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How Young Children Evaluate People With and Without Disabilities

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Abstract

How do preschool-age children evaluate people with disabilities, and does social contact make children more positive toward those who are different from them? To answer these questions, typically developing 3- to 5-year-old children completed tasks designed to measure their social preferences for, and judgments about the actions of, unfamiliar individuals with and without disabilities. Participants preferred pictures of typically developing children over children in wheelchairs, but did not prefer children who were described with disabilities over those who were described with mildly negative facts. In a third task, participants evaluated actions that violated norms more negatively than those that did not, regardless of whether the actors had a disability. Children's participation in inclusion programs did not appear to affect their responses. We consider possible explanations for children's responses – including the absence of social contact effects – in the discussion.

Keywords

Attitudes; Disabilities; Norms; Preferences; Contact Hypothesis

Social group biases emerge early in development. For example, studies of preschool-age children reveal that girls tend to favor girls, boys to tend favor boys, and white children tend to favor white children (e.g., Lam, Guerrero, Damree, & Enesco, 2011; Shutts, Roben, & Spelke, 2013). Whereas the literature on early gender and race attitudes is extensive (for reviews, see Aboud, 1988 and Ruble, Martin, & Berenbaum, 2006), there is a paucity of research on preschool-age children's reactions to other dimensions of human variation. Yet investigating the full range of children's social biases is important: Such research can illuminate the nature of children's interpersonal experiences with peers and provide suggestions for how to ameliorate prejudice and stereotyping early in development.

The present paper considers 3- to 5-year-old children's evaluations of people who are often the target of negative attitudes later in life (e.g., Nosek et al., 2007) – namely, those with disabilities. One in six children in the United States has a developmental disability (Boyle et al., 2011) and most students with disabilities attend schools with typically developing peers (U.S. Department of Education, 2012). Thus, in addition to expanding the scope of research

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on early social biases, studying children's disability attitudes addresses a topic of increasing relevance to children with and without disabilities.

Previous Research

Sociometric studies indicate that typically developing (TD) children favor TD peers over peers with disabilities. For example, Nabors (1996; 1997) asked preschool-age children in inclusive childcare settings to provide liking ratings for each of their peers and generate names of preferred and non-preferred playmates. Analyses showed that peers with disabilities received lower preference ratings and fewer playmate nominations compared with TD peers. Several other sociometric studies have reported similar findings with TD preschoolers and older children (e.g., Diamond, Le Furgy, & Blass, 1993; Gerber, 1977; Goodman, Gottlieb, & Harrison, 1972; Guralnick, Connor, Hammond, Gottman, & Kinnish, 1996; Guralnick & Groom, 1987; Ochoa & Olivarez, 1995; Scheepstra, Nakken, & Pijl, 1999).

Sociometry can shed light on the nature of relationships among peers and identify attributes that are correlated with preferences and close friendships. However, when children are asked to consider known peers, they may rely on a multitude of factors besides an individual's disability status to guide their responses (e.g., manner of dress, observations of others' preferences, outcomes of previous social interactions). In order to understand whether children use disability status per se to evaluate other people, it is useful to present participants with controlled stimuli they have never before encountered.

A meta-analysis of results from studies featuring controlled stimuli (e.g., pictures or descriptions of unfamiliar children) found that TD school-age children tend to hold negatively biased attitudes toward people with disabilities (Nowicki & Sandieson, 2002), but research using controlled stimuli to assess younger children's social evaluations is relatively sparse. Nevertheless, there are reasons to hypothesize that preschool-age participants in the present research will evaluate TD children more favorably than children with disabilities. First, many researchers have argued that visually salient distinctions support social biases (e.g., Aboud, 1988; Bigler & Liben, 2007; Sigelman, Miller, & Whitworth, 1986), and some disabilities are visually apparent. Second, preschool-age children make positive social inferences about people who appear to be competent (Brosseau-Liard & Birch, 2010) and tend to view unfamiliar individuals with disabilities as less competent than TD individuals (Diamond & Hestenes, 1996; Diamond, Hestenes, Carpenter, & Innes, 1997). Finally, a handful of studies have shown that TD preschoolers say they like and would prefer to play with unfamiliar TD individuals over unfamiliar individuals with disabilities (Cohen, Nabors, & Pierce, 1994; Nabors & Keyes, 1995; Popp, Fu, & Warrell, 1981; Sigelman et al., 1986).

Working under the hypothesis that social contact can ameliorate bias (Allport, 1954), some researchers have focused on comparing the attitudes of children at schools with inclusion programs to the attitudes of children attending non-inclusion schools. The findings from research with school-age children are mixed (Cameron & Rutland, 2006; Esposito & Reed, 1986): Some studies have shown positive effects of inclusive settings on school-age children's attitudes toward those with disabilities (e.g., Favazza & Odom, 1996; Nikolaraizi

et al., 2005–Greek sample; Voeltz, 1980), while others have shown null or negative effects (e.g., Maras & Brown, 2000; Nikolaraizi et al., 2005–American sample; Sandberg, 1982). Very little research has compared the attitudes of preschool-age children in inclusion and non-inclusion schools, although studies by Diamond and colleagues indicate that TD preschool-age children in inclusion schools are more likely to think that individuals with disabilities will be socially accepted by other people (Diamond & Carpenter, 2000; Diamond et al., 1997).

The Present Study

The primary goal of the present research was to contribute to the modest literature on preschool-age children's evaluations of people with disabilities, and test whether young children are more positively disposed toward typically developing individuals on a range of measures. Our participants were 3- to 5-year-old children from four different preschools. Participants completed three different tasks at two different time-points: the beginning of the school year (as a baseline assessment) and later in the school year (to examine change over time).

Two tasks probed children's social preferences by asking how interested participants were in befriending unfamiliar children with and without disabilities. One preference task ("Vignette Preference") assessed participants' willingness to befriend children with different disabilities. Disabilities were conveyed verbally, but not visually, because young children are not sensitive to visual indicators of cognitive disabilities (e.g., features of Down syndrome: Diamond & Hestenes, 1996) and because some disabilities (e.g., autism) are difficult to convey with pictures. To assess the strength of children's ratings, we also asked participants to evaluate targets described with mildly negative (but not disability) facts. A second task ("Visible Preference") focused only on physical disabilities and used visual information to convey disability status: Participants saw photographs of children who did and did not use wheelchairs.

A third task asked children to judge how acceptable it would be for someone with a disability to violate a social norm because of his/her disability. Participants saw cartoon scenes in which a TD child and a child with a visual impairment played a novel game in a way that deviated from the rest of a social group. Previous research provides evidence that children are sensitive to violations of social norms (e.g., Rakoczy, Warneken & Tomasello, 2008; Smetana, 1981). In the present study, we created a new measure to test whether children consider an individual's disability status when evaluating norm violations.

Beyond assessing children's social evaluations of those with and without disabilities, a secondary goal of the present research was to examine whether contact and familiarity might affect children's assessments. To do this, we tested participants from preschools with and without formal inclusion programs. Children in inclusion preschools spend their days with peers who have disabilities, and are therefore highly familiar with such individuals (Hanline, 1993; Okagaki, Diamond, Kontos, & Hestenes, 1998). Additionally, teachers in inclusion preschools are typically supportive of contact between peers with different abilities, and can facilitate classroom-wide activities that involve all children. Both familiarity (Cameron,

Alvarez, Ruble, & Fuligni, 2001) and authority-supported contact (Allport, 1954; Pettrigrew, 1998) could lead children in inclusion programs to be more favorable toward individuals with disabilities.

Method

Participants

Participants were 69 TD 3- to 5-year-old children living in the Midwestern region of the U.S. Thirty-one participants attended one of two preschools with formal inclusion programs. Remaining participants attended one of two preschools without inclusion programs. Most participants completed all three tasks in a session, but some only contributed data for one or two tasks. See Table 1 for information about sample sizes and participant demographics at Times 1 and 2. Children with disabilities were invited to participate in this study; of those whose parents returned consent forms, none were able complete the tasks.

Participants from inclusion and non-inclusion schools were similar in socioeconomic status. According to parental report, the most common household income bracket for families of participants in both kinds of schools was $100,000–125,000/year. Most parents (> 90 % of mothers and fathers) had a college degree.

Settings

About one third of students in targeted classrooms at one inclusive preschool had disabilities, while about 20% of students in targeted classrooms at the other inclusive preschool had disabilities or were being referred for diagnosis. Diagnosed disabilities included Down syndrome, Rhett syndrome, myotonic dystrophy, cerebral palsy, sensory processing disorder, autism spectrum disorder, ADHD, Williams syndrome, Noonan's syndrome, and significant cognitive and/or language delays. At the two preschools without dedicated inclusion programs, children with disabilities were less numerous: In one, 6% of children in classrooms where we tested had individualized education programs (IEPs) for speech or social skills development. In the other preschool, 7% of children in targeted classrooms had IEPs for speech, language, or social skills development, and one child was in the process of being evaluated for a diagnosis.

Procedure

An experimenter tested all participants individually in a quiet room at their preschool. Children had two opportunities to participate in the study. Testing for "Time 1" occurred in September and early October (at the beginning of the fall session), and testing for "Time 2" occurred in January and early February (at the mid-point of the year). Children completed the same three measures in the same order at both time-points: Vignette Preference, Visible Preference, and Norm Violation. Each testing session lasted approximately 15 minutes.

Vignette Preference—The experimenter told participants that they would meet some new children and be asked to say how much they would like to be friends with each child. She then explained how participants could use a 3-point "smiley face" scale to indicate their choices. There was a happy face ("really would like to be friends with"), a neutral face

("sort of would want to be friends with"), and a frowning face ("really would not like be friends with"). Practice trials ensured that participants understood how to use the scale.

On each of 12 test trials, the experimenter presented a photograph of a child's face, provided a verbal description, and solicited a scale rating. Half of trials presented descriptions that conveyed one of six different disabilities: visual impairment, hearing impairment, physical disability, autism spectrum disorder, ADHD, or cognitive disability. Vignettes used by Smith & Williams (2004) inspired some of the disability descriptions in the present study. Remaining trials presented mildly negative facts that contained no disability information; these trials served as a baseline against which we could compare the strength of participants' evaluations of children with disabilities. Table 2 lists all 12 descriptions used in the task.

Trials that presented disability facts were interspersed with trials that presented mildly negative facts. Female participants saw faces of white preschool-age girls throughout the task, while male participants saw faces of white preschool-age boys. The order of facts and the pairings of particular faces with particular facts were counterbalanced across participants. Thus, approximately half of participants saw a particular face paired with a disability fact, while half saw that same face paired with a mildly negative fact. Additionally, across participants different faces were paired with each of the disability and mildly negative facts.

Visible Preference—On each of four unique trials, the experimenter presented participants with a photograph of a child in a wheelchair alongside a photograph of a child who was not in a wheelchair (Figure 1a). Participants were asked to rate (one at a time) how much they would like to be friends with each child using the scale from the first task.

Participants always rated the child on the left first, but whether the child in the wheelchair appeared on the left or the right was counterbalanced within and across participants. Pair order also varied across participants. Photographs within a pair were matched for attractiveness, age, hair color, and race (all were white), and participants only saw children of their own gender.

Norm Violations—On each of three unique trials, participants saw a cartoon picture of 7 children seated around a table (see Figure 1b). Six of the children appeared to be typically developing, while one wore glasses and did not have visible pupils. The experimenter pointed to and described three different "target" children: She introduced two typically developing target children with mildly negative facts (similar to those used in the Vignette Preference task), and noted that the child with glasses had a visual impairment (i.e., "This kid's eyes don't work so he can't see anything"). Previous research has shown that preschool-age children understand that people with visual impairments cannot see (Diamond et al., 1997). She then checked participants' memory for the facts associated with each target child (e.g., "Which kid's eyes don't work?"). Participants correctly identified the child with the disability 100% of the time.

Next the experimenter explained that all the children were playing a game where the goal was to discover what kind of animal was in a box by looking through tubes. She noted that

the child with the visual impairment could not play the game in this manner because of his/her disability. Participants then saw how each of the children played the game. Five of the 7 children – including one of the typically developing targets – played the game by looking through the tube. However, two of the children (the other typically developing target and the child with the visual impairment) reached inside the box in order to determine the identity of the animal. All children achieved the same outcome (e.g., discovered that a fish was in the box).

Children's methods were depicted in the cartoon (Figure 1c), and were also noted by the experimenter. Participants were then asked to use a smiley-face scaled to indicate how "OK" it was that each of the target children played the game the way they did (happy face = "really OK"; neutral face = "sort of OK"; sad face = "really not OK").

Each kind of target (i.e., typical-conform, typical-violate, disability-violate) appeared once in each of the three positions (leftmost, middle, or rightmost seat at the table) across the three trials. Across participants we varied: the order in which participants rated the targets on every trial; the order in which participants saw the different kinds of targets in each position across trials (e.g., some saw the visually impaired child in the leftmost position on the first trial, while others saw him/her in the middle or rightmost position on the first trial), and the pairings of particular mildly negative facts with particular typically developing targets (e.g., whether "bumped his toe" went with a target who conformed to or violated the norm). Female participants saw female cartoons and male participants saw males.

Results

For each trial, a score of "−1" was assigned if a participant pointed to the frowning face; a score of "0" was assigned if a participant pointed to the neutral face; and a score of "1" was assigned if a participant pointed to the smiling face.

Vignette Preference

We generated two scores for each participant at both Time 1 and Time 2. The "disability vignette score" was the average of ratings given to the 6 children described with a disability fact. The "typical vignette score" was the average of ratings given to the 6 children described with a mildly negative fact. At Time 1, the mean disability vignette and typical vignette scores for the whole sample were .17 and .13, respectively. Participants' Time 1 responses to the disability vignettes differed from the mid-point of the scale (mid-point = 0; $t(67) = 2.69$, $p = .009$), while participants' Time 1 responses to the typical vignettes were only marginally different from the mid-point ($t(67) = 1.92$, $p = .06$). At Time 2, the mean disability vignette and typical vignette scores for the whole sample were .05 and .14, respectively. Participants' Time 2 responses to the disability vignettes did not differ from the mid-point of the scale ($t < 1$), but participants' Time 2 responses to the typical vignettes did ($t(64) = 2.12$, $p = .04$).

Mean responses for each of the different disability and typical vignettes at Times 1 and 2 are displayed in Table 2. For responses to the disability vignettes, an ANOVA with trial type (visual impairment, hearing impairment, physical disability, autism spectrum disorder,

ADHD, cognitive disability) and time as within-subjects factors revealed no significant effects. For responses to the typical vignettes, an ANOVA with trial type (Item A, Item B, Item C, Item D, Item E., Item F) and time as within-subjects factors revealed only a main effect of trial type ($F(5, 274.81) = 4.25$, $p = .002$; Greenhouse-Geisser correction). According to pair-wise comparisons with Bonferroni correction, children treated all typical vignette trial types the same except for "Item E" (see Table 2). Children rated faces associated with Item E more negatively than those associated with Items A, B, D, and F.

An ANOVA with vignette type (disability, typical) and time (Time 1, Time 2) as within-subjects factors, and participant gender and school type (inclusion, non-inclusion) as between-subjects factors, revealed no significant main effects or interactions (all ps > .11). Participants were equally wiling to befriend children who were associated with disability vignettes and mildly negative facts, and this did not differ according to school type, gender, or testing time.

All the "mildly negative" vignettes described individuals who committed specific actions (e.g., dropping a pencil). The mental disability vignettes similarly described specific actions (e.g., getting out of one's seat; forgetting what people say), but the physical disability vignettes did not. To test whether participants gave higher ratings to individuals who were described without specific actions (i.e., individuals with physical disabilities), we repeated the ANOVA considering only physical disability vignette ratings. This analysis revealed that participants gave similar ratings to targets associated with mildly negative (non-disability) facts and targets associated with physical disability descriptions ($p = .65$).

Visible Preference

Following the logic of the previous task, we generated a "visible disability score" and a "visible typical score" for each participant at Times 1 and 2 by averaging across trials. At Time 1, the mean visible disability and visible typical scores were both above the mid-point of the scale (mid-point = 0; $M_{\text{Disability}} = .24$, $t(67) = 3.08$, $p = .003$; $M_{\text{Typical}} = .31$, $t(67) = 4.01$, $p < .001$). At Time 2, the mean visible disability and visible typical scores were also above the mid-point of the scale ($M_{\text{Disability}} = .16$, $t(63) = 2.20$, $p = .03$; $M_{\text{Typical}} = .39$, $t(63) = 6.18$, $p < .001$). An ANOVA with person type (disability, typical) and time (Time 1, Time 2) as within-subjects factors, and participant gender and school type (inclusion, non-inclusion) as between-subjects factors, revealed only a main effect of person type ($F(1,59) = 8.75$, $p = .004$). Regardless of school type, gender, or testing time, participants expressed a greater desire to befriend children who appeared to be typically developing over those who appeared to have a physical disability.

Norm Violation

We generated three scores for each participant at Times 1 and 2: "typical-conform" (the average of ratings given to normative actions performed by typically developing children), "typical-violate" (the average of ratings given to non-normative actions performed by typically developing children), and "disability-violate" (the average of ratings given to non-normative actions performed by children with visual impairments). Mean "typical-conform" scores for Times 1 and 2 were .52 and .67, respectively; both of these scores were

significantly greater than the mid-point of the scale according to one-sample t tests ($t(59) = 7.45$, $p < .001$; $t(62) = 11.55$, $p < .001$; respectively). Mean "typical-violate" scores for Times 1 and 2 were −.23 and −.38, respectively; both of these scores were significantly less than zero ($t(59) = 2.93$, $p = .005$; $t(62) = 5.05$, $p < .001$; respectively). Finally, mean "disability-violate" scores for Times 1 and 2 were -.18 and −.28, respectively; both of these scores were also significantly less than zero ($t(59) = 2.12$, $p = .04$; $t(62) = 3.21$, $p = .002$; respectively).

An ANOVA with person type (typical-conform, typical-violate, disability-violate) and time (Time 1, Time 2) as within-subjects factors and school type (inclusion, non-inclusion) and participant gender as between-subjects factors indicated only one significant finding: a main effect of person type ($F(2,100) = 44.51$, $p < .001$). LSD post-hoc tests revealed that participants rated "typical-conform" children's actions more positively than "typical-violate" or "disability-violate" children's actions (both ps < .001). Participants' evaluations of non-normative actions performed by typically developing and visually impaired children did not differ ($p = .24$).

Discussion

Summary and Conclusions

The present study suggests nuanced conclusions about the extent to which TD preschool-age children use disability status to guide their social preferences and judge others' actions. Results from the Visible Preference task confirm previous research showing that young TD children tend to prefer individuals without visible physical disabilities over those portrayed with adaptive equipment (e.g., Cohen et al., 1994; Popp et al., 1981; Sigelman et al., 1986). Additionally, in the Norm Violation task, participants rated the actions of visually impaired targets as "not OK", even though the experimenter highlighted targets' visual impairments and noted that they could not play the game according to the norm because of their disabilities. Both findings provide evidence for some degree of bias or insensitivity regarding disability status on the part of TD children.

Three further findings, however, suggest that TD children do not hold extremely negative views of individuals with disabilities. First, even though participants indicated that they would be more interested in befriending targets without disabilities in the Visible Preference task, the average preference ratings for targets in wheelchairs were not below the mid-point of the scale at Time 1 or Time 2. In other words, while participants were not very positive about befriending children in wheelchairs, they were also not very negative about the prospect of doing so. Second, in the Vignette Preference task, children's ratings for targets with disabilities were near the mid-point of the scale, as were their ratings of individuals described with mildly negative (non-disability) facts. The fact that participants' preferences for individuals with disabilities were largely equivalent to their preferences for individuals associated with common, incidental facts could be taken as evidence that young children's disability attitudes are not markedly negative. Nevertheless, one could also argue that is unfair to judge individuals with disabilities – whose behaviors or limitations may be beyond their control (e.g., someone who cannot see because of a visual impairment) – similarly to those who commit acts that may be within their control (e.g., forgetting to bring lunch).

Third, while participants were not forgiving of norm violations committed by individuals with disabilities, they were similarly harsh when judging TD individuals who violated norms.

Limitations and Suggestions for Future Research

It is worth noting some of the limitations of the present research. First, our sample size was small, especially for analyses probing effects of school type on children's responses. Second, most participants in the study were from high socioeconomic backgrounds and all participants attended well-funded, high-quality preschools; it is unclear whether the effects we observed would generalize to other populations. Third, the Vignette Preference task may not be an appropriate measure of preschool-age children's attitudes toward those with disabilities. We presented children with vignettes, reasoning that it would difficult – if not impossible – to convey some disabilities (e.g., ADHD) with static images. Nevertheless, young children may not have understood the content we presented, given limitations on their language comprehension and theory of mind skills. Future research might present children with simplified verbal descriptions or use dynamic video clips to convey content.

The present findings raise several additional suggestions and questions for future research on young children's evaluations of individuals with disabilities. One important question is why children begin to use disability status to evaluate unfamiliar people. There are many possible explanations, including ingroup favoritism (e.g., Dunham & Emory, in press), exposure to the biases of adults (e.g., Castelli, De Dea, & Nesdale, 2008), or emerging beliefs about the competence of individuals with and without disabilities (Diamond et al., 1997). An additional possibility raised by the present research is that children's bias stems from their dislike of apparent norm violations. The "Norm Violation" task provided clear evidence that children disapprove of behavior that is "wrong" (see also Abrams, Rutland, Ferrell, & Pelletier, 2008). Perhaps young children come to view people with disabilities as individuals who commit – or are likely to commit – norm violations. Future research might probe the attitudes of children with disabilities; examine correlations between the preferences of adults and children over time; and test for relations between children's attitudes toward, and inferences about, people with disabilities.

Further research is also necessary to probe the effects of inclusive preschool programs on young children's social evaluations. We found no evidence for effects of schooling environment – i.e., inclusion vs. non-inclusion – on children's evaluations of individuals with disabilities in the present research. One possibility is that our measures and sample sizes were not sensitive enough to detect differences between children in inclusion and non-inclusion schools. Additionally, the presence of a few children with disabilities in the "non-inclusion" preschools may have made the social contexts more similar than we expected. Finally, inclusive settings may positively affect aspects of TD children's social and cognitive development that were not measured in the present work (Peck, Carlson, & Helmstetter, 1992). Future research on effects of inclusion might seek larger sample sizes, include participants with a wider range of exposure to individuals with disabilities, aim to recruit children from (rare) schools where no one has a disability, and present a greater array of tasks to participants.

Two further reasons for the lack of school effects in our study are worthy of consideration. First, children may not represent "people with disabilities" as a social category comprised of individuals who are similar to one another. There are many kinds of disabilities, and even the "same" disability can manifest differently from one individual to another. Children may not think that a person with autism and a person in a wheelchair – or even two people with cognitive disabilities – have much in common with one another. If young children do not see individuals with disabilities as deeply (or even superficially) similar to one another, then any positive (or negative) experiences children have with particular children in their school may not generalize to other children with disabilities. It would therefore be interesting to borrow methods that have been used to study children's social categories (e.g., gender, race, and ethnicity: Diesendruck & haLevi, 2006; Rhodes & Gelman, 2009; Shutts et al., 2013) in order to investigate how children reason about individuals with disabilities.

A second point to consider is that while children in inclusion settings have *more* contact with individuals with disabilities, their experiences may not be uniformly positive. Thus, our data may reflect a mixture of feelings that are possible when children interact with individuals who differ from them along some dimension. In future research, it could be useful to measure individual children's experiences in inclusion contexts (e.g., whether a TD child has a close friendship with a child who has a disability) in order to probe connections between contact and attitudes more closely. It would also be fruitful to manipulate or study how inclusion is implemented in particular classrooms and schools in order to understand how different kinds of contact affects preschool-age children's attitudes (see Maras & Brown [2000] for such an approach with older children).

Implications

In addition to contributing to our understanding of children's social cognitive development, research on children's disability attitudes has important practical implications. The present findings – together with previous research – suggest that young children may be less interested in interacting with people who have disabilities, and may not be forgiving about adaptations and accommodations for disabilities (e.g., alternate ways of completing a task in school). Thus, parents and teachers may need to facilitate social interactions between children with and without disabilities, provide children with tools for thinking about accommodations for their peers, and help children recognize bias and exclusion (see Pahlke, Bigler, & Martin, in press). Social exclusion and bullying have obvious negative impacts on the targets of those behaviors, but biased attitudes and behaviors also deny typically developing children the opportunity to develop close relationships with diverse individuals. A deeper understanding of why and how children develop biased attitudes could eventually illuminate strategies regarding how best to support all children as they interact with people who have different talents and abilities.

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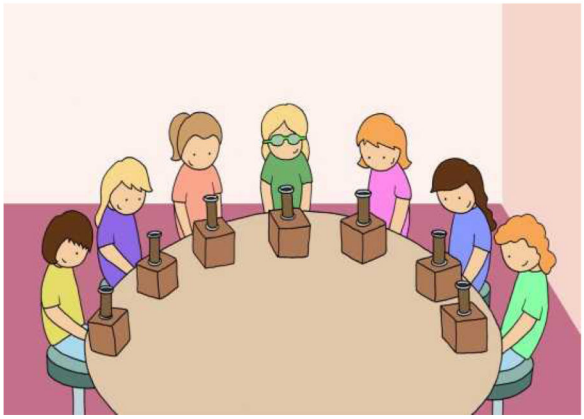
(a)

(b)



(c)

Figure 1.
Example displays from the Visible Preference (a) and Norm Violation tasks (b, c).

Table 1

Information about participants at Times 1 and 2.

	Time 1		Time 2	
	Inclusion	**Non-Inclusion**	**Inclusion**	**Non-Inclusion**
Number of Participants	31	37	28	37
Gender	11 F, 20 M	19 F, 18 M	9 F, 19M	19 F, 18 M
Mean Age (yrs)	4.32	4.19	4.66	4.54
Age Range (yrs)	3.03–5.09	3.10–5.22	3.65–5.34	3.48–5.59
Race/Ethnicity	74% white	84% white	71% white	84% white
N for Vignette Preference	31	37	28	37
N for Visual Preference	31	37	28	36
N for Norm Violation	30	30	28	35

Note. All 28 “inclusion” children who participated at Time 2 also participated at Time 1. Three of the “inclusion” children who participated at Time 1 were absent at Time 2. Of the 37 “non-inclusion” children who participated at Time 2, 36 had participated at Time 1. One “non-inclusion” child was absent at Time 1, but present for testing at Time 2.

Table 2

Results and text for individual items in the Vignette Preference task at Times 1 and 2.

	Time 1	Time 2
Disability Vignettes		
Visual Impairment	.12	.12
Hearing Impairment	.12	.11
Physical Disability	.12	.15
Autism Spectrum Disorder	.29***	−.14
ADHD	.26**	.09
Cognitive Disability	.12	−.06
Typical Vignettes		
Item A	.27***	.15
Item B	.13	.28*
Item C	.15	.14
Item D	.22*	.20
Item E	−.04	−.18
Item F	.07	.26*

Note. Asterisks represent the results of one-sample *t* tests comparing each mean to the mid-point of the scale (i.e., “0”).

*** $p < .005$,

** $p < .01$,

* $p < .05$.

Visual Impairment: This kid’s eyes don’t work and she can’t see very much. Even if she has her eyes open she can’t see because it’s like being in the dark.
Hearing Impairment: This kid’s ears don’t work very well and she can’t hear very much. If someone is talking, she can’t hear it.
Physical Disability: This kid can’t move her legs so she can’t use them to walk around. She doesn’t have any feelings in her legs so she can’t run or walk.
Autism Spectrum Disorder: This kid doesn’t really understand what others are thinking and feeling. If someone was happy or sad, she might not understand.
ADHD: This kid gets excited really quickly and can only sit still for a few minutes at a time. She gets out of her seat a lot and does things without thinking about them.
Cognitive Disability: This kid takes a long time to learn things and she forgets what people say to her a lot. Sometimes she doesn’t understand or remember how to do things in class.
Item A: This kid dropped her pencil on the way to school today.
Item B: This kid fell off her bike last week.
Item C: This kid forgot to bring her lunch yesterday.
Item D: This kid missed the bus to school today.
Item E: This kid spilled food on her shirt last night.
Item F: This kid pressed the wrong button on the computer game.