
John Dewey On Play Theory and Pedagogy

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LEONARD J. WAKS

The author discusses American philosopher, psychologist, and educator John Dewey and the Laboratory School he founded at the end of the nineteenth century at the University of Chicago, where he conducted important studies of child development. The author notes the influence of Dewey's theory of (and pedagogical guidelines for) children's play, which he initially formulated between 1896 and 1900 and which subsequently influenced such play theorists as Lev S. Vygotsky and Loris Malaguzzi. However, the author asserts, the literature on play has largely neglected Dewey and contains no account of his important and influential early works about play, a gap he intends this article to fill. **Key words:** John Dewey; psychology of play; playfulness; theory of play

Introduction

JOHAN DEWEY IS AMONG the most important philosophers, psychologists, and educators in American history. He lived a long and productive life, from 1859—before the Civil War and the election of Abraham Lincoln, the year Charles Darwin published *The Origins of Species*—to 1952, when James Watson and Francis Crick discovered the double-helix structure of DNA and Dwight Eisenhower won the election for president of the United States.

Dewey is celebrated for his instrumentalist or pragmatist philosophy, his functionalist psychology, and his leadership in progressive education. After graduating from the University of Vermont in 1879, he taught physics in high school for two years, then attended graduate school in psychology and philosophy at Johns Hopkins University, studying under, among others, G. Stanley Hall and Charles Sanders Peirce. After completing his doctorate at Johns Hopkins in 1884, he first taught at the University of Michigan and in 1894—after a brief period at the University of Minnesota—joined the University of Chicago faculty

as professor of philosophy, psychology, and pedagogy. He was honored by election as president of the American Psychological Association in 1899 and the American Philosophical Association in 1905.

At Chicago Dewey founded the famous Laboratory School in 1896, and there he conducted studies of child development and children's play. His early works on child play, which I discuss in more detail, were published by 1900, with some of his 1900 works included as additional chapters in future editions of *The School and Society*, which originally contained only three lectures delivered in 1899.

Dewey left Chicago in 1904 for the philosophy department at Columbia University in New York and remained there until his retirement in 1930, after which he continued to lecture and write until his death in 1952. In later works, he continued also to reflect on the attitude of playfulness and its contribution to science and the arts (for a summary of Dewey's life work, see Hildebrand 2021).

What Is a Theory of Play?

Before discussing Dewey's theory of play, I begin by asking what is a theory of play? Although many researchers have argued that play itself remains difficult or impossible to define, three reviews by Takhvar (1988), Mellou (1994), and Elkonin (2005) have identified the more important theories, and from these surveys of such essential theories and their authors, we can gather the main questions they have addressed.

I find seven questions laying at the heart of a theory of play. First, what is play—what is the conceptual definition of play? Second, why do children play—what explains their play; for example, does some biological instinct drive play, or is it driven by cultural factors? Third, how do children play at different ages—when did they start the characteristic activity of play, and at what point in their development does play begin to disappear as a primary activity? Fourth, how does play contribute to cognitive, social, and emotional growth? Fifth, is play universal, or does it differ from culture to culture? Sixth, is play also an important dimension of adult life—and if so, how? And last, how should educators at all levels use play activities in schools and colleges? Bergen (2015) offers a similar list of questions, and the theories of play reviewed by Takhvar, Mellou, and Elkonin all address many or all of these questions. Dewey, as we will see, addresses all of them—some in detail and others in a more preliminary manner.

Dewey's Influence

Dewey's ideas have been neglected in the scholarly literature about play. The comprehensive reviews of theories of play by Takvar and Mellou do not even mention Dewey. Elkonin (2005) mentions Dewey only in passing, without citing a single work. He says only that Dewey offered an "excessively intellectualist" theory that was one among many others rejected by Soviet psychologists during the Stalin era. Even a cursory reading of Dewey's early articles on play will demonstrate that the critique is ill founded. Far from having an intellectualist bias, Dewey's account emphasizes that all play actions must be understood in social contexts and have immediate motor and emotional components.

Moreover, the literature on play lacks a comprehensive account of Dewey's theory. Dewey is mentioned, for example, in twenty-eight articles in *The American Journal of Play*, but these mentions are mostly in passing, giving Dewey a single honorific mention or a single quote. No article in either the *American Journal of Play* or the *International Journal of Play* offers even a cursory account of Dewey's theory of play. I hope to rectify this gap by offering a systematic presentation of Dewey's theory, which I believe is important in its own right and because of its influence on such luminaries as Lev S. Vygotsky and Loris Malaguzzi.

Vygotsky and the Russian Pedagogues

The harsh treatment of educational psychologists during the Stalin era makes it difficult to assess Dewey's full contribution to Vygotsky and his school. Post-revolutionary Russian psychologists and educators saw Dewey's early educational ideas as instruments for "solving some political tasks of the new revolutionary regime" (Rogacheva 2016, 66). Dewey's *The School and Society* had already been translated into Russian by 1907, and even before the revolution, it had a great impact on such leading educators as Nadezhda Krupskaya, Anatoly Lunacharsky, Pavel Blonsky, Albert Petrovich Pinkevich, and Stanilar Shatsky. By the 1920s, Shatsky was calling Dewey "the best philosopher of the contemporary school" (69). Vygotsky was intimately familiar with Dewey's early works and studied them with his students. Dewey visited Russia in 1928 and met with several of the educators I have mentioned.

With Dewey regarded as an enemy of the communist state during the era of Stalinist purges, scholars were prohibited from presenting his views in a positive light. In 1936, two years after Vygotsky's death, the Central Committee of the

Communist Party outlawed “pedagogy” (the psychological approach to child development and education associated with Dewey and Vygotsky), and the work of Vygotsky’s followers had to proceed underground. Even after Vygotsky’s work was resurrected (albeit in corrupted form) in the 1950s, favorable mention of Dewey remained out of bounds. Thus, the relationship between the theories of Dewey and Vygotsky continues to be a matter of scholarly debate (Gielen and Jeshmaridian 1999). Nonetheless, the two theorists can be strongly linked by their insistence that children’s mental functions and behaviors be understood in their sociocultural contexts (Dewey [1922] 1983; Vygotsky 1978). Dewey insists that all child activities from the earliest days involve social interaction and that, thus, children’s mental development from the beginning is affected by the norms and practices of their primary groups. Vygotsky, though, more specifically identifies the social class of the child as the most important group influence.

Malaguzzi and Reggio Emilia

The connection between Dewey and Malaguzzi and Reggio Emilia is better established (Lindsay 2016). During the period Malaguzzi constructed the fundamental values on which he based the Reggio Emilia project, he belonged to a network of progressive Italian educators in the Emilia Romagna region that was encountering and debating Dewey’s educational vision (Gandini 2012). The exchange with Lella Gandini in the *American Journal of Play* (2011) is revealing.

Asked by the journal where the Reggio innovators got their ideas—that is, what inspired and influenced them—Gandini replied: “In Europe after the Second World War, there were many innovative ideas being floated and experiments going on. In France, for example, there was the work of Celestin Freinet; in Switzerland, there was Jean Piaget; and in Russia, the influence of Lev Vygotsky, who had been interested also in the psychology of play. Malaguzzi was an avid reader of all these thinkers, but the one who probably influenced him most was the American John Dewey, whose work dated from much earlier but was translated for the first time in the 1950s” (5).

In another interview, Gandini (2005) records Malaguzzi’s originating idea of the atelier, which was “an *added* space for refining one’s own eyes, through the practice of the visual arts ... for sensitizing one’s taste and aesthetic sense, a place for the individual exploration of projects connected with experiences planned in the different classrooms of the school” (7). But in addition to a play space for children, the atelier in the Reggio preschool, as in Dewey’s Laboratory School, also “had to be a place for researching motivations and theories of chil-

dren from scribbles on up, a place for exploring variations in tools, techniques, and materials with which to work” (7).

Malaguzzi’s image of the atelier—maintained by Lella Gandini, Veà Vecchi, and other Reggio Emilia teachers—bears an uncanny similarity to Dewey’s vision of the art room in the Laboratory School. Dewey initially imagined an ungraded school relying on a faculty of broadly educated, nonspecialist teachers. Children would “learn by doing” in occupational areas (e.g., kitchen, garden, woodworking shop). All academic subject matters, whether history, geography, science, or “culture,” Dewey ([1895] 1972) initially placed on an even playing field. His direct experience with children during the first two years at the Laboratory School, however, convinced him that specialist teachers were necessary (Dewey [1900e] 1976; Tanner 1997), and that art and science had to be kept apart from the other subjects in spaces for a higher plane (Dewey [1899c] 1976). In addition to providing enriched arenas for children’s learning, these spaces—like all spaces in the Laboratory School—constituted laboratories for teacher research. Such early experiences also led Dewey ([1902] 1976) to introduce specialist training in primary art education and science education at the University of Chicago to prepare art teachers (Italian: *atelieristas*) and science specialists for the educating young children.

Lindsay (2016) states that Malaguzzi’s “reverence for Dewey’s philosophy” may have created the context for the development of his revolutionary extension of Dewey’s ideas. He proposes that Dewey had a direct influence on such Reggio Emilia practices as “‘the hundred languages of children,’ ‘multi-disciplinary project work,’ ‘the environment as third teacher,’ the ‘atelier,’ and ‘atelierista.’” (32).

It is also worth mentioning the important play theorist and practitioner Vivian Paley, who spent her most productive years teaching at the University of Chicago Laboratory School founded by Dewey. Ferguson (2010) notes that Paley’s play-based approach has been linked to “Dewey’s notion that the motivation of children ‘to inquire’ promotes growth and development” (472). Saucier (2019) adds: “Founded by philosopher and progressive educator John Dewey, the Laboratory Schools proved to be just the place for Paley to develop and experiment with her innovative storytelling and story-acting teaching methods” (89).

Dewey’s Place in the History of Theories of Play

We should start our account by situating Dewey within the stream of such

important early play theorists as Herbert Spencer (1855), who held that play was a matter of dispersing excess energy; Moritz Lazarus (1883), who considered play to be relaxation from the stresses of life; G. Stanley Hall (1907), who took play to be the young child recapitulating the phylogeny of earlier animal life; and Karl Groos ([1895] 1898, [1898] 1913), who developed the exercise theory of play.

For Groos, play was a way of exercising or “tuning up” before gaining powers used in adult activities, the way young animals play at stalking prey before they are ready actually to hunt. Dewey, like other early twentieth-century theorists of play, largely accepted, and built upon, the work of Groos. We have it on the authority of Elkonin (2005) that “there has virtually never been an author writing about play who did not attempt to make corrections or additions to Groos’s theory. . . . The history of attempts to create a general theory of play before 1933 was the history of corrections and additions to and individual criticism of Groos’s theory” (5).

Theories of play after Groos included Sigmund Freud’s psychoanalytic theory ([1920]1975), Vygotsky’s cultural historical theory ([1933] 1967), Huizinga’s cultural theory (1955), Piaget’s developmental theory ([1951]1962) and Jerome Bruner’s dramatization theory (1976, 1986). We can situate Dewey between Groos and Vygotsky, picking up ideas from the former and contributing to the work of the latter as well as some subsequent theorists.

Both scientific and pedagogical theorists of play existed prior to Dewey. Spencer, Lazarus, Hall, and Groos approached play from biological and psychological standpoints. Plato, Schiller, Pestalozzi, Freobel, and the American proponents of kindergarten did so from a pedagogical perspective, theorizing about the role of play in child education. Dewey’s contribution consisted of bringing these two branches of play theory together in a unified psycho-biological theory of play in education.

Dewey’s Theory of Play

Earlier I listed seven important questions that have been addressed by theories of play, noting that Dewey provides at least nascent answers to all of them. He addresses the development of play between prekindergarten and the conventional first and second grades (in Dewey’s school there was no kindergarten; children from four through six were grouped together in a preprimary division). His theory of play is in effect a theory about the place of play in preprimary and

early primary education. But Dewey extended his analysis of play into playful activities in the secondary school and the adult years—into the concept of playfulness itself.

Dewey's theory of play, as I have noted, has been largely neglected. An extensive search of the literature found only one article—(Dennis 1970)—dedicated exclusively to expounding Dewey's theory, and that article was published more than a half century ago. More recent studies have been more concerned with placing Dewey's theory in its Progressive Era context. Dennis asserts that Dewey was the first educational theorist to provide a rational analysis of play including a conceptual definition, something we do not find in Rousseau, Pestalozzi, or Froebel. Dewey's main contribution, Dennis states, lies in this conceptual definition of play and his insights regarding the playful attitude in later childhood and in adulthood.

Dewey's conception of play is discussed in its historical context by Bloch and Choi (1990) and Beatty (2017). These authors emphasize the worries Progressive reformers had about immigrants and the need for social control, and they see Dewey as sharing their worries. For Bloch and Choi, Dewey's approach to play was intended as a form of soft social control bringing immigrant children into conformity with American norms without resistance, and, in this way, making them more readily governable. This critique strikes me as off target. Dewey had a positive attitude toward immigrants and sharply rejected programs of Americanization. He reframed the term "social control" to mean not a form of hidden regulation or discipline but simply any means for facilitating the free flow of social life (Dewey [1938] 1988, 33–34).

Beatty (2017) starts out on firmer ground in seeing Dewey as attempting to reconcile "the dilemma of free agency vs. social discipline" (425). In accounting for Dewey's attempt to reconcile this dilemma, she draws on Prochner and Kirova's (2017) description of the work of Georgia Price Scates, head teacher of the subprimary department of Dewey's Laboratory School from 1899 to 1900. Scates, in the words of Beatty (2017), "wrote about kindergarten play in ways similar to how Dewey did" (428). As Beatty notes, Scates had written in the June 1900 issue of the laboratory school's publication, the *Elementary School Record*, that "the benefits of play were not that a child was completely free, but that a child *thought* she was free. A child was *led to believe* that she had come up with a subject herself, and then gained experience by working out her own and the teacher's ideas" (429, emphasis added). In play, Beatty continues, Scates held that a child took "hold of a subject" in a way that "he *seems to have* originated it"

and then “in his own individual way works out a teacher’s ideas...” The children gained the impression that their play activity was free and voluntary, while in fact it was “subtly guided by teachers and the classroom environment...” (429, emphasis added).

In Beatty’s account, we get Dewey at third hand. Beatty infers Dewey’s view from the Pochner and Kirova account of Scates, the teacher in Dewey’s school (for one year) who published her views in the lab school’s journal. Beatty concludes that Scates’s views were shared by Dewey. Scates “wrote about kindergarten play in ways similar to how Dewey did” (428). Beatty’s account of Dewey’s reconciliation of freedom and control, however, eventually comes down to the view of Bloch and Choi that the teacher and school were involved in subterfuge, in producing the illusion of freedom in order to impose invisible discipline and social control. When Beatty quotes Dewey himself, however, Dewey never suggests any such view. His reconciliation consists of reinterpreting the idea of social control to eliminate its sinister implications. Social control in a free society means, in his account, affecting the forces acting on individuals to advance freedom of action.

To understand Dewey’s actual views, we would therefore be on safer grounds to hear directly from Dewey. Unfortunately, Dennis (1970), who as we noted provides the sole exposition of Dewey’s theory of play based on Dewey’s own texts, did not have access to Dewey’s *Collected Works*, the publication of which was not completed until 1990. Some of Dewey’s important works on children’s play, moreover, were composed during his Laboratory School years at Chicago and published in *The Early Works* (completed in 1972), which brought together what the general editor of the *Collected Works*, Jo Ann Boydson (1991), called Dewey’s “least accessible materials” (126). Thus, Dennis lacked access to some of Dewey’s earlier, more detailed discussions of child play. Dennis’s account is accurate as far as it goes, but it is restricted to Dewey’s familiar, mature works such as *How We Think*, *The Cyclopedia of Education*, *Democracy and Education*, and *Art as Experience*.

I searched for the words “play,” “plays,” “playing,” and “playful” throughout the *Collected Works* to locate every passage that addressed play. As we shall see, many essential ideas are found only in *Early Works*, in materials that in some cases remained unpublished until their appearance in the *Collected Works*—some existing previously only as mimeograph sheets found in the Dewey archives.

Dewey’s important early works on play include: “Imagination and Expres-

sion" (1896); "Play and Imagination in Relation to Early Education" ([1899b] 1976); additional chapters of *The School and Society*, especially chapter 4, "Three Years of the University Elementary School" ([1900a] 1976); chapter 5, "The Psychology of Elementary Education" ([1900b] 1976); and chapter 6, "Froebel's Educational Principles" ([1900c] 1976) as well as "Mental Development" ([1900d] 1976). These chapters were initially published independently in the *Elementary School Record* in 1900—the only year of its publication. They were later added to *The School and Society* to supplement the first edition, and they have received considerably less attention than the first three chapters comprising the 1899 lectures.

Dewey's later statements about play include *How We Think* ([1910] 1976), especially part 3, "Play, Work, and Allied Forms of Activity"; *Interest and Effort in Education* ([1913a] 1979); his entries "Play" and "Play in Education" in *Contributions to A Cyclopedia of Education* ([1913b] 1979); *Democracy and Education* ([1916] 1980), especially chapter 15, "Play and Work in the Curriculum"; and *Art as Experience* ([1934] 1987), especially chapter 4, "The Act of Expression"; and chapter 8, "The Organization of Energies." The basic ideas in the cyclopedia entries and later works had already been developed by 1900. The mature statements of Dewey's theory of play are thus based on Dewey's formulations from 1896 to 1900.

Dewey's Functional Psychology and Play

Dewey is often regarded as the founder of the American functional school of psychology. Dewey's functional theory of play is a component of his broader functional psychology. His 1896 paper, "The Reflex Arc Concept in Psychology," was a major statement of functionalist principles. In it, he attacked the reductionist stimulus-response approach of Wilhelm Wundt and Edward Titchener, an approach that reduced human experience to the simplest, most basic units of behavior. Dewey argued that this reductionist approach ignores the continuity of human behavior and its significance for adaptation. That is, these theorists did not look at elements of human behavior in their developmental sequence and did not consider them in terms of how they made organisms increasingly adaptive and successful in life.

Functional psychology instead considers the total organism as it develops in its entire sociocultural environment. The agent is conceived as active, as a "doer"

rather than as a passive receiver of—or mere mechanical, reflexive responder to—stimuli. Organisms are creative, responsive to an inner pressure for development. Children want to grow, want to grow up, want to develop toward the capabilities of their parents and other adults in their surroundings.

In the first months of life, a child is mostly working out a built-in program. But child impulses are almost immediately conditioned by experience. Children act and undergo in an environment, and as they learn, they develop. There is thus no need for an external motivation to explain behavior or induce learning. A child is always seeking to act to learn and to grow, always trying to achieve some end. And to perceive is already to try to achieve. The organism does not react to stimuli, but goes out into the world with aims in view and with perceptual anticipations; what is seen already qualifies as success in attaining an end the organism seeks. Everything else in the perceptual field gets filtered out. In functional psychology, behavior is a total experience consisting of acting with an end-in-view and undergoing—that is, receiving feedback—in a cycle that strengthens or loosens mental (neural) connections.

Dewey's early psychology was grounded in physiology. He was attentive to the neural substrate in human behavior as understood in his time. Dewey ([1913b] 1979) says "the organism is in a constant state of action, activity indeed being the very essence of life" (320). Dewey ([1901] 1979) had already concluded that a "child's instincts are original. They will assert themselves if they get any chance at all. They are spontaneous, they are bound to make themselves known" (216).

A child is not reacting to stimuli but acting as an outgrowth of the self. Dewey ([1913b] 1979) states, "Every experience of slight or tremendous import begins with an impulse or rather as an impulse" (320). Later, Dewey ([1934a] 1987) writes that a "child is always going out of himself or herself, always moving into the world with a need, a desire, a want . . . an impulsion outward and forward of the whole organism (65). He concludes that a "child is not waiting passively to take in experience. He's out looking for experiences and in every moment of his waking life, he shows this original and spontaneous eagerness to get more experience, to become acquainted with the world of things and of people about him" (Dewey [1901] 1990, 216). In other words, Dewey asserts that the impulse to play is already coded in the child's biological make-up. This impulse is later channeled in culturally specific ways.

For Dewey ([1899a] 1972), objects of perception have no conscious existence except as they are associated with activity. "The ball to the child is his game, his game is his ball" (126). Dewey asks us to consider giving an infant

a ball. The infant immediately puts the ball in her or his mouth, tries to bite it, to chew it. He or she squeezes it, puts it on the table, and rolls it. He or she bangs on it and throws it on the floor. If you pick up the ball and put it back in an infant's hands, the infant throws it right back on the floor. We might see this as merely the unruly behavior of an undisciplined child, but for Dewey ([1887] 1967) the child is trying to learn about the surrounding world. A child throwing a ball repeatedly back onto the floor is akin to an experiment. The child is asking: "What is this thing, this ball"? The child cannot answer this question simply by looking at it. Nothing an adult says can help. A child has to find out what happens if he or she does *this*, if he or she does *that*? A child is a pragmatist, an experimentalist trying to determine the meaning of "ball." The child acts and undergoes, attentive to the consequences of her or his actions in order to learn the meaning of the surrounding world. A child will keep on with this process until he or she has "exhausted the sensations coming from this object" (87).

The Role of Adults in Children's Play

What then is the role of adults in the learning process? For Dewey ([1901] 1990), adults supply the proper objects and surroundings upon which these impulses may assert themselves. "The child supplies the hunger, but he does not supply the food. The child has the active impulses or instincts to see as much as you can to hear as much as you can to do as much as he can. But these instincts must be wisely supplemented in the manner of material through which they may express themselves" (216).

We might imagine a child with wooden blocks with letters and numbers on them. The child moves the blocks around, and a mother calls out the letters: A, B, and C. A parent supplies the proper objects and surroundings. The child wants to know what these objects are—what they are all about, what they mean. These proper objects and surroundings are culturally and historically specific. Four hundred years ago, typical parents did not have access to alphabet blocks. These can only be cheaply produced through modern industrial processes. So a child, in playing with these blocks, is already adjusting to life in industrial society. Vygotsky further developed this point by adding that different objects and surroundings are encountered by children not only in different historical times but also in different social classes. Children, through play, become actively engaged with the things and processes of their time, place, and class.

The Play Period in Child Development

Dewey next asked at what stage of life play becomes the dominant activity. At what point, he wondered, do children begin to play and then at what point does play subside? For Dewey, there are five basic stages of human life: infancy, which starts at birth and lasts until about age two or two and a half; early childhood, which runs from two and a half to six or seven; childhood proper, from seven years to thirteen or fourteen; young adulthood, from about then until twenty-five; and mature adulthood which typically starts about that age as an individual establishes adult social roles, takes up an occupation, and forms a household. Dewey ([1900d] 1976) explains these stages of development in his essay "Mental Development."

It is worth noting that in this scheme, early childhood does not end at five, as the typical American child enters kindergarten. For Dewey, five-year-olds remain in the early childhood phase through the first and second grades. When Dewey thinks about the early primary school grades, he insists that academic pressure is inappropriate. Kindergarten methods should be extended to the early grades. Piaget ([1936] 1952) had a similar account of the stages of cognitive development: a sensorimotor stage from birth to two years; a preoperational stage from two to seven; a concrete operational stage from seven to eleven; and a formal operational stage starting at age twelve, not, as Dewey thought, at thirteen or fourteen. Perhaps Piaget's own children were more precocious and reached the formal operational stage earlier than those Dewey observed.

Dewey's Conceptual Definition of Play

Dennis (1970) asserts that Dewey was the first to provide a conceptual definition of play. For Dewey ([1913b] 1979), "play" refers to activities which are not consciously performed for the sake of a result. They are enjoyable in their own execution. This does not imply that play activities are aimless or arbitrary; the aims are organic, spontaneous. In play activity, the interest is in the activity for its own sake, while in work, the interest is in the product or result in which the activity terminates. Hence, the former is purely free while the latter is constrained by the desired end (Dewey [1910] 1978). But Dewey insists that we must avoid a radical separation of play from work. Although adults may often make

such a separation, functionalist psychologists will see them as continuous. Play contributes to cognitive and emotional developments that work then absorbs and advances. Dewey ([1899a] 1976) states, “To the child, his play is his activity, his life, his business. It is intensely serious. He is absorbed, engrossed in it. It is an occupation. He should pass naturally, and by continuous gradations, from play in the ordinary sense to the more definite study; to setting up and reaching ends appropriate to older children” (340).

Dewey understands these appropriate ends as work—at first instance school work, which for Dewey begins with occupations mirroring the adult activities of a specific time and place. He asks us to imagine, for example, a young girl moving gradually, as she grows older, from simply banging a board with a hammer to building a birdhouse under teacher supervision.

The Developmental Function of Play

Dewey then addresses the developmental function of play, how play contributes to the cognitive, social, and emotional growth of children. He asserts that the supreme end of the child is the realization and coordination of all budding powers—the fullness of growth. A child’s inner urge for growth “continually carries him on from one plane to another” (Dewey [1900c] 1976, 83). Play is a “serious business” to the child because through play the child develops capacities that can then be further developed beyond play in age-appropriate work. As Dewey ([1899a] 1976) suggests: “Prolonged infancy means the postponement of the period in which the person permits his activity with reference to the necessities of life—of getting a living—and consequently a continued period of *exercise of powers* having no conscious end or aim beyond the satisfaction and the value inhering in the exercise and development of the powers for their own sake” (340, emphasis added).

Dewey draws the idea of exercise directly from Groos’s exercise theory of play, play as tuning up of powers required in further life. A young tiger cub will play with another cub and will attack and growl and in general act as though this other is the prey of a hunt without meaning to harm, but instead as just a playing out, as an exercise of powers of muscular and emotional development. A young human child does the same thing—developing powers that will later be put to mature use—in banging with a toy hammer. As Dewey ([1900d] 1976) says, “As animals in their play rehearse the typical activities of their life species (as the kitten with the spool goes through all the movements involved in catch-

ing a mouse) so the little child in his play ... lives in advance typical (human) experiences" (199).

Generalization and Specialization

Children, in play exploration, cover a lot of ground. Dewey ([1900d] 1976) says that it is difficult to imagine the extent of territory a child explores through play, including "the number of discoveries which he makes, the number of tentative adjustments, which he sets up that are capable, later on, with comparatively slight effort of being transformed into habits that are of the utmost practical service" (195). Play is general and far-reaching: "The play period protects the child from undue specialization. And this secures the time and the opportunity for making a great number of experiments and forming a great number of mental connections and interactions, which at the time, were useless but which afterwards are of the utmost importance in efficiency of practical life" (199).

Children build up extensive mental connections in the early play years. Later, some connections are put to use and reinforced while others get eliminated. By age fourteen, many of the connections acquired through play are gone. Current physiological research accords with Dewey's view. The thick neural connections formed in the child's early years are pruned by adolescence (Corel 1975; Child Care Aware of Virginia 2017).

The Child's Imagination in Play

How does play itself unfold? Does it progress through predictable stages? Dewey ([1900c] 1976) addresses this question in "Imagination and Expression" and "Mental Development." In the former, he speaks of play as the "free interplay of all the child's powers, thoughts, and physical movements in embodying in a satisfying form his own images" (83).

What does he mean by "the child's images"? These are illustrated in figure 1. In this image, we see a child with a broomstick. This boy is imagining himself as riding a horse. He is so engaged in jumping around on the broomstick that in spirit he imagines that he is on a horse. He says, "Giddy up, giddy up. Go horsey, go." The image on the upper left side of the figure represents the child's image. He is absorbed by the image, which in turn guides his behavior on the



Figure 1. Boy on a broomstick imagining he is riding a horse.

broomstick. We can imagine many similar examples. A child, for instance, sees his mother mixing cake batter with a whisk. To entertain the child, she gives him a toy bowl and whisk. The child imagines himself to be making a cake, just like mom. Here the child's image would be abstracted from what the child makes of his mother's whipping cake batter while making a cake. He has seen mom with the mixing bowl and abstracts some familiar elements to fill his imagination.

But Dewey emphasizes that the image is not entirely mental. It involves the motor cortex and institutes preliminary preparations for movement. As Dewey ([1896] 1972) says: "Technique is itself a matter of imagery . . . what psychologists term motor imagery. Imagery overflows in the motor channels. . . . There is a tendency to reproduce through action and experience, or to put forth in expression whatever has been gained in impression and assimilated into an idea" (195).

Perhaps more significantly, the motion does not merely follow the initiation of imagery. The two elements of the experience continually interact and reshape

one another: “Motor expression is not something done with an idea already made in the mind, but is necessary to the appreciation of the idea itself” (195). There is integrated expression of perceptual and motor neurons. The child doesn’t first get an idea of riding a horse and then act the idea out on the broomstick; the child is not simply acting out a previous mental idea, but rather clarifying and augmenting the idea of riding a horse through play.

As Dewey ([1900d] 1976) puts it, “When the object calls out a complete response, not through its own habitual use but through an element of likeness to some other object; when, that is, suggestion has become roundabout and circuitous, then play proper may be said to begin” (197). When the image is acted out, the acting out sharpens the image, which in turn guides subsequent movement; the feedback loop is circuitous, iterative. When things become signs, when they gain a representative capacity as standing for other things, as the broomstick stands in for a horse, then “play is transformed from mere physical exuberance into an activity involving a mental factor” (197).

Further Development of Play

Dewey ([1910] 1978) invites us to consider a group of more advanced preschool children playing a make-believe game of tea party. They use a stone for a table, leaves for plates, acorns for cups. They are not only manipulating the physical things before them but now are also manipulating “the large world of meanings, natural and social, evoked by these things.” They are “subordinating the physically present to the ideally signified . . . a world of meanings, a store of concepts (so fundamental to all intellectual achievement), is defined and built up. Moreover, not only do meanings thus become familiar acquaintances, but they are organized, arranged in groups, made to cohere in connected ways” (308).

The images soon grow in scope and become increasingly less dependent upon their stimulating objects. The developing child, instead of merely, say, pushing a chair and imagining himself conducting a train engine, now arranges multiple chairs and imagines himself conducting a train with a number of cars for many people. He might even invite some friends to sit on the chairs while he and some other friends push them.

This, Dewey ([1900d] 1976) writes, “shows the necessity the child is mentally under, of building up and enlarging his image through supplying relevant associations” (204). During the fourth year of life, Dewey states, the demand

for filling out each image by itself internally and adding on associations in space and time externally having satiated itself somewhat. The child now feels the need to combine multiple images into more complex wholes. The child is no longer content simply to take a broomstick and jump around on it and yell “giddy up” (206). He has exhausted the kind of play displayed in figure 1. Now, instead, there is an interest in whole scenarios connecting many different objects and many other people. So we start to find children making up plays. The child’s questions are no longer concerned merely with carrying the image further but have started to turn the child toward connecting images with other experiences.

Play and Work

The sixth or seventh year, Dewey says, marks the transition from play to work, in the sense of a concern for results of action: “The child now shows a greater interest in making things or making some specific outward result, as compared with the simply immediate doing. . . . He begins to get some ability to control his action on the basis of a result or product, instead of simply following the interest of immediate expression. . . . There is some capacity of setting up a specific end as an aim to be achieved and of manipulating the present with reference to this future result” ([1900d] 1976, 207). In short, by this age, a child now has grown out of the play period. A child is beginning to take into account the entire set of objects in the situation and put them to purposes in ways akin to the ways adults use these objects.

After age seven, a child’s activity needs to be controlled by reference to real things: “The result now has a meaning of its own, a value no longer swallowed up in the immediate process of expression.” The child now is conscious of more remote results and “is willing to devote himself to things otherwise indifferent or unpleasant because they contribute to this result” (208).

When we first start teaching number facts to children, they may resist for lack of interest. But as they begin to see how numbers relate to each other and to things like shopping for groceries, they express a greater interest. They may even be willing to undergo number drills, though these are not particularly pleasant in themselves, because children can now see them as contributing to the growth of powers they want to possess. They want to learn how to shop or to measure. They are “willing to devote themselves to tasks they would previously have found unpleasant, and even to take pleasure in them” (208).

Moreover, they now show “aversion to doing things which previously had satisfied. . . . Little acts previously done simply as play, simply for the sake of expressive doing . . . are now looked at and judged with reference to their actual purpose” (208). Children no longer gain pleasure by jumping up and down with a broomstick and yelling “giddy up” or playing at a make-believe tea party. They have outgrown this phase. The distinct period of play is coming to a close.

Adult Play and Playfulness

The last question is how can what we learn during the play period be sustained in later childhood and adult life? First, children who have abstracted from an adult activity—that is, making a cake—in play are learning an adult practice and soon enough will be able to fill in the picture and actually make a cake themselves. Dewey ([1910] 1978) adds that when the play ends, the attitude of playfulness can continue if encouraged. Surprisingly, he adds that playfulness is even more important than play itself. “The playful attitude is one of freedom. The person is not bound to the physical traits of things, nor does he care whether a thing really ‘means’ what he takes it to represent” (309). Educators should aim to develop older children and young adults who have a playful attitude, who can play freely with ideas, who can without inhibition test things out for real-world value. By comparison, child play is just a passing outward manifestation of this attitude in children. For Dewey, playfulness is an ideal of adult life: “To be playful and serious at the same time is possible, and it defines the ideal mental condition. To give the mind free play is not to encourage toying with a subject, but is to be interested in the unfolding of the subject on its own account, apart from any subservience to a preconceived belief or habitual aim” (352).

This harmony of playfulness and seriousness defines creativity: “In art the playful attitude becomes interested in the transformation of material to serve the purpose of a developing experience” (Dewey 1934b, 285). The never-ending creative development of experience is, for Dewey, the overriding end of human life.

Summary and Conclusion

We can now return to our initial questions about the theory of play. Dewey’s conceptual definition of play is the engagement in activity for its own sake, in

contrast to work, which is the engagement in activity for the sake of a result. Children play because they possess a powerful developmental impulse. They play to develop powers they will later need in work—that is, in purposeful activity toward useful ends. Children engage in play before they are able to coordinate all aspects of practical situations to attain such ends.

In order to play, children must abstract images from familiar elements of their surrounding situations. They behave outwardly as guided by these inner images. But in play they do not act out completed images. Instead, their behavior clarifies and augments the images in a circuitous fashion. Play involves external movement while also developing intellectual, social, and motor capabilities that grow into adult powers.

Even though there is a distinct play period in human development, play itself evolves during this period as underlying physiological structures develop. The onset of play begins at around two and a half years. Distinct phases of play are evident at each age through year six. By age seven, there is a gradual diminution of play in favor of work, of activity aimed at a result.

Through play, says Dewey (following Groos), children exercise early capacities that grow into more mature powers. Play is a universal feature of childhood, but play also varies from culture to culture. While there is a universal play impulse, play evolves within distinct historical cultural settings, as children form play-guiding images from culturally shaped experiences. Thus there is always a social-historical dimension to play, an idea further developed by Vygotsky.

The playful attitude, first seen in childhood, can be sustained into later childhood and adult life through encouragement. This attitude represents an ideal—the free person engaged in the creative adventure of living.

Educators should use play methods throughout the school years. Kindergarten methods should be used abundantly in the early primary years. We should not pressure children to develop academically before they are physiologically ready. The spirit of play—playfulness—should then be encouraged throughout the years of formal education and on into adult life.

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