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Pretend Play as A Pathway to Creativity: A Review of The Evidence

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ABSTRACT

This review examines the role of pretend play in fostering creativity among children, exploring both theoretical and empirical perspectives. Drawing on studies conducted over the past several decades, this review evaluates the evidence linking pretend play with creative development, focusing on key cognitive and affective processes. This review also highlights the importance of high-quality play materials, adult facilitation, and supportive environments in promoting pretend play, particularly for children from diverse socio-economic and cultural backgrounds. Furthermore, our review identifies gaps in the literature, such as the lack of targeted interventions for children with disabilities and the need for research addressing gender, race, and SES differences in play behaviors. Limitations of the current body of research are discussed, including inconsistent terminology, methodological issues, and the predominance of studies based on Western, Educated, Industrialized, Rich, and Democratic (WEIRD) populations. We conclude by suggesting directions for future research, including the exploration of digital and traditional play integration, as well as a more inclusive approach to studying diverse populations. We call for further investigation into how pretend play can be effectively harnessed to enhance creativity across different developmental contexts.

Keywords: children, play, pretend play, creativity.

1. Introduction

Play is often regarded as a domain of freedom—an activity marked by pleasure, imagination, and escape. Within its boundaries, individuals operate outside the immediate constraints of biology and social expectation, engaging in exploration and self-development. Far from trivial, play serves as a vital context for creativity, identity formation, and the expansion of human potential. Specifically, engaging in pretend play has been argued to be associated with the development of creativity among children (Chylińska & Gut, 2020; Russ et al., 1999; Russ & Wallace, 2013; Sansanwal, 2014; Saracho, 2002;

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Silverman, 2016). In 1993, Russ postulated that pretend play is crucial in the development of creativity because the cognitive and affective processes central to creativity occur during play. Furthermore, the relationship between these processes appears to be stable over time (Russ et al., 1999). Additionally, Vygotsky (1967) stated that creativity unfolds through a developmental process, with play serving as a key driver of imagination. Despite such claims and although these perspectives are echoed by many contemporary researchers who emphasize that pretend play is essential for fostering children's optimal development, not all schools share this perspective, which can partially explain why children engage in less pretend play in such settings. Additionally, although children spend a significant amount of time in preschools, the opportunity for free play has become limited, as greater emphasis is placed on pre-academic skills as the foundation for school readiness (Prairie, 2013).

1.1 Research gap

Therefore, the purpose of this review is to synthesize the existing literature on the role of pretend play in the development of creativity, critically evaluating whether the current body of evidence presents a compelling case for this relationship. In doing so, this paper seeks to build upon and extend earlier reviews in the field (e.g., Lillard et al., 2013; Sansanwal, 2014) by incorporating more recent research findings, addressing methodological advancements, and identifying areas for future investigation. Additionally, this review will explore practical implications of the research, including the potential value of advocating for increased opportunities for play, particularly facilitated pretend play, in educational settings to support the development of creativity in children.

2. Methods for inclusion criteria and search procedures

This review included studies that examined the relationship between pretend play and creativity in preschoolers and young children. Studies were selected if they assessed both pretend play and creativity as main variables. In addition, this review incorporated studies exploring how cognitive processes associated with creativity, such as divergent thinking, relate to pretend play. A comprehensive literature search across multiple databases (e.g., Psych INFO) was conducted between November 2024 and February 2025, using keywords such as "children," "creativity," and "pretend play." Only peer-reviewed papers published in English were included. Please refer to Table 1 for a list of studies included in this paper.

3. Literature review

3.1 Theoretical bases of play

Before pretend play can be examined, play itself must be defined. Most scholars agree that play is an innate behavior observed in both humans and non-human animals. Krasnor and Pepler (1980) conceptualized play as involving symbolism, positive affect, intrinsic motivation, and cognitive flexibility, viewing it as a reflection of a child's developmental level while also considering it a causal agent in developmental change (at cited in Russ, 2016). Similarly, Kelly-Vance and Ryalls (2020) stated that for human children beginning in early infancy, play is a spontaneous and enjoyable activity that fosters learning, facilitates exploration of the environment, and supports the development of various physical and social skills. As Trammell (2023) succinctly put it, “Play is not work” (p. 182). He went on to say that play often implies escape, freedom, pleasure, and leisure, offering a space where we are most ourselves, free from social and biological constraints, to explore and develop our capabilities within agreed-upon rules.

Over the past century, researchers and scholars have attempted to define play in various ways. In a now classic study, Parten (1932) described a social play hierarchy and defined six levels: unoccupied behavior, solitary play, onlooker behavior, parallel play, associative play, and cooperative play (as cited in Kelly-Vance & Ryalls, 2020). Another significant early contribution to the study of children's play behaviors came from Piaget’s (1962) classification, which delineated successive stages of play from a cognitive perspective. The stages, spanning infancy through middle childhood, were defined as exploratory play, simple pretend play, complex pretend play, and games with rules.

Later, Smilansky (1968) elaborated on Piaget’s stages and relabeled them as follows: functional play, constructive play, dramatic play, and games with rules (at cited in Rubin et al., 1976). As defined by

Smilansky (1968), functional play included simple or repetitive movements, with or without play objects. Constructive play included the manipulation of play objects to construct or create something. Dramatic play was the creation of an imaginary situation to satisfy the child's desires. Finally, games with rules included acceptance of pre-set rules and adaptation to those rules. These stages spanned from infancy through early childhood.

More recently, Jennings (2017) described three broad, successive stages of play: embodiment, projection, and role play (EPR). In her model, embodiment involved bodily activities like messy play or jumping, projection included use of media like paper or clay for expression, and role play comprised development of characters and stories through verbal and non-verbal means. Ultimately, regardless of the lens through which play is conceptualized, play theorists all agree that play behaviors develop from simple to complex, with pretend, or imaginative play situated as a more complex skill, and for which simple play skills are a prerequisite. Pretend play, then, as a facet of play in general, is a concept that requires examination itself.

3.2 Pretend play

Pretend play, as a subset of play, is characterized by an "as-if" stance (Garvey, 1990) in which a "pretense" masks reality (Austin et al., 1979). Pretend play, also referred to as symbolic play, imaginative play, dramatic play, or fantasy play, may involve storytelling, fantasy, make-believe, invisible friends, pretend identities, personified objects, or the playful use of an object as if it were another object (Fehr & Russ, 2016; Mottweiler & Taylor, 2014; Russ, 2016). This form of play appears to begin around age 2 and reaches its peak between ages 3 and 6, although it can persist well into middle and late childhood (Piaget, 1962; Rao & Gibson, 2021; Singer & Singer, 1990). This pretending could be a social or solo activity and may contain self-directed or other-directed pretense (Fein, 1981; Frahsek et al., 2010; Harris & Kavanaugh, 1993; Singer & Singer, 1990). Elaborating on social pretend play, Nyein et al. (2022) further included speech and language in their characteristics of pretend play (e.g., "Let's pretend we're eating," or "Let's pretend this is a pool"). An example of pretend play may be a child who uses a plastic bottle to feed a toy doll and imagines his/herself as the parent and the doll as the child. Another child may use a piece of cardboard as a pair of wings and take on the pretend identity of a dragon.

Pretend play studies are typically designed such that a set of predetermined, specific, and observable play behaviors stands in for the concept of "pretend play" as a whole, which is then related to other important developmental outcomes. The problem with this process, as described in Thompson and Goldstein (2022), is that many studies, in their operationalization of pretend play, leave out important aspects. For instance, a study may include behaviors related to object substitution and role play, but not personified objects, leading to inconsistencies in causal outcomes (Lillard et al., 2013). Thompson and Goldstein (2022) posited that the specific behaviors necessary to the construct of pretend play must first be identified before causal claims can be made. They theorized that pretend play encompasses five essential behaviors, which develop successively based on cognitive and social complexity: object substitution (present by age 2 or 3), attribution of pretend features, social interactions in pretense, role play, and pretense-related metacommunication (present by age 5). To date, this definition is the most comprehensive view of pretend play as a construct.

3.3 Factors influencing pretend play

In the context of pretend play, it is important to mention factors that influence how, why, and when children play. These factors include gender, individual differences, familial differences, culture, disability, ethnicity, socioeconomic status (SES), and characteristics and availability of play materials. (Kelly-Vance & Ryalls, 2020). There is some evidence that gender plays a role in how pretend play is expressed and engaged in. Nyein et al. (2022) found that preschool-aged boys engaged in more functional play than pretend play and expressed more negative affect during play than preschool-aged girls. These results were in line with previous research, which demonstrated that girls tended to engage in pretend play more frequently and expressed less negative affect and aggression in play compared to boys (Fung & Cheng, 2015 as cited in Marcelo, 2016). Although the causal processes underlying these

differences have yet to be examined, it is possible that these differences are the result of gendered socialization from a young age.

In addition, SES may also influence how children play. Conger and Donnellan (2007) described a family investment model (FIM), an explanatory framework connecting parents' socioeconomic advantage to several areas of children's well-being. Their model supports the notion that children from lower-SES families are exposed to different home environments with differing availability of play materials (Karnik & Tudge, 2010). Children from middle– and working–class families may therefore have fewer opportunities to engage in pretend play compared to upper–class children. Alternatively, a strengths-based approach suggests that low-SES children demonstrate positive or adaptive developmental responses to their environments (DeJoseph et al., 2024). This perspective supports the theory that a lack of access to high-quality play materials may lead low-SES children to develop higher creativity in response to their disadvantaged environment.

Moreover, Trammell (2023) described differences in play as a function of race, stating that, "Play can be a privilege when it is available to some but not others, or when ambiguity around the play/non-play distinction functions as a tool of power" (p. 182). Further, play theories have largely been conceptualized from a Eurocentric perspective, leaving out experiences of majority-world cultures. For instance, a study by Farver and Howes (1993) found that, when provided with a novel set of block shapes and toys, American mothers engaged in more pretend play with their children than their Mexican counterparts. However, this study, like many others, failed to capture how pretend play might be expressed differently in non-western cultures. Factors such as similarity to existing play materials, cultural norms regarding parental roles in play, and the typical forms of pretend play (e.g., object substitution versus role play) that are prominent in a particular culture may contribute to apparent deficits found in studies comparing pretend play in different cultures.

Furthermore, disability may also play a role in how and when children play. Children with disabilities typically engage in less complex and fewer play behaviors than their typically developing peers (Barton et al., 2019). For instance, children with autism spectrum disorder (ASD) have shown deficits in play skills, such that their play is less varied, includes fewer novel acts, and contains fewer pretend play components (Kasari et al., 2013; Rutherford & Rogers, 2003; Williams et al., 2001). The results of another study conducted by Zyga et al. (2015) showed that children with Prader-Willi Syndrome, a rare genetic disorder, demonstrated deficits in pretend play similar to those seen in ASD. Likewise, Hill and McCune-Nicolich (1981) established that children with Down Syndrome (DS) were less likely to display solitary pretend play behaviors and less than half went on to combine pretend play acts, a prerequisite for more complex pretend play.

Ultimately, these differences in pretend play trajectories will be reconsidered when discussing appropriate applications and interventions designed to improve pretend play in children. Our main position is that pretend play can be enhanced to produce later improvements in creativity but before we can defend this standpoint, we must first define creativity.

3.4 Theoretical bases of creativity and divergent thinking

Historically, creativity was defined as the ability to generate original and novel ideas (Wallach & Kogan, 1965). However, this definition was criticized, as originality and novelty alone were not deemed sufficient for an act to be considered creative (Vadeboncoeur et al., 2017). The primary argument was that an unusual or unconventional idea might lack relevance to a given task. As a result, the construct was redefined as two-dimensional: for a product to be considered creative, it needed to be both original and appropriate (Amabile et al., 1996). Unfortunately, this way of operationalizing creativity was still problematic for studying creativity in children, as it prioritized the value of finished products instead of the underlying processes (Han et al., 2003; Hoff, 2013). This emphasis on both novelty and appropriateness also reflects broader cultural distinctions in how creativity is conceptualized. In general, Western cultures tend to prioritize the originality of ideas, whereas Eastern cultures place greater emphasis on the usefulness or functionality of creative outcomes (Morris & Leung, 2010).

At present, the Western consensus is that creativity is a complex and multifaceted process that manifests itself in different ways (Dietrich, 2019). Therefore, following Vygotsky's guidelines in studying creativity among children may be more appropriate than the traditional approach. According to

Vygotsky (2004), creativity encompasses any act that produces something new, whether it involves the creation of a physical object or the formation of a mental construct within the individual who imagined it. From this viewpoint, creativity is a fundamental human capacity that develops and changes throughout life, manifesting itself first through children's imaginative play (Vadeboncoeur et al., 2017). Recent literature highlights early childhood as not only the most creative stage of life but also a vital period for nurturing creative thinking (Bitew & Sewagegn, 2024; Leggett, 2017). As such, examining creativity and play during this time deserves particular attention.

Here, it is also important to note that young children's creative ability and thinking have often been measured using standardized divergent thinking tests (Han et al., 2003; Runco, 1992). Divergent thinking, as a cognitive process important for creativity, refers to the ability to generate multiple relevant responses to a question and is considered an important tool for problem-solving (Cliatt et al., 1980; Guilford, 1968; Russ et al., 1999). Although divergent thinking is not synonymous with creativity and is considered a type of creativity, as a cognitive process, it plays a crucial role in creative thinking and creative production (Hoffman & Russ, 2016; Russ, 2016; Sansanwal, 2014) and has been established as the standard experimental paradigm in creativity research (Dietrich, 2019).

3.5 Why is creativity important?

In 1987, Fein emphasized the importance of creativity by defining a creative thinker as someone who can understand multiple facets of a problem and, therefore, can imagine or develop alternative solutions or unique perspectives. In contemporary society, creative thinking and problem-solving skills are increasingly acknowledged as vital 21st-century competencies, playing a key role in preparing individuals for success in the modern workforce (Hoffman & Russ, 2016). Creativity is also essential for innovation, problem-solving, and adapting to an ever-changing world as it allows individuals to move beyond the immediate and the concrete, enabling them to imagine possibilities (Howe et al., 2014). In addition, creativity has been touted as a fundamental process for personal growth and societal advancement, which is why it has been recognized as an integral component of Positive Psychology (Garaigordobil & Berrueco, 2011). Therefore, it is essential for schools to foster creative thinking in students to equip them to meet the ever-changing demands of the future.

3.6 Theoretical frameworks describing the effect of pretend play on creativity

Although all forms of play may facilitate the development of cognitive abilities, research has suggested a strong link between the processes involved in pretend play and measures of creativity, especially divergent thinking (Nyein et al., 2022). The playful attitude in such activities may encourage the generation of unconventional and creative ideas and problem-solving skills (Lillard et al., 2013). In addition, the results of longitudinal studies indicate that such associations remain stable over time (Russ, 2016). This may be in part due to the assertion that both creativity and pretend play rely on the same cognitive processes, such as flexibility, insight, and generating ideas that go beyond the here and now (Hoff, 2005; Woolley et al., 2020). Additionally, the ability to engage in fantasy and "as if" actions is an element of pretend play that is considered crucial in creativity development (Nyein et al., 2022). Furthermore, children who engage in pretend play make things up as they go, and according to neuroscience, such self-generated thoughts play a critical role in creative thinking (Jauk et al., 2015).

The association between pretend play and creativity has also been described by several theoretical frameworks (for a review, see Russ & Wallace, 2013). According to Vygotsky (1967), creativity is a developmental process, and engaging in play develops imagination. Many contemporary researchers support Vygotsky's view that pretend play is crucial to the child's optimal development. As Picciuto and Carruthers (2014) put it, pretend play is a universal human activity and is inherently creative as it emerges without teaching or influence from adults. Therefore, it serves as a cornerstone for adult creativity by fostering the development of essential skills such as divergent thinking and generating ideas. This foundational aspect of pretend play is further underscored by Chylińska and Gut (2020), who emphasize that creativity in pretend play extends beyond idea generation, encompassing active exploration, evaluation, and assessment of emerging outcomes. They view pretend play as a creative activity that results in both novel and valuable outcomes, leading to meaningful interpretations and expressions of creativity within the context of the pretending child.

3.7 The Impact of pretend play on creativity: Comparing older and newer studies

The impact of pretend play on the development of children's creativity in early studies was found to be inconsistent (for a review, see Lillard et al., 2013). Based on these early studies, Lillard et al. (2013) concluded that the assertion of a causal link between pretend play and creativity was "not convincing." For example, in a correlational study conducted by Moran et al. (1984), pretend play was found to be associated with creativity in a sample of 15 high-IQ preschoolers. The results were deemed not compelling, as IQ itself was seen as related to creativity (Wyver & Spence, 1999). Another correlational study suggested that social pretend play, but not solitary fantasy play, was associated with creativity after controlling for IQ (Johnson, 1976). However, it was again critiqued that this may imply a link between the social component of pretend play and creativity, rather than the act of pretending itself. Similarly, a study later conducted by Johnson (1978) failed to replicate these results, demonstrating no correlation between pretend play (whether social or solitary) and creativity.

Although these older studies were, for the most part, correlational, a few were conducted using experimental designs to expand the literature. For example, in one study, it was predicted that children who were allowed unrestricted play with four types of toys would score higher on an alternate-uses test in compared to those who did not have this opportunity (Dansky & Silverman, 1973). In line with this hypothesis, the children in the play group outperformed others by producing a greater number of alternate uses for the objects. Additionally, to examine whether familiarity with the toys as opposed to mere interaction and playing with them was an important factor, the authors introduced an imitation group, in which the children acquired experience by mimicking the experimenter's manipulation of the toys. Surprisingly, the imitators exhibited no greater proficiency in generating alternative uses compared to the control group. Subsequently, to explore whether the potential effect of pretend play on creativity may have been limited by the specific toys at hand, Dansky and Silverman (1975) introduced a new set of objects. Once more, the play group demonstrated a greater capacity for generating alternative uses, indicating that the hypothesized influence of play on creativity extends beyond specific objects.

Later, Dansky (1980) assessed whether children identified as pretenders (i.e., those naturally inclined to engage in pretend play for approximately 25% of their time) would benefit more from a play intervention than those who did not engage in such play as often. The findings indicated that only pretenders in the unrestricted play setting generated more alternate uses for the objects in the test. From these results, it was inferred that play promotes creativity exclusively among individuals predisposed to pretend (Dansky, 1980). Interestingly, Russ et al. (1999) later speculated that, theoretically, pretend play should predict divergent thinking and creativity over time. To test this hypothesis, they conducted a longitudinal study, examining a sample of 1st and 2nd grade students and following up with them four years later. Their findings suggested that the cognitive processes involved in pretend play were significant predictors of divergent thinking and remained stable over time.

Collectively, the results of these older studies suggest that pretend play may influence the development of creativity, at least among children who frequently engage in such activities. However, despite the conclusions drawn by Lillard et al. (2013), we contend that more recent studies offer strong support for a causal link between pretend play and creativity. As pointed out by Nicolopoulou and Ilgaz (2013), the Lillard et al. (2013) review focused mainly on research conducted during the 1970s and 1980s, and the majority of their criticisms were "misplaced, overstated, conceptually problematic, or all of the above." Contemporary findings appear to paint a different picture.

In line with Vygotsky's (1967) view that pretend play is fundamental to the development of creativity in children, more recent findings provide robust evidence supporting the positive association between pretend play and creativity. Using a sample of 86 children between the ages of 5 and 6, Garaigordobil and Berrueco (2011) utilized a pretest-posttest repeated measures design to examine the impact of a cooperative-creative play program on creativity. The findings suggested that engaging in low-structure cooperative-creative activities significantly enhanced verbal creativity, specifically in flexibility, fluency, and originality. Additionally, children in the experimental group demonstrated a marked increase in creative behaviors and personality traits, such as asking numerous and unusual questions, displaying intellectual curiosity, and proposing innovative solutions to problems. Insights

from a study by Mottweiler and Taylor (2014) later shed light on the nuanced relationship between different play modalities and creativity. Specifically, the authors found that elaborated role-play (including pretend play) was significantly related to measures of narrative and drawing creativity. The authors further highlighted the position of elaborate role play in early childhood as a precursor to creative abilities, emphasizing the importance of imaginative play activities in fostering creative thinking.

Another study by Fehr and Russ (2016) replicated previous findings that cognitive and affective play processes in preschoolers are related to divergent thinking, emphasizing the importance of pretend play in stimulating creativity. In addition, they expanded the literature by incorporating two measures for creativity: creative storytelling and divergent thinking. In their study, 41 typically developing children aged 4 to 6 were randomly assigned to either a play skills intervention group, which received three 20–30 min pretend play sessions, or a control group that engaged with non-fantasy materials like puzzles and coloring pages. The researchers then assessed creative storytelling, divergent thinking, and pretend play. After controlling for age, results showed that pretend play was positively associated with both creative storytelling and divergent thinking. Similarly, Hoffman and Russ (2016) found that pretend play positively impacted creativity. The study involved children between the ages of 5 and 8 who participated in a six-session pretend play intervention. Researchers then assessed the cognitive and affective elements of fantasy play using a 5-min pretend play activity. The results indicated that the intervention group showed improvements in divergent thinking compared to the control group, further underscoring the critical role of pretend play in the development of creativity.

Furthermore, Holmes et al. (2019) used a combination of qualitative and quantitative methods to study 56 preschool children. They observed the children's play behavior, conducted interviews, and asked each child to draw three pictures: one of a full-figured man, one of a full-figured woman, and one of their favorite activities. The children were then asked to tell a story about their drawings. The results showed a strong positive relationship between creativity, language development, play, and storytelling. Children who engaged in imaginative play demonstrated more creative use of objects and richer expressive language, suggesting that pretend play supports the development of creative skills and communication. Interestingly, storytelling during pretend play was linked to increased verb use, and children used more adjectives and prepositions when participating in group pretend play compared to playing alone. This was consistent with the findings of Howe et al. (2014), whose study of 70 Canadian sibling dyads revealed a significant positive relationship between pretend play and the development of both language and creativity skills. In their study, each dyad was allowed to play with colorful wooden farm toys to facilitate pretend play. The overall results indicated that pretend play is important for supporting children's cognitive flexibility and ability to adapt in new ways. Later, Bunce and Woolley (2021) examined various mechanisms by which pretend play influences creativity. Exploring the cognitive processes underlying pretend play's impact on creativity, the authors delineated processes such as divergent thinking and counterfactual thinking inherent in fantasy play. The results highlighted that engaging in imaginative play enabled children to explore myriad possibilities beyond reality's confines, thereby fostering creative ideation.

Additionally, Taylor et al. (2020) conducted a study on the phenomenon of paracosms in children's development. Paracosms, or spontaneous imaginative world-building common in middle childhood, provide fertile ground for narrative development and imaginative expression. Through elaborate storytelling and world-building, children may engage in creative exploration, enhancing both cognitive skills and social interactions. The study suggested that children with paracosms scored higher on the creativity measures compared to those without paracosms.

Furthermore, in a study conducted in Myanmar, Nyein et al. (2022) randomly selected a sample of 60 preschoolers from two private schools to explore the connection between pretend play and divergent thinking. Using a descriptive research design and survey methods, the study found that pretend play contributes to vocabulary growth and helps children link objects with actions. Pretend play also promoted the development of problem-solving skills and supported divergent thinking. Furthermore, the authors stated that pretend play enhanced cognitive flexibility, enabling children to transition smoothly between different thought processes, such as narrative and logical thinking (Nyein et al., 2022). In another recent study examining the role of pretend play in fostering creativity among preschoolers, Iqbal et al. (2023) conducted weekly visits to a school in Pakistan over a nine-week period,

recording 45 min of children's play each session. Their findings indicated that pretend play had a significant role in enhancing children's creativity, as well as supporting cognitive and affective development. The researchers concluded that pretend play encouraged children to generate original ideas to create products that reflect their everyday experiences. Their findings also highlighted the impressive resilience and adaptability of children in developing creativity, even with limited access to a stimulating or enriching environment. Finally, using a qualitative approach and a collective case study design, Bitew and Sewagegn (2024) utilized observations and semi-structured interviews to examine the relationship between pretend play and creativity in a sample of Ethiopian preschoolers. Grounded in Vygotsky's theory, their study assessed children's creative expressions such as drawing, singing, and storytelling and found that play and creativity were interconnected and inseparable activities for preschool-aged children.

3.8 Summary

In this review of studies, we examined how pretend play would support the development of creativity in children, drawing from both theoretical perspectives and empirical research. Ultimately, the results of the more recent studies provided strong evidence that pretend play has a significant role in fostering children's creativity. These findings suggest that engaging in imaginative activities not only enhances creative thinking but may also support broader aspects of cognitive, social, and emotional development.

Although some inconsistencies were found between findings from older and more recent studies, these discrepancies are largely attributable to the time at which the earlier research was conducted. Specifically, older studies often reflected less rigorous research standards or a prevailing belief in the "power of play" that discouraged stricter methodologies (Elkind, 2007). In addition, inadequate sample sizes and brief observation periods in many of the older studies may have threatened the reliability and generalizability of the findings.

Another contributing factor to these inconsistencies may be the common tendency to interpret correlational findings as evidence of causality in cross-sectional designs. It has been rightfully argued that when children who engage in pretend play demonstrate improved performance on certain measures, it does not necessarily imply that play directly causes these outcomes. However, consistent with Vygotsky's position, if pretend play is a causal mechanism for positive developmental outcomes, strong positive correlations should reliably emerge between pretend play and optimal development (Lillard et al., 2013), which ultimately was the case in many of the more recent studies.

4. Discussion

4.1 Applications and interventions

Given the theoretical and empirical links that have been established between pretend play and creativity, the next question we must ask ourselves is this: how can creativity be enhanced by supporting pretend play? If pretend play is inferred to be a causal factor in childhood creativity and potentially later creativity in adulthood, then pretend play itself must be encouraged and supported during early and middle childhood.

The good news is that pretend play can be enhanced, supported, and taught in numerous ways. Many pretend play interventions involve a facilitator (typically a teacher or caregiver) who provides prompts, modeling, and reinforcement according to a predetermined script. Hoffman and Russ (2016) described an intervention in which a facilitator prompted participants to play with a set of toys based on a story stem, followed by modeling ideas, asking questions, labeling feelings, and reinforcing good play. Similarly, Garaigordobil and Berrueco (2011) developed a series of four cooperative-creative play programs designed for children ages 4 to 12 years old. Their weekly interventions lasted 75 min and included an opening, structured games, and a closing reflection alongside facilitator positive reinforcement, guidance, and assistance in problem-solving. The structured games stimulated verbal, figurative, dramatic, and constructive creativity via five characteristics: participation, communication, cooperation, fiction-creation, and fun. Descriptions of the specific games and play interventions can be found in their paper. Ultimately, combining access to high-quality play materials with modeling and reinforcement from a play partner or caregiver is a highly effective method for promoting pretend play

skills. Similarly, Moore and Russ (2008) demonstrated that simply pairing exposure to quality play materials (e.g., human-like dolls, animal figurines, blocks, Legos, and toy cars) with prompts, modeling, and reinforcement for high fantasy content and story organization resulted in increased imagination later on. Likewise, Reid Pearson et al. (1980) found that simple encouragement to play with toys by an adult facilitator significantly increased children's interaction with toys in a pediatric intensive care unit. Iqbal et al. (2023) agreed, stating that the role of adults in developing children's imagination and creativity through the provision of a flourishing environment cannot be overlooked.

Furthermore, Kalkusch et al. (2021) found that while the quality of social pretend play was highest in groups that received adult play tutoring, the quality of play in the group that received only play materials and not tutoring was still statistically significantly higher than the control group. Their results demonstrated that although adult facilitation is often the optimal choice for pretend play development, mere access to roleplay materials stimulates children to engage in social pretend play (Kalkusch et al., 2021). This is an especially important finding, given that children from low-SES homes typically have less access to both adult play partners and quality play materials (Smilansky, 1968; Trawick-Smith et al., 2015). It is imperative that all children are provided with opportunities to play with high-quality play materials to support their optimal development. In addition, the environment in which the child plays may have a significant impact on the quality of their pretend play. In their study on the effects of playground design on pretend play and creativity, Susa and Benedict (1994) revealed that contemporary playgrounds (distinguished by availability of private and social spaces as well as graded levels of challenge) afforded children more opportunities to play imaginatively and think divergently. In contrast to the traditional playground (consisting of swing sets, a slide, a merry-go-round, and a seesaw), their study demonstrates that the availability of high-quality play environments can result in significant differences in play.

4.2 Individual differences

Considering that creativity is a crucial cognitive skill, and that pretend play skills differ as a function of SES, disability, gender, and race, special care must be taken to enhance the pretend play of children in these populations. Despite evidence that pretend play develops and presents differently based on a child's race, ethnicity, gender, and SES, there are currently no interventions available that specifically target these populations. There are, however, select interventions that are targeted towards improving pretend play skills in children with autism spectrum disorder (ASD).

Children with ASD have been shown to have deficits in play skills relative to their typically developing peers, such that their play is less elaborated, includes fewer novel acts, and contains fewer symbolic and pretend play components (Rutherford & Rogers, 2003; Williams et al., 2001). To support the development of pretend play skills in this population, Murdock and Hobbs (2011) designed a pretend play intervention specifically for children with ASD called *Picture Me Playing*. This intervention, comprised of pretend play vignettes, or stories, aimed at teaching the sequence and dialogue involved in pretend play interactions, resulted in increased pretend play behaviors among 4–6-year-olds with ASD (Murdock & Hobbs, 2011). Similarly, MacDonald et al. (2009) used a video modeling intervention to improve scripted verbalizations and play actions during reciprocal pretend play among children with ASD. Notably, both studies included a peer interaction component, which is considered critical for appropriately generalizing skills (MacDonald et al., 2009; Murdock & Hobbs, 2011). *Augmented reality* (AR) has also been used to elicit pretend play behaviors in children with ASD. Bai et al. (2015) found that using AR to visually conceptualize a pretend play situation resulted in significant improvement in pretend play frequency, duration, and relevance compared to a non-computer-assisted condition. It is the hope of these authors that such pretend play interventions will encourage greater creativity in children with ASD.

4.3 Limitations and future directions

Although this review offers a valuable contribution to the existing literature on the role of pretend play in the development of creativity among children and provides a clearer understanding of these processes, it is not without limitations. First, the inconsistent use of terminology related to pretend play and creativity across studies may have resulted in the omission of relevant research.

Gender differences in pretend play were also not fully examined within the body of literature reviewed. Furthermore, the majority of studies included in our review were conducted in WEIRD (Western, Educated, Industrialized, Rich, and Democratic) societies, which may limit the generalizability of the findings to other populations and cultural contexts. Future research should aim for greater inclusivity and diversity in sample populations to better capture the broader impact of pretend play on creativity.

In addition, despite the growing recognition that pretend play varies as a function of factors such as race, ethnicity, gender, and socioeconomic status, few interventions are currently designed to target these differences. Given this, future research should investigate tailored interventions that support pretend play in underserved populations. Moreover, although creativity in play research is often operationalized as the ability to generate original ideas related to a specific task (Wallach & Kogan, 1965) and commonly assessed using the Alternate Uses Task, where participants propose alternative uses for everyday objects (Sansanwal, 2014), there remains considerable inconsistency in the measures used to evaluate both pretend play and creativity across studies. To date, the field has yet to establish a gold standard for assessing these constructs. Researchers and theorists should therefore collaborate to come to agreed-upon definitions as well as to design newer, more comprehensive assessments for the constructs of pretend play and creativity.

Furthermore, some aspects of the relationship between pretend play and creativity remain unclear. For example, there are conflicting views among the studies reviewed regarding the mechanisms through which pretend play fosters creativity (Brėdikytė et al., 2015). Some researchers argue that the development of language skills partly explains the link between pretend play and creativity, whereas others suggest that pretend play facilitates a state of deep engagement or "flow," as described by Csikszentmihalyi (1990) which may, in turn, promote creative thinking (Russ, 2016). Clarifying these distinctions should be a priority for future investigations.

Additionally, research on adult creativity has frequently highlighted the important role of childhood pretend play. Many creative professionals, such as artists and scientists, attributed their creative development to early play experiences (Russ, 2016). In this regard, future studies should explore how early experiences with pretend play continue to shape creative capacities later in life, particularly among individuals in creative professions. Furthermore, as suggested by Howe et al. (2014), future research should prioritize the observation of pretend play in naturalistic settings, such as homes and childcare environments, to gain a deeper understanding of how children's creativity unfolds within familiar, everyday contexts. Such approaches may help identify practical strategies for fostering creative development through everyday interactions.

Finally, future studies should build on recent work such as that by Vogt and Hollenstein (2021), who highlighted guided pretend play as a transformative tool in preparing children for the demands of the digital age. The study proposed that by envisioning themselves in diverse roles related to digital transformation, children engage in collaborative problem-solving and creative exploration. Marsh et al. (2016) also emphasized the complementary nature of traditional pretend play and digital play, noting that both are crucial for fostering creativity in children. This suggests that future research should further explore how these two forms of play can be integrated to nurture creativity in children in a digital age.

5. Conclusion

Although this paper highlights the impact of pretend play on fostering creativity in children, it is important to clarify that its thesis is not that pretend play is the sole or only factor in the development of creativity, but rather that it represents one meaningful pathway toward the optimal development of creativity. As Silverman (2016) stated, no theorist has claimed that pretend play is a prerequisite for creativity. Pretend play is merely "a source of creative imagination" (Piaget, 1962). Further, there is evidence that creativity can be enhanced and developed through other means that do not involve pretend play (Silverman, 2016). Our supposition here is that there is robust evidence that developing pretend play skills at an early age may lead to increased creativity among children. As researchers continue to explore whether pretend play is the most effective way to enhance creativity or if other approaches may be more beneficial, we encourage caregivers, educators, and practitioners to actively support and promote pretend play to help cultivate the development of creativity in children. After all, "a child has the whole universe in his mind but only needs an opportunity" (Iqbal et al., 2023).

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Table 1.
Summary of Studies Examining the Effects of Pretend Play on Creativity, in Order of Publication

Citation	Design	*N*	Age Range in Years	Sample Characteristics	Measure(s) of Pretend Play	Measure(s) of Creativity	Results
Dansky& Silverman (1973)	E	90	4–6.1 (*M* = 5)	50% male; 84% white	Observational play checklist	Alternate Uses test	Play group outperformed others; imitation group showed no improvement
Dansky& Silverman (1975)	E	36	3.8–5.2 (M = 4.8)	100% white middle-class	Observational play checklist	Alternate Uses test	Play group generated more alternative uses
Johnson (1976)	C	63	3–5 (*M* = 4.2)	43% male; lower- and middle-class; mixed racial/ethnic backgrounds	Free play observations	Alternate Uses task; story completion task	Social pretend play linked to creativity after controlling for cognitive ability
Johnson (1978)	C	42 mother-child pairs	M_{child} = 4.1	62% male	Play interview; free play observations	Alternate Uses task; story completion task	No correlation found across sessions
Dansky (1980)	E	96	4–8	56% male; mixed backgrounds	Four 5-minute play observations	Alternate Uses test	Only "pretenders" in play setting showed increased creativity
Moran et al. (1984)	C	15	3.9–4.8 (M = 4.3)	53% male	Fantasy predisposition	Pattern Meanings; Alternate Uses tests	Association found, but attributed to high IQ rather than pretend play itself

Russ et al. (1999)	L	Time 1: 121; Time 2: 31	Time 1: 1st/2nd grade; Time 2: 5th/6th grade	Time 2: 55% male, 71% White, 29% African American	Time 1: Affect in Play Scale; Time 2: Affect in Fantasy Task	Time 1: Alternate Uses test; Time 2: Alternate Uses test, Creative Activities Checklist, storytelling measure	Higher fantasy and imagination predicted higher creativity 4 years later
Garaigordobil & Berrueco (2011)	E	86	5–6	55% male; 100% native Spaniards	Pretend play intervention	Torrance Test of Creative Thinking; Behaviors and Traits of Creative Personality Scale	Cooperative-creative play improved verbal creativity and creative traits
Howe et al. (2014)	C	70 sibling dyads (140 total)	Older siblings: 4.9–9.9 (M = 6.8); Younger siblings: 2.9–6.6 (M = 4.6)	Dyads balanced for gender; 100% Caucasian, middle-class	Play theme coding scheme	Object use; descriptive language; internal state language	Positive relationship between pretend play, language, and creativity
Mottweiler & Taylor (2014)	C	75	4–5.9 (M = 5)	51% male; primarily middle-class, European American	Child role play interview; parent role play interview; Action Pantomime task	Storytelling creativity task; drawing creativity task	Elaborated role play linked to creativity measures
Fehr & Russ (2016)	E	41	4–6 (M = 4.7)	44% male; 80.5% Caucasian	Affect in Play Scale	Multidimensional Stimulus Fluency Measure; storytelling task	Pretend play positively related to both creativity measures
Hoffman & Russ (2016)	E	40	5–8	100% female, primarily Caucasian	Affect in Play Scale; Positive and Negative Affect Schedule for Children	Alternate Uses Task; storytelling task	Intervention group improved in divergent thinking

Holmes et al. (2019)	C/Q	56	4.1–5.9 (M = 4.8)	59% male; primarily European American	Observational play scale	Goodenough Harris Draw a Person Task; Storytelling task; Test of Early Language Development	Imaginative play linked to creativity, language, and storytelling
Taylor et al. (2020)	C	77	8–12 (M = 10.18)	48% male; 78% European American	Paracosm interview; imaginary companion interview	Unusual Uses task; collage task; story-stem completion task; consequences task; draw-a-pretend-person task	Children with paracosms scored higher on the story-stem and draw-a-pretend-person tasks
Bunce & Woolley (2021)	C	72	4.4–7.9 (M = 5.8)	46% male; primarily White British	Imaginative Play Predisposition interview; Imaginary Companion interview; Impersonation interview	Instances task; Thinking Creatively in Action and Movement subtest; drawing task; imaginative	Higher fantasy orientation was associated with higher verbal and physical creativity
Nyein et al. (2022)	C	60	Preschool	43% male; 2 private preschools in Myanmar	Affect in Play Scale	Multidimensional Stimulus Fluency Measure	Pretend play linked to vocabulary, problem-solving, and cognitive flexibility
Iqbal et al. (2023)	C	19	3.5–5 (M = 4.26)	47% male; middle-class in Punjab, Pakistan	Complex Pretend Play observational checklist; teacher interview	Complex Pretend Play observational checklist; teacher interview	Pretend play enhanced creativity and cognitive-affective development
Bitew & Sewagegn (2024)	Q	4	6–6.5	50% male	Free play observation	Semi-structured interview relating to storytelling and drawing	Creative arts are related to storytelling and drawing pictures

Note. C = Correlational; E = Experimental; L = Longitudinal; Q = Qualitative.