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EMPIRICAL ARTICLE



What Shall We Do: Pretend or Real? Preschoolers' Choices and Parents' Perceptions

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ABSTRACT

Pretend play is common in childhood. Yet by age 4, children shown pretend and real activities in a book said they would choose to do the real activity over the pretend one. The present studies extended this research, examining children's actual behavior in laboratory and school settings (Study 1, $n = 32$, $M = 59.32$ months; and Study 2, $n = 16$, $M = 54.08$ months), their choices about pretend *roles* (Study 3, $n = 50$, $M = 59.48$ months), and parents' perspectives on what children prefer (Study 4, $n = 83$). As in prior work, 4-year-olds preferred real activities from a book; by 5, children also engaged more with real activities. In contrast, 3- to 4-year-olds preferred pretend roles and 5- to 6-year-olds were ambivalent. Parents correctly predicted children's preference for real activities, but they did not predict that children's reality preferences increase with age.

Pretend play is a ubiquitous and signature activity of the preschool years that involves projecting a mental representation onto reality in a spirit of fun, and often acting on that projection (Lillard, 2015). Indeed, when people refer to play during this period, they often mean pretend play (Lillard et al., 2013). American children pretend often; by age 4, children are considered to be in the “high season” of pretend play, spending nearly 20% of their waking hours pretending (Haight & Miller, 1993; Singer & Singer, 1990).

Although children around the world engage in pretend play, Western parents may be unique in the space, toys, and time that they dedicate to this activity. Western parents are fueled by the common belief that pretend play is important for healthy development (Parmar, Harkness, & Super, 2004; Roopnarine, 2010); this belief is supported by the American Academy of Pediatrics, which has called play (including pretend play) “essential to the cognitive, physical, social, and emotional well-being of children” (Ginsburg, 2007, p. 183; Milteer & Ginsburg, 2012). In other cultures that do not share this belief, children engage in much less pretend play (Gaskins, 2013; Lancy, 1996; Tudge, Brown, & Freitas, 2011). In many non-Western cultures, children are instead given real materials to engage in real activities with, and play is more firmly rooted in reality and the imitation of adult behavior (Power, 2000; Roopnarine, 2010; Tudge et al., 2011).

An interesting alternative to using the cultural ethos to consider how children might spend their time is to look at children's own choices. Children appear able to select activities in their zone of proximal development (Vygotsky, 1978); for example, infants

choose to look at stimuli that are neither too easy nor too difficult for them to parse (Kidd, Piantadosi, & Aslin, 2012; McCall, Kennedy, & Appelbaum, 1977). Physician-educator Maria Montessori believed that when free of adult interference and when provided constructive options, children choose activities that foster their own development. She initially provided toys for pretending in her classroom, but removed them as children demonstrated a preference for real things: “Although the children in our first school could play with some really splendid toys, none cared to do so ...” (Montessori, 1966, p. 122). Montessori believed, as did Piaget (who attended her training course), that pretend play was a manifestation of children’s unsatisfied desires (Montessori, 1997; Piaget, 1962), and she found that when real materials were made available, children would forgo toys and pretending.

To examine whether children, given the option, choose real over pretend activities, Taggart, Heise, and Lillard (2018) asked one hundred 3- to 6-year-old children whether they would prefer to do a pretend activity or its real equivalent. Nine activities were selected as ones that young children actually can engage in, but for which toys for pretending are commonly available (e.g., cutting vegetables and washing dishes). In this study, children strongly preferred real activities, even though they were at an age when pretend play is preeminent (Singer & Singer, 1990). In fact, there was not a single activity that children preferred to pretend rather than really do. The youngest children (3-year-olds) appeared ambivalent, but by age 4, there was a strong reality preference which held through age 6 (the oldest children tested). At all ages, when children chose real activities, their justifications commonly appealed to functionality: what could be accomplished if one were to do the real versus the pretend activity. When children occasionally did choose pretend activities, it was most often because they were unable, unallowed, or afraid to do the real thing. This initial study revealed a preference among preschoolers for real activities over pretend ones.

However, it is possible that children’s reported preference for real activities would not manifest in their behavior. People can say one thing but do another (Deutscher, 1973). Perhaps when given the opportunity to actually participate in pretend and real activities, preschoolers would choose to pretend, despite what they claim to prefer. To examine whether the preference shown in the book task in Taggart, Heise, et al., (2018) extends to behavior, Studies 1 and 2 made pretend and real activities available to children in the laboratory and classroom respectively. How children spent their time was recorded.

When pretending, it is common for children to enact a particular role, *becoming* someone else. For example, a child may just pretend to cut vegetables, but they may also do so while pretending to be a chef. Perhaps these two types of pretending differentially appeal to children; prior work has not examined this possibility, and we do so in Study 3. Pretending roles (compared to just doing pretend activities) might be especially desirable to children. Vygotsky (1967) believed that through pretend play, children practice adult roles beyond their present capability: “In play, it is as though [the child] were a head taller than himself” (Vygotsky, 1978, p. 102). Children might more often choose pretend roles, especially ones reserved for adults (e.g., professions) that they cannot currently adopt.

Children, particularly girls, often express a preference for roles and professions that stereotypically align with their own gender (Teig & Susskind, 2008). In the preschool years, children’s stereotype knowledge increases considerably, and the rigidity of their

beliefs about what activities and behaviors are appropriate for each gender peaks (Ruble et al., 2007). At this age, children are very concerned with gender stereotypes, reporting that they like children of their own gender more and expressing that they prefer same-gender playmates (Martin & Ruble, 2004). Therefore, it becomes important to also consider children's own gender and the gender stereotypes that might be associated with the roles. Children might feel differently about pretending gender stereotypical versus counterstereotypical roles.

In Studies 1 through 3, an overarching concern is whether children understand the meaning of “pretend.” Children as young as 2 understand make-believe stipulations; for example, when shown a cow and told the cow wanted tea, children correctly poured pretend tea from an empty teapot, and after watching an experimenter feed an animal a banana (a yellow brick), children correctly chose unused yellow bricks to feed the animal more bananas (Harris & Kavanaugh, 1993). By 3, children make pretend–real comparisons explicitly, and some begin using “real” as a contrastive to pretend as early as 2 (Woolley & Wellman, 1990). These studies suggest preschoolers have a sufficient grasp of “pretend” to know what is meant in these tasks.

A final question, also unexplored to our knowledge, is whether parents recognize that children express a preference for real activities over pretend ones. As mentioned earlier, many Western parents encourage pretend play and provide toys to support this activity. They might believe that pretend play is important to children's development and therefore want to facilitate engagement. But another possibility also exists. Parents might encourage and support pretend play because they believe children prefer pretend play, perhaps particularly for household activities seen as chores, like washing dishes. This is an open question, addressed in Study 4.

Study 1

Study 1 addressed whether children's claimed preference for pretend and real activities manifests when children are given the opportunity to actually engage in both types of activities. Following a free-play period, children reported their preferences in book format. To examine preferences for different activities, and because many activities in Taggart, Heise, et al., (2018) were inappropriate for the laboratory (e.g., riding a real horse), eight new activities were introduced. Additionally, to explore whether the book task was influenced by the behavior task, a separate follow-up study was conducted and is described at the end of the Results.

Method

Participants

Participants were 32 children ages 3 to 6 ($M = 59.32$ months, $SD = 14.40$ months, range = 36.4–83.7 months; 16 female): 8 three-year-olds, 9 four-year-olds, 8 five-year-olds, and 7 six-year-olds. Five additional children participated but were excluded due to parent interference ($n = 3$), failure to complete the study ($n = 1$), or experimenter error ($n = 1$). This sample size was determined based on a power analysis using data from Taggart, Heise, et al., (2018), which indicated a minimum sample of 25 children to have 80% power at $\alpha = .05$. The sample was predominately middle class and 75% White, 16% multiracial, and 9% Asian.

Materials and procedure

Participants were tested in a university laboratory. They first completed the behavior task, followed by the book task. In this and all studies described here, parents provided written consent and children verbally assented to participate, in keeping with the studies' approval by the Institutional Review Board.

Behavior task. Children were seated at a small table facing two empty shelves labeled "Real" and "Pretend." The shelves were both 91.3 cm wide, but one was 104 cm high and the other was 120 cm high; this was due to availability, and so which shelf held the pretend materials was alternated. A box of objects located in front of the shelves contained eight item pairs: pretend and real camera, vacuum, stethoscope, crayons and paper, recorder (instrument), spray bottle and cleaning cloth, microscope, and box of cereal and bowl.

The experimenter sat down across from the child, between the box and the shelves, and said, "I have a box of different things to show you! And I have different shelves to put them on. All of the real things go here [pointing to the shelf with the 'Real' label] and all of the pretend things go here [pointing to the shelf with the 'Pretend' label]. Let me show you!" The experimenter then presented the pairs of items and placed each object on the corresponding shelf: "Look, this is a real [object], so this is going to the real shelf [placing the object on the shelf labeled 'Real']". And look, this is a pretend [object], so this is going to the pretend shelf [placing the object on the shelf labeled 'Pretend']".

After all of the items were placed, the experimenter reiterated, "All done! See? I put all of the real things over here [pointing to the shelf labeled 'Real'] and all of the pretend things over here [pointing to the shelf labeled 'Pretend']". She then explained, "I have some work to finish, but while I'm working, you can do whatever you'd like with all of these things. You can use whatever you want! I'll be done soon. Go ahead!" The experimenter then moved the now-empty box aside and sat at a nearby table for 10 min or until the child expressed being done or stopped engaging with the materials for more than 1 min.

The object presentation order was randomly determined and then held constant, resulting in the same arrangement of objects on the shelves for all children. Whether the real or the pretend object was presented first alternated by object. To ensure that superficial features of the shelves did not influence children's behavior, the size (smaller or larger) and placement of the shelves (left or right) were counterbalanced. The objects were selected to be recognizable to children and commonly available as pretend toys in local stores and from online retailers. Despite being recognizable, some objects were likely more familiar than others (e.g., crayons versus a microscope). However, the real and pretend versions were similar to each other, and because our interest was whether children preferred pretend to real, variation in familiarity between object pairs was not at issue.

Within object pairs, there was strong similarity. The pretend and real objects had equivalent numbers of parts to handle; for example, both the pretend and real camera had a button to press to produce an outcome – the appearance of a little clown in one case, and a printed photograph in the other; both the pretend and real vacuums rolled and neither used electricity; and the same numbers and colors of pretend and real crayons were provided with paper. The number of actions that could be completed with each object were also equal, with each affording one primary action (e.g., pressing a button, rolling on the floor, and scribbling). Pertinent to our research question, the pretend and

real objects differed starkly in their functionality: Only the real objects could produce a real-world outcome (e.g., a photograph, a clean floor, or a drawing).

Behavior task coding. Children's behavior during the free-play period was coded by a single researcher using ELAN (<https://tla.mpi.nl/tools/tla-tools/elan/>). The duration of the child's engagement with the objects was recorded, beginning the moment that the child's hand came into contact with an object and ending when the child's hand was fully removed from an object after terminating its use; these durations for the individual objects were summed to determine total time with pretend objects and total time with real objects. If the child used a pretend and a real object simultaneously, then the object with the primary function was coded. A second researcher coded 20% of the videos for reliability, which was excellent, $r = .99$, $p < .001$. Because children spent different amounts of time actively engaged in free play ($M = 482.25$ sec, $SD = 91.07$ sec, range = 248.14–585.22 sec), proportion of time was used in all analyses unless otherwise specified.

Book task. After the behavior task, the experimenter sat across from the child at a small table and presented a book measuring 22×28 cm containing photos of boys and girls (gender-matched) using pretend and real versions of the same objects from the behavior task. For each of the eight trials, children viewed a pair of photos and the experimenter explained, "Look, this boy/girl is really [describe using object], and this boy/girl is pretending to [describe using object]. See? This is a real [object], and this is a pretend [object]. Which would you rather do?" The experimenter then asked, "Why would you rather [choice]?" to elicit an explanation. Whether the real or pretend activity was on the right or left was randomly determined and then held constant; the order of the activities matched their presentation during the behavior task. The administration of this task was identical to Taggart, Heise, et al., (2018).

Book task coding. Children's choices were noted and their justifications coded into the categories used by Taggart, Heise, et al., (2018): (1) Ability, avoidance, and permission (being able [or unable] to engage in activity; fear of a negative outcome associated with activity; being allowed to engage in activity or not); (2) experience and novelty (having [never] done the activity before); (3) functionality and utility (recognizing differences in what can be done for real versus in pretend; helping someone by doing the activity); and (4) liking (enjoying the activity). Other responses (e.g., "I don't know"; 23% of the total) did not fit the categories and were labeled uncodable. When children gave more than one explanation for a choice, their first explanation was the one coded. Agreement was perfect on 20% of children's justifications.

Results

Children's shelf preferences were examined first. We then examined children's responses in the book component of the study and compared those results to children's behavior during free play and to a separate follow-up study. Table 1 summarizes the results of all studies, including the justifications.

Table 1. Results and justifications using a forced-choice task across studies.

		Study 1 (<i>n</i> = 32)	Study 1 Follow-up (<i>n</i> = 32)	Study 3 (<i>n</i> = 50)	Study 4 (<i>n</i> = 83)	Taggart, Heise, et al., (2018) (<i>n</i> = 100)
Mean Pretend Choices		1.66 of 8	2.66 of 8	6.84 of 12	3.23 of 9	3.14 of 9
Real Justifications	Ability/Avoidance/Permission	0%	-	5%	1%	4%
	Functionality/Utility	56%	-	68%	43%	45%
	Experience/Novelty	17%	-	12%	24%	13%
	Liking	27%	-	15%	32%	38%
Pretend Justifications	Ability/Avoidance/Permission	41%	-	63%	72%	46%
	Functionality/Utility	18%	-	12%	7%	9%
	Experience/Novelty	11%	-	10%	13%	17%
	Liking	30%	-	15%	8%	28%

Shelf preferences

During free play, children spent 186.20 seconds with pretend objects ($SD = 138.11$ sec, range = 0–566.36 sec) and 296.05 seconds with real objects ($SD = 184.60$ sec, range = 0–552.44 sec). Based on Taggart, Heise, et al., (2018), we expected children to prefer real objects to pretend ones, and so a one-tailed t -test was used to compare time spent with pretend and real objects; the difference was significant, $t(31) = 1.99$, $p = .028$, Cohen's $d = 0.67$. Children engaged more with the real objects. Of their time engaged with the objects, they spent on average 58% of their time with real objects and 42% of their time with pretend ones. We also examined which shelf children approached first. When free play began, 12 children (37.5%) first approached the real shelf and 20 children (62.5%) first approached the pretend shelf; the Binomial test indicated that this difference was not significant.

Age was negatively correlated with the proportion of time spent with pretend objects, $r(30) = -.42$, $p = .017$; with age, children spent a greater proportion of their time with real objects. The sample was then split by younger (3- and 4-year-olds; the younger half of the sample) and older (5- and 6-year-olds; the older half of the sample), and the proportion of time with pretend objects was examined using a two-way ANOVA with age group (younger, older) and sex (male, female) as between-subjects variables. This revealed a main effect of age group but not sex, and an interaction between sex and age group. The proportion of time spent with pretend objects differed by age group, $F(1, 32) = 6.25$, $p = .019$, $\eta_p^2 = .18$. Younger children (3- and 4-year-olds) spent approximately the same proportion of time with pretend (54%) and real objects (46%), whereas older children (5- and 6-year-olds) spent a much lower proportion of time with pretend (28%) than real objects (72%). There was an interaction between age group and sex, $F(1, 32) = 5.51$, $p = .026$, $\eta_p^2 = .16$. Whereas younger and older girls did not significantly differ in the proportion of time spent with pretend objects (44% and 43%, respectively), $t(14) = 0.09$, $p = .928$, Cohen's $d = 0.04$, there was a significant difference between younger and older boys (69% and 19%, respectively), $t(14) = 4.36$, $p < .001$, Cohen's $d = 2.07$.

Finally, individual differences were explored. Twenty children (63%; 10 female) spent a majority of their time (>50%) at the real shelf, and 12 children (38%; 6 female) spent a majority of their time at the pretend shelf. On average, children who spent a majority of their time at the real shelf were older ($M = 63.66$ months, $SD = 14.34$ months) than children who

spent a majority of their time at the pretend shelf ($M = 52.08$ months, $SD = 11.73$ months). Only 5 children spent 100% of their time at a particular shelf: 4 at the pretend shelf, and 1 at the real shelf. These exclusive pretenders were on average 47.3 months old (2 male, 2 female), and the exclusive realist was 52.3 months old and female.

Book responses

When subsequently shown the same activities in book format using questions identical to Taggart, Heise, et al., (2018), children chose pretend on average for 1.66 of the 8 activities ($SD = 1.86$, range = 0–7), which was significantly fewer than the 4 expected by chance, $t(31) = -7.13$, $p < .001$, Cohen's $d = -1.26$. There was a marginally significant negative correlation between children's age in months and number of pretend choices, $r(30) = -.34$, $p = .054$. A two-way ANOVA using age group (younger, older) and sex (male, female) as between-subjects variables and number of pretend book choices as the dependent variable revealed a main effect of age group but not sex, and no interaction. The number of times children chose pretend in the book differed by age group, $F(1, 32) = 5.60$, $p = .025$, $\eta_p^2 = .17$. Younger children (3- and 4-year-olds) chose pretend an average of 2.29 times ($SD = 2.17$), whereas older children (5- and 6-year-olds) chose pretend an average of 0.93 times ($SD = 1.10$). Finally, the number of times children chose pretend in the book was significantly correlated with the proportion of time they spent with pretend objects during free play, $r(30) = .42$, $p = .016$. Children who spent a greater proportion of time engaged with pretend objects also chose more pretend activities in the book.

Justifications. Children most often justified their choice of a real activity with functionality and utility (56% of codable real justifications; e.g., “So I can actually clean up your room so you don’t have to do it”). The next most common were liking (27%; e.g., “Because I like to”) or experience (17%; e.g., “Because I’ve made food before, and my parents and I have made it, and we all love it”). References to ability, avoidance, and permission did not occur.

When children justified their choice of a pretend activity, their most common justification was ability, avoidance, and permission (41% of codable pretend justifications; e.g., “So I don’t make a mess”). The next most common were liking (30%; e.g., “Because I like the toy”), functionality and utility (18%; e.g., “Because [the pretend vacuum] is smaller and you can use one hand”), and experience (11%; e.g., “Because I have one at home”).

Overall, the results of Study 1 align with Taggart, Heise, et al., (2018). In both studies, children chose pretend activities significantly less than expected by chance, and they justified their choices similarly: They chose real activities due to their functionality (45% of real justifications in Taggart, Heise, et al., (2018) and 56% of real justifications in Study 1) and pretend activities because they believed themselves unable or unallowed to do the real thing (46% of pretend justifications in Taggart, Heise, et al., (2018) and 41% of pretend justifications in Study 1) or liked pretending (28% of pretend justifications in Taggart, Heise, et al., (2018) and 30% of pretend justifications in Study 1). One issue is the extent to which responses to the book task might have been influenced by the play period; a follow-up study examined this possibility.

Follow-up study

A follow-up explored whether responses to the book task were influenced by free play, or whether the strong responses were due to the activities themselves (which were different from those used by Taggart, Heise, et al., (2018)). Thirty-two additional 3- to 6-year-old children ($M = 58.89$ months, $SD = 13.50$ months; 16 female; 81% White, 9.5% Black, 9.5% Asian) completed only the book task. They chose pretend on average for 2.66 of the 8 activities ($SD = 1.99$, range 0–8), significantly less than the 4 activities expected by chance, $t(31) = -3.81$, $p = .001$, Cohen's $d = -0.67$. Children who engaged in free play chose one fewer pretend option ($M = 1.66$) than children who did not ($M = 2.66$); this difference was significant, $t(62) = 2.08$, $p = .042$, Cohen's $d = 0.52$.

Discussion

When given the opportunity to engage with toys for pretending and their real equivalents during free play, 5- and 6-year-olds chose to engage in real activities more than pretend ones, whereas 3- and 4-year-olds engaged equally. This pattern appeared to be driven by boys; although younger and older girls engaged similarly, younger and older boys differed dramatically. After engaging in pretend and real activities, almost all children showed a strong preference for real activities when portrayed in book format, and this real preference in the book was more pronounced for children who had engaged in free play than those who had not. Engaging with objects in free play might encourage children to be even more interested in real activities, and possibly negate feelings of being unallowed, unable, or afraid to do the real thing. Additionally, the number of pretend choices made in the book task was significantly correlated with the proportion of time spent with pretend objects, suggesting consistency in children's preferences and validity for the book task.

Alternatively, perhaps the real objects seemed more novel to children, and that made them more appealing. This is unlikely; many objects were very familiar to children in their real forms (e.g., crayons), and the pretend and real objects were highly similar. Children were not more likely to first approach the real shelf, and their behavior did not indicate that they first examined more novel real materials and then resorted to pretending once the novelty wore off. Additionally, children's justifications do not suggest novelty as an appeal to the real objects, and children claim pretend activities look as fun as real activities (Taggart, Heise, et al., 2018).

This study reveals that for older preschoolers, and especially boys, preference for real activities manifests in their behavior. Yet, this study was conducted in the laboratory. Perhaps behavior was impacted by the setting or by explicit labeling of the objects as pretend or real. Study 2 examined whether a preference for real activities manifests in a more naturalistic setting, namely a preschool classroom where the materials are freely available and not explicitly labeled.

Study 2

Study 2 aimed to determine whether children freely choose real activities over pretend ones at school. We chose a Montessori preschool classroom because such classrooms offer many opportunities for real engagements: They typically provide 20 or more "Practical Life" activities (e.g., food preparation, plant care, etc.; Association Montessori

Internationale, 2015), with no specific materials for pretending. For example, one activity is cutting vegetables with a knife to prepare snack. Conventional preschools might provide a pretend version, such as wooden vegetables held together with Velcro that children can cut with a wooden knife, but teachers in such classrooms would probably be reluctant to put real knives in the room for an experiment. A Montessori teacher was willing to put pretend versions of some Montessori materials in the classroom, allowing us to include real and pretend versions of activities in the same classroom.

Methods

Participants

Participants were 16 children ages 3 to 6 ($M = 54.08$ months, $SD = 11.10$ months, range = 37.6–72.0 months; 10 female): 6 three-year-olds, 6 four-year-olds, 2 five-year-olds, and 2 six-year-olds enrolled in a local Montessori preschool. Two additional children were in the class but did not have permission to participate in the study and so were not observed. The sample size in this study was limited by teacher participation. Although five Montessori schools were invited to participate in this study, only one was willing to change usual practice and insert pretend materials into the classroom. Post-hoc power analysis indicated that this sample size provided 44% power at $\alpha = .05$. The sample was predominantly middle class, 81% White and 19% Asian.

Materials

Four different pretend materials were introduced into the classroom: a tea set, a flower arranging set, a polishing set, and a snack preparation set. These materials were chosen because the real equivalents were already available to children in the classroom. Each set of materials was placed on a shelf alongside its real equivalent before school on the first observation day. There was no special introduction that would draw children's attention to these materials; they were simply present when school began.

Procedure

Children were observed once a week for eight weeks during a 2-hour period when children were free to choose their own activities. The experimenters observed different materials, and so there was no overlap in observations; the very high reliability obtained in Study 1 indicated engagement was uncontroversial, so interrater reliability was not determined. The experimenters stood in a corner where they could clearly see each set of materials. When a set was removed from its shelf, the experimenters recorded the user, onset time, and duration of use. These observations tracked only the pretend and real materials described above, not every material that a child used (e.g., math materials), and so it was possible for children to not engage with any study materials on a given day.

Results

We expected children to more eagerly engage with the pretend materials during the introductory week due to their novelty. Materials in a Montessori classroom generally stay consistent, so introduction of any new material is often followed by considerable interest. Further, Montessori does not include toys for pretending, perhaps increasing the

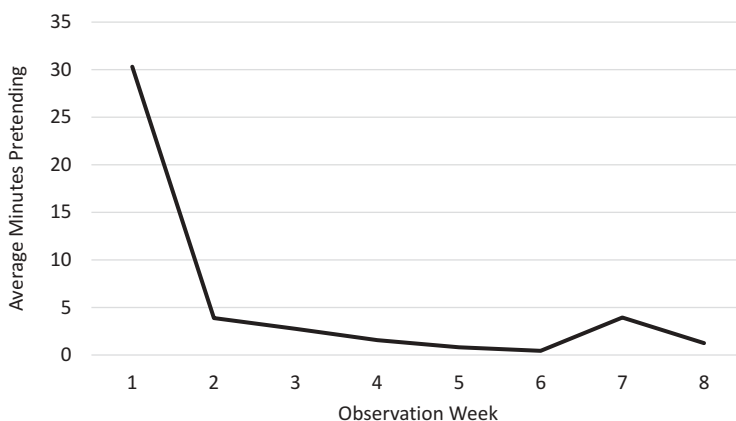


Figure 1. Study 2. Average number of minutes children engaged with the pretend materials across the eight classroom observation sessions.

novelty of these toys. This proved true: pretend materials were used an average of 30.13 min ($SD = 22.53$ min, range 0–62 min), a quarter of the work period, in Week 1, but then use dropped to an average of fewer than 5 min in Weeks 2–8 (see Figure 1). This early interest inflates the average time children spent with pretend compared to real materials. Therefore, we first present analyses across all eight weeks, followed by analyses with the introductory week excluded.

Across the eight weeks, we examined the number of observation days that each child engaged with the pretend materials. Children engaged with at least one pretend material on average for 3.13 of the 8 days ($SD = 1.45$ days, range = 1–6 days). All children used the pretend materials at least once, and all but one used pretend materials on the first day. No child engaged with the pretend materials during every observation.

Next, we compared differences in use between the pretend materials and their real equivalents. The classroom was full of other real materials; we compared pretend to only the four real materials for which we inserted pretend equivalents. Across the eight weeks, children used the pretend materials for an average of 44.75 min ($SD = 23.08$ min; range 8–89 min), and the real materials for an average of 42.50 minutes ($SD = 51.57$ min; range 0–176 min); a paired-samples t -test indicated that this difference was not significant, $t(15) = 0.16$, $p = .879$, Cohen's $d = 0.04$. It should be noted that time spent using the matched real materials was more variable. Five children never used the real materials, and an outlier engaged with the real materials for 176 min. The remaining 10 children used the real materials for an average of 50.40 min ($SD = 37.14$ min; range 3–111 min).

The total time with each type of material (pretend and real) was then divided by the total number of times children engaged with each type of material to calculate Time Per Engagement. Eleven children used both pretend and real materials during the observation period; the other 5 used only the study pretend materials when they were not using materials unrelated to the study. For these 11 children, the Time Per Engagement between pretend and real was significantly different, with the Time Per Engagement for pretend materials ($M = 5.41$ min, $SD = 2.91$ min) less than half of that for real materials ($M = 11.14$ min, $SD = 3.91$ min), $t(10) = 5.86$, $p < .001$, Cohen's $d = 1.66$.

Next, the same statistics were run excluding the first day, for reasons discussed above. With the first day excluded, children used the pretend materials for an average of 14.63 min ($SD = 12.59$ min; range 0–39 min), and the real materials for an average of 36.38 minutes ($SD = 47.41$ min; range 0–159 min); a paired-samples t -test indicated that this difference was marginally significant, $t(15) = -1.90$, $p = .076$, Cohen's $d = 0.48$. After the first day, 3 children never were observed using the pretend materials. The remaining 13 engaged with the pretend materials for an average of 18.00 min total ($SD = 11.50$ min; range 4–39 min) across the seven subsequent observation days. Six children never engaged with the real materials, and one child was an outlier, using the real materials for 159 min. The remaining 9 children engaged with the real materials for an average of 47.00 min ($SD = 34.86$ min; range 3–111 min).

Seven children used both pretend and real materials during the last seven weeks; the other 9 children engaged with only pretend ($n = 6$) or real ($n = 3$) materials and materials unrelated to the study. For these 7 children, the difference in Time Per Engagement became even more pronounced; Time Per Engagement for pretend materials ($M = 3.95$ min, $SD = 2.39$ min) was roughly a third of the time spent with the equivalent real materials ($M = 10.95$ min, $SD = 5.22$ min). A paired samples t -test indicated that this difference was significant, $t(6) = -3.47$, $p = .013$, Cohen's $d = 1.31$.

Discussion

In a naturalistic setting – their preschool classroom – once the novelty of new materials had worn off, children spent more time in real activities than pretend versions of those same activities. They showed a good deal of interest in the pretend activities when the materials were first introduced, but once children had explored the pretend materials (and all but one child did so the first day), their interest in them plummeted and the materials received little further use. Even when the pretend materials were used, they were used for much shorter periods of time. One child was an exception; whether this reflects a general “fantasy predisposition” is of interest for further study.

The real materials we selected also received relatively little use during the study, with five children not using them at all during the last seven weeks of observation. These real materials were selected because children were familiar with their use and they had suitable pretend play analogs. Many other real, practical life materials are available to children in the classroom, and so children might have engaged less with the selected real materials than others. However, even if these real materials were less appealing than other materials in the classroom, children still spent more time with them than their pretend equivalents.

Since there are considerable differences regarding encouragement of pretend play between Montessori and conventional preschool classrooms, perhaps the preferences of Montessori children do not generalize to other children. However, differences in desire for pretend play might not be as drastic as the differences in classroom environments might suggest. Even children who mostly attended conventional preschools strongly preferred real activities when looking at them in a book, although Montessori preschoolers preferred real activities slightly more (Taggart, Fukuda, & Lillard, 2018). Furthermore, Montessori children's behavior was consistent with the behavior of non-Montessori children in the laboratory in Study 1. In future research, it would be interesting to examine whether children in conventional preschools also choose to use real materials if they are provided.

Overall, Study 2 supports that pretending is not a superlative activity for all children. When given the opportunity, children in a Montessori classroom readily and freely chose to engage with real materials and became more engaged with real materials than pretend ones.

Study 3

Study 3 investigated whether children prefer pretend for items that involve identity (role play) rather than action. Because preschool-aged children have strong views about gender-appropriateness (Martin & Ruble, 2004; Ruble & Martin, 1998), it was also important to examine whether preferences might be affected by gender stereotypes associated with the roles.

Methods

Participants

Participants were 50 children ages 3 to 6 ($M = 59.48$ months, $SD = 13.51$ months, range = 39.0–83.0 months; 26 female): 12 three-year-olds, 14 four-year-olds, 12 five-year-olds, and 12 six-year-olds. This sample size was determined based on a power analysis using data from Taggart, Heise, et al., (2018), which indicated a minimum sample of 25 children to have 80% power at $\alpha = .05$; to be conservative because testing roles was new, we doubled the sample size. The sample was predominantly middle class and 72% White, 8% Black, 4% Asian, and 2% multiracial; 14% provided no response.

Materials

Participants were presented a 22×28 cm picture book depicting easily-identifiable pretend and real items that 12 different types of professionals would use (e.g., a firefighter's helmet, a nurse's stethoscope). Pictures of items were used rather than pictures of individuals to avoid providing children with age- and gender-related information.

Four professions were stereotypically male (firefighter, astronaut, builder, and scientist), four were stereotypically female (teacher, cleaner, nurse, and babysitter), and four were gender neutral (artist, photographer, chef, singer). These professions were chosen using the U.S. Bureau of Labor Statistics from 2017. According to this data, 94% of firefighters are male, 76% of astronauts are male (but since the founding of NASA are 90% male), 97% of builders are male, and scientists are often male, although variation exists within specific professions. For the female professions, 99% of teachers at the preschool and kindergarten level (representing the teachers that participants would have contact with) are female, 89% of cleaners are female, 89% of nurses are female, and 95% of babysitters are female. For the gender-neutral professions, 57% of artists are female, 50% of photographers are female, 55% of chefs are female, and 40% of singers/musicians are female (Bureau of Labor Statistics, 2017). These professions were selected to be familiar to children, although the main concern was not familiarity but choice of pretend or real.

Procedure

Participants were tested in a children's museum ($n = 32$) or a university laboratory ($n = 18$), and responses did not differ by location. Children were told they would be shown "a book with all kinds of different people that [they] could really be or pretend to

be,” and that the experimenter would ask if they would rather really be them or pretend to be them. The experimenter explained, “Look, this is a real [firefighter’s helmet], and this is a pretend [firefighter’s helmet]. Would you rather really be a [firefighter], or pretend to be a [firefighter]?” Children were then asked to justify their choice: “Why would you rather [choice]?” Whether the real or pretend role was on the right or left was randomly determined and then held constant across children for that item.

Coding. Pretend and real choices were recorded, and children’s justifications for those choices were coded as in Study 1. Twenty-three percent of responses did not fit the categories and so were labeled uncodable. When children gave more than one explanation for a choice, their first explanation was the one coded. Cohen’s kappa was run on 20% of children’s justifications and agreement was very good, $\kappa = .97$ (95% CI: .93–1.00), $p < .001$.

Results

Children chose pretend for 6.84 of the 12 roles ($SD = 3.39$, range = 0–12). A t -test indicated that 6.84 was not significantly different from the 6 that would be expected by chance. Consistent with Study 1 and prior research, there was a significant negative correlation between children’s age in months and their number of pretend choices, $r(48) = -.33$, $p = .021$. The sample was then split by younger (3- and 4-year-olds; the younger half of the sample) and older (5- and 6-year-olds; the older half of the sample), and a two-way ANOVA with age group (younger, older) and sex (male, female) as between-subjects variables and number of pretend choices as the dependent variable revealed a main effect of age group but not sex, and no interaction. The number of times children chose pretend differed by age group, $F(1, 50) = 5.40$, $p = .025$, $\eta_p^2 = .11$. Younger children (3- and 4-year-olds) chose pretend roles an average of 7.88 times ($SD = 3.37$), whereas older children (5- and 6-year-olds) chose them an average of 5.71 times ($SD = 3.10$). A t -test indicated that younger children chose pretend significantly more often than the 6 times expected by chance, $t(25) = 2.84$, $p = .009$, Cohen’s $d = 0.56$, but older children were at chance.

In examining individual differences, few children showed a strong preference for a particular type of role: 6 of the 50 children always chose pretend roles and 2 children always chose real roles. Looking at weaker preferences, 19 children chose at least 8 pretend roles, 19 children chose 5–7 (about half) pretend roles, and 12 children chose fewer than 4 pretend roles. Thus, when deciding whether to *be* someone (as opposed to simply engaging in an action), children opt somewhat more for pretending.

To examine whether children made different choices depending on the alignment of their own gender with the stereotypical gender of the profession, a repeated measures ANCOVA was run with gender as the between-subjects variable and stereotypical gender for the profession (male, female, or neutral) as the within-subjects repeated measure, covarying age. This indicated a significant difference, $F(2, 46) = 3.35$, $p = .04$, $\eta_p^2 = .13$. Planned contrasts showed that girls chose to pretend more male ($M = 2.58$, $SD = 0.26$) than female ($M = 2.26$, $SD = 0.28$) professions and boys chose to pretend more female ($M = 2.60$, $SD = 0.29$) than male ($M = 2.04$, $SD = 0.27$) professions, $F(1, 47) = 4.27$, $p = .04$, $\eta_p^2 = .08$; see Figure 2. Looking at individual items, really being a nurse was an exception: Boys chose to pretend this role as often as girls did.

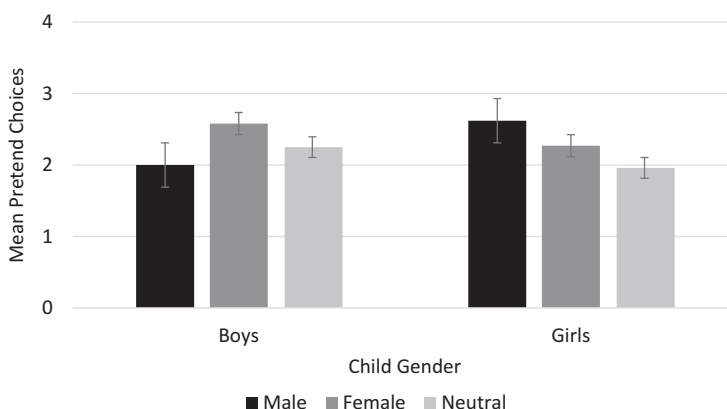


Figure 2. Study 3. Children’s mean number of pretend choices by their own sex and the sex stereotype of the profession. Bars represent standard error.

Justifications

The most common justification for choosing a real role was functionality and utility (68% of codable real justifications) – drawing attention to what could be done in the real role versus the pretend role (e.g., “Because I really want to explore new things” for the scientist item, or “I could float around in space” for the astronaut item); see Table 1. The next most common justifications were liking (15%; e.g., “Because I like to” for the artist item) and experience (12%; e.g., “Because I already do it and I’ve gotten used to it” for the singer item). Appeals to ability, avoidance, and permission were less common (5%; e.g., “I’m good at making food” for the chef item).

When children chose pretend activities, the most common justification was ability, avoidance, and permission (63% of codable pretend justifications; e.g., “Because I could get really hurt” for the firefighter item). The second most common justification was liking (15%; e.g., “Because I like to just pretend” for the singer item), followed by functionality and utility (12%; e.g., “So I can build a house out of my blankets” for the builder item) and experience (10%; e.g., “Because I have a pretend nurse kit” for the nurse item).

Children’s overall justifications differed significantly by gender, $\chi^2(4) = 11.60$, $p = .02$, Cramer’s $V = .14$, with boys using liking more and girls providing more uncodable responses. When justifying pretend choices, both boys and girls most often referred to ability, avoidance, and permission regardless of the gender stereotype of the role. Girls provided this justification at similar rates for female (75%) and male (66%) roles, whereas the difference in boys’ use of this justification for female (72%) and male (45%) roles was more pronounced. It appeared that girls felt similarly comfortable with the male- and female-stereotyped roles, whereas boys were more comfortable with male-stereotyped roles and less comfortable with female-stereotyped roles. For example, one boy drew explicit attention to gender stereotypes when he chose to pretend to be a nurse (“Because a nurse is a girl”).

Discussion

Overall, children did not significantly prefer to take on a professional role for real or in pretend, although younger children did prefer pretend and older children were

ambivalent. Similar to Study 1 and Taggart, Heise, et al., (2018), children most often appealed to functionality when selecting real roles, and ability, avoidance, and permission when selecting pretend roles. The present study suggests that children were most comfortable choosing real roles consistent with their gender. This difference might have emerged because children did not have to adopt any of the roles that they selected. Perhaps to children, saying that they really wanted to be a certain role felt more like becoming the opposite sex – something they wanted to avoid – than just pretending.

It is possible that children interpreted our question not as we worded it (“Would you rather really be [role], or pretend to be [role]?”), but rather as “Which [item] do you like better for role play?” However, based on choices and justifications, this does not appear to be the case. Children seemed to understand that the images were a representation of the profession, not pretend and real props to be used for play. If this study were to simply assess which objects and/or associated activities children liked, we would expect a stronger real preference, in line with other studies. Instead, children leaned toward pretending. This could be because children understand that they cannot really be a particular profession, despite their willingness to entertain the idea, and so only when they are old enough to understand the hypothetical do they start choosing real options. We return to this idea in our General Discussion.

Study 4

Given that parents encourage pretend play (e.g., by supplying materials, by choosing play-based preschools, and so on), in Study 4, we were interested in whether parents recognize that children claim to prefer real activities to pretend ones. Using a survey, parents were asked to predict and justify their children’s preference for the nine activities used in Taggart, Heise, et al., (2018).

Method

Participants

Participants were 83 parents (63 female) of children ages 3 to 6 ($M = 59.88$ months, $SD = 13.43$ months, range = 37.2–83.7 months; 41 female): 21 three-year-olds, 21 four-year-olds, 21 five-year-olds, and 20 six-year-olds. Parents were invited to participate as their children completed other unrelated studies; post-hoc power analysis indicated that this sample size provided almost 100% power at $\alpha = .05$. Demographic information was not collected, but as with children in Studies 1–3, parents were predominantly White and middle class.

Materials and procedure

Surveys were collected in a university laboratory ($n = 65$), with an online Qualtrics survey ($n = 13$), and in a children’s museum ($n = 5$). Parents were told, “We are interested in adults’ views of children’s preferences for pretend and real activities, and why they think children prefer to engage in various pretend and real activities.” Parents were then asked, “For each of the activities below, please circle whether you think your child would rather pretend to do the activity or really do the activity. Then please explain why you think your child would make that choice.” The activities were those used in Taggart, Heise, et al.,

(2018) and included eating ice cream, riding a horse, baking cookies, feeding a baby, cutting vegetables, talking on a telephone, riding a tractor, going fishing, and washing dishes.

Coding. Parents' justifications were coded into the same four categories as in Studies 1 and 3; 6% did not fit the categories and were labeled uncodable. When parents gave more than one explanation, their first explanation was the one coded. Cohen's kappa was run on 20% of parents' justifications and agreement was very good, $\kappa = .82$ (95% CI: .75–.89), $p < .001$.

Results

Parents believed their child would choose pretend for 3.23 of the 9 activities ($SD = 1.76$, range = 0–7). A t -test indicated that this was significantly fewer than the 4.5 expected by chance, $t(74) = -6.27$, $p < .001$, Cohen's $d = 0.72$. To examine whether certain activities were preferred as pretend or real, the number of pretend choices for each activity was compared to chance. Pretend was chosen significantly less than would be expected by chance for six of the nine activities ($ps < .05$): eating ice cream, baking cookies, cutting vegetables, riding a tractor, fishing, and washing dishes. Pretend was chosen significantly more than would be expected by chance for one activity ($p < .001$): riding a horse. Two activities were at chance: feeding a baby and talking on the telephone.

Six parents viewed their child as a strong realist, predicting they would choose every real activity; no parent believed that their child would choose every pretend activity, and this difference is significant by a Binomial test, $p = .02$. The sample was then split by younger children (3- and 4-year-olds; the younger half of the sample) and older children (5- and 6-year-olds; the older half of the sample), and a two-way ANOVA with age group (younger, older) and sex (male, female) as between-subjects variables and number of pretend choices as the dependent variable revealed no main effects and no interaction. Parents believed 3- and 4-year-olds ($M = 2.92$, $SD = 1.71$) would choose pretending as often as 5- and 6-year-olds ($M = 3.53$, $SD = 1.78$), and boys would choose pretend ($M = 3.45$, $SD = 1.74$) as often as girls ($M = 3.00$, $SD = 1.78$). There was no significant correlation between child age and parents' predictions of pretend choices, $r(73) = .09$, $p = .444$.

Justifications

The most common justification parents provided for choosing a real activity was functionality and utility (43% of codable real justifications; e.g., "She feels satisfied when she accomplishes something"); see Table 1. The next most common justifications were liking (32%; "He likes to do so") or experience (24%; e.g., "He washes dishes at school, so he might prefer jumping right in to really wash them"). References to ability, avoidance, or permission were rare (1%; e.g., "He's not afraid and would want it to be a real [horse]").

In contrast, when parents indicated that their child would prefer a pretend activity, by far their most common justification was ability, avoidance, and permission (72% of codable pretend justifications; e.g., "I would think he would be too nervous," and "We haven't allowed her to use sharp knives yet"). The next most common justification was experience (13%; e.g., "She pretend plays kitchen, but does not help in the real kitchen"), followed by liking (8%; e.g., "He likes to pretend") and functionality and utility (7%; e.g.,

“He can keep coming back to [pretend ice cream]; with real eating, he will get full quickly”).

Discussion

Parents predicted that their children would prefer real activities, consistent with children’s expressed preferences in studies here and in Taggart, Heise, et al., (2018). However, parents’ predictions were not related to their child’s age, whereas Studies 1 and 2, as well as Taggart, Heise, et al., (2018) – which used the exact same items as this parent study – found that children increasingly chose real activities with age. Taggart, Heise, et al., (2018) found that boys preferred real activities more than girls, as did Study 1 with older boys, but parents did not predict this to be the case.

Parents showed a clear understanding of the reasons for children’s choices. Like children, they most often justified real activities with functionality and pretend activities with ability, avoidance, and permission. The rate at which parents appealed to real activities’ functionality (43%) was nearly identical to children’s (45%; Taggart, Heise, et al., 2018). For pretend activities, parents were attuned to whether their child had the skills and permission necessary to successfully complete the activity. Indeed, they appeared even more sensitive to this than their children, perhaps because they were the ones in control of permission: parents appealed to ability, avoidance, and permission 72% of the time compared to children doing so 46% of the time. In sum, this study reveals that parents believe their children prefer real activities, but fail to appreciate that this tendency increases with age.

General discussion

The present studies examined children’s preferences for pretend and real through actually engaging in these activities in the laboratory and a classroom (Studies 1 and 2), through preferences for different roles (Study 3), and as viewed by parents (Study 4). The results overall confirm that children are interested in real activities and show that their parents know this, while also revealing that young children will not so readily adopt real professional roles.

When given the opportunity to engage with toys for pretending and their real-world equivalents in the laboratory, older children, particularly boys, spent a greater proportion of their time interacting with real objects. They preferred the real experiences conferred by the materials: really taking pictures, or drawing with crayons. Younger children instead divided time between pretend and real activities; they did not show a preference. Perhaps younger children felt less capable of using the real materials even though they were offered them; indeed, several 3-year-olds mentioned to the experimenter that they could only use the pretend ones. An interesting direction for future research would be to examine preferences for novel or unfamiliar objects that are labeled as “real” and “pretend” to see if these preferences continue.

In a Montessori preschool classroom, children engaged minimally with materials for pretending when the real equivalents were available. Although children showed an initial interest in the pretend materials when they were first introduced, their interest dropped substantially for the remaining seven weeks. There was not a single child who used the pretend materials during all eight observations. When children did use the pretend materials, they spent less time with them than with the real materials. Our observations

align with those of Montessori (1967): “It was the children themselves who showed that they preferred ... the small ‘real life’ utensils to toys” (p. 169); “At first we had many toys, but the children always ignored them” (p. 223).

Unlike for activities, for role play, younger children preferred pretend and older children were ambivalent. Compared to activities, taking on an adult role seemed less feasible. Many children expressed the need to pretend these roles because they were not grown-ups yet, and they were also practical about not having the necessary materials (e.g., “I don’t have a rocket ship” for astronaut and “I don’t have a microphone” for singer). These justifications likely account for why the clear reality preference in Taggart, Heise, et al., (2018) disappeared; activities might feel more accessible than professional roles, which are not actually possible for children and must be entertained hypothetically. Future work can explore whether children’s choices change when the roles are accessible; the challenge will be to select roles that the children do not yet have experience with, but could still feasibly adopt.

Children’s preference for pretend roles became more pronounced when gender stereotypes were considered. Girls chose to pretend more male than female professions, and boys chose to pretend more female than male professions. Boys’ willingness to pretend to be various female-stereotyped professions might be surprising given Riley’s (1981) finding that kindergarten boys often refused to pretend that they were girls in an experimental setting, and some even cried at the idea. Children’s willingness to pretend to be gender-counterstereotypical professions when they might otherwise resist the idea suggests that they took the pretend and real alternatives seriously. At an age when gender is particularly salient to children, pretending could provide them a non-threatening way to try on these roles relative to committing to the real thing.

Moving from children’s choices to parents’ perceptions, parents predicted that their children would prefer real activities – an accurate prediction based on Taggart, Heise, et al., (2018). And yet, they did not expect children’s preferences to be related to their age. This contrasts with Taggart, Heise, et al., (2018) finding that preference for real activities increases from age 3 to 4 and then remains constant through age 6. Other interesting differences between children’s responses and parents’ predictions also emerged. Children never preferred pretend, whereas parents believed that children would prefer to pretend to ride a horse. Children and parents also differed in the activities for which pretending and really doing were equally appealing; for children, these activities were riding a tractor and washing dishes, and for parents, these activities were feeding a baby and talking on the telephone. Based on their justifications, these differences might be due to parents’ greater monitoring of their children’s abilities. Children and parents justified choices similarly, but parents appealed to ability, avoidance, and permission for pretend activities much more frequently than did children. These results suggest that to parents, a deciding factor in children’s engagement in pretend and real activities is their children’s ability.

If parents believe children prefer real activities, why provide so many resources for pretending? Future research should explore this question directly, but one possibility is the “play ethos” that permeates Western societies (Smith, 1988). Parents might view pretending as a crucial part of children’s lives, even though evidence supporting a unique role of pretend play in development is lacking (Lillard et al., 2013). Alternatively, even if parents know that children prefer real activities, they might have limited time and resources to engage in these activities together. At the end of a long day, it is understandably easier for parents to make dinner as their children entertain themselves in a play kitchen.

Across studies, there are consistent age-related findings with regard to preferences. Age is negatively correlated with children's pretend choices. When the samples were split into younger (3- and 4-year-olds) and older (5- and 6-year-olds) age groups, older children choose fewer pretend options than younger ones. Drawing on justifications, one possibility is that these preferences are less about age, and more about the activities available to children: 5- and 6-year-old children might have more ability and greater permission to engage in various activities than 3- and 4-year-olds. Interestingly, parents appeal to ability, avoidance, and permission similarly across ages, whereas among children, older rather than younger ones appeal more ability, avoidance, and permission when making pretend choices (Taggart et al., 2018). It might be that older children are more aware of their capabilities. Further research can systematically examine how age interacts with ability, avoidance, and permission in children's preferences.

Important questions remain: Who are the children who always choose pretend? Children differ in their proclivity toward fantasy (fantasy orientation; Taylor & Carlson, 1997). Is a strong preference for pretend activities a component of fantasy orientation? We do not yet know whether children's interest in pretend activities aligns with their interest in other elements of fantasy; this question is a pertinent question for future research. Do the children who prefer pretend more also strongly prefer fantasy in other aspects of their lives, and are they more likely to have imaginary friends?

Overall, children – especially older preschoolers – prefer real activities, and parents share this understanding of children's preferences. Age consistently emerges as an important predictor of children's preference, and context matters: children preferred the real for activities, but not for role play. Across studies, the desirable features of pretend and real activities emerge. Real activities are valued for their functionality. Really preparing food leads to yummy outcomes, and caring for babies and engaging in household chores helps the family. Indeed, children in traditional societies take pride in being permitted to engage in real work. Gaskins (2014) notes a young Yucatec Mayan girl expressing enthusiasm for doing laundry: “[It] felt good to be judged competent to do adult work” (p. 186). Some children in the present studies expressed similar sentiments, such as, “I like helping.” In comparison, pretending is valued when one cannot do the real thing, whether due to ability, permission, or other concerns.

Conclusion

These studies align with Taggart, Heise, et al., (2018) and raise questions about the cultural emphasis on pretend play as the superlative activity of early childhood. Although pretend play is a wonderful activity, it appears that much of the time, most children do not prefer it to real equivalents; the only exception was that younger children preferred to pretend adult roles rather than really take them on. Younger children were ambivalent about pretend activities, as were older children about pretend roles, and older children showed a strong preference for engaging in real activities over their pretend counterparts. People often present children's activities – particularly school activities – as a false dichotomy: they are working, or they are playing. Children's choices here suggest that they would like to “work” in the sense of engage in real, functional activities more often than Western culture appears to provide them the opportunity to do so. Surprisingly, parents appear to understand this; the question arises as to whether – and if not, why – the actual activities they support are aligned.

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