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BRIEF REPORT

Comparison Facilitates the Use of Height Information by 5-Month-Olds in Containment Events

Elizabeth J. Goldman and Su-hua Wang
University of California, Santa Cruz

Past research has shown a discrepancy in young infants' use of height information in occlusion and containment events—a pattern typically accounted for by event categorization and rule learning. Broadening these theories, the present experiment examined the role of comparison in young infants' reasoning about physical events. We rotated a typical setup of a top-open container 90 degrees such that the opening now faced the side. An object was held vertically aligned with the side opening, enhancing the direct comparison of height. After the object was glided behind or inside the container and became hidden, 5-month-olds detected a height change in both containment and occlusion events. Thus, enhanced support for comparison facilitated young infants' use of key information in physical events (i.e., height in containment events). The finding underscores the importance of considering the role of comparison in the research of intuitive physics in infancy.

Keywords: physical events, object representation, containment, comparison, infancy

The use of object information relevant to the task at hand is crucial for effective interactions with the physical world and bears close connections with early spatial learning. With experience, infants and young children become better at representing objects in spatial contexts (Kibbe, 2015; Kibbe & Leslie, 2013; Needham, 2001), engaging in the process of structural alignment via comparison (Christie & Gentner, 2010; Ferry, Hespos, & Gentner, 2015; Gerson & Woodward, 2012; Namy & Gentner, 2002), and applying what they have learned to novel situations (Gentner, Anggoro, & Klibanoff, 2011; Hoyos & Gentner, 2017; Wang & Baillargeon, 2008). A good case in point is the ability to consider information about object sizes. In the first few months of life, human infants learn to consider object sizes such as height and width information in containment events (e.g., Dejonckheere, Smitsman, & Verhofstadt-Denève, 2005). This ability allows them to enjoy putting toys inside containers and retrieving hidden toys. However, research has converged to show better use of height information when infants watch occlusion than containment events (Hespos & Baillargeon, 2001; Wang, Baillargeon, & Brueckner, 2004)—a finding typically accounted for by event categorization and rule learning without much consideration of comparison. The present research broadens the current view by considering the role of comparison in infants' use of object information in occlusion and containment events.

Elizabeth J. Goldman and Su-hua Wang, Department of Psychology, University of California, Santa Cruz.

Correspondence concerning this article should be addressed to Elizabeth J. Goldman, Department of Psychology, University of California, Santa Cruz, 1156 High Street, Santa Cruz, CA 95064. E-mail: eljgoldm@ucsc.edu

Early Concepts of Occlusion and Containment

Occlusion and containment have been investigated as emerging spatial categories (Casasola, 2005, 2008; Hespos & Piccin, 2009) or as spatial contexts for rule learning (Baillargeon & DeJong, 2017; Dejonckheere et al., 2005). The first line of research—spatial categorization—has shown that infants at 6 months form the containment category after seeing just a few examples (e.g., Casasola, 2005; Casasola, Cohen, & Chiarello, 2003). Moreover, the boundaries of the containment category shift when infants are provided with different contrasting examples. Depending on the event being contrasted to containment, infants may consider that event to be within or outside the boundaries of containment. For example, Rigney and Wang (2015) showed that when given occlusion as the contrast, infants fail to differentiate containment from occlusion until they are about 11 months. However, when given support (i.e., an object being stacked on top of another) as the contrast, 8-month-olds readily differentiate containment from support. Thus, the scope of containment does not always include only events that involve an object being placed inside another object. For 8-month-olds, the boundaries are clearly drawn when containment is contrasted with support but not with occlusion. This research demonstrates early emergence of occlusion and containment concepts and shows that the scope of a spatial category can shift depending on the contrast being made by infants.

The other line of research examines occlusion and containment as spatial contexts for rule learning: For a given spatial relation, infants identify rules that specify which variables are relevant for interpreting physical events of this relation, such as height being relevant to events involving occlusion (Hespos & Baillargeon, 2001, 2006; see also Aguiar & Baillargeon, 2002; Baillargeon, Li, Gertner, & Wu, 2011; Smitsman, Dejonckheere, & De Wit, 2009).

When infants notice that some event outcomes support the current rule whereas other outcomes contradict it, this contrast triggers revision of the existing rule, allowing infants to predict outcomes more accurately (e.g., Wang, Zhang, & Baillargeon, 2016). An integrative account has been proposed to specify the computational systems at work when infants build representations of physical events (e.g., Baillargeon et al., 2012). Most relevant to the present case are the object representation (OR) system, which encodes and maintains information about object features, and the physical reasoning (PR) system, which retrieves from OR information about the variables that have been identified as relevant. Facing an influx of information, infants must select a subset to include in their representations of physical events while excluding other information. This prioritization allows limited cognitive resources to be focused on key aspects of the events being observed, increasing the likelihood for infants to predict or interpret the events accurately (e.g., Duh & Wang, 2014). As infants acquire more accurate physical rules, PR becomes better at prioritizing and retrieving key information about object features from OR (e.g., Wang & Baillargeon, 2008). The account further suggests that tasks involving no object interaction will tap the OR system, whereas tasks involving objects interacting with one another will tap the PR system. Because of the divide, infants may be successful in using information of a variable in one type of tasks while failing to do so in the other type (Wang & Mitroff, 2009).

This division of labor reconciles the seemingly contradictory findings, such as 4.5-month-olds' detection of similar violations about object height in occlusion but not in containment events (Hespos & Baillargeon, 2001). In this report, infants saw an object next to a container. The object was lifted and positioned above the top opening of the container, was lowered behind or inside the container, and became fully hidden. The container was as tall as the object in one event (expected event) or only half as tall as the object in the other (unexpected event). Infants in the occlusion condition looked reliably longer at the unexpected than the expected event, whereas those in the containment condition looked equally at the two events. Based on the integrative account, upon seeing the object being lowered behind or inside the container, infants categorize the event as occlusion or containment, respectively. At 4.5 months, infants have acquired the rule of height being relevant for occlusion. Thus, PR prioritizes the retrieval of height information from OR and includes it in the representation of the occlusion event, allowing infants to detect the violation. In contrast, 4.5-month-olds have not identified height as relevant for containment and do not spontaneously include height information in the representation of the containment event, thus failing to detect the violation.

Furthermore, the account specifies mechanisms other than rule learning that also affect the prioritization of object information. For example, watching occlusion events primed 5-month-olds to use height information in containment events, enabling their detection of changes to object height that they would have missed without priming; moreover, the effect was derived from enhanced retrieval by the PR system rather than enhanced encoding by the OR system (Wang & Onishi, 2017). These "carryover" effects (Baillargeon et al., 2012, p. 7) suggest that before learning a new rule about a particular variable being relevant to an event category, infants could be induced to use information about the variable by watching events of another category for which they have learned the rule.

The Present Research

Here we examined another way of inducing infants' prioritization of height information in containment events—through visual alignment that facilitates comparison—to fill the gap in the current literature. In everyday life, infants have opportunities to align objects or observe others do so in ways that facilitate visual processing and action planning (e.g., align an object with an opening before inserting the former into the latter; see Jung, Kahrs, & Lockman, 2015; Lockman, Fears, & Jung, 2018). For height, when objects are placed side by side, the alignment invites comparison and facilitates the use of height information; in contrast, when one object is placed farther away than the other, direct comparison of object height becomes challenging. This idea has been supported by research that presented infants with static objects (Duffy, Huttenlocher, & Levine, 2005; Lloyd, Sinha, & Freeman, 1981; Rosenbaum, Chapman, Weigelt, Weiss, & van der Wel, 2012). For example, Huttenlocher, Duffy, and Levine (2002) showed that a reference object helped infants distinguish between static objects by height. Presenting infants with moving objects, Wang et al. (2004) also showed that visual alignment enhanced infants' use of width information. In this report, 3.5-month-olds watched an object being lowered behind or inside a box until the object became hidden. The box was wider than the object in one event and too narrow to hide the object in the other event. The results indicated that parallel alignment between the object and the opening of the box—presented just before the object was lowered inside or behind the box—allowed infants to directly compare width information. Infants detected the violation involving width in containment as well as in occlusion events. The present experiment examined whether parallel alignment, analogous to that in Wang et al., would facilitate comparison of height information, thereby eliminating the uneven performances typically observed across containment and occlusion events.

A container was placed with its opening facing to the right side (see Figure 1), eliminating the need to lift the object before inserting it inside the container (e.g., Hespos & Baillargeon, 2001; Wang & Onishi, 2017). The object was held vertically, parallel to the opening of the container, providing visual alignment of the object and aperture. For half of the infants, the object was glided inside the container until it became fully hidden; after a pause, it was retrieved from inside the container and remained as tall as before (no-change event) or changed its height (change event). For the other half of the infants, the object was glided behind the container. At 5 months, infants tend to use height information in occlusion but not containment events (Wang, 2011). If visual alignment facilitated the comparison and prioritization of height information, 5-month-olds should succeed in detecting the change to object height in containment events, eliminating the uneven performance across event types.

Another group of infants watched similar events with a crucial modification that made comparison challenging: The object was held horizontally, perpendicular to the side opening of the container (see Figure 2). This manipulation allowed us to directly examine the effect of comparison: The same change occurred

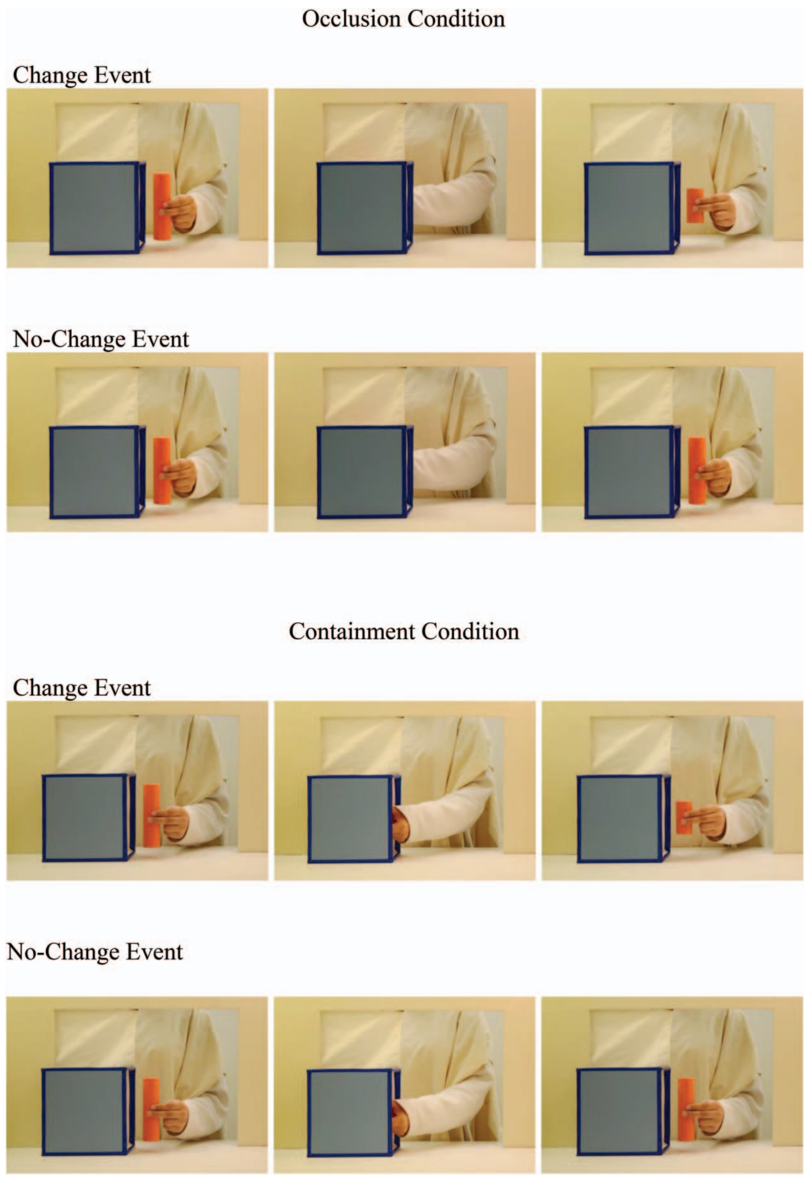

Figure 1. The first cycle of the events shown to the vertical group. Each event was repeated until the trial ended. In the change event, the object would change to the taller version in the second cycle. Therefore, the test events differed in whether changes occurred, rather than whether infants saw the short or tall version of the object at the end. See the online article for the color version of this figure.

during one of the events except that visual alignment was no longer provided to ease comparison.

Five-month-old infants were randomly assigned to one of the two object-orientation groups (vertical or horizontal). Within each group, infants were assigned to an occlusion or a containment condition and received two test trials wherein an object was hidden inside or behind a box. When retrieved, the object size changed in one trial and remained the same in the other.

We sought to test two sets of predictions. For the vertical (parallel-to-aperture) group, infants were expected to detect the change in both containment and occlusion events and look significantly longer at the change than at the no-change event. Prior research with adults supported this prediction. In Strickland and Scholl (2015), adults observed, on an LCD screen, different events in simplistic line drawings in which a rectangular object moved inside or behind a container. When the opening of the container faced the side, adults detected height changes better than width changes in containment events; thus, better change detection was observed with greater alignment when the key dimension of the object paralleled the opening of the container.

For the horizontal (perpendicular-to-aperture) group, prior research on rule learning in infancy predicted different results across occlusion and containment events. Infants in the occlusion condition should detect the change, because they have identified width

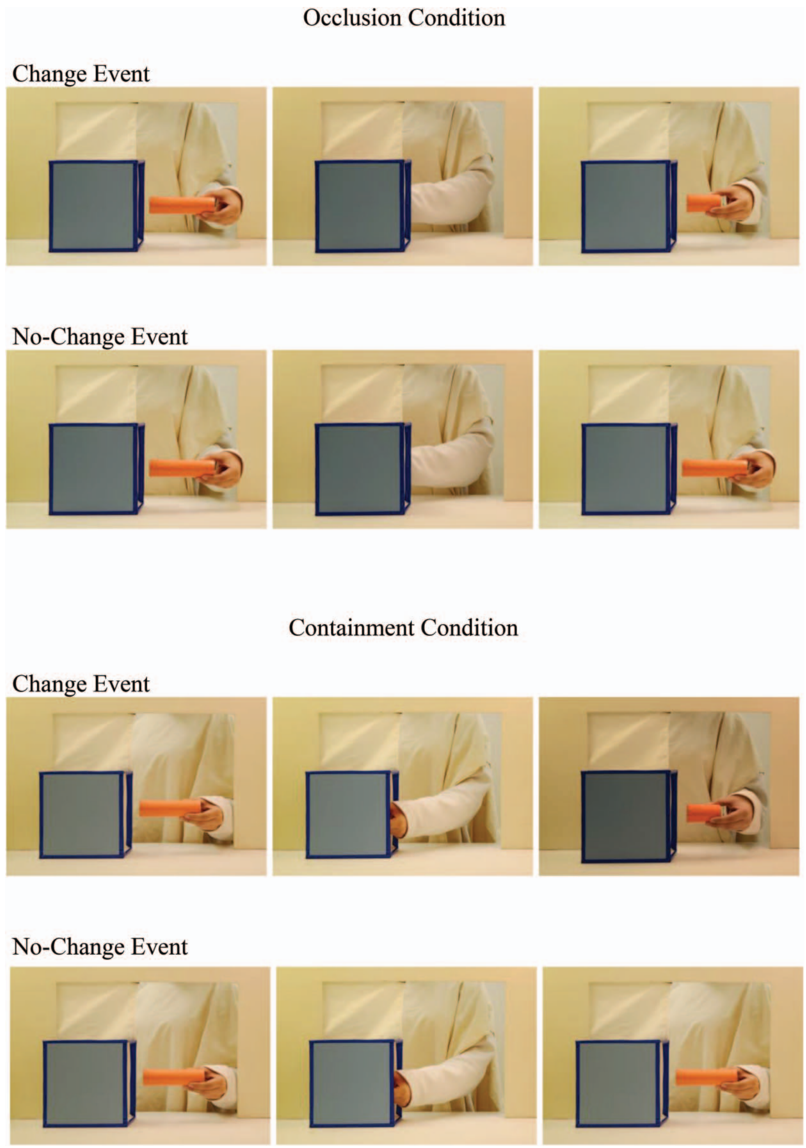

Figure 2. The first cycle of the events shown to the horizontal group. See the online article for the color version of this figure.

as a relevant variable for occlusion by 3.5 months. In contrast, infants in the containment condition should fail to notice the change without visual alignment, because they typically do not identify height as a relevant variable for containment until 7.5 months.

Method

Participants

Sixty-four healthy term infants from 4 months 11 days to 6 months 7 days (M = 5 months 5 days; 34 male, 30 female) were randomly assigned to one of four subgroups. A statistical power analysis using G*power software (Faul, Erdfelder, Lang, & Buchner, 2007) was performed for sample size estimation based on data from Rigney and Wang (2015). With an alpha of .05 and power greater than .80, the projected sample size needed with the effect size in Rigney and Wang was n = 16 for each subgroup for within-subject comparison. The participants were primarily Caucasian from middle-class backgrounds and recruited from birth announcements, hospitals, and family events. Parents received travel reimbursement but were not otherwise compensated. An additional 15 infants were tested but excluded from analysis due to distraction (n = 9), due to observers' difficulty following the infants' eye gaze (n = 4), or because the infants' looking time was more than 3 *SD*s from the mean of the subgroup (e.g., horizontal/containment subgroup; n = 2). This study was approved by the Institutional Review Board of the University of California, Santa Cruz, under the project name Learning About the Physical and Psychological World by Infants and Young Children (Protocol 1913).

Apparatus and Stimuli

Each infant watched test events presented on a wooden stage (70 cm high × 102 cm wide × 58 cm deep) mounted 96 cm above the floor. The side walls of the stage were painted white, and the floor and back wall of the stage were covered with white foam boards. In the front of the stage was an opening (50 cm high × 98 cm wide); between trials, a fabric-covered wooden frame (70 cm × 95 cm; a "curtain") was lowered, thereby concealing this opening. In the back wall, a window (34 cm × 47 cm) allowed the experimenter's left hand to reach into the apparatus and perform the event. A white flap (19 cm × 26 cm) concealed a window in the back wall, through which the experimenter monitored hand movement. A large fabric-covered wood frame (182 cm × 63.5 cm) was attached to each side of the stage; a small hole on the frame (1 cm in diameter) allowed the observer to monitor infant eye gaze while remaining hidden from the infant.

Two cylindrical objects and a rectangular container were used. The objects were orange and 4 cm in diameter and differed only in height: One object was 8 cm and the other 16 cm tall. The box (20 cm × 20 cm × 13 cm) was light blue, with dark blue trim. In the containment events, the experimenter inserted one of the objects in the box through its opening (13 cm × 20 cm) on the right; in the occlusion events, the experimenter placed the object behind the box. To ensure that the object was manipulated in the same location across occlusion and containment events, the box was placed slightly closer to the infant in occlusion events (28 cm from the curtain) than in containment events (34 cm from the curtain). A cutoff (15 cm × 20 cm) in the back of the box allowed switches of the tall and short objects (see the Event section).

Events

Each infant watched a no-change and a change event. Two experimenters performed the events following a script. A metronome beat once per second to ensure that the experimenters kept to their scripts. The following sections describe the events from the infants' point of view.

For the *vertical* group, the primary experimenter (E1) held the object upright about 2.5 cm from the right of the box (see Figure 1). After the infant had looked at this paused scene for 2 cumulative seconds, E1 glided the object to the left until it was fully hidden behind or inside the box (2 s). After a pause (2 s), E1 returned the object to its starting position (2 s), followed by another pause (2 s). This cycle was repeated until the trial ended.

In the change event, when the object returned to its starting position, it had gone from being 16 cm to 8 cm. The 8-cm version of the object was hidden again; after a pause, it was returned to the starting position, being 16 cm. The event cycled through changes from the tall, to the short, and back to the tall version of the object. A secondary experimenter (E2) stood beside E1 out of the infant's view. After E1 hid an object behind or inside the box, E2 replaced the original object with the other through the cutoff in the back of the box. During the switch, E1 kept the hand position and gesture still; thus, it appeared that E1 had been holding the same object continuously. The event cycles repeated until the trial ended. In the no-change event, the object remained 16 cm tall throughout the trial.

For the *horizontal* group, the events were the same as for the vertical group. The only difference was that the object was held horizontally throughout the trial. Thus, the change event cycled through changes from the wide, to the narrow, and back to the wide object (see Figure 2).

Procedure

Infants were tested in a brightly lit room while sitting on the parent's lap. The infant's eye level was about 15 cm above the stage floor and centered in front of the object, about 55 cm from the lowered curtain. E1 used markings on the apparatus to ensure all infants were seated at this position. Parents were asked to remain quiet and keep facial expressions neutral with eyes closed during the trials.

While the curtain was lowered to hide the interior of the stage, E1 came around the stage and greeted the infant. Next, she held the object on one end and patted the other end of the object five times, demonstrating it was not compressible. Whether the object was held vertically or horizontally was contingent to the orientation group assigned to the infant. Next, E1 showed the infant the intact version of the container with its opening to the side. She tapped the top of the container five times and rotated it so that the infant saw the hollow interior for 2−3 s.

Next, infants received two test trials. Half of the infants in each subgroup (e.g., vertical/occlusion) saw the no-change event first, and half the change event first. Each event was repeated (Figures 1 and 2 show the first cycle only). Each trial ended (a) when infants looked away from the event for 1 consecutive second after having looked at it for at least 8 cumulative seconds or (b) when they had looked at the event for 60 cumulative seconds. The 8-s minimum looking time ensured that infants had the opportunity to observe at least one cycle of the event.

Two observers, unaware of the order of trials, pressed a button on a controller linked to a computer when infants were looking at the event. Reported looking times were based on input from the primary (typically more experienced) observer. To assess interobserver agreement, we divided the main-trial portion of each trial into 100-ms intervals. Percentage agreement was calculated by dividing the number of intervals in which the observers agreed whether the infant was looking at the event or not by the total number of intervals. Agreement was measured for 54 infants (84%) and averaged 93% (SD = 7%) across trials and infants.

Results

Preliminary analyses revealed no significant effects involving sex and order (whether the change or no-change event was presented first), all ps $> .10$. Therefore, these factors were excluded in subsequent analyses.

Infants' looking times during test trials (see Figure 3) were analyzed by a three-way analysis of variance (ANOVA), with orientation (vertical or horizontal) and condition (occlusion or containment) as between-subjects factors and event (change or no-change) as a within-subject factor. The analysis yielded a significant Orientation × Event interaction, $F(1, 30) = 4.60$, $p = .040$, $\eta_p^2 = .119$. Infants in the vertical group, pooled from the occlusion and containment conditions, looked significantly longer at the change ($M = 30.6$, $SD = 18.6$) than the no-change ($M = 18.6$, $SD = 12.7$) event, $F(1, 30) = 15.21$, $p < .001$, Cohen's $d = 0.75$. In contrast, infants in the horizontal group looked about

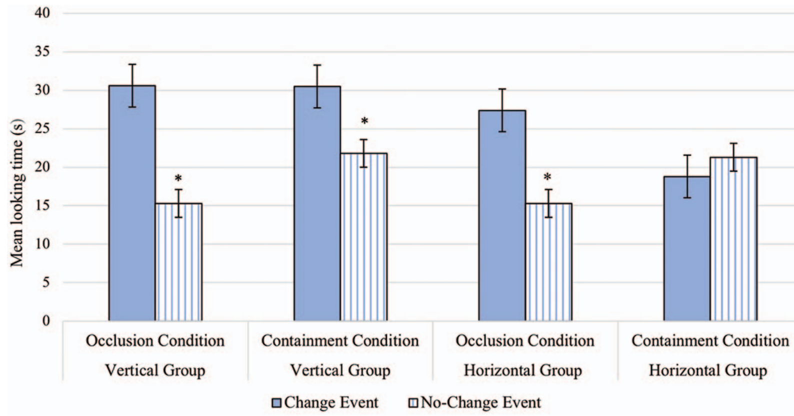

Figure 3. Mean looking times of the infants in the vertical and horizontal groups. Error bars represent standard errors. An asterisk indicates a reliable difference between the change and no-change events within the condition at $p < .05$. See the online article for the color version of this figure.

equally at the change ($M = 23.1$, $SD = 13.9$) and no-change ($M = 18.3$, $SD = 11.5$) events, $F(1, 30) = 2.43$, $p = .130$, $d = 0.38$. The Condition × Event interaction was significant, $F(1, 30) = 13.55$, $p < .001$, $\eta_p^2 = .311$. Infants in the occlusion condition, across the vertical and horizontal groups, looked significantly longer at the change ($M = 29.0$, $SD = 16.8$) than the no-change ($M = 15.3$, $SD = 6.6$) event, $F(1, 30) = 19.82$, $p = .0001$, $d = 1.07$. Infants' looking times in the containment condition did not differ significantly, $F(1, 30) = 1.01$, $p = .323$, $d = 0.20$ (change: $M = 24.7$, $SD = 16.7$; no-change: $M = 21.6$, $SD = 14.9$). The three-way interaction between orientation, condition, and event was not significant, $F(1, 60) = 1.69$, $p = .199$, $\eta_p^2 = .027$.

Our key questions were (a) whether infants would detect the change in both conditions when the object was held vertically and (b) whether their change detection would vary across conditions when the object was held horizontally. To test these predictions, we conducted two sets of planned analyses (one per object-orientation group) with condition as a between-subjects factor and event as a within-subject factor. For the vertical group, the 2 × 2 ANOVA yielded a significant main effect of event, $F(1, 30) = 26.84$, $p < .0001$, $\eta_p^2 = .447$, and no other effects (Fs < 0.210). Planned comparisons with the Bonferroni correction revealed that infants in the containment condition looked significantly longer at the change ($M = 30.5$, $SD = 18.6$) than the no-change ($M = 21.8$, $SD = 16.0$) event, $F(1, 30) = 6.85$, $p = .014$, $d = 0.50$, and so did those in the occlusion condition, $F(1, 30) = 21.20$, $p < .0001$, $d = 1.05$ (change: $M = 30.6$, $SD = 19.3$; no-change: $M = 15.3$, $SD = 7.2$). Thus, when provided with visual alignment, the 5-month-olds detected the change to object height in containment events as they did in occlusion events. With stronger support for comparison, infants' use of height information no longer showed a discrepancy across occlusion and containment events.

For the horizontal group, the 2 × 2 ANOVA yielded a significant Condition × Event interaction, $F(1, 30) = 12.44$, $p = .001$, $\eta_p^2 = .293$. Planned comparisons with the Bonferroni correction showed that infants in the occlusion condition looked significantly longer at the change ($M = 27.4$, $SD = 14.2$) than the no-change ($M = 15.3$, $SD = 6.2$) event, $F(1, 30) = 13.26$, $p = .001$, $d = 1.10$, whereas those in the containment condition looked about equally at the two events, $F(1, 30) = 0.56$ (change: $M = 18.8$, $SD = 12.6$; no-change: $M = 21.3$, $SD = 14.6$). Without the aid of visual alignment, the 5-month-olds made uneven use of information about object size, displaying greater use in occlusion than in containment events. This pattern was consistent with previous findings of infants' better use of height information when they watch occlusion than containment events (Hespos & Baillargeon, 2001, 2006; Wang, 2011).

Discussion

In prior research, 5-month-olds' use of height information in containment events was enhanced by carryover after infants watched occlusion events for which they had identified the height variable as relevant (Wang & Onishi, 2017). Here we show that without carryover, 5-month-olds are better at using height information if the object and container are in parallel alignment, which facilitates direct comparison of height. Placing the container with its opening on the side allowed infants in the present experiment to use the rims of the container as a reference point for comparing the height of the vertical object to that of the container. In this case, the discrepancy in infants' use of height information across occlusion and containment events disappeared. Infants at 5 months, who typically failed to use height information in containment events, detected changes to the object's height across the two types of events.

This finding has important theoretical implications. First, the integrative account (e.g., Baillargeon et al., 2012; Wang & Onishi, 2017) specifies that the retrieval of object information by the PR system depends on whether the variable has been identified, through rule learning, as relevant for determining the outcomes of the type of physical events being observed. This is supported by the results from the horizontal group: The 5-month-olds made use of width information in occlusion events even though the object was perpendicular to the occluder/container without alignment along their widths. Crucially, the results from the vertical group suggest that before rule learning completes—before height is identified as relevant for containment events—visual alignment that facilitates comparison will enhance the retrieval of height information in containment events. Thus, the present finding broadens the current theory of physical reasoning in infancy by considering additional mechanisms underlying infants' prioritization of information for object and event representations. Prioritization could occur through learning of a physical rule that specifies a variable being relevant for an event category, as shown in previous research. Prioritization could also occur through contextual support for comparison that highlights the variable for the time being, as shown in the present experiment. Both of these mechanisms enhance the retrieval of information about the variable and thereby facilitate the use of key information when infants watch a physical event.

Second, the present research broadens the theoretical perspective of early development in physical reasoning. Developmental questions on infants' reasoning about physical events have primarily been construed as a process of learning to prioritize information of a geometric variable, such as height or width. As shown in the present research, it could be constructive to consider variables of parallelism or perpendicularity, given that the 5-month-olds were led to prioritize information about the parallel but not the perpendicular dimension of the object. This perspective echoes that of Strickland and Scholl's (2015). In their experiments, adults' change detection was better along the dimension that was parallel than the dimension that was perpendicular to aperture. This was argued to arise because the parallel dimension determines the key outcome of whether the object will pass through the aperture, whereas the perpendicular dimension does not. Connecting to Strickland and Scholl's (2015), the present research reveals potential continuity in adults' and infants' prioritization of object information. However, infants were generally better at detecting size changes in occlusion than containment events, whereas for adults, the detection rates were generally lower in occlusion than in containment events. In addition, at 7.5 months, infants begin to use height information in events involving containers with top openings even though height is a perpendicular-to-aperture dimension. These unique patterns of prioritization may connect to action experience in infancy. Occlusion is more observable than containment for very young infants, whose hands-on experience is limited. After infants sit up, which frees their hands to manipulate objects on their own, hands-on experience with containment could facilitate older infants' learning about height being relevant to contrastive outcomes of containment events.

Prior research has indicated a developmental trajectory that for containment events, infants begin to use width before height information: Infants at 3.5 months succeeded in detecting violations involving width (Wang et al., 2004) but failed to detect violations involving height in until about 7.5 months (Hespos & Baillargeon, 2001). In light of the present results, we would argue that contextual support for comparison might temporarily override this developmental trajectory. When comparison was eased by visual alignment along the variable of height, 5-month-olds had no difficulty detecting the change in containment events. In contrast, when comparison was made challenging due to lack of alignment along the variable width, 5-month-olds failed to detect width changes in containment events. The 5-month-olds' failure, contrasting 3.5-month-olds' success (Wang et al., 2004), also supports the idea that the ability to use object information can shift fluidly depending on how the information is contextualized. Echoing recent findings that the boundaries of an event category can shift depending on the contrast being made (Rigney & Wang, 2015), the present experiment shows that infants may prioritize a variable depending on the relation in which objects are arranged and whether the arrangement facilitates direct comparison. Further research is needed to tease apart variables of height and width from variables of parallelism and perpendicularity in infants' learning about physical events.

The present study shows that providing contextual support for comparison leads infants to prioritize information that is outside the scope of their existing rule structure. Future research could examine whether prioritization that overrides existing rules is temporary or more permanent. A theoretical account for rule learning in infancy contends that building an explanation-based rule requires infants to first select a key feature among other features in the observed events and to build the rule around it (Baillargeon & DeJong, 2017; Wang, 2019). Repeated experience with visual alignment that highlights the key feature may lead infants to arrive at a new rule sooner. This exciting possibility can be tested by presenting infants with repeated events that provide alignment and examining whether infants attend to the aligned feature across events involving novel stimuli and over a delay.

Prior research has suggested that whether information about a variable gets used depends on whether the variable has been identified, through rule learning, as relevant for the category of events being observed. The present finding supports the idea that rule learning is supplemented by other processing mechanisms such as comparison, which brings researchers one step closer to understanding infants' lived experience with the physical world. In everyday encounters with physical events, infants are likely provided with support for comparison similar to the present case, allowing them to make strides toward the effective use of object information.

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