

The real thing: preschoolers prefer actual activities to pretend ones

Jessica Taggart  | Megan J. Heise | Angeline S. Lillard 

Department of Psychology, University of Virginia, Charlottesville, VA, USA

Correspondence

Angeline S. Lillard, Department of Psychology, University of Virginia, P.O. Box 400400, Charlottesville, VA 22904, USA.
Email: lillard@virginia.edu

Funding information

Brady Education Foundation; Sir John Templeton Foundation

Abstract

Pretend play is a quintessential activity of early childhood, and adults supply children with many toys to encourage it. Do young children actually prefer to pretend, or do they do it because they are unable to engage in some activities for real? Here we examined, for nine different activities, American middle-class preschoolers' preferences for pretend and real activities. The 100 children we tested ($M = 58.5$ months, range 36 to 82 months) overwhelmingly preferred real activities to pretend ones, and this preference increased from age 3 to age 4, then remained steady through age 6. Children provided cogent justifications for their preferences. The results are discussed with reference to other domains in which children show reality preferences and with respect to the content of preschool curricula.

RESEARCH HIGHLIGHTS

- When given a choice, preschool-age children overwhelmingly preferred real activities to their pretend equivalents.
- Children's preference for real activities appeared between 3 and 4 years, then was constant through age 6.
- Children said they preferred real activities because they are functional, useful, and provide novel experiences.
- When children preferred pretend activities, the most-cited reasons were being afraid of the real, lack of ability, and lack of permission.

1 | INTRODUCTION

In 2016, over 20 billion US dollars were spent on children's toys (NPD Group, 2017). The toy industry is less than 100 years old and arose in tandem (Cross, 1997) with the notion that play is 'essential for development' (Ginsburg, 2007), an idea endorsed by middle-class American parents (Parmar, Harkness, & Super, 2004; Roopnarine, 2010) and the American Academy of Pediatrics (Ginsburg, 2007). In the period from 3 to 6 years of age, the predominant type of play – and the one to which many toys are devoted – is pretend play, in which one reality is stretched over another 'to protect, conceal, or disguise it' (Austin, 1957/1979, p. 260) in a spirit of fun and amusement (Lillard, 2015). Pretend play begins around 18 months of age and is in its 'high season'

by 4 years of age (Singer & Singer, 1990, p. 64), when children spend (on average) 20% of their waking hours in pretend play (Haight & Miller, 1993), donning costumes and new identities, simulating school, and toiling away in play kitchens with fake food and knives.

However, in an earlier time in America, and still today in traditional societies around the world, children pretend much less. Instead, they often work alongside adults, engaging in practical life tasks (Alcalá, Rogoff, Mejía-Arauz, Coppens, & Dexter, 2014; Gaskins, 2000, 2013; Lancy, 1996). They tend younger siblings (alloparenting), sometimes all day and far from adult surveillance, and they provide instrumental help in gathering and preparing food (Lancy, 2015; 2016). They are given small versions of tools, even potentially dangerous ones, and they learn by actively observing others and practicing skills (Rogoff, 2004). When children do engage in pretend play, the content is reflective of their immediate surroundings: They draw inspiration from real roles, activities, and practices (Gaskins, 2013; Lancy, 2016; Power, 2000), and fantasy is rare if it occurs at all (Gaskins, 2013). Play is also much less valued by parents in such societies (Gaskins, 2013; Parmar et al., 2004; Roopnarine, 2010).

Given that this situation for children has radically changed in developed Western societies (Alcalá et al., 2014), here we asked whether the children themselves prefer pretend play to real activities. Children were asked to choose between pretend and real versions of nine different activities, and justifications for their choices were recorded. Because pretending is said to peak around 4 to 5 years of age, relations



between children's preferences and their age were examined; we also examined gender to see whether girls or boys might be relatively more inclined to prefer pretending.

2 | METHODS

2.1 | Participants

Participants were 100 children ages 3 to 6 ($M = 58.49$ months, $SD = 12.47$ months, range = 36.8–82.3 months; 57 female): 26 3-year-olds, 30 4-year-olds, 28 5-year-olds, and 16 6-year-olds. Four additional children participated but were excluded due to failure to complete the study ($n = 3$) or understand the task ($n = 1$). Children were predominantly White and middle class, in keeping with the composition of local families who participate in research. Participants' parents provided written consent, and all children verbally agreed to participate.

2.2 | Materials and procedure

Participants were tested in a children's museum ($n = 55$), a preschool ($n = 27$), and a university laboratory ($n = 18$). They sat down with an experimenter, who said, 'I have a book with all kinds of different activities that you could do. I'm going to ask you which ones you would rather do. Does that sound good?' There were two books, each measuring approximately 22 × 28 cm, containing color photographs of girls (one book, shown to female participants) and boys (the second book, shown to male participants) engaged alone in various activities.

The first two pictures, shown on opposite sides of the page, were for the warm-up trial. One warm-up photograph showed a child riding a bicycle, and the other showed a child with a badly skinned knee. Children were told, 'Look, this girl is riding a bicycle [pointing to the photograph on the left side], and this girl fell off of a bicycle and hurt her knee [pointing to the photograph on the right side]. Which would you rather do?' Children were then asked why they made that choice.

The nine test trials immediately ensued. On each trial the participants saw another pair of photographs. For each pair, one child was engaged in a real version of an activity (for example, cutting real vegetables with a real knife) and another was engaged in a pretend version of that activity (for example, cutting wooden vegetables held together with Velcro, using a wooden play knife; see Table 1 for complete list in the order in which they were presented to children). The nine activities were chosen to be ones that children might pretend or do for real, and for which pretend implements are commercially available (for example, fake foods, kitchen sets, and toy telephones). The photographs showed quite clearly whether the activity was real or pretend, but to be sure the experimenter also indicated which was real and which was pretend: 'Look, this girl is pretending to cut vegetables, and this girl is really cutting vegetables. See? These are pretend vegetables, and these are real vegetables.' Children were then asked, 'Which would you rather do?' After the children indicated, they were asked, 'Why would you rather [children's choice]?'

Which activity was on the left and which was on the right was determined by an initial random order that was used for all children,

and the ordering of the activities themselves was randomly determined and then held constant for all participants. In addition, to ensure that children's choices were not driven by superficial features of the photos, two separate control studies were conducted; these are briefly described at the end of the results section.

2.2.1 | Coding

Pretend and real choices were recorded, and children's justifications for those choices were coded into eight discrete categories: Ability (able [or unable] to engage in activity); allowances (allowed to engage in activity or not); avoidance (fearful of or avoiding a negative outcome associated with activity); experience (having done the activity before); functionality (differences in what can be done for real versus in pretend); liking (enjoyment of activity); novelty (never done the activity before); and utility (helps someone by doing the activity). Other responses (10% 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. Cohen's kappa was run on 20% of children's justifications; agreement was high, $\kappa = .91$ (95% CI: .86–.96), $p < .001$. Conceptually similar categories were then combined, resulting in four final categories: Ability, avoidance, and permission; functionality and utility; experience and novelty; and liking.

3 | RESULTS

Children chose pretend for an average of 3.14 out of the 9 activities ($SD = 2.61$, range = 0–9). Chance performance (randomly choosing between pretend and real) would be 4.5 choices; a t -test showed that 3.14 pretend choices is significantly fewer than would be obtained by chance, $t(99) = 5.22$, $p < .001$, 95% CI [2.63, 3.66]. To examine whether any particular activities were preferred as pretend or real, the number of pretend choices for each item was compared to chance responding. The pretend activity was chosen significantly less than would be expected by chance for seven of the nine activities ($ps <$

TABLE 1 Activities and percentage (and number) of choices made

Item	Chose pretend	Chose real
Eating ice cream	17	83
Riding a horse	31	69
Baking cookies	31	69
Feeding a baby	26	74
Cutting vegetables	40	60
Talking on a telephone	33	67
Riding a tractor	48	52
Fishing	34	66
Washing dishes	54	46
Total number	314	586
Average %	35%	65%



.05); the remaining two activities were at chance. These were riding a tractor (48 children preferred pretend, 52 preferred real) and washing dishes (54 preferred pretend, 46 preferred real). There was not a single activity that children preferred to pretend rather than really do (see Table 1).

Whether preference for pretend activities changes with age was also examined. Given that middle-class American children pretend more at age 4 than 3 (12 minutes per hour versus 3; Haight & Miller, 1993), we expected that pretend preference might grow over that period. Instead, children's age in months was negatively correlated with their number of pretend choices, $r(98) = -.31$, $p = .002$, showing that as they get older, children increasingly prefer *real* activities. A one-way ANOVA using age group (3, 4, 5, 6) and sex (male, female) as between-subjects variables and number of pretend choices as the dependent variable revealed main effects for age group and gender, but no interaction.

The number of times children chose pretend differed by age group, $F(3, 92) = 4.79$, $p = .004$, $\eta_p^2 = .14$; see Figure 1. Post-hoc comparisons using the Tukey HSD test correcting for multiple comparisons indicated that the mean number of times 3-year-olds chose pretend ($M = 4.73$, $SD = 2.75$) was significantly greater than the number of times 4-year-olds ($M = 2.50$, $SD = 2.23$, $p = .004$), 5-year-olds ($M = 2.93$, $SD = 2.75$, $p = .03$), and 6-year-olds ($M = 2.13$, $SD = 1.67$, $p = .005$) chose pretend, but 4-, 5-, and 6-year-olds did not differ significantly from each other. Thus although 3-year-olds were as likely to choose pretend as real, by 4 years of age – entering the high season of pretend play – fewer than a third of children's choices were for pretend versions of the activities. In other words, by age 4, given a choice, children strongly prefer doing the real thing; 3-year-olds indicated no preference.

The main effect for gender, $F(1, 92) = 4.37$, $p = .04$, $\eta_p^2 = .05$, stemmed from girls choosing pretend activities ($M = 3.65$, $SD = 2.71$) more often on average than did boys ($M = 2.47$, $SD = 2.32$), although still less than chance, $t(56) = 10.17$, $p < .001$. The gender difference was driven by three activities. First, girls preferred pretending to ride a tractor (65% pretend choices among girls, versus 26% among boys), which was significant by a Fisher's Exact Test, $p < .001$. Somewhat counterintuitively, there were trends for boys to prefer really doing two other female-gender-typed activities: feeding a baby (67% of girls prefer real versus 84% of boys, $p = .067$) and baking cookies (61% of

girls prefer real versus 79% of boys, $p = .081$). Looked at another way, 9/9 real activities were preferred by over 50% of the boy subsample, whereas 7/9 real activities (all except riding a tractor and washing dishes) were preferred by over 50% of the girl subsample. Hence even though there were gender differences for some items, overall both boys and girls showed a strong preference for real activities.

Another approach is to examine whether some children show a very strong proclivity to pretend (dubbed having a 'high fantasy predisposition', as discussed by Singer & Singer, 1990) and others are realists. Here the data are stunning: 16 children *always* chose the real activities, whereas only 3 always chose the pretend activities. Broadening the categories, 48 children (7 or 15% of whom were 3-year-olds) chose at least seven real activities of the nine, whereas just 14 children (9 or 64% of whom were 3-year-olds) chose at least seven pretend ones. Next we asked why children prefer real activities.

3.1 | Justifications

The number (and percentage) of codable justifications, out of 711, are shown in Table 2. When children chose a real activity, they most often (221 justifications, or 45%) provided reasons that reflected functionality (e.g., 'We could learn how to feed babies in case my mom becomes a babysitter and I help', or 'Because you can eat [real cookies]'). The next most common reason (187, or 38%) was liking or enjoyment (e.g., 'Because I like to cut vegetables', or 'Because it would be more fun to [bake real cookies]'). Thirteen percent (62) of real choices were justified by experience (e.g., 'I've never talked on the real phone', or 'I did it before'), and 4% (18) mentioned ability (e.g., 'Cause I can do it myself, maybe').

When pretend activities were chosen, the most common reasons cited were to avoid a negative outcome associated with the real activity or were based on a child's sense of their inability to engage in a particular activity for real. Thus, there were 103 responses (46% of all pretend justifications) like, 'I already burnt myself and I wouldn't want to again', 'Because [a pretend tractor] wouldn't zoom off', 'I don't know how to do real fishing', 'Because I won't break the [pretend] dishes', and 'I might pull up a shark or a big dangerous other thing [if I were really fishing]'. The next most common reason (28%, or 63 responses) was liking to pretend (e.g., 'Cause I like it'). Looking at the overall justification pattern, one can see that children want to do real activities because they want to be useful, and they like the real activities; in contrast, they want to do pretend ones because they are not allowed or are afraid of the real activity, or (a third as often as for real) because they like the pretend activity.

Looking at individual item justifications, the same pattern emerged. Whether children had made a pretend or a real choice, liking was a major reason. But reasons diverged beyond this for pretend and real choices. Functionality was a top reason for choosing the real version of all nine activities (e.g., 'You can eat it for dinner', or 'Because I want to talk to people'). By contrast, avoidance was the major reason for most of the items when pretend was chosen (e.g., 'If you got the fish by yourself you might get a hook in your finger', or 'Because it's better and you wouldn't mess up your phone number').

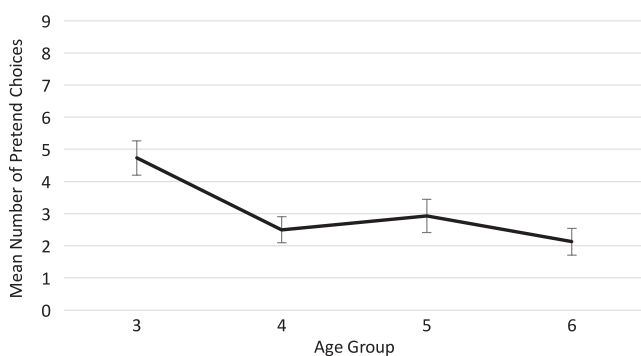


FIGURE 1 Mean number of pretend choices (out of 9) by age group. Bars represent standard error

TABLE 2 Children's codable justifications for choice

Category	Description	Pretend justifications	Real justifications
Ability; Avoidance; Permission	(Un)able or (not) allowed to engage in activity; avoid a negative outcome associated with activity	103 (46%)	18 (4%)
Functionality; Utility	Differences in what can be done for real versus in pretend, including usefulness of activity	20 (9%)	221 (45%)
Experience; Novelty	Experience with activity	37 (17%)	62 (13%)
Liking	Enjoyment of activity	63 (28%)	187 (38%)
Total		223	488

Children's overall justifications differed significantly by gender, $\chi^2(4) = 36.35, p < .001$, Cramer's $V = .20$, with girls using liking more than boys did to justify both their overall and their real choices. Boys and girls did not differ in how they justified pretend choices.

3.2 | Follow-up control studies

Two follow-up studies were conducted to ensure that the findings stemmed from children's actual preferences, and were not due to a superficial feature of the pictures we used. First, we examined whether the real pictures looked more fun. Sixteen additional preschoolers were shown the picture pairs and were simply asked to indicate which picture looked like more fun. This showed that depictions in each pair appeared equally fun, with one exception in each direction. Really feeding a baby was judged to be more fun-looking than pretending to feed a baby, and pretending to wash dishes was judged to be more fun-looking than really washing dishes. Because these results go in opposite directions and for the remaining seven items the pretend and real versions look equally fun, we are confident that our overall results were not based on the real pictures looking more fun.

The second study to confirm that children's responses were not based on superficial features of the photos zeroed in on whether children preferred real activities because of the colors or perhaps some other feature of the picture. For this, 16 additional preschoolers were shown two identical black and white line drawing (i.e., outlines) of the real or pretend photographs, created using an online computer program (Rapid Resizer™; Roberts, 2017). Although they were actually the exact same picture, one of the copies was described as showing pretend, and the other was described as showing real, and children were asked which they would rather do. This replicated the present finding, again suggesting that children's choices were based on whether the activity was described as real or pretend, rather than a feature of the pictures.

4 | DISCUSSION

Children expressed strong preferences for engaging in real activities over their pretend equivalents, and two control studies showed that this was not due to superficial features of the pictures used to show the choices. The strong preference for real activities was shown at

ages 4 to 6 (over 70% of choices), whereas 3-year-olds showed no preference for pretend or real activities. Boys selected real activities more often than girls, and were particularly likely to want to really feed a baby and bake cookies. By contrast, girls preferred pretending to ride a tractor.

The finding that children prefer real activities to pretend ones is surprising from a Western perspective, particularly because the children tested were at ages where pretend play is a predominant activity. Although Americans spent over 20 billion dollars last year on toys, children's choices suggest they would much prefer to do the real thing – to actually cut vegetables, or feed a baby, or bake cookies. The findings are perhaps not so surprising when a non-Western perspective is adopted: In traditional societies around the world, children are more able to participate in real activities, and when they do play, their play often replicates real activities, roles, and practices (Gaskins, 2013; Lancy, 2016; Power, 2000).

Children's justifications indicated why they prefer real activities: Real activities are functional, useful, and provide novel experiences. When children chose pretend, it was usually because they were unable, not permitted, or afraid to do the real version. It is interesting that so much effort is put into giving children pretend experiences when they apparently would prefer to have real ones.

In other domains as well, researchers have recently shown that preschool- and school-aged children prefer the real. In one study, children (ages 4–5 and 6–7 years) were shown two novel storybooks and were told that one was real and one was make-believe. Although they were actually the same books (across children), children (unlike adults) showed a strong preference for the real book (Barnes, Bernstein, & Bloom, 2015); similar findings were obtained in a study of Turkish children (Kotaman & Tekin, 2017). Notably, a study that showed the opposite preference used familiar books (Robinson, Larsen, Haupt, & Mohlman, 1997) and was probably tapping into a familiarity preference. Children are more familiar with fantasy storybooks, since such books dominate the children's market (Mantzicopoulos & Patrick, 2011), and teachers rarely choose to read informational books to young students (Pentimonti, Zucker, Justice, & Kaderavek, 2010). In addition, the vast majority of parents expect their young children to prefer fantastical books, when in fact children have no preference (Guillot, 2014). Given a choice of the same story with an anthropomorphized bear or a human character building a snowman, 26 preschoolers chose to hear the human story and 21 chose the bear story, when their parents expected otherwise.



Children's preference for real activities is interesting to consider in light of current preschool curricula. In recent years, under the shadow of No Child Left Behind, kindergarten has become 'The New First Grade' (Bassok, Latham, & Rorem, 2016), with more seat time and less free choice time. In reaction, there are calls for reinstating more play in preschool (Hirsh-Pasek, Golinkoff, Berk, & Singer, 2009), and this is often interpreted as free play. At the same time, pure free play ('discovery learning') does not engender the best learning (Alfieri, Brooks, Aldrich, & Tenenbaum, 2011); rather, more guided forms of learning are more optimal (Verdine, Lucca, Golinkoff, Hirsh-Pasek, & Newcombe, 2016). Furthermore, free play often manifests as pretend play in the preschool years, and solid evidence for the unique importance of pretend play for development is lacking (Lillard et al., 2013).

A form of schooling that is neither 'the new first grade' nor pretend play-oriented, but instead allows children to choose among real hands-on activities, is Montessori education. Its primary developer, the physician Maria Montessori, noted that, 'Playing with toys is the only freedom that the world grants to a child ... [yet] toys furnish the child with no particular goal, and as a consequence, they cannot provide the child with any real mental concentration' (Montessori, 1966, p. 156). Instead of toys (which were initially in the classroom but were removed when children did not use them), she provided children with child-sized real objects (including real knives and glassware) and showed them how to use them safely, and children responded positively:

It was the children themselves who showed that they preferred one another's company to dolls, and the small 'real-life' utensils to toys ... Having given the child real things in a real world, we expected to see [the child's] joy and delight in using them. But actually we saw far more than that. The child's whole personality changed, and the first sign of this was an assertion of independence. It was as though [the child] were saying: 'I want to do everything myself.' (Montessori, 1967, pp. 169–170)

Children's justifications for why they preferred the real activities in the present study support Dr. Montessori's observations. Children wanted to do the real activities so they could participate in the real world. Although adults probably give their children toys in part because they think children prefer pretend play, and in part because they believe pretend play is essential for development (one parent with whom the results of this study were shared commented, 'Children just don't know what's good for them'), another likely reason is because the real activity can require direct adult involvement. In Western societies, parents will show children how to safely use potentially dangerous tools, such as knives, rather than leaving children to their own devices as they are in many other cultures (Lancy, 2016). American adults might relegate their children to pretending to use knives in part because they lack the time, patience, or resources to help children learn these skills and are afraid of the potentially dire consequences should children not engage safely. However, children's justifications for why they would like to do real activities suggests that perhaps we often deprive children of the opportunity to acquire the self-efficacy that stems from accomplishing real things.

This study has several limitations. First, children did not actually engage in any of the activities, whether real or pretend, during the experiment. Perhaps children's verbal responses do not extend to their behavior. Further research in our laboratory is currently exploring this question. Second, participants were predominantly White and middle class; new research should examine preferences in diverse populations. Third, only one form of pretend play – realistic pretend that makes use of objects that are similar to their real-world equivalents – was presented. Future studies should explore whether fantasy pretend play, in which children entertain possibilities outside the scope of reality, is preferred to realistic pretend play or real activities. Social pretend play should also be examined. Finally, further research should observe children in natural settings (e.g., classrooms, children's museums, play-grounds) to better understand children's proclivity to spontaneously engage in pretend versus real activities when options are present.

5 | CONCLUSION

In sum, we have shown that middle-class American preschoolers say they strongly prefer to engage in real activities rather than pretend ones. These findings challenge Western society's assumption that play is the superlative activity for children. Although this sense likely arose from good roots (for example, in concert with child labor laws), it has perhaps been taken too far, depriving children of opportunities to learn how to participate in meaningful ways in their culture, including working alongside their parents at practical tasks. Although American adults view play as something that teaches children and is valuable in its own right, children, at least to some degree, might see it as a substitute for activities that they would rather do for real.

ACKNOWLEDGEMENTS

Support was provided by grants from the Brady Education Foundation and the Sir John Templeton Foundation to ASL. During this research, JT was a pre-doctoral fellow of the International Max Planck Research School on the Life Course. We thank the families who participated, Julia Rauen for feedback, and Hala Al Kallas, Sierra Eisen, Eileen Hernon, Carine Leslie, Mary Toomey, Emily Wright, and Daniel Yonas for assistance with data collection.

REFERENCES

- Alcalá, L., Rogoff, B., Mejía-Arauz, R., Coppens, A.D., & Dexter, A.L. (2014). Children's initiative in contributions to family work in indigenous-heritage and cosmopolitan communities in Mexico. *Human Development, 57*, 96–115.
- Alfieri, L., Brooks, P.J., Aldrich, N.J., & Tenenbaum, H.R. (2011). Does discovery-based instruction enhance learning? *Journal of Educational Psychology, 103*, 1–18.
- Austin, J.L. (1957/1979). Pretending. In J.O. Urmson & G.J. Warnock (Eds.), *Philosophical papers* (pp. 253–271). Oxford: Oxford University Press.
- Barnes, J.L., Bernstein, E., & Bloom, P. (2015). Fact or fiction? Children's preferences for real versus make-believe stories. *Imagination, Cognition and Personality, 34*, 243–258.

- Bassok, D., Latham, S., & Rorem, A. (2016). Is kindergarten the new first grade? *AERA Open*, 1, 1–31.
- Cross, G. (1997). *Kids' stuff: Toys and the changing world of American childhood*. Cambridge, MA: Harvard University Press.
- Gaskins, S. (2000). Children's daily activities in a Mayan village: A culturally grounded description. *Cross-Cultural Research*, 34, 375–389.
- Gaskins, S. (2013). Pretend play as culturally constructed activity. In M. Taylor (Ed.), *The Oxford handbook of the imagination* (pp. 224–247). New York: Oxford University Press.
- Ginsburg, K. (2007). The importance of play in promoting healthy child development and maintaining strong parent–child bonds. *Pediatrics*, 119, 182–191.
- Guillot, L.E. (2014). *Children's fiction preferences: Exploring early biases for character identity, story structure, and distressing narratives*. Unpublished doctoral dissertation. New Haven, CT: Yale University.
- Haight, W.L., & Miller, P.J. (1993). *Pretending at home: Early development in a sociocultural context*. Albany, NY: SUNY Press.
- Hirsh-Pasek, K., Golinkoff, R., Berk, L., & Singer, D. (2009). *A mandate for playful learning in preschool: Presenting the evidence*. New York: Oxford University Press.
- Kotaman, H., & Tekin, A.K. (2017). Informational and fictional books: Young children's book preferences and teachers' perspectives. *Early Child Development and Care*, 187, 600–614.
- Lancy, D.F. (1996). *Playing on the mother ground*. New York: Guilford Press.
- Lancy, D.F. (2015). Children as a reserve labor force. *Current Anthropology*, 56, 545–568.
- Lancy, D.F. (2016). Playing with knives: The socialization of self-initiated learners. *Child Development*, 87, 654–665.
- Lillard, A.S. (2015). The development of play. In L.S. Liben & U. Mueller (Eds.), *Handbook of child psychology and developmental science: Volume 2: Cognitive processes* (pp. 425–468). New York: Wiley-Blackwell.
- Lillard, A.S., Lerner, M.D., Hopkins, E.J., Dore, R.A., Smith, E.D., & Palmquist, C.M. (2013). The impact of pretend play on children's development: A review of the evidence. *Psychological Bulletin*, 139, 1–34.
- Mantzicopoulos, P., & Patrick, H. (2011). Reading picture books and learning science: Engaging young children with informational text. *Theory Into Practice*, 50, 269–276.
- Montessori, M. (1966). *The secret of childhood*. New York: Ballantine.
- Montessori, M. (1967). *The absorbent mind*. New York: Henry Holt.
- NPD Group (2017). US toy industry grows 5 percent in 2016, exceeding \$20 billion. Retrieved from: <https://www.npd.com/wps/portal/npd/us/news/press-releases/2017/us-toy-industry-grows-5-percent-in-2016-exceeding-20-billion-the-npd-group-reports/>
- Parmar, P., Harkness, S., & Super, C.M. (2004). Asian and Euro-American parents' ethnotheories of play and learning: Effects on preschool children's home routines and school behaviour. *International Journal of Behavioral Development*, 28, 97–104.
- Pentimonti, J.M., Zucker, T.A., Justice, L.M., & Kaderavek, J.N. (2010). Informational text use in preschool classroom read-alouds. *The Reading Teacher*, 63, 656–665.
- Power, T.G. (2000). *Play and exploration in children and animals*. Mahwah, NJ: Erlbaum.
- Roberts, P. (2017). Rapid Resizer free picture stencil maker. Retrieved from: <http://online.rapidresizer.com/photograph-to-pattern.php>
- Robinson, C.C., Larsen, J.M., Haupt, J.H., & Mohlman, J. (1997). Picture book selection behaviors of emergent readers: Influence of genre, familiarity, and book attributes. *Literacy Research and Instruction*, 36, 287–304.
- Rogoff, B. (2004). *The cultural nature of human development*. New York: Oxford University Press.
- Roopnarine, J.L. (2010). Cultural variations in beliefs about play, parent–child play, and children's play: Meaning for child development. In P. Nathan & A. Peligrini (Eds.), *The Oxford handbook of the development of play* (pp. 19–37). New York: Oxford University Press.
- Singer, D.G., & Singer, J.L. (1990). *The house of make believe: Children's play and the developing imagination*. Cambridge, MA: Harvard University Press.
- Verdine, B.N., Lucca, K.R., Golinkoff, R.M., Hirsh-Pasek, K., & Newcombe, N.S. (2016). The shape of things: The origin of young children's knowledge of the names and properties of geometric forms. *Journal of Cognition and Development*, 17, 142–161.

How to cite this article: Taggart J, Heise MJ, Lillard AS. The real thing: preschoolers prefer actual activities to pretend ones. *Dev Sci*. 2017;00:e12582. <https://doi.org/10.1111/desc.12582>