Young children reason about adults' achievement goals for them

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Abstract

Adults often hold different goals for children's achievement: Sometimes adults want children to learn as much as possible, while at other times adults discount children's learning in favor of high performance. How do children reason about the achievement goals adults have for them? Across 3 preregistered studies (n = 120), we asked whether 5- and 6-year-old children understand the causal relationship between adults' achievement goals, their task choices, and children's competence. In Experiment 1, we found adults are more likely to give harder tasks to children when they hold learning versus performance goals and when the child is more competent. In Experiment 2, we found that children make similar inferences about adults' task selections given the adult's achievement goal and the receiving child's competence. Finally, in Experiment 3, children inferred that adults would pick harder tasks for them when they possessed a learning goal versus a performance goal, which matched their own task choice given the same achievement goals. Thus, young children can infer the relationship between adults' child-directed achievement goals and actions and may use this information to learn about what adults prioritize for children across contexts.

Keywords: achievement goals, causal reasoning, competence

Introduction

Achievement goals—such as prioritizing learning or performance—play a large role in children's self-directed learning and motivation. For example, when children want to learn rather than perform, they are more likely to persist, seek challenges, and maintain positive self-beliefs in the face of setbacks (Grant & Dweck, 2003; Ames & Archer, 1988; Elliott & Dweck, 1988; Meece, Blumenfeld, & Hoyle, 1988). Parents' achievement goals for their children also affect children's learning behaviors: Elementary and middle school-aged children whose parents prioritize learning over performance display more classroom engagement, attention, and persistence (Gonida, Voulala, & Kiosseoglou, 2009; Ablard & Parker, 1997). Despite work revealing how much achievement goals influence learning, little is known about how young children explicitly reason about achievement goals, including those that adults possess for them. Understanding how children think about adults' achievement goals is critical for informing how children interpret pedagogical interactions and learn what adults value for them.

At a basic level, it is unclear if children understand *how* certain achievement goals give rise to specific, observable actions. Imagine the following scenario: A parent is picking a jigsaw puzzle for their 5-year-old child and sees that there are three different levels: a puzzle with 10 pieces, a puzzle with 30 pieces, and a puzzle with 50 pieces. The parent knows that their child can comfortably complete 10-piece puzzles. If the parent's goal is only to ensure that their child can complete the puzzle (i.e., a performance goal), then they should choose the 10-piece puzzle. If, instead, the parent's goal is for their child to learn more puzzle-building skills (i.e., a learning goal), then they should choose the 30- or possibly the 50-piece puzzle. That is, when the parent has a learning goal, compared to a performance goal, they should give their child harder tasks. However, that doesn't mean that parents should always give children the *hardest* task when they have a learning goal and the *easiest* task when they have a performance goal. Critically, to achieve a particular achievement goal, the task needs to be matched to the child's skill. If, for example, the child can now comfortably finish 30-piece puzzles, then the parent should choose the 30-piece puzzle for a performance goal and the 50-piece puzzle for a learning goal. Simply put, both an adult's achievement goal (performance vs. learning) and the child's competence (lower vs. higher), in tandem, may causally lead to the selection of different tasks. Here we examine whether 5- and 6-year-old children, who are at the cusp of formal schooling, can infer this causal process.

Prior work has shown that young children consider achievement goals and competence *independently* when selecting actions. Concerning achievement goals, children appear to acknowledge, through their own pedagogical actions, that learning goals require more challenging material than other goals, like wanting to observe or play. For example, 4- to 6-year-old children are more likely to teach about costly and informative actions on a novel toy when an observer wants to learn versus just observe the toy's effects (Gweon & Schulz, 2019) and 5- to 7-year-old children pick harder toys to teach children who want to learn than when choosing a toy for themselves to play (Bridgers, Jara-Ettinger, & Gweon, 2020). In contrast, when 5- to 10-year-old children possess performance goals (playing to win vs. for fun), they selectively make the task at hand easier if given the chance (Rule et al., 2023). However, no work has directly looked at whether young children predict that *other* people with these same learning and performance goals will behave similarly, especially when there are more than two tasks to choose from.

Further, past research has shown that children teach differently based on a learner's competence. For example, 5-

to 6-year-old children are more likely to provide exhaustive information to naïve but not knowledgeable learners (Gweon, Shafto, & Schulz, 2018) and 4- to 6-year-old children choose to give more informative evidence to less capable learners (Gweon & Schulz, 2019). There is additional evidence that young children expect adults to tailor their actions based on a child's competence. For example, preschool-age children expect teachers to provide more positive non-verbal feedback (e.g., smiling, nodding) and less help to smarter children (Brey & Shutts, 2018; Sierksma & Shutts, 2020, 2021). However, to our knowledge, no work has directly tested whether children can integrate information about a receiver's competence with an adult's achievement goal to predict the adult's actions.

Here, we fill this gap and test the hypothesis that children consider *both* an adult's achievement goal and a child's competence to predict how the adult will behave towards the child. However, considering children's developing executive functioning and reasoning abilities (Best & Miller, 2010), it is also possible that children focus only on achievement goals *or* child competence and do not integrate the two to predict adults' actions (e.g., predicting that adults with learning goals will always give the hardest tasks to children regardless of competence). Critically, even if children can successfully predict how adults will act towards other children based on their achievement goals and the child's skill, it is unclear whether these predictions are robust enough to extend to children's first-person experiences. For example, children may not think that a new adult knows their ability, and prior work has shown that young children often hold exceedingly optimistic beliefs about themselves (Schneider, 1998; Lockhart, Goddu, & Keil, 2017; Zhang, Carrillo, & Leonard, 2023).

Current Experiments

Here we examine whether 5- to 6-year-old children possess a causal understanding of how adults' achievement goals for children give rise to specific child-directed actions based on the child's competence. To this end, we created a novel paradigm where participants had to choose which kind of tracing – an "easy", "medium", or "hard" one – an adult would pick for a child based on whether they had a learning goal or a performance goal. We specifically included three levels of tracing difficulty, instead of two, to test whether children have more precise intuitions about what level of difficulty is warranted given an adult's achievement goal and a child's competence. We also varied the target child's competence by stating that they were either around 5-years-old (less competent) or 10-years-old (more competent; see Exp. 2 for pilot data supporting this decision).

In Experiment 1, we establish ground truth for how adults select tasks for children based on their achievement goal (i.e., for children to make a perfect tracing vs. to learn and improve at tracing) and the child's competence. In Experiment 2, we investigate children's predictions of which tracing an adult would pick for a target child (3rd person) based on the adult's goal and the child's competence. In Experiment 3, we examine children's predictions of an adult's actions towards them (1st person) and children's own task choices given a learning or performance goal. All experiments were preregistered, and materials, preregistrations, data, and analyses are here: OSF link.

Experiment 1

In Experiment 1, we tested adults' actual task selection to confirm that adults do systematically select tasks based on achievement goal and children's competence. We hypothesized that adults would be more likely to select harder tasks when holding a learning goal versus a performance goal and for older versus younger children.

Methods

Participants Forty adults (M_{Age}(SD) = 40.72(8.86) years, Range: 25-68) were recruited via Amazon Mechanical Turk. Participants self-reported their gender as 63% male, 30% female, and 2% non-binary, with 5% preferring not to answer. Participants self-reported their race as 83% white, 7% mixed race, 5% Asian, and 5% Black or African American. An additional two participants were excluded for failing comprehension checks (preregistered criteria).

Stimuli Five unique sets of "easy", "medium", and "hard" tracings were created. The level of difficulty was made visually salient based on the number of traceable lines in each tracing (i.e., 1 line for "easy", 5 lines for "medium", 21 lines for "hard"; see Figure 1). The tracings were presented in different colored boxes (orange, blue, or purple) and labeled as such (e.g., "orange" tracing).

Procedure Participants were given an online survey to complete. First, participants underwent a quick tutorial, where they saw three tracings that varied by difficulty. They were asked which tracing was easy, medium, and hard (three separate comprehension checks), and were excluded for failing at least one of these questions (n=2).

Then, each participant underwent four test trials. In each test trial, participants were given a learning goal ("learn and get better at tracing") or a performance goal ("do a perfect tracing and make no mistakes") for a target child. The target was either a 5- or 10-year-old child. Participants were then asked to select one of the three tracings (easy, medium, or hard) for the child. Trials were blocked by age (5-year-old trials first, or 10-year-old trials first) and goal order was counterbalanced within block.

Results

All results reported are preregistered unless stated otherwise. As predicted, adults were more likely to choose a harder level of tracing when holding a learning goal versus a performance goal and when the child was older versus younger: An ordinal mixed-effects regression predicting adults' tracing choices (1 = hard, 2 = medium, 3 = easy), with fixed effects

for achievement goal (performance vs. learning) and child age (5-year-old vs. 10-year-old), and random slopes and intercepts for achievement goal and child age by participant revealed a main effect of achievement goal ($b = -3.73$, 95% CI [-5.84, -2.29]) and child age ($b = -1.77$, 95% CI [-3.05, -0.97]) (see Figure 2).

Next, we investigated the effects of achievement goals within each child age condition, and the effects of child age within each goal condition. First, an ordinal mixed-effect regression predicting adults' tracing choice with fixed effects for achievement goal, and random slopes and intercepts for achievement goal by participant revealed that adults were more likely to choose a harder level of tracing when holding a learning goal versus a performance goal for both the younger child trials ($b = -5.21$, 95% CI [-10.41, -2.16]) and the older child trials ($b = -6.36$, 95% CI [-14.84, -2.12]). Second, an ordinal mixed-effect regression predicting adult's choice with fixed effects for child age, and random slopes and intercepts for child age by participant revealed that adults were also more likely to give harder tracings to older children in the learning goal trials ($b = -3.81$, 95% CI [-8.73, -1.57]) and in the performance goal trials ($b = -1.95$, 95% CI [-4.98, -0.25]).

Finally, we ran exploratory chi-square goodness of fit tests and found that the distribution of adults' choices differed from chance (33% for each tracing) in all trials (X^2's(2, 40)>=18.2, p's< .001). We also ran exploratory Binomial tests (with Bonferroni p-value correction) testing for tracing choice against chance (33%). For a 5-year-old, adults were most likely to choose a medium tracing when they had a learning goal and an easy tracing when they had a performance goal (p's< .01). For a 10-year-old however, adults were most likely to choose a hard tracing when they had a learning goal and an easy tracing when they had a performance goal (p's< .01). This study confirmed that both achievement goals and perceptions of children's competencies inform adults' task selections for children.

Experiment 2

Using the results from Experiment 1 as ground truth, we now test whether 5- to 6-year-old children can systematically predict which tasks adults will choose for children given their achievement goal (learning vs. performance) and the receiving child's age (younger vs. older). Based on pilot data, we found that 5- and 6-year-old children associate older children with higher tracing abilities than younger children (n = 18/22). We hypothesize that children will be more likely to predict that an adult will choose harder tracings when they possess a learning goal (vs. performance goal) and when the target child is older (vs. younger).

Methods

Participants Forty 5- and 6-year-old children (M_{Age}(SD) = 72.33(7.51) months, Range: 60-83) were recruited via online recruitment methods. Parents reported their children's gender as 56% female, 42% male, and 2% preferred not to answer.

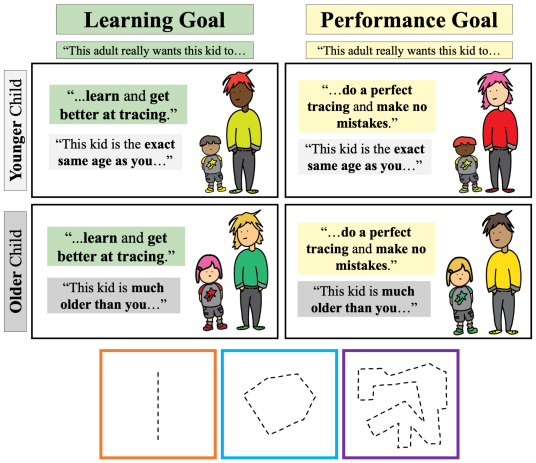

Figure 1: Schematic of experimental trials. Exp. 1-2 crossed an adult's achievement goal (learning vs. performance) with a child age (younger child vs. older child). Adults in Exp. 1 were asked to choose tracings for children, while children in Exp. 2 were asked to predict an adult's actions.

The racial and ethnic makeup of participants was reported as: 57% white, 26% Asian, 11% mixed race, and 6% Black or African American, and 86% non-Hispanic or Latino, 9% Hispanic or Latino, and 5% preferred not to answer. Parental educational background was reported as: 3% High School or GED, 11% Associate's degree, 46% a Bachelor's degree, 31% a Master's degree, and 9% Professional degree (JD, MD, PhD). Given preregistered exclusion criteria, 19 additional participants were excluded due to failure to complete the study (n=2), failure on comprehension questions (in either the warm-up or test trials; n=14), or experimenter error (n=3).

Stimuli Stimuli were presented online via PowerPoint. The tracing stimuli were the same as in Experiment 1. In addition, we created an adult-child illustration and varied their skin, hair, and clothing color, to create four unique adult-child pairs. To depict children's ages in our experiment, we varied children's heights and sizes (see Figure 1).

Procedure Children were tested virtually in a Zoom video call by an experimenter. All children viewed the experiment on either a phone, tablet, or computer screen. The experiment began with a warm-up, then moved into the experiment's four test trials. In the warm-up, children were first asked whether they knew what a tracing was and were provided with an example and explanation of a tracing. Then, the experimenter showed children an example of an easy, medium, and hard tracing. As a comprehension check, children were asked to identify which tracing among the three shown was the "easiest", the "hardest", and the one that was "both kind of easy and kind of hard". If children failed any comprehension question, they were provided with the correct response. If any child had failed all three of these comprehension questions,

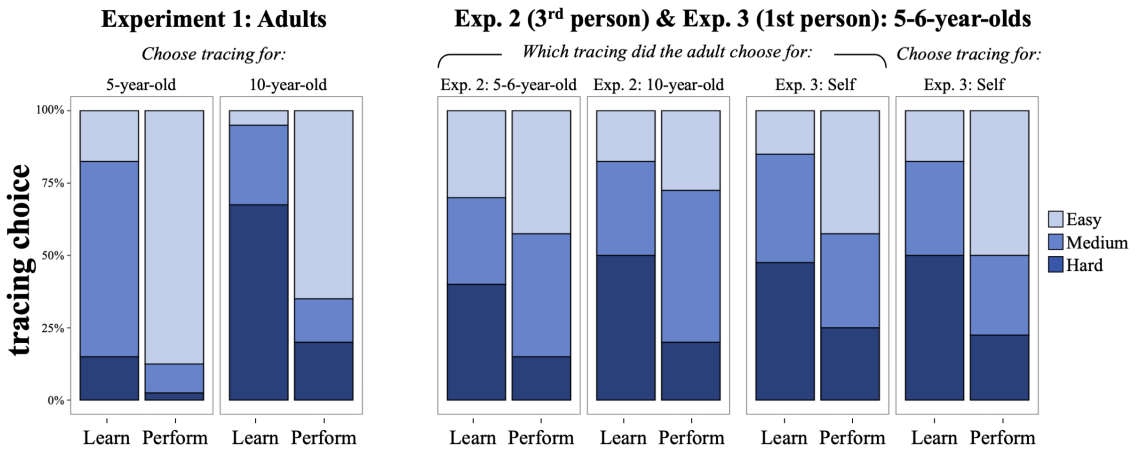

Figure 2: Results from Experiments 1-3. Plots depict the proportion of participants' choices of an easy, medium, or hard tracing across trials varying achievement goals (learn vs. perform), and the receiver of the tracing (a 5-6-year-old vs a 10-year-old in Exp 1 and 2, or themselves in Exp 3). In Experiment 1, adults chose tracings for children, in Experiment 2 children predicted which tracings adults would choose for other children, and in Experiment 3, children predicted which tracings adults would choose for themselves and also chose tracings for themselves.

they would have been excluded from our analyses.

The four test trials varied the target child's age and the adult's goal (within-subjects; see Figure 1). Children were told that they would get to see which tracings each adult chose for other children who were either the "exact same age" as the participant (younger trials) or "much older" than the participant and that they were 10-years-old (older trials). Then, participants were shown a unique adult-child pair and were told that the adult[1] had a specific goal for the child. In the performance goal trials, the adult wanted the child to "do a perfect tracing with no mistakes". In the learning goal trials, the adult instead wanted the child to "learn and get better at tracing". As an attention check, the experimenter asked children to repeat the adult's goal out loud. Participants were corrected if they did not accurately report the adult's goal and were excluded if they missed attention checks on at least 3 of the 4 trials (n = 14). Children then saw the three tracings and were asked to choose which tracing they thought the adult would pick for the child. The child age trials (younger, older) were blocked together and counterbalanced in order, and the goal order was counterbalanced within each block.

Results

As predicted, children expected that adults would pick harder tracings when they held a learning (vs. performance) goal and the child was older (vs. younger). An ordinal mixed-effects regression predicting children's predictions of adults' tracing choices, with fixed effects for achievement goal (performance vs. learning) and child age (5-year-old vs. 10-year-old), and random slopes and intercepts for achievement goal and child age by participant revealed a main effect of achievement goal ($b = -0.82$, 95% CI [-1.45, -0.25]) and a main effect of target child age ($b = 0.46$, 95% CI [0.08, 0.87]).

Next, we investigated effects within age and achievement goal trials separately. Ordinal mixed-effect regressions revealed that children were more likely to choose a harder level of tracing when the adult had a learning goal versus a performance goal in the younger child trials ($b = -1.62$, 95% CI [-5.71, -0.21]; same statistical models used as in Experiment 1) and the older child trials ($b = -1.69$, 95% CI [-4.23, -0.19]). However, children were not more likely to predict that adults would give harder tracings to older children than to younger children in the performance goal trials ($b = 0.89$, 95% CI [-0.21, 2.88]) or the learning goal trials ($b = 1.07$, 95% CI [-0.21, 3.24]). These findings suggest that children were primarily relying on the adult's achievement goal when making predictions.

Finally, we ran exploratory analyses to interrogate participants' responses within trials. First, chi-square goodness of fit tests revealed that the distribution of participants' choices were different than chance (33% for each tracing) for the 10-year-old learning and performance goal trials (X^2's$(2,40) >= 6.35, p$'s$<= 0.042$) and the 5-year-old performance trial ($X^2(2,40) = 6.05, p = 0.049$), but not for the 5-year-old learning goal trial ($X^2(2,40) = 0.8, p > 0.05$). Second, exploratory binomial tests (with Bonferroni p-value corrections, as in Exp. 1) revealed that participants selectively chose the medium tracing for the 10-year-old when the goal was to perform ($p = .033$); otherwise, participants did not selectively choose a tracing in the other trials (p's$> .05$). Thus, although participants' tracing predictions indeed differed depending on the achievement goal of the adult and the competence

[1] We purposefully did not specify the adult's relationship with the child (parent, teacher), to avoid any associations children have about parents or teachers and the goals they are likely to hold.

of the receiving child, participants did not selectively predict tracings in most trials.

Experiment 3

To fully understand how children reason about adults' achievement goals, it is important to not only look at children's reasoning about adult actions towards other children, but also towards themselves. In Experiment 3, we explore children's predictions of tasks when an adult picks a task for them, as well as when they pick a task for themselves, given specific achievement goals. We hypothesized that children will again predict that adults will choose more difficult tracings for them if they possess learning over performance goals. Critically, given previous work highlighting children's over-optimism about their future performance (Schneider, 1998; Zhang et al., 2023), we predicted that children might think adults underestimate their competence and therefore predict that adults choose easier tasks for them than what they, themselves, believe they are capable of achieving.

Participants Forty 5- and 6-year-old children (M_{Age}(SD) = 72.65(7.17) months, Range: 60-83) were recruited via online recruitment methods. Parents reported their children's gender 60% female and 40% male. The racial and ethnic makeup of participants was reported as follows: 55% white, 17% mixed race, 13% Asian, and 7% Black or African American, with 8% preferring not to answer, and 80% non-Hispanic or Latino and 15% Hispanic or Latino, with 5% preferring not to answer. Parental educational background was reported as follows: 10% Associate's degree, 40% Bachelor's degree, 35% Master's degree, and 10% Professional (JD, MD, PhD) degree, with 5% preferring not to answer. Based on preregistered exclusion criteria, 6 participants were excluded for failing all comprehension questions (in either the warm-up or test trials; n=4), or experimenter error (n=2).

Stimuli The tracing stimuli were identical to Experiment 2, and children were not shown the adult-child illustrations. Children were either shown just tracings (self-choose trial) or a silhouetted figure meant to depict an anonymous friend of the experimenter (self-receive trial).

Procedure The procedure was largely similar to Experiment 2. Children underwent the same warm-up and comprehension phase and were given four test trials. The test trials for this experiment crossed achievement goal (learning vs. performance) with whether the participant was choosing a tracing for themselves (self-choose trials) or was receiving a tracing from someone else (self-receive trials). In the self-receive trials, the experimenter told the participant that two of their friends had picked out tracings for them after being told their name and their age. Children were told that the friend either possessed a performance goal or a learning goal for the child (using similar language as in Experiment 2) and were asked to pick which tracing they believed that friend chose for them. In the self-choose trials, children were told to choose a tracing with either a performance goal (i.e., "make a perfect tracing with no mistakes") or a learning goal (i.e., "help you learn and get better at tracing") in mind. The participant role trials were blocked together (self-choose or self-receive first), and achievement goal order was counterbalanced within each block.

Results

As hypothesized, similar to Experiment 2, children both expected adults to choose harder tracings, and chose harder tracings themselves, when either adults or they possessed learning (vs. performance) goals. An ordinal mixed-effects regression predicting tracing choice with fixed effects for achievement goal and participant role (choose vs. receive), and random effects for achievement goal and participant role by participant revealed a main effect of achievement goal ($b = -1.70$, 95% CI [-3.31, -0.60]). Contrary to our predictions, there was no main effect for participant role ($b = 0.27$, 95% CI [-0.35, 1.02]), meaning we did not find differences between the predictions children made about what adults would choose for them and what children chose for themselves.

We then investigated effects within the participant role and achievement goal trials separately. Once again, ordinal mixed-effects regressions revealed children were more likely to choose a harder tracing difficulty when they had a learning goal in the self-choose trials ($b = -2.79$, 95% CI [-6.88, -0.76]) and when an adult had a learning goal in the self-receive trials ($b = -2.16$, 95% CI [-5.84, -0.32]). However, again, children were not more likely to choose different tracings for themselves than what they predicted adults were going to choose for them in either the performance ($b = 0.44$, 95% CI [-0.97, 2.25]) or learning goal trials ($b = -0.02$, 95% CI [-1.55, 1.53]).

Additionally, exploratory chi-square goodness of fit tests revealed that the distribution of participants' choices was different than would be expected by chance for the learning goal trials, both when choosing for themselves, and when predicting what adults would choose for them (X^2's(2,40) >= 6.35, p's<=.042). However, in the performance goal trials, children's choices were only marginally different from chance (X^2's$(2,40)$ >= 1.85, p's>= .076). Finally, we ran exploratory binomial tests and found that participants did not selectively choose a tracing in any of the trials (p's> .05). Taken together, these results reveal that children were more likely to select harder tracings when they, or an adult, had a learning goal (compared to a performance goal), but they were not selective as to whether the medium or hard task would best fulfill this goal. Furthermore, contrary to our predictions, children did not show any differences between their own task choices and their predictions of what tasks they would receive from adults.

General Discussion

Building on decades of work showing that achievement goals influence children's learning and motivation (Ames &

Archer, 1988; Smiley & Dweck, 1994; Grant & Dweck, 2003), here we find that young children understand how adults' achievement goals give rise to child-directed actions. Experiment 1 confirmed that adults are more likely to give harder tasks to children when they want them to learn versus perform, and give harder tasks to more competent children across achievement goals. In Experiment 2, we found that 5- to 6-year-old children systematically predict this pattern of adults' task choices for children given the adult's achievement goal and the receiving child's competence. Thus, 5- to 6-year-old children understand that learning and performance goals can be best fulfilled by tasks calibrated to the receiver's competence. Finally, in Experiment 3, we found that children also predict that an adult with a learning goal (vs. a performance goal) would give them a harder task, reflecting children's own goal-directed choices. Taken together, our results suggest that children on the brink of formal education can flexibly predict the actions that arise from adults' specific achievement goals.

Although children's predictions showed similar patterns as adults' actual task selections, there were some notable differences between the two. Across Experiments, both children and adults picked harder tasks to fulfill their own or other's learning goals and for more competent recipients. However, adults showed more selectivity in their task choices than children. For example, adults with a learning goal mostly chose the medium tracing for a 5-year-old while children equally chose the easy and the medium tracing for this same situation. What might underlie these differences? One possibility is that children's beliefs about the receiving children's competencies and adults' achievement goals may be more variable than adults' beliefs about these same variables. For example, adults may have uniformly thought that 5-year-old children have a certain competence level, whereas some children might have been more optimistic or more pessimistic in their beliefs about a 5-year-old's competence than other children. Furthermore, while adults may uniformly think that learning goals are best fulfilled by going up one level of difficulty from someone's current mastery level (similar to one's zone of proximal development), children may be more variable in this same judgment. Future work should explore these possibilities.

In this set of experiments, we only tested children's understanding of a forward inference: How do achievement goals give rise to specific actions? However, children are often faced with the reverse: If my parent, who presumably knows my competence very well, just gave me a really easy task, does this mean they want me to perform right now? Considering that achievement goals are not always conveyed directly to children, the ability to infer achievement goals from actions may be how children pick up on a caregiver's expectations for and beliefs about their learning. Similarly, it is unknown whether children can use this same inference space to learn about their own competence given an adult's achievement goal and action. Imagine the following example: A teacher is handing out the same activity to student A and student B. However, for student A, the teacher emphasizes that the goal of the task is to learn while for student B the teacher emphasizes that the goal is instead to do the task perfectly and make no mistakes. Based on the findings from our current studies, 5- to 6-year-old children might infer that student B is more competent than student A since student B can presumably do the task perfectly, but student A is still learning about it. Broadly, this work can help us understand whether children are developing beliefs not only about achievement goals, but also about their competence, based simply on adults' task choice for them.

Here, we presented children with simplified forced-choice paradigms that explicitly marked features of interest, raising questions about whether young children show the same sophisticated reasoning about achievement goals in their daily lives. Oftentimes, children are not explicitly told about hidden qualities like competence and goals. Whether children jointly reason about these factors or prioritize one over the other is an area for future research. Further, it is possible that children have priors about which achievement goals they expect certain adults to hold for them (e.g., my parents only care about my performance) that may be hard to overturn based on a single adult action. Finally, achievement goals are just one of many goals adult can possess for children (e.g., "to feel loved", Horvath & Lee, 2015; Coplan, Hastings, Lagacé-Séguin, & Moulton, 2002), so it is possible that children may not entertain the possibility of them holding an achievement goal specifically. Understanding the bounds of children's inferences about others' achievement goals across a broader range of real-world scenarios is a fruitful area for future research.

Ultimately, there are moments when we may want a child in our life to learn and absorb as much as possible from a given task, without worrying about their performance. Yet, there are also moments when we do want children to succeed and perform well. In order to fulfill this spectrum of goals, adults, especially parents and teachers, must decide what to give to a child that not only accomplishes both their own and the child's goals but also matches the child's quickly developing skill set. In our work, we find that young children successfully reason that learning goals, compared to performance goals, lead adults to select harder tasks for children and know that what counts as "easy" and "hard" depends on a task receiver's competence. This research opens up new and important lines of inquiry on how children both learn about and come to hold their own array of achievement goals, as well as how they form broader beliefs about their own and others' competence. Perhaps most importantly, it is with this research that we, as caregivers and educators, can begin to realize how much children learn about what achievement and success means, looks, and feels like from our everyday actions.

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