



The effect of labour on ownership decisions in two cultures: Developmental evidence from Japan and the United Kingdom

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Creative labour has an effect on children's and adults' ownership decisions in Western cultures. We investigated whether preschoolers and adults from an Eastern culture (Japan) would show a similar bias. In a first-party task (Experiment 1), in which participants created their own objects, Japanese preschoolers but not adults assigned ownership to creators. When participants watched videos of third-party conflicts between owners of materials and creators (Experiment 2), Japanese adults, but not preschoolers, transferred ownership to creators. In a British comparison group, both preschoolers and adults showed an effect of creative labour in the third-party task. A bias to attribute ownership on the basis of creative labour is thus not specific to Western culture.

Ownership is an important social institution that regulates the use of and access to possessions (Snare, 1972). It has been suggested that ownership concepts are shared universally (Brown, 1991) and that humans may be equipped with an innate inclination for possession (Rochat, 2011). Research with children from Western populations has demonstrated that children first show an understanding of ownership in their second year of life (Blake & Harris, 2011; Fasig, 2000; Hay, 2006; Tomasello, 1998). As ownership relationships are not always directly perceivable, it is often a state that must be inferred and starting at 2 years of age children rely on different contextual cues to make inferences about who owns what (Blake, Ganea, & Harris, 2012; Friedman & Neary, 2008; Friedman, van de Vondervoort, Defeyter, & Neary, 2013; Gelman, Manczak, & Noles, 2012; Neary, Friedman, & Burnstein, 2009).

One of the cues that young children use to attribute ownership is the investment of creative labour. Specifically, 2- and 3-year-old children spontaneously protest when someone tries to steal their newly created pictures or play-dough shapes (Kanngiesser & Hood, 2014a). Similarly, preschoolers as well as adults transfer ownership from the owner of materials to a person who has invested effort to create a new object (Kanngiesser, Gjersoe, & Hood, 2010; Kanngiesser & Hood, 2014b). Yet, when creative input and manual labour are contrasted with each other, children from 4 years of age value their own ideas more than their manual labour (Li, Shaw, & Olson, 2013), while an

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understanding of the value of other's ideas does not emerge until 5–6 years of age (Olson & Shaw, 2011).

Yet, an appreciation of creative labour may be more pronounced in Western cultures than in other cultures. For example, self-expression and uniqueness are more encouraged and valued in Western cultures with independent self-concepts than in Eastern cultures with interdependent self-concepts (Markus & Kitayama, 1991). In addition, creativity plays a larger role in Western education than in Eastern education (Kim, 2005). Cross-cultural research into the development of ownership understanding has revealed similarities in Israeli, United States and Palestinian children's conception of possession and their decisions in land ownership conflicts (Furby, 1978, 1980; Zebian & Rochat, 2012). While these studies suggest similarities in the development of ownership concepts in different cultures, they have not specifically looked at the role of creative labour in children's (and adults') ownership judgements.

We thus wanted to compare the effect of creative labour on ownership decisions in Western (British) and Eastern (Japanese) children and adults. In line with previous studies (Kanngiesser & Hood, 2014b; Kanngiesser *et al.*, 2010), we measured the effect of creative labour on ownership decisions by comparing scenarios in which new objects were created to scenarios in which the materials were handled but left unchanged. In Experiment 1, we tested Japanese preschoolers and adults with a socially engaging task that has been previously used for British children and adults (Kanngiesser *et al.*, 2010). In this task, the participant and an experimenter borrowed play-dough from each other to create new play-dough shapes. In Experiment 2, we tested Japanese and British preschoolers and adults with a novel third-party task, in which participants were shown video sequences of ownership conflicts between owners of materials and creators.

EXPERIMENT 1

Methods

Participants

Thirty-three 3- and 4-year-olds (mean age = 48 months, range = 38–59 months, 15 female), and 24 adults over the age of 18 (12 female) from Kyoto, Japan, took part in the experiment. Participants were recruited through a database of families and volunteers. Four additional 3-year-olds and one additional 4 year old were excluded because they did not want to participate, made errors (>1 error) in tracking the initial ownership of the materials (see Methods for details), or because of interference from siblings.

Procedure

The procedure was identical to the one used in Kanngiesser *et al.* (2010) with all instructions being translated into Japanese (and back-translated into English by a second translator to check for accuracy). At the beginning of the experiment, the Japanese experimenter (E1) gave three pieces of play-dough to the participant and three pieces to herself with the pieces differing in colour and shape, for example, E1 received three blue ducks and the participant three red elephants. E1 then explained that the play-dough was theirs to keep and to take home and then pointed to the pieces of play-dough, asking the participant whose play-dough it was (Japanese: 'kore wa dare no mono desu ka'). If the participant failed to correctly indicate who owned the play-dough, the ownership explanations and questions were repeated. Next, the participant and E1 put one of their

play-dough pieces in the middle of table. E1 pointed to one of the play-dough pieces and asked the participant to restate who owned the play-dough – varying between conditions whether E1 pointed first to the participant's or her own play-dough piece. E1 then told the participant that she would take the participant's play-dough and vice versa and announced what they would do with it. Participants experienced three different conditions in random order:

In the *labour condition*, they transformed the play-dough into a new shape using rolling pins and cutters (participants were asked to choose a cutter they liked best). In the *possession condition*, they held the play-dough for a short amount of time. In the *change condition*, they cut off little pieces using small plastic knives (we ensured that the original shape was still recognizable). In the possession and the change condition, adults manipulated the play-dough for 15 s and children for 1 min to match time they needed to transform the play-dough in the labour condition.

At the end of each manipulation, the play-dough was put back in the middle of the table and E1 asked the child who owned the object. Following the labour condition, participants were also asked to justify their answers.

Data coding and analyses

We coded whether participants transferred ownership to the person (the experimenter or themselves) who had manipulated the play-dough in the different conditions. We treated verbal expressions and pointing gestures as equivalent responses. Participants' justifications after the labour condition were transcribed and translated into English. We categorized participants' justifications as 'creative labour' if they referred to their own or the experimenter's labour (e.g., 'She made it.'). We analysed our data with exact McNemar's chi-squared tests using the exact 2×2 package in R (Fay, 2010; R Core Team, 2013).

Results and Discussion

In the labour condition, 67% and 64% of Japanese children transferred ownership of their own materials and the experimenter's materials, respectively (see Figure 1A). However, significantly fewer Japanese children transferred ownership in the possession condition (both materials: 33%), $p < .002$, and in the change condition (child's materials: 30%; E1's materials: 33%), $p < .002$. When justifying their decision to transfer ownership, Japanese children referred to creative labour 19% of the time. In contrast, only two Japanese adults (8%) transferred ownership to the creator in the labour condition and none in the change or the possession condition (see Figure 1B), $p = .500$. The two Japanese adults who had transferred ownership referred to creative labour 75% of the time.

Our results show that creative labour has an effect on ownership transfers in Japanese 3- and 4-year-olds, but not in Japanese adults. These results are comparable to previous findings that British preschoolers show a stronger effect of creative labour than adults in the same first-party task (Kanngiesser et al., 2010). However, Western adults show a bias for creative labour when deciding in conflicts between third parties (Kanngiesser & Hood, 2014b), so that it is possible that first-party tasks are in general ill-suited to test ownership intuitions in adult participants. Moreover, Japanese adults may have refrained from transferring ownership in the labour condition to avoid potential conflicts with the experimenter over changes in ownership – given a tendency in Japanese to prefer

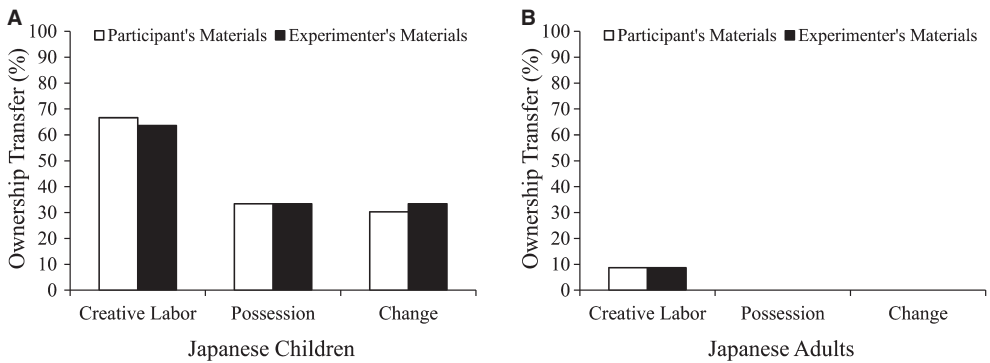


Figure 1. Percentage of (A) Japanese children and (B) Japanese adults transferring ownership to the person who manipulated the play-dough in the labour, the possession and the change condition in the first-party task in Experiment 1. White bars indicate ownership transfer of the participant's materials to the experimenter, and black bars indicate ownership transfer of the experimenter's materials to the participant.

avoidance strategies in conflict situations (e.g., Ohbuchi, Fukushima, & Tedeschi, 1999). We thus conducted a second experiment, in which we presented Japanese and British preschoolers and adults with video sequences of third-party ownership conflicts.

EXPERIMENT 2

Methods

Participants

In the British group, forty-seven 3- and 4-year-olds (mean age = 47 months, range = 37–59 months, 23 female) and 24 adults over the age of 18 (12 female) from Bristol, United Kingdom, took part in the experiment. Children were recruited through a database of families, at local nurseries and at a local science museum. Adults were recruited at the same science museum. Thirteen additional children (twelve 3-year-olds and one 4 year old) were excluded because they failed to correctly answer the control questions to more than one video. Control questions were asked to ensure that children correctly remembered the sequence of events in each video (i.e., who had an object first and who had it second, see Methods for details).

In the Japanese group, thirty-two 3- and 4-year-olds (mean age = 449 months, range = 39–59 months, 16 female) and 24 adults over the age of 18 (11 female) from Kyoto, Japan, took part in the experiment. Participants were recruited through a database of families and volunteers. Five additional 3-year-olds were excluded because they failed to correctly answer the control questions.

Procedure

We used video sequences with two hand puppets – a monkey puppet and a panda puppet – as stimuli. There were two different conditions: A *labour condition*, in which one of the puppets made something new, and a *control condition*, in which one of the puppets played with the materials. We showed participants two videos for each condition (one featuring paper and one featuring play-dough), so that each participant watched four videos in total.

In the videos, the puppets were presented to the left and right of a box (see Figure 2). After each puppet had briefly introduced itself, the puppet on the right-hand side retrieved some materials from off stage (i.e., a piece of paper or a play-dough shape), stated that it owned the materials and placed the materials in front of the box. The other puppet then took the materials and announced what it would do with the material: In the *control condition*, the puppet announced that it would play with the material and then carefully played with the object for 30 s without damaging or changing it. In the *labour condition*, the puppet announced that it would draw a picture or make a new play-dough shape and then spent 30 s doing so. At the end of each video, the object was displayed between the two puppets and each puppet (starting with the puppet on the right-hand side) stated that it liked the object and wanted to keep it.

Each video lasted about 1 min. British and Japanese participants watched the videos with an English voice-over and Japanese voice-over, respectively. The English script was translated into Japanese and back-translated by a second translator to check for accuracy. To counterbalance which puppet owned the materials at the start of each video, we created two video sets. In video set 1, the monkey puppet was the original owner of the play-dough in the labour condition and of the paper in the control condition (and the panda puppet was the original owner in the remaining videos). In video set 2, the monkey puppet was the original owner of the paper in the labour condition and of the play-dough in the control condition (and the panda puppet was the original owner in the remaining videos). Half of the participants watched video set 1 and the other half watched video set 2. Videos were presented in random order the only constraint being that the monkey and the panda puppet alternated as owners of the materials.

After each video, participants were asked to decide who owns the object and to justify their decision. Children were also asked who had the object first and who had it second to ensure that children correctly remembered the sequence of events in the videos. We provided no feedback on the responses. Children who failed to correctly answer the

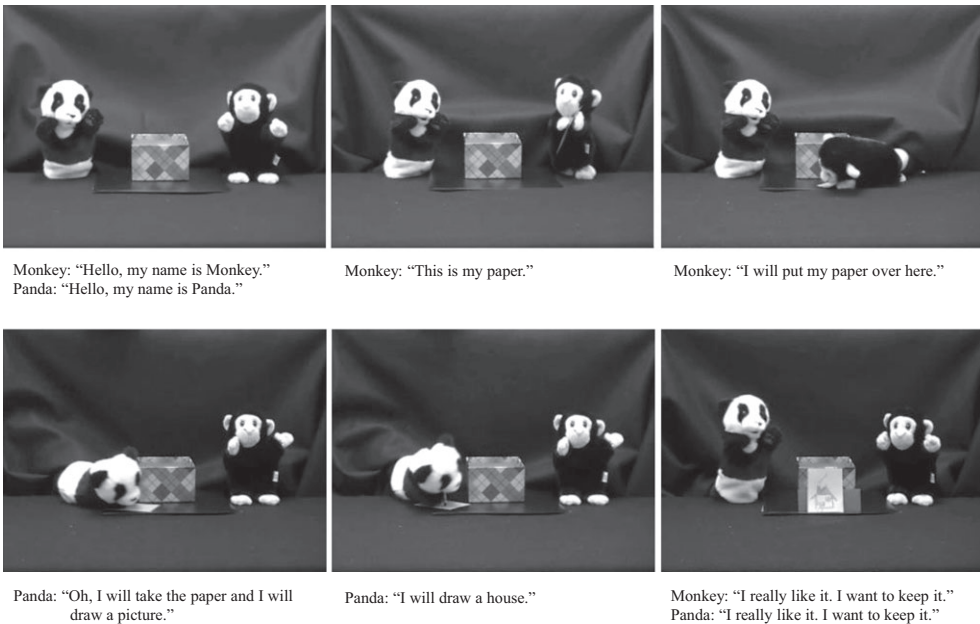


Figure 2. Screen shots of one of the video sequences used in the labour condition.

control questions to more than one video were excluded from the analysis. All other children were included in the analysis. Children were asked by an experimenter who sat next to them, while adults wrote their answers down.

Data coding and analyses

We coded whether children and adults transferred ownership to the creator/possessor (no transfer = 0, transfer = 1). Two British adults answered 'no one' or 'both' in the labour condition. Their responses were coded as no transfer (i.e., 0) to be conservative. For children, we treated pointing to one of the puppets on the screen and verbal responses as equivalent. We calculated ownership transfer scores by summing responses (no transfer = 0, transfer = 1) for the two trials per condition (minimum score = 0, maximum score = 2). Ownership transfer scores were analysed using exact, two-tailed Wilcoxon tests. Finally, participants' justifications for their decisions were carefully transcribed and, in the case of the Japanese data, translated into English. The same coding scheme as in Experiment 1 was applied.

Results and Discussion

Japanese children showed low transfer scores in the labour condition (mean score = .34, $SD = .60$) and in the control condition (mean score = .28, $SD = .58$), $p = .793$ (see Figure 3a).¹ In the labour condition, 22% of Japanese children transferred ownership in one of two trials and 6% of children transferred in both trials. Similarly, 16% (6%) of children transferred ownership once (twice) in the control condition. Nevertheless, the Japanese children who transferred ownership in the labour condition mentioned creative labour 46% of the time. In contrast, British children transferred ownership significantly more often in the labour condition (mean score = .81, $SD = .80$) than in the control condition (mean score = .30, $SD = .55$), $p < .001$.¹ Thirty-four per cent of British children transferred ownership once and 23% of children transferred twice in the labour condition, while fewer children did so in the control condition (21% transferred once and 4% twice). When justifying ownership transfers in the labour condition, they referred to creative labour 55% of the time.

Japanese adults transferred ownership significantly more often in the labour (mean score = 1.21, $SD = .78$) than in the control condition (mean score = .17, $SD = .56$), $p < .001$ (see Figure 3b).¹ In the labour condition, 38% of the adults transferred ownership once and 42% transferred twice, while only 8% transferred ownership twice in the control condition. Similarly, for British adults, ownership transfers were significantly higher in the labour condition (mean score = .67, $SD = .82$) than in the control condition (mean score = .04, $SD = .20$), $p = .004$.¹ Twenty-five per cent of the British adults transferred ownership once in labour condition and 21% transferred twice (as compared to 4% transferring once in the control condition). Most of the adults referred to labour when justifying ownership transfers in the labour condition (British: 81% of the time, Japanese: 93% of the time).

Taken together, we found that British children showed an effect of labour in a third-party task similar to previous findings for first-party situations (Kanngiesser *et al.*,

¹ Overall results remained unchanged when analysing paper and play-dough trials separately. Japanese children: $p < .688$; British children: $p < .019$; Japanese adults: $p < .006$; British adults: $p < .021$.

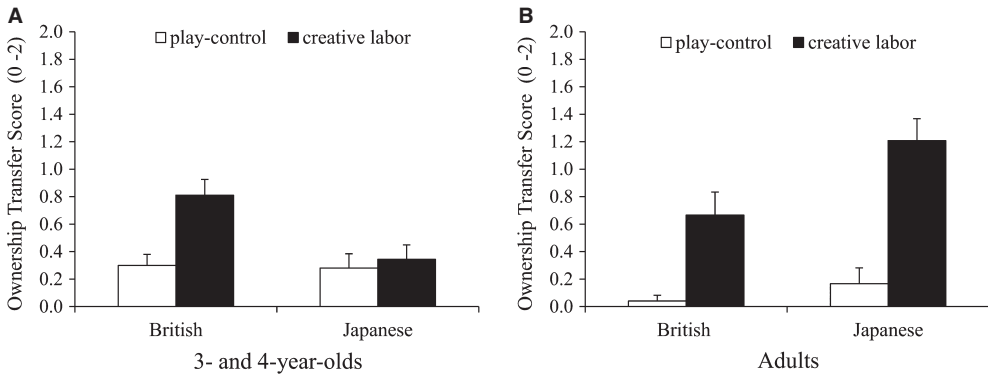


Figure 3. Average ownership transfer scores (+SEM) of (A) British and Japanese children and (B) British and Japanese adults in Experiment 2. White bars depict average transfer scores in the control condition, and black bars depict average transfer scores in the labour condition.

2010). Japanese preschoolers, in contrast to Experiment 1, were not affected by creative labour. However, British and Japanese adults took creative labour into account when deciding whether to transfer ownership or not, suggesting that third-party scenarios may be better suited to study ownership intuitions in adults.

GENERAL DISCUSSION

Creative labour is a cue that children and adults in Western populations use to transfer and attribute ownership (Kanngiesser & Hood, 2014a,b; Kanngiesser *et al.*, 2010). We investigated in two experiments whether this bias is also present in Eastern cultures that put less emphasis on creativity and self-expression than Western cultures. We found that Japanese preschoolers showed an effect of labour in a first-party task, where they created their own objects, but not when judging ownership conflicts between third parties. This pattern was reversed in Japanese adults. Moreover, a British comparison group showed effects of labour in third-party ownership conflicts, replicating previous findings for this population with a novel task (Kanngiesser *et al.*, 2010). Sensitivity to creative labour is thus not specific to Western populations but can also be found in an Eastern culture. These findings extend other cross-cultural studies documenting similarities in ownership concepts and decisions in children from the United States and the Middle East (Furby, 1978, 1980; Zebian & Rochat, 2012).

Previous studies with children from Western populations have found that preschoolers will show idiosyncratic preferences for their own ideas (i.e., an idea for a picture) over their own labour (i.e., making a picture according to someone else's idea), but do not apply these principles to third parties until 5–6 years of age (Li *et al.*, 2013; Olson & Shaw, 2011). Our studies show that creative labour (i.e., ideas and labour combined) already influences ownership attributions by 3–4 years of age in first as well as in third-party situations. This indicates that Western children develop a mature understanding of creative labour prior to an understanding of intellectual labour.

Japanese children, however, showed no bias for creative labour in third-party situations. It is unlikely that this was due to Japanese children struggling to understand the pretence scenario of the puppet videos. Firstly, Japanese toddlers engage in more symbolic and pretend play than their Western peers (Tamis-LeMonda, Bornstein, Cyphers,

Toda, & Ogino, 1992). Secondly, Japanese children correctly identified the first and last possessor of the object (control questions), indicating that they followed the stories in the videos. However, previous studies have found that social reasoning skills (i.e., theory of mind) fully emerge in Japanese children between 5 and 6 years of age and thus about 1.5 years later than in Western children (e.g., Naito & Koyama, 2006). While the socially engaging, first-party task thus may have provided crucial scaffolding for Japanese preschoolers, a later onset of social reasoning skills may have prevented them from generalizing this rule to third-party ownership conflicts. Overall, socially engaging first-party tasks may be better suited to study children's early ownership competencies in different cultures.

Japanese adults, in contrast, only showed an effect of creative labour when judging ownership conflicts between third parties. In the first-party task, Japanese adults may not have transferred ownership to avoid a potential conflict with the experimenter over changes in the objects' ownership (see e.g., Ohbuchi *et al.*, 1999; on conflict avoidance strategies in Japanese) – a possibility that was removed in third-party scenarios. Along similar lines, Western adults show stronger effects of creative labour in third-party tasks than in first-party tasks (Kanngiesser & Hood, 2014b; Kanngiesser *et al.*, 2010). Third-party scenarios thus appear more appropriate to test ownership intuitions in adults, particularly in cross-cultural studies, where different social interaction styles may influence participants' responses.

Our findings indicate that contextual features play a role in ownership transfer decisions. Specifically, participants exchanged materials reciprocally and manipulated them in parallel in the first-party task, while actors manipulated materials unilaterally and fought over the possession of a single item in the third-party task. Previous studies with Western adults have also found that features such as the original worth of the materials or the value of the invested creative labour play a role in ownership transfers (Kanngiesser & Hood, 2014b). Future studies could investigate whether these factors have a similar effect on children's ownership judgements. Alternatively, one could explore children's understanding of compensation; for example, how they would divide a reward between the original owner and the creator. Older children and adults from the United States have been found to allocate more money to creators than to original owners (Hook, 1993). Similarly, young Western children take work effort into account when deciding how to allocate or share resources (Baumard, Mascaro, & Chevallier, 2012; Kanngiesser & Warneken, 2012), suggesting that they may also allocate more rewards to creators than to original owners.

Finally, researchers have highlighted the need to study human cognition and behaviour across different socio-cultural environments (Henrich, Heine, & Norenzayan, 2010). It is conceivable that certain aspects of ownership such as valuing and defending one's possessions (e.g., Gelman *et al.*, 2012; Ross, 2012) or showing a better memory for self-owned objects (Cunningham, Vergunst, Macrae, & Turk, 2013) are shared cross-culturally. However, there will likely be cross-cultural variation in ownership rights such as when it is legitimate to take or use someone's property (e.g., Neary & Friedman, 2013; Rossano, Rakoczy, & Tomasello, 2011).

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References

- Baumard, N., Mascaro, O., & Chevallier, C. (2012). Preschoolers are able to take merit into account when distributing goods. *Developmental Psychology, 48*, 492–498. doi:10.1037/a0026598
- Blake, P. R., Ganea, P. A., & Harris, P. L. (2012). Possession is not always the law: With age, preschoolers increasingly use verbal information to identify who owns what. *Journal of Experimental Child Psychology, 113*, 259–272. doi:10.1016/j.jecp.2012.06.008
- Blake, P., & Harris, P. (2011). Early representations of ownership. *New Directions for Child and Adolescent Development, 2011* (132), 39–51. doi:10.1002/cd.295
- Brown, D. (1991). *Human universals*. New York, NY: McGraw-Hill.
- Cunningham, S. J., Vergunst, F., Macrae, C. N., & Turk, D. J. (2013). Exploring early self-referential memory effects through ownership. *British Journal of Developmental Psychology, 31*, 289–301. doi:10.1111/bjdp.12005
- Fasig, L. G. (2000). Toddlers' understanding of ownership: Implications for self-concept development. *Social Development, 9*, 370–382. doi:10.1111/1467-9507.00131
- Fay, M. P. (2010). Two-sided exact tests and matching confidence intervals for discrete data. *R Journal, 2* (1), 53–58.
- Friedman, O., & Neary, K. R. (2008). Determining who owns what: Do children infer ownership from first possession? *Cognition, 107*, 829–849. doi:10.1016/j.cognition.2007.12.002
- Friedman, O., van de Vondervoort, J. W., Defeyter, M., & Neary, K. R. (2013). First possession, history, and young children's ownership judgments. *Child Development, 84*, 1519–1525. doi:10.1111/cdev.12080
- Furby, L. (1978). Possession in humans: An exploratory study of its meaning and motivation. *Social Behavior and Personality: An International Journal, 6*, 49–65. doi:10.2224/sbp.1978.6.1.49
- Furby, L. (1980). The origins and early development of possessive behavior. *Political Psychology, 2*, 30–42.
- Gelman, S. A., Manczak, E. M., & Noles, N. S. (2012). The nonobvious basis of ownership: Preschool children trace the history and value of owned objects. *Child Development, 83*, 1732–1747. doi:10.1111/j.1467-8624.2012.01806.x
- Hay, D. F. (2006). Yours and mine: Toddlers' talk about possessions with familiar peers. *British Journal of Developmental Psychology, 24*, 39–52. doi:10.1348/026151005X68880
- Henrich, J., Heine, S., & Norenzayan, A. (2010). The weirdest people in the world. *Behavioral and Brain Sciences, 33*, 61–83. doi:10.1017/S0140525X0999152X
- Hook, J. (1993). Judgments about the right to property from preschool to adulthood. *Law and Human Behaviour, 17*, 135–146.
- Kanngiesser, P., Gjersoe, N., & Hood, B. M. (2010). The effect of creative labor on property-ownership transfer by preschool children and adults. *Psychological Science, 21*, 1236–1241. doi:10.1177/0956797610380701
- Kanngiesser, P., & Hood, B. M. (2014a). Young children's understanding of ownership rights for newly made objects. *Cognitive Development, 29*, 30–40. doi:10.1016/j.cogdev.2013.09.003
- Kanngiesser, P., & Hood, B. (2014b). Not by labor alone: Considerations for value influence use of the labor rule in ownership transfers. *Cognitive Science, 38*, 353–366. doi:10.1111/cogs.12095
- Kanngiesser, P., & Warneken, F. (2012). Young children consider merit when sharing resources with others. *PLoS ONE, 7* (8), e43979. doi:10.1371/journal.pone.0043979
- Kim, K. H. (2005). Learning from others: Creativity in East Asian and American education. *Creativity Research Journal, 17*, 337–347. doi:10.1207/s15326934crj1704_5

- Li, V., Shaw, A., & Olson, K. R. (2013). Ideas versus labor: What do children value in artistic creation? *Cognition*, *127*, 38–45. doi:10.1016/j.cognition.2012.11.001
- Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224. doi:10.1037/0033-295X.98.2.224
- Naito, M., & Koyama, K. (2006). The development of false-belief understanding in Japanese children: Delay and difference? *International Journal of Behavioral Development*, *30*, 290–304. doi:10.1177/0165025406063622
- Neary, K. R., & Friedman, O. (2013). Young children give priority to ownership when judging who should use an object. *Child Development*, *85*, 326–337. doi:10.1111/cdev.12120
- Neary, K. R., Friedman, O., & Burnstein, C. L. (2009). Preschoolers infer ownership from control of permission. *Developmental Psychology*, *45*, 873–876. doi:10.1037/a0014088
- Ohbuchi, K., Fukushima, O., & Tedeschi, J. (1999). Cultural values in conflict management: Goal orientation, goal attainment, and tactical decision. *Journal of Cross-Cultural Psychology*, *30*, 51–71. doi:10.1177/0022022199030001003
- Olson, K. R., & Shaw, A. (2011). 'No fair, copycat!': What children's response to plagiarism tells us about their understanding of ideas. *Developmental Science*, *14*, 431–439. doi:10.1111/j.1467-7687.2010.00993.x
- R Core Team. (2013). *R: A language and environment for statistical computing*. Vienna, Austria. Retrieved from <http://www.R-project.org>
- Rochat, P. (2011). Possession and morality in early development. *New Directions for Child and Adolescent Development*, *2011* (132), 23–38. doi:10.1002/cd.294
- Ross, H. (2012). Effects of ownership rights on conflicts between toddler peers. *Infancy*, *18*, 256–275. doi:10.1111/j.1532-7078.2012.00121.x
- Rossano, F., Rakoczy, H., & Tomasello, M. (2011). Young children's understanding of violations of property rights. *Cognition*, *121*, 219–227. doi:10.1016/j.cognition.2011.06.007
- Snare, F. (1972). The concept of property. *American Philosophical Quarterly*, *9*, 200–206.
- Tamis-LeMonda, C., Bornstein, M., Cyphers, L., Toda, S., & Ogino, M. (1992). Language and play at one year: A comparison of toddlers and mothers in the United States and Japan. *International Journal of Behavioral Development*, *15*, 19–42. doi:10.1177/016502549201500102
- Tomasello, M. (1998). One child's early talk about possession. *Typological Studies in Language*, *36*, 349–373. doi:10.1075/tsl.36
- Zebian, S., & Rochat, P. (2012). Judgment of land ownership by young refugee Palestinian and U.S. children. *International Journal of Behavioral Development*, *36*, 449–456. doi:10.1177/0165025412450526

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