North American creative movement one can distinguish two kinds of approaches to creativity research,

an instrumentalist and a humanist approach, they started to overlap, and the creative person was conceptualized not only as a more effective and productive citizen but also as a happier and freer subject. One can say that creativity became a norm in terms of the conduction of the conduct. The understanding of the creative mind enhanced the possibility of regulating the irregular (Bycroft, 2012). The models of “good” and “bad” selves provided public life “with techniques of self-inspection, tools for self-management, and benchmarks to which they could aspire” (Cohen-Cole, 2009, p. 222). The creative human was constructed against the fear of the authoritarian human, and it served to rank different kinds of people. It led to the construction of a desirable way of reasoning, of thinking, and of acting that also produced its opposite. The fears and anxieties that surrounded the non-creative person were a threat to the natural development and progress of humanity and of the exceptionality of the nation. This was the climate in which the creative child as a focus of political, scientific, economic, and educational concerns emerged.

### Developing Children’s Creativity

The study of children’s creativity was pursued through research on children’s development, school, and play activities. If creativity, argued the psychologist Harold Anderson, “was in each of us as a small child,” the question was, “what was happened to this enormous and universal human resource?” (Anderson, 1959, p. xii). The study of creativity became one of the hot spots in post-World War Two educational and psychological research. In the 1970s, opening a volume of selected writings on creativity, Vernon looked retrospectively to creativity research to underline the

need for early recognition of children with unusual ideas and talents, on tolerating and encouraging independent thinking and creative activities instead of repressing them because they upset the teacher’s routine, on the possibilities of training students and industrial employees to develop their potential creative powers, and on the selection of research workers for creativity rather than for convergent types of achievement.

(Vernon, 1982, p. 11)

It was important to understand creativity in its “origins” and to stimulate the creative potential of each child as an application of the knowledge produced. For Sidney Parnes, the cofounder of the International Center for Studies in Creativity, research was demonstrating “that a considerable part of creative behavior is learned” (Parnes, 1982, p. 343), and thus, “the gap between an individual’s innate creative talent and his lesser creative output can be narrowed by deliberate education in creative thinking” (Parnes, 1982, p. 352).

With the investment in creativity research by psychology laboratories grew a popular usage of the term in public life. Creativity was a hot topic and was used by psychologists, designers, toy makers, educators, and parents, with a growing wave of publications with practical suggestions on how to creatively educate children throughout the stages of their development. In the making of the creative child, it was the preoccupation of constructing, also, valuable human capital. The anticipatory gesture of education governed the practices of the present according to an imagined future. In 1946, the art educator Viktor Lowenfeld argued that “to teach toward creativity is to teach toward the future of society” (Lowenfeld, 1966, p. 7). And if he believed that no child should be thought of as being “uncreative,” the fact was that the creative potential of the child should be “helped” by the teacher or educator.

Post-World War Two science was permeating the ways that daily life was being constructed, including how to educate and rear the child through play and creativity. In 1955, a book published by Arnold Arnold had the title *How to Play with Your Child*, and it promised hundreds of practical suggestions for getting more fun and creative benefit out of toys and play. The topics covered were, among others, the explanation of what is play, the forms and typologies of play, the connections of learning and play, and the materials of educational and creative toys, as opposed to those objects that would limit the child’s imagination.

The child was entangled in a web of educational practices, of specific materiality, and of objects and spaces that, according to Margaret Mead (1962), made them a person and not just a citizen. *A Creative Life for Your Child* was a publication issued by the U.S. Department of Health, Education, and Welfare, and in it, Margaret Mead highlighted the new consciousness of US-Americans:

each age has its own distinctive character by all the things that are fitted to the child’s size, not only the crib and the cradle gym and the bathinette, but the small chair and table, too, and the special bowl and cup and spoon which together make a child-size world out of a corner of the room.

(Mead, 1962, p. 1)

The creative child became the image desired by the parents, and the naturalization of the modern/colonial childhood-purity-innocence-creativity equivalence was rehabilitated. The art educator Herbert Read, author of *Education through Art*, argued that the creative impulses found in children were the same as those found “in primitive tribes,” and “some of these impulses seem to be constant throughout human history” (Read, 1943, p. 2). In the West, the search for a progressive society and nation and the idea of developing children’s creativity through art and play became matters of fabricating the right citizen of the future. If “we do not



live spontaneously, that is to say, freely exteriorizing our mental activities, then something much worse than a state of mental tension or accumulation arises, namely, a neurosis” (Read, 1943, p. 111). Promoted as an extremely fertile period of the citizen of the future’s life, childhood creativity should be not only preserved but, above all, nurtured. The playful adult was seen by those defending creativity not as regressive but rather as productive (Ogata, 2013).

### **Play or Art: Governing Children’s Creativity**

In the chapter “Play or Art?” in *Education through Art*, Herbert Read wrote that “play is the most obvious form of free expression in children” (Read, 1943, p. 109). Paul Torrance, the US psychologist, in his book *Guiding Creative Talent*, first published in 1962, argued that “the highly creative children are learning and thinking when they appear to be ‘playing around’” (Torrance, 1982, p. 359). Jean Piaget at UNESCO’s 1951 Conference Education and Art argued that “the young child spontaneously externalizes his personality” through activities such as “drawing, modelling, symbolic games, singing, theatrical representation” but, he adverted, “without an appropriate art education . . . the actions of adults and the restraints of school and family life have the effect in most cases of checking or thwarting such tendencies instead of enriching them” (Piaget, 1954, p. 22). It was precisely based on this assumption that creativity found the terrain for its inscription in the children, parents, and educators. Children’s play and their creativity were being biologized as proper of childhood: both were developed through a specific rationality that configured what play was and should be and what the creative child had to be. Again, creativity was in the middle of reason and rationality; being undoubtedly an ordinary expectation of childhood, it had, however, to be rationalized. If creativity was the new motto to be pursued, then it had to be accompanied not only by specific practices but also by objects and definitions that would govern that stage of life so that no deviation would occur in the fabrication of the creative child.

The appropriate child’s environment and toys therefore took central places in the concerns of manufacturers, parents, and educators and in the daily lives of children. The “design culture” (Highmore, 2014)—thought in terms of the relations that humans establish with objects but also how these objects are themselves the meeting point of several discourses and practices (and how the objects are actors in that relation)—is useful for understanding how the materiality surrounding white middle-class US-American and European children was simultaneously a product and a producer of the creative child. The objects assumed the classification of creativity and sometimes education, and they sought to materially represent the openness and freedom that the child’s spirit was expected to develop (Fanning, 2018).

The idea that objects have a role in educating the child is part of the modern Western construction of childhood. Until the 17th century, however, toys, even if they existed, were not considered as crucial in the exploration of that period of a child's life. By the end of the 17th century, John Locke created alphabet blocks that helped children to read, but these also had a moral purpose. As Birgitta Almqvist (1994) argues, it made middle-class children stay indoors instead of running out in the streets. Friedrich Froebel constructed his system of educating children through graduated objects, which he called gifts. Maria Montessori, for instance, also based her ideal of educating children on teaching with toys. Ellen Key—opening the 20th century, the century of the child, as she called it—wrote about the school of the future as the place where “children may have the same freedom as cats or dogs, to play by themselves, and for themselves” (Key, 1909, p. 237).

It became evident that the connection between the child and play was mediated by the object, be it a toy or simply pencils, clay, or waste material, and that parents and educators should observe but not directly interfere with children's creative activities. What became specific in the years after the Second World War was the framing of each toy as an object that, to correspond and convey the novelties that came out of the laboratories of psychology, must incorporate the creative dimension and rule out the possibility of undesirable behaviors or ways of being. Not only was the toy perceived to teach and improve the child's capacity to learn, but it should also be “without a fixed purpose, or else children's fantasy will be too directed” (Almqvist, 1994, p. 49).

In the book *How to Play with Your child* by Arnold, the definition of what meant a good toy and what meant a bad toy was given to the reader:

A toy is uncreative and uneducational if it attempts to “make easy,” to limit inventiveness, or if it predetermines the result. For example, a painting-kit which the picture is printed in outline, with each area numbered to be filled in with correspondingly numbered colors, is uncreative because the result is predetermined. Finger paints or any other art materials without such limitations are creative because the result depends entirely on the child. Pail and shovel are creative because they can put to infinite use in the forming of things that are the child's inventions.

(Arnold, 1955, p. 54)

Children's play was thus marked out by formal and discursive police, which determined the educational and creative degree of a toy or play material by a comparative gaze with what was meant to be an uncreative or “uneducational” one. Similar to what creativity tests were demonstrating, a toy that enhanced creativity should have flat shapes, textures, and

color; be suitable for girls and boys; have more than a single way of using it; be low realist; and be flexible and open in order to make up the creative child. A certain nostalgia was also visible in the creative toys, one that was akin to the romantic notion of a childhood as innocent and without time but governed by time. Good toys were, not rarely, made of wood, imagining the time of childhood and creativity as universals that are now being produced by companies such as Playthings (Ogata, 2013). From the 1950s onward, it was also usual to have artists and designers being hired by these companies for designing toys. In brief, the toy had to breathe the contemporaneity of “good” abstract expressionist art and design.

Creativity, play, and art were connected in the ways of imagining the open-minded, flexible, and democratic citizen of the future. In 1955, the Museum of Modern Art in New York organized, under the direction of Victor D’Amico, an exhibition titled *Developing Creativeness in Children*. The exhibition fought against what was considered a bad influence on the child’s development, and it contrasted creative and authoritarian personalities. Photo panels of children copying art were juxtaposed with those of marching Hitler youths. The viewer had to draw their own conclusions, but these were visually evident. The words of D’Amico were printed on the brochure accompanying the exhibition. The creative development of children was, he said,

the concern of the parent as well as the art teacher. . . . It is especially important today that parents understand what creative teaching really is because with the invasion of the home by television, magazines, and comic strips which appeal directly to the child, the efforts of the school can be hindered or completely undermined by formal and imitative practices.

(MoMA, 1955)

Portrayed as in need of protection and guidance, both children and their educators had to be directed toward a moral creativity. The humanist and the instrumentalist approach regarding creativity were not completely apart in terms of the making of the creative child as a future citizen, and within arts education discourse, for example, the value of creativity for individuals was part of answering and solving the more general problems of the age.

In arts education, the ideal type of person was the artist, but

every man is a special kind of artist, and in his originating activity, his play or work (and in a natural society. . . there should be no distinction between the psychology of work and play), he is doing more than express himself, he is manifesting the form which our common life should take, in its unfolding.

(Read, 1943, p. 308)

The governing of the child through creative play was one of the most powerful educational techniques to enhance practices and technologies for self-government (Kozlovsky, 2007). In these practices lay a certain image of who was the creative child and who was not, who should and should not be the citizen of the future. Different kinds of kids were in the making, and the parents and educators were the ones responsible for providing the infants with the right environment and objects that could transform them into a democratic, healthy, flexible, playful adult, in sum, a future complex person—or, better, a creative person. As Viktor Lowenfeld stated,

when your child's art is frustrated, all of the qualities which may later make him an Edison or Marconi or Einstein may become inhibited. In other words, his chances for becoming a really outstanding and imaginative scientist, engineer, mathematician or anything else are lessened whenever his creativeness is thwarted.

(Lowenfeld, 1962, pp. 11–12)

## **Final Considerations**

Today, the child of the future is talked of as having to be creative, flexible, entrepreneurial, critical, and resilient by international organizations such as the OECD. However, if creativity seems today to be natural and part of the international educational jargon, used as an instrument in the ranking of nations, in the differentiations made among kinds of people, two of the important things in the history of creativity are that creativity has a history and that that history is recent (Reckwitz, 2017). Creativity as part of a human potential was not ever important or considered. Even the possibility of testing creativity was not always familiar. Guilford, who in the 1950s discussed the possibility of creativity tests, years before stated that

The act of inventing something of consequence is so rare and so hard to control that it cannot well be studied experimentally. You cannot place an ordinary individual in a chair in the laboratory and simply tell him, “Now create,” and expect to get results.

(Guilford, 1939, p. 474)

But as creativity became a topic of research in psychology, it turned into an ingredient to be potentiated in the education of the child, pursued by parents and exploited by an entire industry that goes from the literature of self-realization and growth to toys advertising. Creativity became a traveling library and an indigenous foreigner that is rhetorically assumed, mobilized, and transformed in several fields today. This chapter argued that there is no natural, creative, or evolutionary child, but the opposite is also true: there is a natural, creative, and evolutionary child, but this

is the child that historically exists and travels within certain discourses and power relations that make that child not only an object of research but also a site of intervention (Hultqvist & Dahlberg, 2001). Power is exercised through historical practices, informed by a certain knowledge about what the child should and should not be, that structure the field of possible actions and thoughts.

Creativity was not only a way of describing or representing a child but also and foremost a form of power that produced the child as a creative being, a set of practices to develop a creative behavior, and ways of seeing and saying that identified the creative and the uncreative as desirable or undesirable, qualified or unqualified, as the citizens of the future. The creative person, as a particular type of person, appeared, through psychological investigation, as a person who should be pursued as a model, in contrast and in comparison to other types, such as the authoritarian. In the minds of educators, parents, politicians, and toy manufacturers, the creative child was the new focus of intervention for the construction of the future and for the government of the present.

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