

# Play as a Medium of Learning: A Perspective on Subjunctive Thought through the Ludic Elements of Education and Forms of Play

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## I. Abstract

### A. Contextualization

1. The ability to create symbolic alternatives to reality or counter-factual realities is deeply a part of human experience and an indispensable component of his intelligence as the ability to construct an adapted model of reality. This ability forms the basis of the most significant higher mental functions in humans such as creativity, imagination and fantasy, one that distinguishes us from animals and other non-human primates.

2. Successful bindings of accurate models towards this goal may often involve prior play with a number of alternative possibilities giving rise to the process of figurative or subjunctive thought i.e. thought that involves possible, contingent or hypothetical elements and not facts.

3. Thus the complexity and quality of subjunctive thought is likely to depend on already existing cognitive structures which are afforded through the developmental stages of learning.

4. Developmental Learning and the subsequent generation of subjunctive thought as I shall argue are afforded by two primitive and indispensable mediums of learning - one being "Play" which is the focus of this paper, the other being "Imitation".

### B. The purpose of this paper is then two-fold:

a. To forward the *developmental view of play as being an innate and natural medium of learning where learning is a process enabled through play, not a functionalized end state*. This view of play is forwarded as an argument against the historical consideration of play as a directed form of activity towards attainment of educational goals where external subjects and objects in the child's environment govern the form and function of play.

b. To forward the *importance of the development of subjunctive thought afforded through play as a non-functionalized medium of learning*, one that allows for the critical mental functions of creativity and imagination in the psychological development of the infant. One form of play i.e. *Symbolic play as a specific instance of play that allows for such subjunctive thought* shall then be the focus of the discussion of this paper.

For me, symbolic play is also especially interesting from another related perspective. *Symbolic play occurs when the child's conception of the real and imaginary is still not well established, yet it forms the basis of rationalized thought and action.*

### Keywords

Play, Education, Learning, Subjunctive Thought, Creativity, Imagination, Make-Believe, Pretend, Symbolic Play, Child Development

## II. Historical View of Play and Education

The history of early childhood education includes persistent reference to play. Educators and philosophers have recognized that play is the predominant activity of the young child and have viewed this spontaneous activity as the child's natural medium of learning. Because, however, the concern of the educators was with the child's acquisition of specific socio-cultural information and skills, their focus was on defining play in relation to education rather than as a concept in itself. In other words, the *concern of these educators has been more on how the processes and objectives of play that are related to the how and what of learning can be exploited to fulfill specific educational goals thereby lending control of the child's activity to the educator or supervising adult.*

In "*The Elements of Play*", Eva Neumann is sensitive to this functionalized view of play when she enlists a historical perspective on the theories of play. She argues that although some of the most prominent intellectuals such as Plato, Aristotle, Quintilian, Comenius, Fenelon, Rousseau and Pestalozzi have recognized play as an innate, natural and the most elemental of all activities for a child where extensive learning of skills and information takes place, *they attributed to play a goal-directed educational value of preparing the child for an adult life where the control of play was an important consideration.* Thus the process of play involved abstraction of the interests and activities of the child by educators into specific learning materials and experiences.

To support Neumann's point, one can cite examples of theorists and practitioners who have elaborated on this functionalized view of play to develop the ideology of defining and prescribing certain concrete objects and methods of play. These include Friedrich Froebel who invented the concept of the 'Kindergarten' and developed Gifts and Occupations as didactic materials, Maria Montessori who developed autotelic materials and John Dewey, the father of modern education who selected topics and procedure of study for the children, thereby limiting the objects that could be selected for play. Dewey, a pragmatist, especially criticized the function of play for the sake of itself with a belief that play apart from work is foolishness, may be demoralizing, may stifle educational growth, and if pursued for its own sake may lead to irresponsible behavior.

As a matter of recollection of some of the other readings, what occurs to me is that the *subordination of play as a means to achieve certain pragmatic ends may also be due to factors other than the focus of educators on the functionalized utility of the processes and objectives of play, for it may lie in the ambiguous definition of play itself or the rhetorical schools of thought that have appropriated it for the advocacy of a certain way of thought or symbolic system through which we construct meaning.*

For example, one may parallel Dewey's progressive philosophy of education with two of the seven rhetorics mentioned by Brian Sutton-Smith in "*Play and Ambiguity*" as a means to bring some coherence to the field of play theory due to the ambiguous nature of play. In this paper, Sutton-Smith mentions the "*rhetoric of play as progress*" which being an advocacy of the belief that play as progress is something that Westerners cherish, has driven educators over the past two hundred years to see play as being primarily about development rather than enjoyment. Similarly, the "*rhetoric of play as power*" fortifies the status of these educators as those who

control the play or are its heroes. Thus, *these rhetorics may further an explanation on why play has been viewed as a functionalized means of attaining educational goals.*

Given this historical view of play and an effort to further a criticism against it, Neumann considers what she defines as the *three criteria or elements of play - internal reality, intrinsic motivation and internal locus of control of the activity* that remain divorced from its functionalized viewpoint, a viewpoint where external reality, external locus of control and extrinsic motivation play a dominant role. For me, Neumann's three criteria of play are important considerations since their intrinsic role is also resonated in similar forms across literature on play, education and developmental psychology.

Starting with the third criteria of play i.e. locus of control of play, Neumann argues that if control over the play activity is external to the child, then it becomes questionable as to what extent such an activity remains free or spontaneous, a characteristic that I believe has been seen as vital to learning by prominent thinkers such as Jean-Jacques Rousseau. Rousseau believed that the spontaneous play of child free from external control allows it to shape the form and content of his education thereby not limiting itself to a finite set of bounded experiences within which learning is constrained.

One can also parallel Rousseau's general principles of freedom and experience through play in education with Johan Huizinga's conception of play as essentially being a *free or voluntary activity* rooted in the pure purpose of modulation of player experience and never characteristically function-centered or subjected to the fulfillment of a practical task, which as Hector Rodriguez describes in his assessment of Huizinga's *Homo Ludens*, may be incorrectly treated solely as a "vehicle to maximize the effectiveness of teaching" under the external control of the educator to achieve a predefined goal.

The inner locus of control and the freedom to determine the form and function of an activity are for me the most important criteria of play when seen in relation to learning. If the child has control over the activity that he mentally and physiologically engages in, then he also has control over the learning that emerges through such an activity. Moreover the child indulges himself in a spirit of learning by trial and error, by experimentation, in a sense that he uses all his forces to the utmost, to test out and find the limits of his abilities: how high can he climb, how fast can he run. Without such an intrinsic control the child will never learn to experiment or move beyond and stretch his own abilities.

Intrinsic motivation in play is the second important criteria from an educational point of view. In *"Play as a Golden Route to learning and Development in Preschool Years"*, Arve Gunnestad writes that "Motivation is something we struggle with in education. Lack of motivation among students may be our main problem. But in play, there is a strong inner motivation. Play absorbs the person and has a lot of energy in it. In teaching you can only use 15 minutes, and children need a change, while in play, they can go on for hours! That is why if we use play in learning, we can go very far!" According to Karl Groos, intrinsic motivation is enabled by play since the player is self-motivated to engage in the activity and is solely concerned with the process and not the product of play. Groos thus views play as providing an immersive learning experience for the child that is quite mutually exclusive to a pedagogical system of learning where the child is

motivated by external goals thereby limiting his process of learning.

Similarly, Gunnestad considers the criteria of internal reality enabled through play as an important element of learning. Gunnestad agrees with what I can parallel to Friedrich Schiller's concept of "*suspension of external reality*" as allowing the player to suspend reality in order to establish the rules, procedures and content of his play according to his wishes. Schiller states that neither play nor learning can occur when the child is bound to necessity such as the demands of survival. For Gunnestad, suspension of reality makes it possible for the child to act out and try out a lot of roles and situations that otherwise would be inaccessible for him/her. He/she can try out different ways of acting in certain situations, and get a feeling of control. And because it is not real, it is safe to involve also in dangerous situations. Thus the child learns valuable abilities to find out different alternatives to problems.

*Apart from their literary citations however, the crux of Neumann's three criteria lies in her argument that much of the modern pedagogical approach to education has remained oblivious to these critical elements of play in the process of learning.* If one has to take Neumann's argument seriously, then it implies that a criticism of the functionalized view of play necessarily demands an articulation of those elements of play (in relation to those found in non-play) that must be seen as essential aspects of furthering a non-functionalized approach to learning, in other words an approach that focuses on the fundamental ludic elements of learning.

*I thereby derive my approach for the purpose of this paper as seeing play and its elements in relation to, or more specifically as being integral to the process of learning that may otherwise be rendered as serious or non-play - first from Neumann's three criteria of play that are critical to learning and secondly from Huizinga's "ludic vision of culture" which as Hector Rodriguez rightly points out in "The Playful and the Serious: An approximation to Huizinga's Homo Ludens" requires a profound transformation in our understanding of what it means to learn.* I cannot agree more with Rodriguez's argument about the fundamental difference between using games as an efficacious instrument to teach science, philosophy or art versus treating science, philosophy and art under the aspect of play - "*The point is not that education would be more "effective", like some well-oiled machine, if its methods were more playful; games are not mere tools to make learning more attractive. The point is that the subject matter of education is in some respects already playful*".

However, Rodriguez's context of assessing the subject matter of education is directed more towards serious game design, an understanding of which he believes would help designers of such games to exploit the already existent ludic elements of the subject matter to design appropriate games. My approach in this paper can be considered as a superset of Rodriguez's approach, in the sense that I wish to assign to play an essential nature of learning and thereby address arguments on the lines of "*Huizinga's ludic vision of culture requires a profound transformation in our understanding of what it means to learn*" as compared to directing play assessment within a specific context of learning. ***My approach to play is thus more about arguing that learning is fundamentally grounded in play and that play cannot be considered as just an efficacious instrument of learning.***

*In order to forward this argument I then take a developmental approach to play as a medium of learning explaining the fundamental nature of play in early childhood development* that then allows for the subsequent and continuous socio-cognitive development of humans and the critical generation of subjunctive thought. Following this approach and from much of the discussion that has preceded it, I now would like to forward arguments in this paper that support the following claims:

- a. Learning is a process that involves much more than a pedagogical attainment of educational objectives
- b. True or holistic forms of learning that bring about the overall socio-cognitive development of a child cannot occur in a context where the essential elements of play are rendered inessential.
- c. The medium of play affords those other vital aspects of learning that otherwise remain absent in traditional forms of education that focus solely on the cognitive development of children.

### III. Play as a medium of Learning: The Importance of Play in Child Development

"If education is a continuous life-long process of man in his attempt to find and maintain equilibrium between self and environment, and if education and man are agency and member of society, then education must be viewed in light of the total development of man and his functioning in society. Also, if play is an adjunct of education and a natural activity of man, then play must also be viewed in light of the total existence of man. In other words, man, his existence or society, education, and play must be viewed as related and interdependent parts of a total scheme" - *Johan Huizinga*

In order to support the above claims on play as being a medium of learning, I find it necessary to elaborate on the terms "play", "medium" and "learning". Given the consideration that play is too broad a phenomenon to which a theoretical consensus has been hard to achieve, I shall not attempt to define play per se, instead my approach will be that of explicating the essential aspects of play that render it as medium of learning and thereby forwarding arguments that highlight its importance from the earliest days of life. Even though I do not attempt a definition of play (for one may refer to the definitions offered by Huizinga, Caillois, Sutton-Smith and other play theorists in Jesper Juul's *"The Game, the Player, the World"*), I at least find it obligatory to elaborate on what I mean by *medium* and *kind of learning* that I believe is different from its pedagogical translation as explained earlier.

The way I wish to elaborate the term *medium* in the context of play is through its relevant definitions as given in the Merriam Webster's Online Dictionary: 1] A medium is a channel or system of communication 2] A medium is a surrounding or enveloping substance 3] A medium is a condition or environment in which something may function or flourish.

When seen in terms of these definitions, play can be considered as a primary channel through which children convey their thoughts and feelings to others. Moreover play as a channel provides adults a window into the complexity and intensity of the child's thought processes, his feelings and experiences.

In "*Play as the Language of Children's Feelings*", Garry Landreth, Linda Homeyer and Mary Morrison explain how children express their feelings through play. They write, "Children use play to express how they feel about themselves and their world, both their current perceptions and how they would like to be. Children externalize their feelings through play, thus experiencing feelings in the more concrete form of the substance of play. Moreover they use play to relax tension and anxiety, discharge aggression, express conflict and turn the unmanageable into the manageable".

Secondly, play provides a shield to the child from the hard realities of the external environment in which he is free to explore, experiment and learn without the risk of any serious consequences. This aspect of play parallels that of what I mentioned in the earlier section while describing the inner locus of control. Thirdly, play can be thought of as a condition or environment which supports the flourishing of not only the child's cognitive structures but his overall sensorimotor intelligence as play enables him to both think and practice freely. Thus, given these definitions, one may see how play can be treated as a medium.

My approach to elaborating on the *kind of learning* aspect is more theoretical than definitional. For me learning is a like fat umbrella, a process that encapsulates not only the pedagogical ideals stressed by the modern system of education such as critical problem-solving, concepts, language skills, vocabulary, memory but also those other equally perhaps more important aspects of sensorimotor, social, emotional, moral, gender/sex role development, empathy, self-regulation, co-ordination, motivation, creativity and imagination. This list of latter aspects that I shall reference by "*other*" is in no way complete or conclusive, but my point is to highlight some of the essential aspects that I believe should be part of a holistic learning process and that can only be afforded through play. I parallel this viewpoint with Huizinga's nomenclaturization of Homo Ludens on the same level as Homo Sapiens that to me clearly reflects the incompleteness of our species when defined solely in terms of the "*Thinking Man*" and his cognitive, rationalized thought process.

In order to elaborate on this point, I shall enlist arguments provided by Edward Zigler and Sandra Josef in "*The Cognitive Child Versus the Whole Child: Lessons from 40 Years of Head Start*". They cite a very important historical American event that might offer an explanation to the overemphasis on cognitive skills since the 1950s; that of the Soviet Union's launch of Sputnik in 1957. They explain that the Soviet's beating the United States into space was traumatic for Americans, as many perceived the soviet feat as evidence that the more rigorous Soviet education system with children trained in mathematics outdid the Americans who were happy to see their children busy finger painting. Nevertheless they severely criticize the emphasis on cognition that emerged from the 1960s in the form of an *environmental mystique*, a view which held that minimal environmental interventions could yield dramatic increases in children's cognitive functioning. Accordingly they provide explanations to why those *other* aspects of learning are essential.

Starting with the importance of sensorimotor development to education, they consider the aspect of "*toddler autonomy*" in which children move away from caregivers to explore the environment, control their bodies, master objects and influence people through their motor actions without which they would never learn the concepts of laterality, directionality or spatial awareness. Both

Piaget and Erikson have viewed play as providing the child with the essential sensorimotor action primitives and movement experiences that are needed for him to engage his motor, visual, tactile and auditory actions on objects in the environment in a cohesive manner needed for optimum development.

Sanoff, Brewster, Stillwell and Bergen in their paper titled "*The Relationship of Play to Physical / Motor Development and to Children with Special Needs*", explain that play is a primary medium through which opportunities for gross and fine motor play are promoted. Practicing gross motor skills such as running, walking, jumping, hopping and fine motor skills such as pasting and matching simple objects, zipping a zipper, building with blocks augments the child's cognitive structures as the child readily involves himself in coordinating practice with brain activity through such playful activities. Among many other theorists who have acknowledged this claim is Rudolf Laban. Laban was in fact the first to advocate a movement education model that was widely seen as a means of promoting movement skills thought to be related to cognitive development and academic learning. Since then teachers of the Laban method of education have used games among other activities such as dance and gymnastics as vehicles of enhancing learning.

Apart from its role in the sensorimotor aspect of learning, the *importance of play in social development* is undeniable. One can rightly argue that if play is excluded from the kindergarten experience, then every child who begins kindergarten knowing letters and sounds and is considered cognitively prepared, becomes devoid of further learning if he is not able to listen, share, take turns, solve collaborative tasks and puzzles or get along with teachers, activities that are all causal of play. One may also quote several theorists and practitioners who have seen this critical function of play as being the child's first window into the social world.

In "*The Challenge of Educational Play*", Bernard Spodek and Olivia Saracho enlist social play as one of the important educational functions of play. They explain "In social play, children learn a wide range of verbal and nonverbal communication skills for dealing with their peers' feelings and attitudes", which for me also holds the genesis of empathy and intersubjectivity through the development of the child's theory of mind. Also, since through social play young children learn to become responsive to their peers' feelings, to be patient, to wait for their turn, to be co-operative, to share materials and experiences, and to obtain instant satisfaction when others value them, it also holds the seeds of collaboration and conflict resolution which are so important to accomplish tasks in the real world. Moreover, social play enables children to establish self-other dependencies and to allow for gender / sex role development as the child begins to understand not only differences in physical attributes, but also its relative role, likes and dislikes in comparison to others.

*An other important aspect of learning that I was in fact very surprised as being attributed to play is self-regulation.* This is because one may readily attribute self-regulation to the inner capacities of the individual, his control over his own mental and emotional state as opposed to seeing an outside activity such as play being instrumental to this process. In fact a particular form of play i.e. make-believe play (which is also the focus of the next section) has been considered as essential to the development of non-cognitive factors such as self-regulation that is an important component of learning in the sense that it allows children to focus their attention on

the task at hand, filtering out distractions. The fact that self-regulation is central to our conception of what it means to be human - the foundation for choice and decision making, for mastery of higher cognitive processes and for morality demands an elaboration in terms of its relationship to play.

In "*Make-Believe Play: Wellspring for Development of Self-Regulation*", Laura Berk, Trisha Mann and Amy Ogan explain how self-regulatory capacities that are essential for children to meet the academic and social requirements of school and subsequently of future life are facilitated through make-believe play. In a certain instance of this form of play, let's say that the child assumes the role of a teacher. In order to do this, the child must adopt another perspective and practice the rules that operate in the classroom i.e. they must regulate their behavior to follow certain rules. For example, when the child acting as the teacher tells a pupil to take turns and to sit down, he or she is also internalizing the words that help in controlling the child's own outbursts. Similarly the child learns self-control and adaptive behavior when pretending to experience a trauma situation such as seeing a mother dying of cancer.

Thus make-believe play prepares the child to face the harsh realities of the world through the buffer of pretense in an imaginary world. For me, this feature of the transition of the child from his internal world to the real world while applying and re-interpreting the symbolic meanings of his imaginary world and how this leads to subjunctive thought, creativity and imagination is the most important aspect of make-believe play when seen in relation to learning and development, one that I elaborate in the next section.

Emotional and moral development are some of the other important facets of play. These can be attributed to the psychoanalytic view of play developed by Sigmund Freud and his followers that views play as a projection of the individual's emotional or inner life. Play in this framework, has been theorized as serving compensatory, mastery, cathartic and assimilative functions that are all closely linked to emotional development. Similarly, the role of play in ego development has been historically supported through the works of the prominent child theorist Erik Erikson whom I quote from *The Erik Erikson Reader*, has viewed play as a function of ego that is an attempt to bring into synchronization the bodily and social processes of which one is a part even while one is a self.

In "*The Relationship of play to Cognitive, Language and Moral Development*", Irene Athey discusses the moral functions of play in terms of rule learning and meta-cognitive awareness. She places an importance on the social codes of behavior and implicit rule formulations that are learned through play by stating that "Games are a microcosm of the larger society, with its system of rights and penalties, and thus a form of socialization into the moral code and traditions of the culture".

Similarly she argues that metacognitive awareness or the ability to think about one's own thinking and reasoning processes that is essential for moral development is facilitated through forms of play that provoke questions on the child's own beliefs and attitudes towards self and others. In addition to these points by Athey, I also believe that given a sense of moral development enabled through play, children in turn become much more aware about the moral

and ethical considerations of their own and those of their peers resulting in a playful and happier learning environment.

At this point of my discussion, I would like to clarify one likely interpretation of the preceding arguments. ***Its not that I argue that the sole importance of play is its usage in providing for those other aspects of learning, for such a view is bound to be severely criticized. In fact, if play is characterized as playing a vital role in cognitive development then it seems more likely that modern educational systems will be receptive of what play can offer in a holistic sense.***

Such a characterization to play has been attributed by two preeminent theorists of cognitive development of the 20th century, Jean Piaget and Lev Vygotsky. For Piaget in particular, cognitive development occurs through the complementary processes of assimilation and accommodation. In assimilation, the child interprets the environment in terms of his or her present way of thinking while accommodation consists of the child changing and expanding on what he or she already knows, in other words adapting to the environment.

Although Piaget views play as providing the child with a multitude of opportunities to interact with materials in the environment and thereby constructing his or her own knowledge about the world, Piaget's stress on the ego-centric nature of play is quite clear in his book ***"Play, Dreams and Imitation"*** where he considers play solely as a process of assimilation to the ego while rendering imitation as a means of accommodating to the external world. Within Piaget's bias is thereby a disregard of those *other* aspects of learning: the physical, social and interactional that allow the child to connect with his environment in an embodied manner.

Vygotsky's approach on the other hand can be considered more holistic, mentioning the importance of play in cognitive development but never over-emphasizing it. His focus is more on the sociocultural, environmental and emotional influences on development i.e. on interactions with people, turn-taking, collaboration, physical activity through play with objects, socio-dramatic roles, empathy and other such that in turn foster cognitive development. This Vygotskian concept that enables a more complete educational learning system through play has found itself inside preschool and kindergarten classrooms.

The book ***"Tools of the Mind: The Vygotskian Approach to Early Childhood Education"*** by Elena Bodrova and Deborah Leong, explains how Vygotskian principles have helped transform the classroom into a more fostering learning environment. Their use of sociodramatic play to foster literacy involves dramatic play areas where children spend a substantial amount of time daily. Teachers support children's play by helping them create imaginary situations, providing props and expanding possible play roles. Children, with the teacher's assistance, develop written play plans, including the theme, the roles, and the rules that will govern the play. Bodrova and Leong's evaluations have shown that apart from developing the essential physical, social and interactional capacities, children who spent 50 to 60 minutes of a 2<sup>1/2</sup> hour program engaging in supported sociodramatic play scored higher on literacy skills than did children in controlled classrooms. Thus, play, rather than detracting from, has in fact supported academic learning.

Similar results have been found in a host of other learning programs such as those implemented by Dorothy and Jerome Singer (*Make Believe Play Boosts Learning and School-Readiness in*

*Preschoolers*, <http://opa.yale.edu/news/article.aspx?id=3409>) where the training of low-income parents and inner city daycare teachers to engage three-to five-year-olds in make believe play significantly strengthened children's skills for succeeding in school. The Creative Curriculum ([creativecurriculum.net](http://creativecurriculum.net)), High Scope Preschool Curriculum ([highscope.org](http://highscope.org)) and a multitude of other initiatives under the National Head Start Association ([nhsa.org](http://nhsa.org)) are examples of programs that have stressed on the importance of active learning through play.

The vital role of play in the overall development of the child is thus clear from the above literary discussion. Also the fact that practical classroom implementations have been successful in realizing the resourcefulness of play for learning makes it compelling enough to consider play as a natural medium where all aspects of learning can be made available in an integrated manner.

Given this discussion of seeing play as part of a non-functionalized learning environment and the fact that I enlisted (but did not elaborate upon) creativity and imagination as vital aspects of a child's learning, I shall now focus my attention on one form of play in early childhood development i.e. symbolic play that is important from the standpoint of its critical role in the higher mental functions of humans and forms of which I believe should be part of a child's active learning environment. For me personally though, symbolic play has an almost magical quality attached to it since it stands at the crossroads of the real and imaginary, bringing us closer to an understanding of our own inner and outer worlds.

#### **IV. Symbolic Play: Facilitation of Subjunctive thought and the development of higher intelligence**

"Were it not for the accompanying play of imagination, there would be no road from a direct activity to representative knowledge; for it is by imagination that symbols are translated over into a direct meaning and integrated with a narrower activity so as to expand and enrich it." - John Dewey, *Democracy and Education* (1916)

Symbolic play has been referenced in many different forms in the context of theoretical literature on this topic such as make-believe, imaginative play, pretense play, fantasy play, socio-dramatic play, narrative play, divergent play. But they all address some central themes such as suspension of reality and representational development which I wish to elaborate upon. I also find myself responsible to give the reader a more specific idea of what symbolic play is. Jean Piaget's work has been seen as instrumental to understanding symbolic play.

In "*The Psychology of the Child*", Piaget defines it as a means of self-expression for the child i.e. a system of signifiers constructed by him through playful assimilation and capable of being bent to his wishes. He explains the need of such system of symbols as an essential instrument of social adaptation that is a precursor to language. Language he states since is not invented by the child but transmitted to him in readymade, compulsory and collective forms, is not suited to expressing the child's needs or his living experiences of himself and thereby the need of a symbolic mode of expression characteristic of symbolic play.

Symbols according to Piaget are not used to just accurately picture external reality but they are constructed as a result of a dynamic representational process between assimilation of and

accommodation to reality, central to which is the symbolic language that is developed by the self and is *capable of being modified according to his needs*.

However, with an emphasis on symbolic language being modified according to the child's needs or ego, ***Piaget attributes no cognitive significance to symbolic play in representational development. Since Piaget centralized his writings around the child's ego, he viewed his or her ability to disregard reality through any form of symbolic play as a prime example of egocentric, nonsocialized thought which serves purely affective needs and demands little explanation in cognitive terms.***

This is quite clear from Piaget's account of children's pretend activities in his book, "***Play, Dreams and Imitation in Childhood***", where he explains pretense or symbolic play purely in terms of "assimilation of the world to the ego" and how interiorized actions as a result of these activities lead to logicomathematical thought such as establishing certain relationships between the child's everyday contexts (e.g. infants reenacting their own activities such as sleeping, eating, drinking outside the normal, everyday context). In other words, Piaget's focus is more on how the child's dissociation of the symbol from the symbolized such as the child's "eating" from a stick or "telephoning" with a spoon are examples of play that enable the child to relive his past experiences and make for the satisfaction of his ego as opposed to seeing the importance of these activities in the higher cognitive aspects of the child's development such as creativity and imagination.

***Thus, my argument is that Piaget never saw the vital role of symbolic play in what Douglas Hofstadter calls as subjunctive thought or counterfactual representation describing it solely in terms of the child's ego and operative knowledge.*** This concern that creation of counterfactual realities or alternative worlds through symbolic play affects and is affected by cognitive capacity and cannot be purely a function of "assimilation of reality to the ego" is then the focus of my ensuing discussion. I do not wish to disregard Piaget's work altogether since I am completely acceptive of his work on representation as an internal or mental action, however I do believe that Piaget either did not emphasize or unjustly disregarded the implications of symbolic play to figurative representation for cognitive development. Also, in order to enlist the literary citations for elaborating my concern, I shall alternatively use subjunctive, counterfactual or figurative representations to stand for those cognitive processes that differ from logical or analytical thought.

Before discussing how symbolic play leads to the development of subjunctive thought it is important that I explain the role of the latter. Hofstadter in his 1979 work titled "***Godel, Escher, Bach: An eternal golden braid***", has pointed out that human beings constantly manufacture mental variants on the situations they face. Consciously or unconsciously manufactured subjunctives, Hofstadter proposed, represent some of the richest potential sources of insights into how humans organize and categorize their perceptions of the world. To quote Hofstadter, "The manufacture of 'subjunctive worlds' happens so casually, so naturally, that we hardly notice what we are doing. We select from our fantasy a world which is close, in some internal sense, to the real world. We compare what is real with what we perceive as almost real. In doing so we gain some intangible kind of perspective on reality. Think how immeasurably poorer our lives would be if we didn't have this capacity for slipping out of the midst of reality!"

In Hofstadter's conceptions of establishing links through comparison between our inner and outer worlds and the slipping out of reality, I see the seeds of the human ability to generate meaning and interpret objects and events in the real world for meaning is essentially intrinsic to an individual and cannot be formulated without a dissociation from the objective reality. Vygotsky explains this ability in terms of his conceptualization of abstract thought. He says the abstract thought is initially unattainable for young children because meaning and objects are fused together as one. It is therefore difficult for young children to think about a stimulus (such as a ball) when not in the presence of the real, tangible object. As children engage in pretend play, the ability to use objects or pictures to stand for other things in the world arises and meaning is thereby separated from the physical object themselves.

This generation of abstract or subjunctive thought which thus allows for a child's meaning to be constructed and thereby his ability to what I can call as "connecting the dots" or "seeing the larger picture" is the very conceptualization that children with autism or ASD fail to accomplish naturally since they are unable to generate abstract or symbolic alternatives to reality. As Melissa Preissler puts it in *"Play and Autism: Facilitating Social Understanding"*, "What sets humans apart from the rest of the species is our ability to conceptualize symbolically. Without such ability, one might be restricted to learning via associative bases strategies, like those seen in autism". Normally developing children understand that the purpose of a picture is a symbolic representation of a real world object and that different pictures can stand for the same object (made available through their abstract thought); when a picture is named, what is really being identified is a real referent in the world. Children with ASD are instead constructing associative pairings between pictures, words, and objects in the world and fail to connect such stimuli in a symbolic manner.

In *"Representational elaboration and differentiation"*, Greenspan and Lieberman consider such a symbolic understanding through subjunctive thought as helping humans to not only establish symbolic relationships but also to manipulate symbols such as pictures and words and to reason abstractly. For me such a subjunctive manipulation of symbols and reasoning is the cradle of a child's imagination and creativity, processes which involve thinking in terms of 'as ifs' and 'what ifs' which can only be made possible if the child is able to transform and extend his symbolic constructions, conceptualize symbolic patterns in terms of hypothetical events and scenarios, establish new meanings and finally project this rich array of symbolic relationships onto the real world to generate meaningful works of art.

It is then only natural to see what would happen in the absence of subjunctive thought. The child seeing a fish in a pond would never be able to see it in an ocean or realize this thought in terms of a piece of colorful drawing or would never be able to creatively and critically question the idea of why does a wheel and not a rectangle allow for smooth rotational motion. In other words, without subjunctive thought the child would just not be able to generate imagined alternatives to scenarios, a capacity that apart from belonging to the child's inner or make-believe world is critical for solving real world problems.

Symbolic play facilitates the subjunctive thought process of the child and thereby his ability to generate meaning, his creativity and imagination by providing the necessary tools i.e. object relationships and permanency, events and interactional scenarios. Video games and virtual

worlds such as World of Warcraft have already been considered as incorporating types of symbolic play that facilitate generation of subjunctive thought through convergent, divergent or metaphorical thinking. In "*The Play of Imagination*", Douglas Thomas and Seely Brown explain conceptual blending in terms of the complex use of imagination that occurs as a result of massively multiplayer online gaming spaces. However, for the purpose of this paper, I shall restrict my use of symbolic play to its two developmental forms as seen in children i.e. *symbolic play with objects or groups of objects* and *pretend or make-believe play* which encompasses not only objects or props but the use of one's own body in the context of hypothetical scenarios and events.

Pretend play is an important milestone in elevating the subjunctive thought process of the child, since such form of symbolic play allows the child to completely dissociate and interiorize the meaning of the object from its real world referent thereby allowing him to substitute his own body for that object. This also sets the stage for the child's theory of mind (ToM) and his understanding of others' mental states, beliefs and desires since he is able to now think of other bodies in terms of their intrinsic states as being dissociated from their real world referents.

Objects in the form of toys or appropriated artifacts of the physical world are the first entities that children engage with. They not only explore the nature and form of these objects but they are continuously forming mental representations of them and establishing dependencies between different types of objects. Objects may have strictly defined real world meanings associated with them, such as a pencil or a toothbrush but it is the symbolic interpretation of these objects that leads to the generation of their subjunctive thought. In their paper titled "*Facilitating Creative Thought Through Object Play in Children*", Susan L. and Thomas D. explain the significance of such symbolic play on objects in the enhancement of the child's adaptive thought, creativity and imagination.

The four stages of this play that they propose are: *exploring with objects* in which the youngster's primary intention is to discern the visual, textural, auditory, olfactory or other sensory information to make sense of the object in terms of his own representation and what he can do with it, *repetition* in which the child reinforces his creative ideas across different objects found in the exploration stage, *replication* which involves the child's construction of reality elements while using play elements and other objects and *transformation* in which the child extends the symbolic identity of the objects to higher levels of creative thought.

Similarly, Vygotsky has argued that when children use objects to represent other objects in play (e.g. using a block as a telephone), they inadvertently set the stage for subjunctive thought. Symbolic play allows children to understand that an object (telephone) can be represented by another object (block), separating the actual physical object from its meaning. This finally leads to *object permanency* or the capacity of the child to think in the absence of any object. Once the child has developed such representational abilities through play, he or she is able to use these abilities in reading or writing where sounds are represented by symbols.

This capacity of object permanency is greatly augmented through the second type of symbolic play i.e. make-believe or pretend play once children have developed basic representational capacities by the appropriation and manipulation of object symbols. Pretend play involves three

elements i.e. a *pretender* who is an animate being, some *reality* to be pretended about and *pretense* that is guided by a mental abstraction. The reason that pretend play takes imagination and subjunctive thought generation to whole new levels is through its defining feature of *projecting the child's mental representation onto his reality* which requires the child to meaningfully implement his symbolic constructions. This form of symbolic play then becomes an avenue for the child to contextualize and practice his symbolization in terms of make-believe scenarios involving cause-effect relationships with other participants. The child thus acquires the capacity to develop entire imaginary situations as opposed to simple object abstractions.

He learns to not only manipulate specific symbols but to see them in terms of hierarchies, categories and relationships with other symbols that give rise to dynamic event representations that are enacted in a social environment, involving symbolized constructions of other participants. He is involved in perspective-taking, role playing and other pretend activities that allow him the freedom to make radical substitutions for symbols such as even utilizing his own body as say a bicycle, bus or a delicious candy depending upon the requirements of make-believe scenarios. The result is a rich subjunctive environment where the spatio-temporal aspects of emerging make-believe interactions give rise to new seeds of imaginative thought. In other words, a recursive cycle is created allowing the child to build upon each of his symbolic constructions in order for him to construe the larger meanings and implications of his subjunctive thoughts and actions. Moreover all of this is done through the safe buffer of his pretense activities not having any real world implications.

Finally, pretend play allows the child to reach some of the highest levels of subjunctive thought such as second-order representation or *metarepresentation* as Leslie, 1987 has coined it and the child's theory of mind (ToM). Leslie's idea of *metarepresentation* suggests that a child must in its full maturity also learn to manipulate and reshape mentally the ways in which it stores its symbolic representations of pictures, sounds, objects or events. In "*Pretend Play as Twin Earth: A Social-Cognitive Analysis*", Angeline Lillard explains this metarepresentational claim in pretense play, "When children pretend, and/or watch others pretend, they understand the pretenders to be mentally representing the pretense situation". Thus for Lillard pretend play also allows for the formulation of the child's theory of mind, that of establishing a relationship between one's own and others' subjunctive thought processes, subsequently allowing the child to access the mental states of others, their intentions, beliefs and desires.

## V. Conclusion

Probably no other word is as closely associated with the child as 'play'. As child theorists have put it, "Play is the child's work". Play is the first form of activity that the child naturally engages in and it is through play that the child learns to explore the environment, master objects, express his feelings, control his body or influence people. In other words, it becomes a medium that enables what I have called as those *other* vital aspects of learning such as sensorimotor, social, emotional, moral, gender / sex role development, self-regulation, motivation, co-ordination etc, aspects that pedagogical systems of learning have considered as being non-essential to education, thereby relegating the role of play to merely a non-serious side activity. Given this view of play however, it would be inappropriate to consider play as having little or no role in the development of cognitive processes. It is in this view that I have focused on the vital role of symbolic play in

the development of the child's higher mental functions such as subjunctive thought, creativity, imagination, metarepresentation and the child's theory of mind. However, the most important function I believe of any medium of learning, be it play, imitation or pedagogical instruction, should be that of enabling the child to understand the larger meaning of things, to connect the dots, to see the larger picture and to question why things are really the way they are. Play with its characteristics of internal reality, intrinsic motivation and internal locus of control allows the child the necessary freedom to appropriate the real world in terms of his inner universe of meaning by the pure modulation of his experience. It is then in this experience that his meaning of life truly resides.

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