What's At Play in the Field of Play? Towards a Better Understanding of Play's Role in Development

by

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Abstract

In the field of child psychology, play is typically viewed as a key element of healthy development. However, a mutual understanding of play between developmental researchers and other professionals appears elusive. In an effort to move towards a better understanding of play and its role in development, I explore the history of the field of play to provide historical context for current frameworks of play research. Attempts by different disciplines to define play are also examined. In addition, I investigate research on play's relationship to development and discuss the way culture and play interact. The implications of these cultural interactions are also discussed.

I conclude that, while potentially not imperative to normal development, play does facilitate the maturation of various regions of the brain and contributes to growth within several developmental domains. An important distinction is made between play being necessary for development and contributing to development. When diverse cultural perspectives are considered, it becomes evident that the importance of play in development lacks uniformity across all groups. My research findings suggest that play is one of multiple paths to healthy development.

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Development

When one considers the number of family members, early childhood educators, pediatricians, and other professionals involved in maintaining a child's health and well-being, it appears that the adage "it takes a village" rings true. Developmentalist argue the best way to understand and meet the needs of a child is through a collaborative partnership between those involved in that child's life (Nutbrown, 2018). To achieve this partnership and best serve children, professionals in different disciplines must share knowledge freely and achieve a mutual understanding of important developmental concepts (Nutbrown, 2018). Although the field of education and child development is already incredibly interdisciplinary, with most of its body of knowledge stemming from psychological research, it appears a significant gap exists between research and practitioners across its multiple disciplines (Ryan et al., 2020). Unfortunately, the unidirectional structure of science and practice has been credited with causing delayed dissemination, mistranslation, or under utilization of available research (Steens et al., 2018). Regardless of the cause of this research-practice gap, researchers and practitioners across all disciplines must work together to ensure important concepts and their implications are fully understood. One of these significant, but potentially misunderstood, concepts in child development is play.

Parents and pediatricians often voice their concern that children aren't playing enough, and education advocates have created numerous initiatives designed to get kids to play more. Play is often viewed as an integral component of early childhood curricula and pedagogy The National Association for the Education of Young Children consistently advocates for children in childcare settings to have ample opportunities for play (Ryan et al., 2018). To date, 196 countries

have signed the UN Convention on the Rights of the Child, which recognizes "the right of the

child to rest and leisure, to engage in play" (Ryan et al., 2020; Convention on the Rights of the

Child, 1989). While play is most often discussed in psychological and child development circles,

the concept is interdisciplinary and influenced by multiple fields of study from anthropology to

philosophy.

Play is a big deal. Yet, despite all the discussion around play, many take for granted that

play is a nebulous concept. Basic definitions of play differ between laymen and professionals,

various fields of study, and even between individuals in the same field. Additionally, mixed

messages abound regarding the way that play impacts children and whether play can be

effectively utilized for better developmental outcomes. Without a strong, mutual understanding

of play among parents and practitioners alike, some worry successful collaborations between the

two could suffer.

The History of Play Studies

In order to critically examine the current state of play research, one must first understand

the historical context of this topic. Over the past few centuries, academics' prevailing ideas and

assumptions about play have changed numerous times and have greatly influenced research into

the construct. Investigating these scholarly conceptions of play and how they have transformed

over time can give insight into current approaches to the study of play. Although, as researchers

have pointed out, few texts on play investigate the origins of these conceptions (Cohen, 2006).

This section provides a brief historical overview of children's play as an area of academic

interest. However, it is important to acknowledge that this overview is limited in cultural scope.

Many play scholars acknowledge that "ideas of play transformed with conceptions of childhood

itself" (Makman, 2004, p. 3). In a similar way, ideas of play differ between cultures, as each

culture conceptualizes childhood differently. This historical overview focuses on the literature of Western scholars and researchers that have influenced the prevailing academic understandings of play. An examination of various cultural perspectives on play is provided in a subsequent section.

Evidence presented by archeologists and art historians supports the assumption that children have always played. Items found at archeological dig sites, such as dolls and wood-carved animals, have been largely interpreted as toys made for children to play with, similar to those that are common today (Cohen, 2006). However, some historians have cautioned against interpreting these artifacts through modern cultural lenses, as the objects may have been artistic or ritualistic in nature and not necessarily made for play (Martin, 2016). Since many play behaviors leave no evidence behind, the play behaviors of prehistoric children are extremely challenging for scholars to study with much certainty. Although most historians agree that children have played since prehistoric times, less is known about how prehistoric and ancient civilizations viewed, interpreted, or valued the behaviors we now call play.

The writings of the Greek philosopher Plato include some of the first documented speculations about children's play behaviors (Miller, 1968). Although Plato largely viewed play as unserious, irrational, and "morally ambiguous," his writings also hypothesized about the educational nature of play (D'Angour, 2013). Plato ascribed great political power to children's play, arguing that the way children were encouraged to play could potentially impact the next generation's society. His argument that children's play could be regulated and controlled to form a more stable society was radical at the time but the idea influenced future literature on the subject (D'Angour, 2013).

The writings of the apostle Paul in the first century reflected Plato's view of play as irrational and "morally ambiguous." In his letter to the Corinthians, he made a brief distinction between the "ways of children" and the behavior of adults and implied that children's play behaviors were not highly regarded at the time (D'Angour, 2013). However, during the Middle Ages, the span of time in European history ranging from the fifth to sixteenth century, play was rarely, if ever, discussed by scholars. Many historians attribute this lengthy pause in the study of play to the lack of a conceptualization of childhood as a distinct life stage (Cohen, 2006).

The study of play as an area of academic interest did not reignite until the seventeenth century. At that time, when play was discussed, it was not generally seen as valuable, with many writers suggesting that it was sinful (Cohen, 2006). The surviving literature of this period was greatly influenced by Puritan thinkers, who believed free time must be used for the betterment of oneself. The Puritan writer Cotton Mather described children's play as the "sillier diversions of childhood" and advocated against encouraging such behaviors (Cohen, 2006, p. 20). In his writings, the philosopher John Locke voiced an appreciation for "leisure" activities, but he stressed the importance of formally educating children through instruction over offering them time for free, spontaneous play (Cohen, 2006).

Late eighteenth-century literature reflected a significant shift in attitudes toward play, and respected philosophers began writing about play as a subject of serious academic consideration (Cohen, 2006). In *Emile, or On Education,* Jean-Jacques Rousseau argued that play during childhood should be encouraged, going as far as to state children "ought to play as a right" and criticize those who wished to "rob" children of the "joys that pass so quickly" (Cohen, 2006, p. 22). Many of Rousseau's beliefs are echoed in future play literature, including those about the importance of playing in nature and those equating play to a child's "work" (Cohen, 2006, p. 26).

Friedrich von Schiller took another approach to the study of play. The German philosopher wrote at length about the aesthetic impulses of playing in his book *On the Aesthetic Education of Man*. His writings argued that play, which exists not only as a child's activity but also a natural behavior of all humans, "awakens" one from the seriousness of reality and is the only thing that allows one to become "fully a human being" (Henricks, 2020, p. 120).

Eighteenth-century literature on play focused on play's perceived intrinsic value, reflecting the Romantics' high regard for the stage of childhood. Educator Frederick Froebel, influenced by those eighteenth-century Romantic scholars, opened the first kindergarten in the mid-nineteenth century (Cohen, 2006; Miller, 1968). Froebel was an early proponent of "play-as-learning," an idea that play could be harnessed for academic purposes that has long since influenced the study of education and play (Henricks, 2020). Despite this progress, the idea that children should be encouraged to play would not be a prevailing belief until the late nineteenth century (Makman, 2004).

The study of play changed greatly as old Puritan attitudes reemerged to replace the ideals of the nineteenth-century Romantics. As many societies and economies industrialized, leisure time was reduced and capitalistic values were endorsed (Cohen, 2006; Martin, 2016). According to these values, free time should be used for self-improvement and working was viewed as "morally good" for children, with children as young as four sent to work in factories and mines (Cohen, 2006; Makman, 2004). Play would only be considered valuable if it could be productive. As a result, nineteenth-century scholars began searching for play's practical utility by attempting to appraise its usefulness in furthering children's social, emotional, and cognitive development (Cohen, 2006).

In the late nineteenth century, academics' acceptance of the theory of evolution bolstered scientists' interest in studying children and greatly influenced the way play would be studied for decades (Miller, 1968). According to the evolutionary perspective, play must have a biological function in order to be "permitted" by the process of evolution (Cohen, 2006). As a result, some of the first biologically-based theories of play emerged during this period. Psychologist G. Stanley Hall theorized that children moved through play stages that mimic the course of human evolution, while philosopher Herbert Spencer proposed that play was a way for higher-level animals to work off excess energy (Henricks, 2020; Miller, 1968). Karl Groos theorized that play was a way for one's young to grow, master, and maintain the skills necessary for adulthood, arguing that "the very existence of youth is due in part to the necessity for play" (Henricks, 2020). With an abundance of these new theories developing, journals exploring the novel field of "child psychology" gained popularity in the 1880s (Makman, 2004). In these journals, such as *Child Life* and *The Paidologist,* children's play became a topic of considerable discussion. During this time, play was often discussed as "spontaneous and noninstrumental" activities that were an "essential prelude" to work (Makman, 2004).

In the early twentieth century, the biological function of play remained the focus of many evolutionary psychologists, while educators and developmental psychologists pursued the question of how play could assist in children's intellectual development (Cohen, 2006). Educators such as Maria Montessori and John Dewey viewed work and play as a relationship instead of a dichotomy (Henricks, 2020). Dewey believed play could be used in the classroom to enhance memory and build necessary skills through "concrete practical challenges," although he warned that too much free play could inspire "foolishness" (Henricks, 2020). Montessori's work echoed Plato's earlier writings and proposed that children's "raw and chaotic" play behaviors

could be cultivated and channeled by an organized environment into more productive and

"proper" forms of play (Cohen, 2006; Henricks, 2020; Makman, 2004). As psychologist David

Cohen observed, to many educators of the day play was "not good in itself so much as a means

through which children could be taught" (Cohen, 2006). At the time, cultural theorist Jonah

Huizinga defended the concept of "play for play's sake" in his writings, arguing that play does

not need to be defined by its biological purpose (Cohen, 2006). In his book, *Homo Ludens,*

Huizinga discussed the play behaviors of adults and argued that play "is central to all forms of

creativity." (Henricks, 2020).

Although few writers chose not to focus their play literature on play's utility, most

scholars in the early twentieth century still held the assumption that play ought to justify itself in

some way (Cohen, 2006). For example, Henry S. Curtis investigated the ways play could be

utilized for societal betterment. In his book, *Education Through Play*, Curtis proposed that

"reforming" children's play by encouraging it in appropriate settings and allotting time for it in

school it would eventually create "men of loyalty" and "efficiency" (Cohen, 2006). This

approach began a trend of intentionally targeting children's play as an aspect of "social

engineering" initiatives. These initiatives, mostly in urban centers like Copenhagen, often

included the construction of so-called "adventure playgrounds," which were spaces designated to

encourage safe play (Cohen, 2006). The idea gained international popularity, with the United

States spending millions on these playground projects in the early 1900s (Cohen, 2006). From

the mid-twentieth century onward, most play literature followed the utility-focused approach and

remained focused on the identification of skills developed through play (Cohen, 2006).

The popularity of early twentieth century evolution-based theories of the function of play

likely led to the large influx of theories of developmental stages in the late twentieth and early

twenty-first centuries (Sutton-Smith, 1997). Some of the most influential child psychology

scholars, such as Jean Piaget and Sigmund Freud, used this framework and drew upon past

literature and popular assumptions to create their well-known stage-based theories of child

development and play. In Jean Piaget's writings, he expands upon past ideas about play as a stage

for youth to practice their skills, focusing on the integral role of play in children's cognitive

development (Henricks, 2020). To Piaget, play is a necessary "laboratory" where children must

experiment and explore in order to develop important cognitive skills (Henricks, 2020). To

Freudian theorists, play is "a function of the ego," as it provides an avenue of wish fulfillment

for children and adults in which they can challenge and investigate many issues and themes

without suffering any so-called "real world" consequences (Henricks, 2020). Unlike Freud and

Piaget, psychologist Lev Vygotsky's writings did not refer to concrete developmental stages.

Instead, Vygotsky argued that imaginative play in particular provided an essential outlet for

children to address their "needs, inclinations, incentives, and motives to act" (Henricks, 2020).

Vygotsky's theory also identified the ways in which play behaviors are impacted by children's

social environments, as well as how play in turn affects their emotional, social, and cognitive

development (Henricks, 2020). In the twentieth century, Anna Freud, influenced by these

theories and the prevailing belief that play is an expression of children's complex, hidden

emotional and cognitive processes, developed one of the first play-based therapies (Cohen, 2006;

Henricks, 2020).

At the turn of the twenty-first century, many scholars began criticizing classic theories of

child development and play for their lack of strong research foundations and the many "logical

shortcomings" of established approaches (Hendricks, 2020; Sutton-Smith, 1997). Play scholar

Brian Sutton-Smith argued that the majority of play research offers an unduly positive view of

play's benefit and is too focused on concrete stages of development (Cohen, 2006; Powers, 2010; Sutton-Smith, 1997). In addition, many current play theorists recognize the prejudices that influence play research and are attempting to address the deeply "culture-bound" assumptions that dominate the field (Cohen, 2006; Hendricks, 2020). For example, Morgan Leichter-Saxby questioned commonly accepted boundaries between "learned cultural behaviors" and "freely self-chosen activities" (Martin, 2016), which led her to suggest that many definitions of play may be too restrictive (Martin, 2016).

Although some contemporary scholars scrutinize these frameworks, the ideas advocated by late twentieth and early twenty-first century theorists and researchers remain perhaps the most widely accepted conceptualizations of child development and play (Hendricks, 2020). These popular frameworks, and the assumptions they perpetuate, have persisted long past the historical context that produced them and continue to influence approaches to play research and our understanding of child development.

Most academics agree that play has some significance in development, but it is extremely difficult to empirically confirm or measure that significance due to the nature of play and scientific research (Powers, 2010). In his book, *Children and Play: Understanding Children's Worlds*, Peter K. Smith purports that since its beginning, the study of play has been restricted by research limitations (Powers, 2010). Although technological advances of the twenty-first century, such as naturalistic recording tools and brain imaging technology, have offered opportunities to better study and understand play and its roles in development, current researchers still face obstacles (Cohen, 2006). For example, play itself is a concept that must be operationally defined before it can be accurately studied. Establishing standard definitions of play is one of the first challenges that limits research in this field (Sutton-Smith, 1997).

Defining Play

When asked to observe young children and label their behaviors, even untrained observers have demonstrated significant agreement about the behaviors they identified as *play* (Smith, 1985). Despite how easy it seems to identify, play is a complex, ambiguous, and heterogeneous concept (Sutton-Smith, 1997). Even the very word *play* carries cultural and moral meaning, making it notably difficult to define in academic terms (Eberle, 2014; Zosh, 2018). Constructing a workable definition of play has been a significant task for play scholars throughout the field's history, yet there remains no generally accepted definition among psychologists (Smith, 1985). Although there is much consensus regarding the "general sense" of what play is or is not, many questions and gray areas still linger (Burghardt, 2010). In order to properly study any phenomenon, the relevant terms must be operationalized, but many have noted that conventional definitions of play are often too broad to be used across psychological research (Burghardt, 2010). Without a practical definition, *play* risks losing its scientific value as a meaningful term, with some researchers questioning the validity of play research that has been conducted without a commonly agreed-upon definition (Smith, 1985; Sutton-Smith, 1997; Burghhardt, 2010).

Early attempts to define play sought to categorize behaviors by their structure, function, or motive (Smith, 1985). Structural definitions focus on the organization of these behaviors, or how they may appear to observers. Alternatively, functional and motivational definitions are concerned with play's internal characteristics (Burghardt, 2006). For example, one motivational definition claims play is "an activity done for its own sake, characterized by a means rather than ends" (Zosh, 2018, para. 4). However, these definitions frequently rely on intuitive claims about the nature of play, base their assertions on naturalistic descriptions of a narrow range of play

behaviors, or are so broad they include too many behaviors (Burghardt, 2010). More recent

attempts to establish a standard play definition have shifted to using a criteria-based

classification.

        Criteria-based definitions of play use an inventory of behavioral features that incorporate

play's many structural, functional, and motivational factors into one definition. When using

criteria-based definitions, the presence of a single factor alone is rarely enough to determine

whether or not a behavior is play, and all listed features must typically be satisfied in some way

for a behavior to be considered play (Burghardt, 2010). In addition, these criteria-based

approaches are often not intended as exhaustive lists of every feature of play (Burghardt, 2010).

Instead, they aim to include all relevant play forms while simultaneously avoiding being too

broad in their reach (Smith, 1985; Zosh et al., 2018).

        For example, one criteria-based definition proposes that play involves flexibility of form

or content, intrinsic motivation, so-called "nonliterally," and the elicitation of positive affect in

the player (Smith, 1985). According to another definition, play must also involve explicit choice

from an individual, a lack of a focus on an "end-state," and an absence of stress (Zosh, 2018).

Gordon Burghardt (2010) proposes one of the most comprehensive criteria-based definitions,

arguing play should be defined as behaviors that are "not fully functional," structurally different

from "functional expressions" of similar behaviors, repeated in "similar but not rigid manners,"

and either spontaneous, voluntary, pleasurable, or otherwise reinforcing (Burghardt, 2010, p. 15).

        Although not all criteria-based classifications agree on what should or shouldn't be

included as a feature of play, many do subscribe to three key ideas (Eberele, 2014). First, the

behavior must be voluntary, self-directed, or otherwise chosen by the individual. This does not

necessarily mean that play cannot be influenced or encouraged by other individuals or by one's

environment, but players should be carrying out the activity without being directly instructed or otherwise compelled to do so. The second recurring idea in criteria-based play definitions is intrinsic motivation or a lack of direct functionality. In contrast to behaviors necessary for survival, an individual engages in play without any external motivation, such that the goal of play is the activity itself. Although many play behaviors do offer some function or benefit, one's intention while playing is not to accomplish any of these functions. This feature separates play from other pleasing or self-directed behaviors such as feeding, mating, exercising, and hunting. The third commonly accepted criterion is an imaginative, nonliteral, or nonserious component. For many researchers to consider behavior as play, the activity must involve some transformation of meaning. This feature helps draw a distinction between behaviors such as real fighting (serious) and play fighting (nonserious) or cleaning with a broom (literal) and playing "housekeeper" while sweeping a broom (nonliteral) (Burghardt, 2010).

Context is also an essential element to consider when attempting to classify any behavior. Play can be easily confused with other distinct activities, and as psychologist Gordon Burghardt observes, "what may be play in one context is not play in another"' (Burghardt, 2006; Burghardt, 2010, p. 9-10). For this reason, some play researchers have begun proposing a view of play as a spectrum of behaviors instead of a distinct category (Zosh, 2018). Scott Eberle, past Editor for the *Journal of Play,* argues play can be viewed as a "spiral" of different elements within each unique social, psychological, and historical context. In this model, behaviors exist on a complex continuum from *nonplay* to *play*. Many factors, such as surprise/terror or indifference/understanding, play a role in determining whether a behavior is considered play, nonplay, or somewhere between the two. Eberle asserts "play cannot be pulled away from where and when and with whom it takes place" (Eberle, 2014, p. 230). Although these spectrum-based

models of play are not standard in the field, they offer a unique approach to defining play that

emphasizes the context of one's behaviors.

Subtypes of Play

To avoid many of the problems associated with play's overly broad definitions and to

more accurately discuss specific foci of play research, developmental psychologists have

conventionally organized play into several subtypes. These subtypes typically categorize play

behaviors based on factors such as *how* one plays, with *whom* one plays, or with *what* one plays.

Although play subtypes have different mechanisms, expressions, and structures, they are not

mutually exclusive and can be blended or combined to reflect more complex forms of play

(Burghardt, 2010). Some common play subtypes are discussed below.

Locomotor or Movement play

Locomotor, or movement play involves the performance of "intense" or "sustained" gross

motor movements such as leaping, skipping, jumping, or running without any apparent reason

(Burghardt, 2010; Power, 1999). For example, a child choosing to run in circles without the goal

of exercising, traveling, or escaping may be considered engaging in locomotor play.

Object play

Object play typically refers to the manipulation of an object without an apparent benefit

or function (Burghardt, 2010; Cohen, 2006). Object play is distinct from tool use, as tools have a

functional purpose disconnected from the tool itself (Power, 1999). One form of object play is

construction or building play. In construction play, objects are moved, connected, stacked, or

piled to create something that has no functional purpose (Burghardt, 2010; Power, 1999).

Examples of object play include using building blocks to create a tower, stacking stones, or

rolling wheeled toys.

Social Play

Social play refers to a complex range of playful activities that involve or are directed toward another individual (Power, 1999). Rough-and-tumble play, a common form of social play, involves play fighting, wrestling, or chasing another person. The mutual communication of "play signals" is considered an essential element of social play, especially during pseudo-aggressive forms such as rough-and-tumble play (Burghardt, 2010; Power, 1999). Play signals are unambiguous gestures or cues intended to communicate to both parties that one wishes to play (Bekoff, 1975). A common play signal found in the animal kingdom is the "play bow," which is often used by dogs to communicate playfulness (Bekoff, 1975).

Imaginative, Pretend, or Make-believe play

Imaginative play involves the use of pretense, symbols, and fantasy (Power, 1999). One commonly observed form of imaginative play is sociodramatic play, in which children take on "roles," both fictional and real, in a pretend context (Burghardt, 2010; Cohen, 2006; Power, 1999). Symbolic play is a form of imaginative play in which an individual uses objects as substitutes or symbols for something else (Cohen, 2006; Power, 1999). Children engaging in imaginative play may pretend a box is a castle and take on the role of a dragon, or they may pretend to be a doctor and use a piece of ribbon to symbolize a cast.

Rule-based play

Rule-based play is often referred to as the "highest" form of play, as it requires an individual to understand, accept, and eventually adapt to a set of prearranged or improvised rules as one plays (Cohen, 2006; Power, 1999). For example, when a group plays a game of tag, they are engaging in a form of rule-based play.

Cooperative Play

Cooperative play refers to two or more individuals playing together with a shared interest or aim and can involve many forms of play, such as construction play, rule-based play, or imaginative play (Cohen, 2006). For example, multiple individuals using a shared supply of building blocks to construct a tower may be engaging in cooperative play.

Solitary and Parallel Play

In juxtaposition to cooperative play, solitary play refers to any play activity one engages in alone. Similarly, parallel play refers to two or more individuals engaging in any form of play alongside each other, but without interacting (Cohen, 2006; Power, 1999). A child playing with a doll by themselves is engaging in solitary play, while children playing with their own dolls on the same rug are engaging in parallel play.

Researching Play's Role in Development

Within the field of psychology and human development, play was once viewed as generally insignificant. However, research revealing the pervasiveness of play throughout the animal kingdom suggested that play must provide some animals, including humans, with evolutionarily necessary skills (Yogman et al., 2018). Due in part to animal studies, there has been a dramatic rise during the last few decades in research and literature examining play's role in development (Saltz & Brodie, 1982). Psychologists, developmentalists, and educators alike now believe play strongly influences children's development and early learning (Glover, 1999; Yogman et al., 2018).

The constructionist view of development proposes that the process by which children "build" their skills, knowledge, and abilities is continuous and facilitated by exposure to new encounters and experiences (Glover, 1999). Proponents of the constructivist approach to development argue all new knowledge and ability is built upon earlier learning and that children

are active participants in this learning, constructing personal meaning and understanding from each new experience and challenge (Glover, 1999; Yogman et al., 2018). This dominant perspective views play as the primary method by which children encounter new experiences and explore novel ways to solve problems (Bodrova & Leong, 2015; Yogman et al., 2018). As play is thought to offer a buffer from serious consequences of exploration, it is considered a perfect means by which children can gain new skills and strengthen existing ones (Saltz & Brodie, 1982; Yogman et al., 2018). Consequently, play is recognized as an essential component of healthy development across all domains, with different types of play associated with unique developmental outcomes (Rubin, 1980).

Cognitive and socio-emotional development are two developmental domains most frequently researched in association with play. Researchers attempting to find evidence for the power of play have reported that unstructured spontaneous play, play-based interventions, and an integration of play into educational settings all lead to many beneficial developmental outcomes within these domains (Nicolopoulou, 2019). Promising studies investigating play's impact on these developmental domains have contributed to the widely accepted belief that play is a crucial contributor to cognitive and socio-emotional development (Glover, 1999; Rubin, 1980). In addition, this belief assumes that more play leads to better developmental outcomes and conversely less play thus leads to worse developmental outcomes. In recent years, educators, psychologists, and developmentalist have vocalized concerns about the potential negative impacts of the disappearance of free play in favor of scheduled academic and extracurricular activities and/or passive media consumption (Glover, 1999).

Some researchers have questioned the accuracy of these assumptions. The uncritically positive view of play's importance within the field of psychology has been scrutinized by play

scholars such as Brian Sutton-Smith. Many academics have begun critically examining the existing research in an attempt to determine what is unsupported assumption and what is scientific fact (Glover, 1999; Lillard et al., 2013).

Play and Cognitive Development

Thanks to the writings of early play scholars such as Jean Piaget, the developmental domain most often associated with play is cognitive development. According to the North Carolina Early Childhood Advisory Council, cognitive development refers to the developmental domain concerning "children's ability to acquire, organize, and use information in increasingly complex ways" (Scott-Little et al., 2013, p. 118). Cognitive development involves skills that are crucial for future success, such as reasoning, information processing, language development, memory, and mathematical thinking (Scott-Little et al., 2013).

Among psychologists and educators, there is a widespread belief that play is the primary medium through which children develop these relevant cognitive skills (Lillard et al., 2013; Pepler, 1982). Different forms of play are viewed as unique contributors to specific aspects of cognitive development. For example, object play provides opportunities for children to advance and refine their understanding of properties such as size, shape, space, and measurement through playful exploration of objects (Glover, 1999). A solid conceptual understanding of these quantitative properties is thought to promote future mathematical thinking and academic success (Vandenberg, 1980). In addition, pretend play is viewed as a facilitator of cognitive development due to the symbolic nature of this form of play (Rubin, 1980). The symbolism involved in pretend play is considered an important precursor to "more complex symbolic activity" such as a child's developing language and mathematical capabilities (Glover, 1999, p.11).

Problem-solving is one of the most prolifically researched areas of cognitive psychology (Vandenberg, 1980). Closely related to concepts such as divergent thinking and creativity, problem-solving is a valuable skill for children to develop. Research into this area offers considerable support for the idea that play has a positive effect on children's performance in various divergent thinking and problem-solving related tasks (Christie, 1980; Pepler, 1982; Vandenberg, 1980). For example, experimental studies have found that children's performance on an object-focused problem-solving task can be improved if they are allowed time to play with the relevant object first (Christie, 1980). Other correlational studies have found that allowing children to participate in construction play is associated with their future performance on construction-related problem solving tasks (Vandenberg, 1980).

Problem-solving is viewed by some cognitive researchers as merely a cued retrieval of information (Cheyne, 1982). Those investigating the effects of play on problem-solving have questioned whether play leads to specific behaviors and knowledge that assist with problem-solving specifically for similar tasks, or whether it can lead to generalized behavior and knowledge that promote problem-solving across various types of tasks (Vangenberg, 1980). In an attempt to answer this question, some play scholars have consulted findings from experiments using rats. One of these studies found rats deprived of play performed significantly worse on a variety of problem-solving tasks and displayed more impaired cognitive abilities than rats who were given plentiful opportunities for play as pups (Yogman et al., 2018). Studies of rat behavior suggest that play-inclined animals, including humans, may indeed develop "behavioral flexibility" and gain widely generalizable knowledge through play (Yogman et al., 2018, p. 5).

The exact mechanism by which play contributes to the development of problem-solving and divergent thinking is still unknown and likely complex. However, it is hypothesized that

playful investigation allows children to practice asking questions such as "What is this?" and "What can I do with this?" (Cheyne, 1982; Repler, 1980). In addition, the flexible and consequence-free nature of play provides a space for children to experiment and learn through trial and error (Cheyne, 1982; Repler, 1980). Together, these factors of play are believed to promote a child's transition from concrete to more abstract thinking (Cheyne, 1982; Repler, 1980).

In addition to problem-solving, play is theorized to facilitate the development of other cognitive concepts (Saltz & Brodie, 1982). For example, research suggests the development of a child's theory of mind may be facilitated by pretend play (Saltz & Brodie, 1982). Theory of mind refers to a child's ability to attribute mental states, emotions, desires, and beliefs to other people. The development of this cognitive ability is essential to future social interaction and requires a child to take other perspectives. Studies have found that a child's performance on various perspective taking tasks can be improved with pretend play-based interventions (Saltz & Brodie, 1982). Play is also attributed to promoting a child's cognitive-linguistic skills. All language is essentially symbolic and research suggests that symbolic play may aid a child's language development. Results of several studies have shown that engagement in forms of pretend play, such as sociodramatic play, are indeed associated with early language development (Lillard et al., 2013; Saltz & Brodie, 1982).

Executive functioning is another aspect of cognitive development that is considered essential for future success (Yogman et al., 2018). The set of skills that make up executive functioning involve use of one's working memory, self-regulation and control, sustained attention, and cognitive flexibility (Yogman et al., 2018). Current research suggests that an important benefit of play is enhanced executive functioning. One promising study found that

children who were encouraged to engage in active play for one hour demonstrated a better ability

to later control their attention, think flexibility, and multitask-all indicators of improved

executive functioning (Yogman et al., 2018).

Play and Socio-Emotional Development

Socio-emotional development is concerned with "children's feelings about themselves

and their relationships with others" (Scott-Little, 2013, p. 50). Included in this developmental

domain are vital skills such as managing and expressing emotions, developing a positive sense of

self, learning to interact with others, and forming relationships (Scott-Little, 2013). The

promotion of this developmental domain is considered especially important, as proficiency in

socio-emotional skills reflects a child's ability to "successfully and competently manage their

environment and social world" (Rubin, 1980, p. 73) and is associated with future academic,

social, and economic success (Yogman et al., 2018).

Unlike the cognitively-focused Piaget, Lev Vygotsky discussed the ways social

interaction shapes a child's development (Bodrova & Leong, 2015; Yogman et al., 2018).

Vygotsky argued that in addition to cognitive development, play is also crucial for a child's

socio-emotional development, as it is an intrinsic social activity (Nicolopoulou, 2019). Today,

play is still widely viewed by psychologists and educators as an important facilitator of

children's socio-emotional development (Lillard, 2013; Yogman et al., 2013).

For children who spend a considerable amount of time with peers who are similar in age,

such as those who attend early childhood education programs or daycares, play becomes their

primary source of social interaction (Glover, 1999). Forms of social play such as sociodramatic

and collaborative construction play provide these children with most of their social repertoire

(Glover, 1999; Yogman et al., 1999). It is believed that through these forms of play, children

begin to build upon their understanding of their social world by encountering and working

through various social problems (Glover, 1999; Nicolopoulou, 2019; Yogman et al., 2018).

Through play, children also learn rules for culturally-appropriate social behaviors such as

approaching potential playmates and effectively collaborating and negotiating with others

(Glover, 1999; Nicolopoulou, 2019; Yogman et al., 2018). Forms of social play also provide

children safe opportunities to practice, build upon, and strengthen these skills when establishing

new relationships or encountering new social situations (Glover, 1999; Yogman et al., 2018). For

this reason, play is viewed as an important contributor to children's developing social

competence and confidence (Golinkoff et al., 2006). Research even suggests that play-based

interventions may be effective in helping children overcome difficulties related to their social

development resulting from trauma, stress, or immigration (Golinkoff et al., 2006).

Child psychologists have also theorized that play can foster a sense of agency in young

children by providing crucial opportunities to act with autonomy and see themselves as

competent and capable individuals (Glover, 1999; Yogman et al., 2018). Opportunities to notice

and appreciate one's own power and abilities are important factors in promoting a child's

self-esteem (Glover, 1999). Self-regulation is another vital component of emotional well-being

that play is believed to impact (Saltz & Brodie, 1982). Self-regulation refers to one's ability to

control impulses and manage strong emotions. Research suggests that play facilitates a child's

transition from a state of primarily parental regulation to one of self-regulation (Yogman et al.,

2018). Pretend and collaborative play in particular have been shown to encourage self-regulation

in young children, as these forms of play require the negotiation of rules, roles, and

responsibilities (Yogman et al., 2018). Studies of rat behavior have provided evidence for play's

significant role in promoting self-regulation. Rats denied play opportunities as pups were found

to be less socially active as adults, more likely to respond "inappropriately" to challenges, and

far more impulsive than rats allowed to play freely (Siviy, 2016; Yogman et al., 2018).

Researchers believe that play may also serve an important role in protecting children

from the harmful effects of toxic stress, anxiety, and depression (Golinkoff et al., 2006; Yogman

et al., 2018). Studies have shown that children who were granted more play opportunities had

lower measures of stress and anxiety than those whose play opportunities were limited

(Golinkoff et al., 2006). In a study of their first day of preschool, children identified as anxious

were randomly placed in either a group that listened to a teacher read or a group that was allowed

to play freely. The group of children who were given the opportunity to play had declines in rates

of anxiety that were twice as large as those who did not play (Yogman et al., 2018). Similar

studies have revealed the same results, with play being strongly associated with lower rates of

anxiety in preschoolers (Golinkoff et al., 2006). Even in non-human studies, play appears to

work as a buffer against stress. For example, anxious rats have been shown to become

significantly more relaxed after playing with nonanxious rats (Golinkoff et al., 2006).

Play and Brain Development

In addition to promoting development in key domains, play is considered a "brain

building" activity by many psychologists, educators, developmentalist, and pediatricians.

Research has shown that play has the power to affect a child's brain structure and functioning in

both direct and indirect ways (Yogman et al., 2018). Play appears to have the most significant

impact on areas of the brain concerned with cognition, executive function, emotion, and behavior

such as the prefrontal cortex, the amygdala, and the habenula (Siviy, 2016). Play-driven brain

changes have been observed on the molecular and cellular levels, but in order to study these

neurobiological mechanisms ethically and thoroughly, researchers must look to rats as subjects

(Siviy, 2016; Yogman et al., 2018). Not only can the brains of rats be studied in ways that would be impossible with human subjects, but the play of rats can be easily quantified and regulated in experimental studies (Siviy, 2016; Yogman et al., 2018). Although rats are reasonable surrogates for play research, research conducted with rat subjects cannot be directly generalized to children (Yogman et al., 2016). Still, these studies can provide important insights into the impacts of play on the brain and neurobiological mechanisms behind them.

One of the most thoroughly researched regions of the brain is the prefrontal cortex (PFC). The PFC plays a vital role in learning, memory, attention, language, reasoning, emotion, behavioral control and inhibition, metacognition, and planning (Siddiqui et al., 2008). This area of the brain develops throughout one's childhood and adolescence, with the most significant development occurring between ages six and nine, and is one of the last regions to undergo myelination (Siddiqui et al., 2008). Research using rats as subjects suggests play has an significant impact on the development and function of the PFC (Siviy, 2016). Play experiences are believed to refine neuronal connections in the prefrontal cortex through the process of synaptic pruning, leading to higher dendrite complexity and more efficient information processing (Siviy, 2016; Yogman et al., 2018). This evidence is supported by findings that rats deprived of play as pups show significantly more immature PFCs than those allowed to play during adolescence (Yogman et al., 2018). Further research found that rats with damaged PFC who are reared with ample play opportunities mimic many of the social and cognitive deficiencies of rats with untouched PFCs who are deprived of play experiences as pups (Yogman et al., 2018). Even juvenile rats raised with elderly females, who still provided social interaction but did not engage in frequent play, displayed similar deficits in neurological function (Yogman et al., 2018).

Brain-derived neurotrophic factor (BDNF) is a protein that supports the maintenance, growth, and function of neurons and synapses. BDNF is especially important for the formation of long-term memory and social learning (Yogman et al., 2018). Production of this key neurotrophin is stunted during periods of stress, but play has been found to stimulate BDNF production in several areas of the brain (Yogman et al., 2018). The promotion of BDNF production during play is believed to cause significant effects on brain structure and efficiency. For example, differences in dendrite branching complexity have been observed between rats raised with other young, playful rats than those raised with elderly, nonplayful rats (Siviy, 2016). In addition, rats raised in environments with ample play opportunities were found to have thicker cerebral cortexes and larger brains (Yogman et al., 2018). In some studies, only two hours of play during a day predicted changes in brain weight and efficiency (Siviy, 2016).

Determining Play's Role in Development

Despite the existing literature, a great deal of skepticism still remains regarding the field's uncritically positive view of play and its benefits. Assertions about play's role in development, especially those making the strongest causal claims, draw criticism for not fully considering other possible explanations for the findings of play studies (Brainerd, 1982; Nicolopoulou, 2019). In Brian Sutton-Smith's *The Ambiguity of Play,* he proposed three possible relationships that could exist between play and development that should be fully considered as reasonable explanations (Nicolopoulou, 1999; Sutton-Smith, 1997). The first explanation offered is that play does in fact directly cause the positive developmental outcomes that many researchers claim. This type of relationship should result in strong, positive correlations found consistently between play and certain measurable developmental outcomes. However, some have argued that the findings of play studies are not consistent enough to make this judgment yet (Brainerd, 1982).

The second explanation proposed by Sutton-Smith argues that play and development have equifinality. In other words, play does positively affect developmental outcomes, but play is not necessary, as those same outcomes could be reached in other ways (Nicolopoulou, 1999). Lastly, play and development could be epiphenomenal, meaning the apparent relationship between play and positive developmental outcomes is the result of a third unknown factor's influence on development (Nicolopoulou, 1999).

With this skepticism in mind, Lillard and colleagues (2013) conducted an analysis of various studies involving pretend play and developmental outcomes (Lillard et al., 2013; Nicolopoulou, 1999). Their findings illustrated the need for more research in this area of study, as there was not enough existing evidence to "support strong causal claims about the unique importance of pretend play for development" (Lillard et al., 2013, p. 1). However, these findings were scrutinized by other researchers for being overly critical and dismissive of the many factors that go into play (Nicolopoulou, 2019).

Researchers today generally acknowledge that there is an important distinction between a factor being *necessary* for development and *contributing* to development (Nicolopoulou, 2019). While potentially not imperative for typical development, the current research suggests that play during childhood does facilitate the development of important skills and strategies for adult life (Siviy, 2016). The specific ways in which play contributes to the development of various cognitive and socio-emotional skills is still not well understood, but the reviewed research suggests that play does have the power to impact several areas of children's development (Vandenberg, 1980). Although the most well-researched domains relate to socio-emotional and cognitive development, many academics in the field agree that play's impact on more specific developmental outcomes across other domains need to be thoroughly researched in order to fully

understand how play contributes to development and in what ways it does so (Nicolopoulou, 2019).

Play and Culture

Culture is a term with many layers of meaning. Here, a *culture* refers to the collection of customs, norms, values, and practices that a group of people share and pass down to future generations (Eagleton, 2018; Pufall & Pufall, 2008; Roopermin & Davison, 2015). Every culture provides set frameworks for ways of thinking about different aspects of life, from food and fashion to ethics and morality (Eagleton, 2018; Pufall & Pufall, 2008). Cultural beliefs about childhood, child rearing, and children's place within the broader community also vary (Gaskin, 2014). For example, some cultures emphasize the importance of learning through formal instruction, while others believe children learn best through experiences (Gaskin, 2014). These cultural beliefs, or "ethnotheories," can greatly influence children's play behaviors. Children typically learn about appropriate kinds of play from their caregivers, who encourage or limit play according to their cultural views and personal values, and their fellow playmates, who also are situated in a particular culture (Gaskin, 2014; Metaferia et al., 2021; Pufall & Pufall, 2008; Roopnarine & Davidson, 2015).

Play is thought to be a universal activity, but the many forms it takes differ both across and within cultures (Metaferia et al., 2021). The ways in which children typically play, with whom they play, and the activities they engage in all show tremendous variability across different cultures and across different demographic groups within cultures (Metaferia et al., 2021; Roopnarine & Davidson, 2015). For example, while children in one culture may grow up believing it is appropriate to wrestle with their siblings for fun, children in another may not engage in rough-housing to the same degree or frequency. In addition, the *form* of play may look

similar between cultures, but the *content* of play can differ (Gaskin, 2014). For example, while

the children of two cultures may be observed frequently participating in sociodramatic play, the

activities each group models, the roles that they take on, and the norms they enforce through

their play will likely differ markedly according to their culture. Children's first introduction to

their culture's values, shared rituals, and norms are typically playful interactions, which allow

them to safely explore their social world (Pufall & Pufall, 2008). For this reason, many

anthropologists have argued that play is both influenced by and an expression of culture (Pufall

& Pufall, 2008; Seagoe, 1962).

Although play is culturally structured and situated, most of the field's prevailing ideas

about play stem from literature and research from European or European-American groups

(Roopnarine et al., 2018; Roopnarine & Davidson, 2015). Some researchers feel the current

understanding of play's importance may be limited by these Western perspectives (Gaskin, 2014;

Roopnarine, 2021; Roopnarine & Davidson, 2015). To fully understand play and its role in

development, one must consider the implications of these cultural differences in play.

Cross-Cultural Differences in Play

Although there is significant variety among cultures, four broad ethnotheories exist

regarding play, its role in development, and the perceived distinction between work and play.

Some cultures interpret a more strict delineation between work and play, while others find that

the line between work and play often blurs (Hyun, 1998). Children from cultures with the most

blended view of play and work often engage primarily in "work themed pretend play," in which

they do work-related activities within the context of fun (Boyette, 2018; Gosso et al., 2018). This

type of play is sometimes referred to as "playing at doing real things" (Gosso et al., 2018;

Roopermine & Davidson, 2015). Cultures that adhere to this view of play often include those in

rural regions within developing nations, foraging societies, and some indigenous groups (Boyette, 2018; Gosso et al., 2018). Adults within these groups often report the belief that children learn best by engaging in the activities they naturally seek out and desire to participate in, and adults do not believe it is necessary to set aside time, opportunities, or resources specifically designated for children to play (Boyette, 2018).

In cultures with more distinct work-play separations, children are expected to participate in work-related activities and engage in play in their free time. Adults in these cultures typically report the belief that children learn necessary skills best through work-related activities such as household duties (Gaskin, 2014; Metaferia et al., 2021; Roopnarine et al., 2018). Although these groups typically view work as more important than play for skill development, play is generally still viewed as a valued part of childhood. Regions that ascribe to this cultural view of play are typically found in collectivist societies with large multi-generation family groups, including parts of Central America, South America, the Caribbean, and West Africa (Gaskin 2014; Metaferia et al., 2021; Roopnarine et al., 2018).

Researchers have observed that more individualistic cultures tend to have a more intertwined, but still distinguishable, delineation between work and play (Hyun, 1998). Individualist cultures value independence and autonomy, and thus it is common for caregivers in these societies to be strong proponents of child-initiated play (Hyun, 1998). Studies have shown that most European and European-American parents strongly encourage exploration through play and believe that free play is necessary for proper child development (Jung & Han, 2018; Roopnarine & Davidson, 2015; Roopnarine et al., 2018; Siu & Keung, 2022). However, play is mostly valued within these cultures as a tool that can be used to help children build the social, behavioral, and cognitive skills necessary for future success (Roopnarine & Davidson, 2015).

Studies from cultures with a strict separation between work and play have found that they tend to place more value on academic activities over play as methods of skill development (Metaferia et al., 2021). Cultures with strong Confucian influence, such as those found in east Asian countries, typically align with this perspective (Okuda, 2010; Zhang et al., 2021). Learning in these cultures is often viewed as a hierarchical and adult-directed process, as Confucian values place great importance on education, discipline, and obedience (Okuda, 2010; Zhang et al., 2021). Although many parents believe play is a natural part of childhood, some studies have found that on average, when compared to children in other cultures, children in these cultures often are provided with fewer play opportunities in favor of academic activities (Okuda, 2010; Zhang et al., 2021). However, academics have noted that as a result of global competition and collaboration, Western views on early childhood education have begun to spread to cultures with Confucian values. For example, researchers have found that an increasing number of parents in Hong Kong believe that play is an important educational tool and seek to provide more explorative play opportunities (Siu & Keung, 2022).

Although marked differences have been observed between these four broad play ethnotheories, no culture is completely homogeneous. Many discrepancies can be found between different demographics within a culture (Roopnarine et al., 2018). For example, studies have found differences in the values of different ethinic and cultural groups in American society, such as those of Asian-American, African-American, and Latino-Americans communities (Gaskin, 2014; Roopnarine et al., 2018). Due to the discrimination often experienced by members of these minority groups, academics are typically viewed by these subcultures as an important pathway for social mobility. For this reason, many within these groups express the belief that academics are more important than play, which is viewed as largely recreational (Jung & Han, 2018). In

general, groups around the world with lower socioeconomic statuses (SES) typically view play

as more separate from work, with play valued as a form of recreation but not as a primary

method of learning and developing skills, than those with higher SES (Boyette, 2018; Zhang et

al., 2021). For example, researchers observed that Chinese parents with lower SES reported a

weaker belief in the educational value of play, while those with higher SES reported stronger

appreciation for the importance of play in child development (Zhang et al., 2021).

Play-Value Continuum

　　Gaskin, Haight, and Lancy (2007) proposed that cultural differences in play perspectives

typically result in three general categories: cultures in which play is cultivated, cultures in which

play is accepted, and cultures in which play is curtailed (Gaskin, 2014).

However, due to the immense variety of perspectives held by different groups, it is difficult to

organize cultural views on play into distinct categories. Some have argued that views on play are

best organized along a continuum (Roopnarine et al., 2018), while others, such as Roopnarine

(2011), propose that cultural beliefs about the value of play could be placed along a single

spectrum. Cultures at one end of this spectrum hold the belief that play offers many benefits and

is necessary for children to develop critical skills. At the other end of this spectrum is the belief

in only superficial benefits of engaging in play. Cultures in the middle of the spectrum believe

that play offers some benefits, but children learn best from a mix of academics, work-related

activities, and play (Roopnarine et al., 2018; Roopnarine & Davidson, 2015). A spectrum

approach may provide more flexibility, but a single dimension does not offer the full scope

necessary for understanding different cultural approaches to play. Combining the results of

ethnographic research with these two perspectives into a more comprehensive continuum may

offer a more complete picture of cultural differences in play perspectives.

The continuum proposed and illustrated in Figure 1 is influenced primarily by the work

of Gaskin (2014), Roopnarine (2011), and Gaskin, Haight, and Lancy (2007). The main

dimension of this continuum represents the degree to which children are included in the everyday

activities and practices of adults in a community. On one side of this continuum are cultures in

which children are fully incorporated into the "adult world." With this cultural lens, children are

seen as "regular legitimate participants in the adult world" (Gaskins, 2014, p. 31). On the other

side of this continuum are cultures in which children are fully separated from the "adult world."

In those cultures, children's daily activities are typically adult-directed and age-segregated. In the

middle of this continuum are cultures in which children are included in the "adult world" to

varying degrees (Gaskins, 2014). A culture and its members may fall anywhere along this

continuum.

According to the ethnographic play research reviewed here, several other factors appear

to correspond with a culture's position along this dimension. Children's level of involvement in

the adult world may reflect their culture's value of play, the work/play distinction, and adults'

beliefs in the ways children best learn and develop.

The Play-Value Continuum (Figure 1) can offer an understanding of how cultural play

perspectives may change over time while the broader culture retains many of its characteristics.

For example, Western approaches to early childhood education have become more popular in

east Asian countries such as China. However, the extent to which Chinese adults view play as an

important tool for education and the value they place on it in comparison to work and academics

may change accordingly, while China's Confucian values and collectivist culture may not (Siu &

Keung, 2022; Zhang et al., 2021).

It is important to remember that despite the wide range of perspectives, there is some agreement across cultures regarding play's role in development. For example, a cross-comparative analysis found that 93% of sampled parents across Asia, Africa, North America, South America, and Europe reported the belief that "play helped keep children healthy" (Roopnarine et al., 2018; p. 144). To fully understand play and its role in development, one must consider the implications of these cultural similarities and the differences described above.

Figure 1

The Play-Value Continuum

- Emphasis on informal learning settings w/ low levels of age segregation
- Child-directed daily activities

- Emphasis on formal learning settings w/ high levels of age segregation
- Adult-directed daily activities

Children fully involved in "adult world" — Children fully separated from "adult world"

How do adults value play?	Highly, play is the natural behavior of children	Moderately, play is an enjoyable activity that is important for children to engage in part time	Highly, play provides important opportunities for learning and skill development	Lowly, play is natural but only good for leisure
How do adults believe children learn/develop skills best?	Through a combination of work/play	Through work-related activities	Through play activities	Through formal lessons and academics
How strong is the play/work separation for children?	Weak, no meaningful separation between work and play for children	Strong	Moderate, play and work for children are intertwined but distinguishable	Strong

Implications for Development

When play is discussed as a universal human activity, it should not be implied that play is *uniform* across cultures in form or function (Gaskin, 2014). Just as children's play activities and adult interpretations of those activities differ across groups, researchers must question whether the functional role of play in development also differs in relation to culture (Roopnarine & Davidson, 2015). Western culture's commonly accepted approach to child development considers play as crucial to development. However, the present investigation suggests there are more avenues through which children develop than those proposed by academics in Western cultures (Gaskin, 2014).

When diverse perspectives are considered, the impact of play on development appears to be less significant for some groups than for others (Pufall & Pufall, 2008). Other factors in a child's life may need to be considered before determining the role of play in development. Research suggests that the everyday experiences and activities of children in some cultures may supplement the benefits of play that are observed for children in other cultures (Gaskin, 2014). For children who live in cultures in which their daily activities resemble those of adults, play may not be as critical, and skills may be acquired through methods such as observation, modeling, and participation (Gaskin et al., 2007; Pufall & Pufall, 2008). However, children in cultures in which they are not typically regarded as "legitimate participants" in adult society may require more play in order to acquire skills and knowledge (Gaskin, 2014). In addition, a culture's social norms may determine how critical play is for a child's development. Children in cultures with more ambiguous social norms may benefit from socialization through play, as play offers a space to safely explore and clarify these social norms (Pufall & Pufall, 2008).

While research has shown that engaging in play can provide many developmental benefits for children, these developmental outcomes are not consistent across all cultures (Gaskin et al., 2007). What works in Western cultures may not work in every culture and context (Roopnarine & Davison, 2015). Child development professionals and academics should consider differing approaches to play and childhood when implementing or advocating for play-based interventions, curricula, and early childhood programs.

Conclusion

Within the field of psychology and human development, play was once viewed as generally insignificant. However, the idea that play must provide some animals, including humans, with evolutionarily necessary skills took hold and sparked a field of study that is still evolving (Yogman et al., 2018). While many academics stress the importance of considering context when attempting to classify any behavior, today play is most often defined as a wide variety of voluntary, self-directed behaviors with an imaginative, nonliteral, or nonserious component that one engages in without direct external motivation.

The current frameworks used to study children's play cannot be separated from the history of the subject, as assumptions about children's play that originated centuries ago still influence modern approaches to play research and the field's understanding of child development. Psychologists, developmentalists, and educators alike now regard play as having a major role in children's development and an essential part of children's early learning (Glover, 1999; Yogman et al., 2018). Although the field of play studies has been restricted by research limitations since its origins, researchers have worked to investigate and empirically confirm the role of play in child development (Cohen, 2006; Powers, 2010). While the specific way play contributes to development is still not well understood, this research suggests that play does

facilitate several areas of children's development (Vandenberg, 1980). However, researchers have begun to stress the distinction between play as necessary and play as contributing to development (Nicolopoulou, 2019). When diverse cultural perspectives are considered in play research, the role of play in development lacks uniformity across all groups (Pufall & Pufall, 2008). Overall, research suggests that there are multiple paths to healthy development (Gaskin, 2014).

In order to move towards a better understanding of play and its role in development, one must first consider how culture and context impact development as a whole. Several theorists have already proposed approaches to development that examine the role of culture and context in a child's development. For example, Bronfenbrenner's Ecological Systems Theory, created by renowned developmental psychologist Urie Bronfenbrenner, is a useful model that conceptualizes the way micro and macro-level systems and interactions shape development (Hess & Schultz, 2008). In this model, culture and societal change permeates all other levels. Viewing play within models such as Ecological Systems can help contextualize how play's role in development may shift according to a child's culture, social systems, institutions, families, and even the child's individual differences.

Common approaches in the field of child development argue that engaging in specific forms of play is imperative to the development of necessary skills and abilities, but one must remember that what is true for some, or even most, children may not be accurate for every child (Gaskin et al., 2007; Roopnarine & Davison, 2015). In practice, development professionals and academics should consider the impacts of culture and context when discussing play with families, implementing play-based interventions, or advocating for approaches to early childhood education. As families become more culturally diverse, these considerations only become more

important when partnering with families and other professionals (Ryan et al., 2020). The

implications of this research also suggests that expectations for developmental professionals

should shift regarding what kinds of play do or do not lead to normal development for children

with individual differences such as forms of neurodivergency.

      Ultimately, play and its relationship to development is more complex than is typically

believed or taught. When it comes to the development of children, unclear answers are typically

not well-received by practitioners, academics, and parents alike. However, the knowledge that

play may hold a flexible role in child development, as opposed to an essential one, should

encourage hope regarding the resilience and adaptability of children and their development.

References

Bekoff, M. (1975). The communication of play intention: Are play signals functional? *Semiotica*, *15*(3). https://doi.org/10.1515/semi.1975.15.3.231

Bodrova, E., & Leong, D. J. (2015). Vygotskian and post-Vygotskian views on children's play. *American Journal of Play*, *7*(3), 371.

Boyette, A. D. (2018). Play in foraging societies. In P. K. Smith & J. L. Roopnarine (Eds.), *The Cambridge Handbook of Play: Developmental and Disciplinary Perspectives (Cambridge Handbooks in Psychology)* (pp. 302–313). Cambridge University Press.

Brainerd, C. J. (1982). Effects of group and individualized dramatic play training on cognitive development. In D. J. Pepler & K. H. Rubin (Eds.), *The Play of Children: Current Theory and Research* (1st ed., Vol. 6, pp. 114–129). Contributions to Human Development (Karger).

Burghardt, G. M. (2006). *The genesis of animal play: Testing the limits*. The MIT Press. https://doi.org/10.7551/mitpress/3229.001.0001

Burghardt, G. M. (2010). The Oxford handbook of the development of play (A. D. Pellegrini & P. E. Nathan, Eds.). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195393002.001.0001

Cheyne, J. A. (1982). Object play and problem-solving: Methodological problems and conceptual promise. In D. J. Pepler & K. H. Rubin (Eds.), *The Play of Children: Current Theory and Research* (1st ed., Vol. 6, pp. 79–96). Contributions to Human Development (Karger).

Christie, J. F. (1980). The cognitive significance of children's play: A review of selected research. *Journal of Education*, *162*(4), 23–33.

https://doi.org/10.1177/002205748016200404

Cohen, D. (2006). *The development of play (Concepts in developmental psychology)* (3rd

ed.). Routledge.

Cohen, D. (2006). *The development of play (Concepts in developmental psychology)* (3rd

ed.). Routledge.

D'Angour, A. (2013). Plato and play: Taking education seriously in ancient greece. *American*

Journal of Play, *5*(3).

Eagleton, T. (2018). *Culture* (Reprint ed.). Yale University Press.

Eberle, S.G. (2014). The Elements of Play: Toward a Philosophy and a Definition of Play.

American Journal of Play, 6(2), 214-233.

Gaskins, S. (2014). Children's play as cultural activity. In L. Brooker, M. Blaise, & S.

Edwards. *The SAGE handbook of play and learning in early childhood* (pp. 31-42).

SAGE Publications Ltd, https://dx.doi.org/10.4135/9781473907850.n4

Gaskins, S. & Haight, W. & Lancy, D. (2007). The cultural construction of play. *Play and*

Development: Evolutionary, Sociocultural, and Functional Perspectives. 179-202.

Glover, A. (1999). The role of play in development and learning. In E. Dau (Ed.), *Child's*

play: Revisiting play in early childhood settings (1st ed., pp. 5–15). Brookes

Publishing.

Göncü,, A., & Gaskins, S. (2007). *Play and development: Evolutionary, sociocultural, and*

functional perspectives (Jean piaget symposia series) (1st ed.). Psychology Press.

Göncü, A., & Vadeboncoeur, J. A. (2017). Expanding the definitional criteria for imaginative

play: Contributions of sociocultural perspectives. *Learning & Behavior*, *45*(4),

422–431. https://doi.org/10.3758/s13420-017-0292-z

Gosso, Y., Resende, B. D., & Carvalho, A. M. A. (2018). Play in South American indigenous

　　　children. In P. K. Smith & J. L. Roopnarine (Eds.), *The Cambridge Handbook of*

　　　Play: Developmental and Disciplinary Perspectives (Cambridge Handbooks in

　　　Psychology) (pp. 322–338). Cambridge University Press.

Henricks, T. S. (2020). Play studies: A brief history. *American Journal of Play*, *12*(2).

Hyun, E. (1998). Making sense of developmentally and culturally appropriate practice

　　　(DCAP) in early childhood education. fNew York: Peter Lang. Chapter 2.

Jung, E., & Han, S. (2018). Play in societies influenced by Confucian values. In P. K. Smith

　　　& J. L. Roopnarine (Eds.), *The Cambridge Handbook of Play: Developmental and*

　　　Disciplinary Perspectives (Cambridge Handbooks in Psychology) (pp. 343–354).

　　　Cambridge University Press.

Lillard, A., Lerner, M. D., Hopkins, E. J., & Dore, R. A. (2013). Impact of pretend Play on

　　　children's development: A review of the evidence. *Psychological Bulletin*, *139*(1),

　　　1–34.

Lindberg, E. N., Cingi, M. A., & Güzel, H. (2020). Analysis of traditional child plays based

　　　on child culture and child development. *Journal of History Culture and Art Research*,

　　　9(4). https://doi.org/10.7596/taksad.v9i4.2696

Makman, L. H. (2004). The right to a work-free and playful childhood: A historical

　　　perspective. In R. L. Clements & L. Fiorentino (Eds.), *The child's right to play: A*

　　　global approach (pp. 1-8). Praeger.

Martin, M.C., 2016. The state of play: historical perspectives, *International Journal of Play,*

　　　5:3, 329-339

Metaferia, B. K., Futo, J., & Takacs, Z. K. (2021). Parents' views on play and the goal of

early childhood education in relation to children's home activity and executive

functions: A cross-cultural investigation. *Frontiers in Psychology*, *12*.

https://doi.org/10.3389/fpsyg.2021.646074

Miller, S. (1968). *The psychology of play*. Pelican.

Nicolopoulou, A. (1993). Play, cognitive development, and the social world: Piaget,

vygotsky, and beyond. *Human Development*, *36*(1), 1–23.

https://doi.org/10.1159/000277285

Nicolopoulou, A. (2018). Pretend and social pretend play: Complexities, continuities, and

controversies of a research field. In P. K. Smith & J. L. Roopnarine (Eds.), *The

Cambridge Handbook of Play: Developmental and Disciplinary Perspectives* (pp.

183–199). Cambridge University Press.

Okuda, R. (2010). The status of child's play in Japan. In R. L. Clements & L. Fiorentino

(Eds.), *Child's Right to Play: A Global Approach* (pp. 67–69). Praeger Publishers.

Pellis, S. M., Pellis, V. C., & Bell, H. C. (2011). The function of play in the development of

the social brain. *American Journal of Play*, *2*, 278–296.

Pepler, D. J. (1982). Play and divergent thinking. In D. J. Pepler & K. H. Rubin (Eds.), *The

Play of Children: Current Theory and Research* (1st ed., Vol. 6, pp. 64–78).

Contributions to Human Development, Karger.

Power, T. G. (1999). *Play and Exploration in Children and Animals*. Psychology Press.

Powers, T. G. (2010). [Review of the book Understanding children's worlds: Children and

play, by P. K. Smith]. American Journal of Play, 3(2), 262-264.

Pufall, P. B., & Pufall, E. (2008). The Relationship between Play and Culture. *Human

Development*, *51*(5–6), 390–398. https://doi.org/10.1159/000170901

Roopnarine, J. L., & Davidson, K. L. (2015). Parent-Child play across cultures: Advancing

     play research. *American Journal of Play*, *7*(2), 228–245.

Roopnarine, J. L., Yildirim, E. D., & Davidson, K. L. (2018). Mother-child and father-child

     play in different cultural contexts. In P. K. Smith & J. L. Roopnarine (Eds.), *The*

     Cambridge Handbook of Play: Developmental and Disciplinary Perspectives

     (Cambridge Handbooks in Psychology) (pp. 142–155). Cambridge University Press.

Roopnarine, J. L. (2021, October 29). *Cultural variation in play question one-size-fits-all role*

     in child development. Child and Family.

     https://childandfamilyblog.com/play-cultures/

Rubin, K. H. (1980). Fantasy play: Its role in the development of social skills and social

     cognition. In K. H. Rubin (Ed.), *New Directions for Child Development: Children's*

     Play (1st ed., Vol. 9, pp. 69–83). Jossey-Bass Inc.

Saltz, E., & Brodie, J. (1982). Pretend-play training in childhood: A review and critique. In

     D. J. Pepler & K. H. Rubin (Eds.), *The Play of Children: Current Theory and*

     Research (1st ed., Vol. 6, pp. 97–113). Contributions to Human Development

     (Karger).

Scott-Little, C., Brown, G., & Collins, E. (2013). *North Carolina foundations for early*

     learning and development (L. Alexander & K. Hume, Eds.). North Carolina

     Foundations Task Force.

     https://ncchildcare.ncdhhs.gov/Portals/0/documents/pdf/N/NC_Foundations.pdf

Seagoe, M. V. (1962). Children's play as an indicator of Cross-Cultural and Intra-Cultural

     differences. *Journal of Educational Sociology*, *35*(6), 278–283.

     https://doi.org/10.2307/2264343

Siddiqui, S. V., Chatterjee, U., Kumar, D., Siddiqui, A., & Goyal, N. (2008).

    Neuropsychology of prefrontal cortex. *Indian Journal of Psychiatry*, *50*(3).

Singer, D. G., Golinkoff, R. M., & Hirsh-Pasek, K. (Eds.). (2006). Why play = learning: A

    challenge for parents and educators. In *Play = learning: How play motivates and*

    enhances children's cognitive and social-emotional growth (pp. 1–13). Oxford

    University Press.

Siu, A. F. Y., & Keung, C. P. C. (2022). Perceptions among Hong Kong parents on play in

    early childhood: A qualitative study. Asia-Pacific Journal of Research in Early

    Childhood Education, 16(1), 77-92.

Siviy, S. (2016). A brain motivated to play: insights into the neurobiology of playfulness.

    Behaviour, *153*(6–7), 819–844. https://doi.org/10.1163/1568539x-00003349

Smith, P. K., & Vollstedt, R. (1985). On Defining Play: An Empirical Study of the

    Relationship between Play and Various Play Criteria. *Child Development, 56*(4), 1042

    https://doi.org/10.2307/1130114

Sutton-Smith, B. (1997). *The Ambiguity of Play* (1st ed.). Harvard University Press.

Vandenberg, B. (1980). Play, problem-solving, and creativity. In K. H. Rubin (Ed.), *New*

    Directions for Child Development: Children's Play (1st ed., Vol. 9, pp. 49–68).

    Jossey-Bass Inc.

Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., & Golinkoff, R. (2018, August).

    The power of play: A pediatric role in enhancing development in young children (No.

    142). The American Academy of Pediatrics. https://doi.org/10.1542/peds.2018-2058

Zhang, Y., Leung, S. K. Y., & Li, H. (2021). Parental play beliefs in the developing areas of

    china: A multiple case study. *Education Sciences*, *11*(10), 625.

https://doi.org/10.3390/educsci11100625

Zosh, J. M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Solis, S. L., &

Whitebread, D. (2018). Accessing the Inaccessible: Redefining Play as a Spectrum.

Frontiers in Psychology, 9. https://doi.org/10.3389/fpsyg.2018.01124