



Contents lists available at ScienceDirect

Journal of Experimental Child Psychology

journal homepage: www.elsevier.com/locate/jecp



No one likes a copycat: A cross-cultural investigation of children's response to plagiarism



F. Yang^{a,b,*}, A. Shaw^b, E. Garduno^b, K. R. Olson^b

^a University of Pennsylvania, Philadelphia, PA 19104, USA

^b Yale University, New Haven, CT 06511, USA

ARTICLE INFO

Article history:

Received 1 June 2013

Revised 7 November 2013

Available online 29 January 2014

Keywords:

Plagiarism

Copy

Ideas

Culture

Intellectual property

Development

ABSTRACT

Copying other people's ideas is evaluated negatively by American children and adults. The current study investigated the influence of culture on children's evaluations of plagiarism by comparing children from three countries—the United States, Mexico, and China—that differ in terms of their emphasis on the protection of intellectual property and ideas. Children (3- to 6-year-olds) were presented with videos involving two characters drawing pictures and were asked to evaluate the character who drew unique work or the character who copied someone else's drawing. The study showed that 5- and 6-year-olds from all three cultures evaluated copiers negatively compared with unique drawers. These results suggest that children from cultures that place different values on the protection of ideas nevertheless develop similar concerns with plagiarism by 5-year-olds.

© 2013 Elsevier Inc. All rights reserved.

Introduction

Ideas are an important part of thriving in Western society; from MacArthur grants and TED talks to grade school art shows and high school robotics competitions, good ideas are highly valued. Not only do people in Western societies value ideas (Buccafusco & Sprigman, 2010; Goodenough & Decker, 2009), but they also feel a sense of ownership over their ideas (Ariely, 2010; Kanngiesser, Gjersoe, & Hood, 2010; Kanngiesser & Hood, in press) and create laws to enforce the protection of ideas (Merges, 2000). Although at first blush it may appear that the valuation of ideas might occur in Western societies as a result of the explicit teaching about ideas and their value throughout the school

* Corresponding author at: University of Pennsylvania, Philadelphia, PA 19104, USA.

E-mail address: fanyang@gse.upenn.edu (F. Yang).

years, research to date suggests that 5- and 6-year-old children in one Western culture, the United States, already react negatively to others stealing credit for ideas (Olson & Shaw, 2011) and value the creation of ideas over other types of work (e.g., labor; Li, Shaw, & Olson, 2013). Despite an early occurrence of concerns with plagiarism in American children, little is known about how cultural differences may affect people's early intuitions about plagiarism. To date, we know of no research that has investigated children's response to idea theft cross-culturally, the focus of the current article.

All research that has been done on children's understanding of ideas and plagiarism has been conducted on populations from North America, giving us little insight into what relevant experiences are necessary for children to develop a dislike of plagiarism. By the time American children are 6 years old, they apply some rules from physical ownership (Blake & Harris, 2009; Friedman & Neary, 2008; Neary, Friedman, & Burnstein, 2009) to ideas (Shaw, Li, & Olson, 2012). For example, children think that the first person to actually invent a new song, rather than the person who first tried to come up with the song, owns the song. Children in the United States also think that ideas are valuable—rewarding ownership of a picture to a person who came up with the idea for it rather than the person who did the physical work in creating the picture (Li et al., 2013). Furthermore, Olson and Shaw (2011) found that American children evaluate those who copy other people's ideas negatively. They had children watch videos in which a puppet either plagiarized another character's drawing or produced a unique drawing. Children were then asked to evaluate how good or bad the puppets were. The authors found that 5- and 6-year-olds, but not 3- and 4-year-olds, evaluated the plagiarizers negatively compared with the unique drawers. Therefore, in America, by 5 years of age children already demonstrate intuitions that match adult intuitions about plagiarism in their society; that is, they dislike those who copy other people's ideas.

In Western cultures, individual creativity is greatly valued, and there is a strong tradition of protecting intellectual property in these societies (Goncalo & Staw, 2006). Thus, children in Western societies are likely to be exposed to social practices that emphasize protection and respect for ideas. For example, children may receive direct instructions from adults to give credit to other people's ideas whenever necessary, to think independently, and not to copy other people's ideas. Children may also observe that ideas are treated like valuable resources by members of their society and that creativity and innovation are praised and rewarded (Bontis, 1998; Dewett & Denisi, 2004; Fasko, 2001; Miller, 2000; Sprigman, Buccafusco, & Burns, 2013). If children see ideas as valuable, they may come to see plagiarism as effectively stealing another person's valuable reputational credit, which of course would lead them to react negatively to plagiarism (Shaw, Li, & Olson, 2013). The cultural emphasis on ideas and the related social practices may help children to realize the value of ideas and think that it is wrong to copy them.

Not every culture places the same value on ideas and the protection of them. Compared with Western cultures, Asian cultures in general tend to value harmony and conformity more than uniqueness (Kim & Markus, 1999). Take the example of China. Unlike the Western education system that emphasizes the development of original and creative thinking, the traditional Chinese school system is more centralized and focuses on unquestioning acceptance, rote learning, memorization, and drill work (Cheng, 2004; Gardner, 1989). Chinese teachers tend to view some characteristics of creative students—such as dissidence, expressiveness, and challenging authorities—as socially undesirable (Chan & Chan, 1999; Wang & Mao, 1996). During recent years, educational reforms have been introduced due to an increasing concern with the development of students' creativity. Nevertheless, these reforms have encountered many obstacles deeply rooted in the sociocultural traditions, and traditional teaching methods are still widely used (Cheung, Tse, & Tsang, 2003). In addition to not placing much value on ideas, there is also very little value placed on protecting intellectual property. Before the government established its first patent law in 1984 (more than 150 years after the United States and most of Europe did), Chinese people had no legal protection from others taking and using their ideas and inventions. Even today, China has a reputation for producing abundant counterfeit intellectual goods, including movies, music, electronics, and even building designs (FlorCruz, 2013). Given this lack of emphasis on the value and protection of ideas, do Chinese children evaluate plagiarism as negatively as children in Western cultures?

As noted above, existing research on children's understanding of plagiarism has been conducted only with American children. Researchers have investigated the role of culture in children's

possession-related concepts only for physical property and have not found significant cross-cultural differences. For example, [Furby \(1976, 1978\)](#) found that components fundamental to an understanding of possession, such as sense of control and sense of self associated with possessions, could be identified similarly for children and adults raised in the United States, in an Israeli kibbutz, and in an Israeli city despite the fact that these three regions applied very different principles and practices to the domain of ownership. Based on these findings, [Furby \(1980\)](#) concluded that possessive behavior might develop as a result of children's motivation to control objects when interacting with their environments, which may be universal rather than dependent on particular social-cultural inputs. However, children may have a less direct sense of personal control for ideas and may also have fewer idea-related behaviors than object-related behaviors when interacting with the environment and other people early in life. As a result, we do not know whether being exposed to a culture with a strong emphasis on ideas and idea ownership is necessary for children to develop negative reactions to plagiarism. The current study aimed to investigate this question by comparing children from three different cultures: the United States, Mexico, and China. The United States and China represent two ends of the continuum in terms of protection for ideas; protecting intellectual property is strongly emphasized in America, whereas it is not in China. Mexico is in the middle of these two societies in terms of its emphasis on independence and attitudes toward violations of intellectual property. Mexico is a somewhat interdependent society ([Shkodriani & Gibbons, 1995](#)), placing less value on independence and originality than the United States. In addition, Mexico does not enforce intellectual property laws as stringently as the United States, although it has a much longer history and better record of protecting intellectual property than China. According to the 2009 Intellectual Property Rights Index, a measure of intellectual property rights protection across 115 countries in the world, the United States ranked 2nd, Mexico ranked 55th, and China ranked 70th ([World Intellectual Property Organization \[WIPO\], 2009](#)). If explicit cultural norms about idea ownership play a significant role in influencing children's evaluation of plagiarism, it follows that American children should dislike plagiarizers the most, followed by Mexican children, and their Chinese counterparts should dislike plagiarizers the least. Alternatively, if explicit cultural norms play less of a role in children's developing concerns with plagiarism, children from the three cultures should display similar patterns in evaluating plagiarizers.

To investigate children's response to plagiarism across these cultures, we followed the procedure developed by [Olson and Shaw \(2011\)](#). In all three cultures, we presented 3- to 6-year-olds with videos involving two characters drawing pictures. Children were asked to evaluate either the character who drew unique work or the character who plagiarized someone else's drawing. Of interest in the current study was whether similar or different developmental patterns exist among children from the United States, Mexico, and China.

Method

Participants

A total of 126 children aged 3–6 years in the United States, Mexico, and China participated in the study. Children in the three samples were matched in terms of age. The sample in each country consisted of 21 3- and 4-year-olds (henceforth 4-year-olds, $M = 49.9$ months, $SD = 5.7$; $n = 29$ girls in all three countries) and 21 5-6-year-olds (henceforth 6-year-olds, $M = 72.3$ months, $SD = 7.3$; $n = 30$ girls in all three countries). The specific mean age, age range, and gender distribution for each group in each country are presented in [Table 1](#). The American children came from several private preschools, kindergartens, and schools in the New England area. Chinese participants were recruited from schools in the city of Changchun in Mainland China. The 3- to 5-year-olds were from a preschool, and the 6-year-olds were first graders in an elementary school. The Mexican participants came from a private school in Mexico City. The school was pre-kindergarten to Grade 12, and the children in our study were in the kindergarten program (ages 3–6 years) and/or in first grade at the primary school (some of those age 6 years).

Although cultural differences in school systems unavoidably exist, we tried our best to match the schools from each culture in key characteristics such as their size, reputation, and teaching methods

Table 1
Mean age, age range, and gender distribution in each sample by age group and country.

Sample	Mean age in months (SD)	Age range in months	Number of boys
<i>American</i>			
3–4 years	49.8 (6.6)	38.3–58.6	10
5–6 years	72.3 (7.0)	62.2–81.4	13
<i>Mexican</i>			
3–4 years	49.9 (5.4)	37.2–59.8	14
5–6 years	71.6 (6.6)	60.4–81.5	7
<i>Chinese</i>			
3–4 years	50.1 (5.3)	41.7–59.1	10
5–6 years	73.2 (8.4)	60.6–83.2	13

and the students’ family backgrounds. The schools we tested cross-culturally were all middle-class or upper middle-class schools, and the majority of participants in all countries came from middle-class to upper middle-class local families. The American schools were mixed, with both full-day and half-day classrooms. The Mexican school was a half-day school, with approximately 4 to 6 school hours per day. The Chinese schools were full-day schools. In terms of the curriculum, the 3- to 5-year-olds from all countries were in play-based classrooms. Most American 6-year-olds and some 5-year-olds were in the transition from purely play-based to curriculum-based classrooms. The Chinese 6-year-olds and some Mexican 6-year-olds were in a more formal curriculum-based classroom, but the school also arranged plenty of playful activities during the day. The Chinese schools were not private, but they were middle class like the schools in the United States and Mexico. If anything, the highest social class of any of the schools occurred in the Mexican school, which would best be characterized as primarily upper middle class.

Stimuli

Nine videos, each involving two male puppets, were used in the current study (Olson & Shaw, 2011). In each video, one puppet drew first, and then the other puppet drew after peeking at the first drawer’s picture. Specifically, Puppet A asked, “What should I draw for my art class?” Puppet B said, “I can’t decide what to draw.” Then Puppet A said after a short pause, “Oh, I know what I’ll draw” and started to draw. Puppet B approached and peeked at Puppet A’s picture and said, “Oh, I’ve got it! I know what I’ll draw” while returning to draw. At the end of the video, Puppet A lifted his picture and said, “See what I drew?” Then Puppet B lifted his picture and said, “See what I drew?” This sequence was identical for all videos. The nine videos differed in terms of what the two drawings looked like. There were three unique sets of Puppet A’s drawings: one with a house theme, one with a star theme, and one with a boat theme. For each theme, three conditions were created. In each condition, Puppet A’s drawings were used as a prototype, and Puppet B’s drawing was an identical picture, a similar picture (with different color and shape elements but the same theme), or a unique picture (with a different theme). Therefore, three unique sets of three videos were created. The pairs of puppets appearing in each video were different within a given set. Each set of videos was watched by one third of the participants at each age. For example, one group saw the identical house video, the similar boat video, and the different stars video. In this way, each participant saw each pair of puppets once, each theme of drawings once, and each condition once, but we could also minimize item effects.

The videos were first made in English and were carefully translated into Mandarin and Spanish by our research team. To ensure comparability with the English versions, the translated videos were also back-translated by a different native speaker who was not involved in the study and was proficient in both English and the other language (as a native speaker). The scripts for the experimenters were also appropriately translated and back-translated following similar procedures. The videos were dubbed over by native speakers so that all children saw the same videos and only the voices differed.

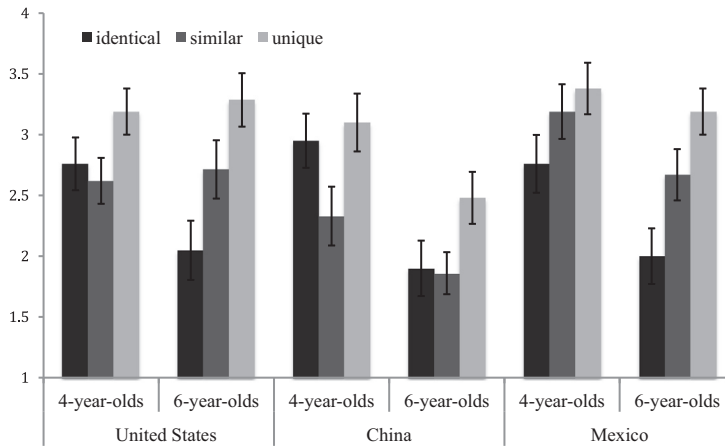


Fig. 1. Average rating of the goodness or badness of the character who drew an identical, similar, or unique picture as the other character by the two age groups (1 = *really bad*, 4 = *really good*). Error bars indicate standard errors of the means.

Procedure

Experimenters who were fluent in the local languages conducted the studies in the three cultures. Participants were told that they would watch some videos and then would be asked whether a person in the video was good or bad. They were also told that if they said the character was good (bad), they would then be asked whether he was really good (bad) or a little good (bad). This procedure enabled us to get a rating on a 4-point scale for each response ranging from 1 (*really bad*) to 4 (*really good*) (Fig. 1). Participants were first given a few examples to practice (e.g., “There was a kid who kicked her little brother. Would that be good or bad? [If bad:] Really bad or a little bad?”). In general, children did not have difficulties in using the scale. After this familiarization phase, children watched a set of three unique videos in a counterbalanced order. After each video, children were first asked to indicate whether Puppet B was good or bad. To avoid the possibility that some children might evaluate the quality of the drawings rather than the characters, we pointed to Puppet B and asked, “Remember this boy from the video? Do you think he is good or bad?” instead of “Would that be good or bad?” Then, depending on their global judgment, children were asked to rate whether the puppet was really good (bad) or a little good (bad). Finally, to check their memory about the video, children were asked to indicate which puppet had drawn his drawing first. No feedback was provided to children for any questions.

Results

In general, children’s memory for which puppet had drawn his drawing first was very accurate and significantly better than chance for each age group (50%) across the three samples. No significant difference was found among different samples or conditions, all $ps > .61$. On average, the percentages of correct responses for the 4-year-olds were 92%, 97%, and 90% for identical, similar, and unique conditions, respectively, all $ps < .001$; all 6-year-olds answered the memory question correctly. Whether we included or excluded those who gave incorrect answers to the memory question did not affect the results, so we included all participants in our analyses.

Children’s response to the test question (whether Puppet B was good or bad) was coded as 1–4 (1 = *really bad* to 4 = *really good*). Thus, lower ratings signified a more negative evaluation of the second puppet. We were primarily interested in whether 4- and 6-year-old children from the three cultures rated the different conditions differently. Therefore, for each age group, we first analyzed whether there was a Culture \times Condition interaction and then what the results across conditions looked like

for each culture. Doing so revealed very similar patterns of results for 6-year-olds across the three cultures, as indicated by the lack of an interaction between culture and condition in this age group, $F(4, 120) = 1.41$, $p = .24$. The 6-year-olds from all three cultures rated those who produced unique work (*unique* condition) more positively than those who copied another person's work entirely (*identical* condition), United States, $t(20) = 3.83$, $p < .001$, Mexico, $t(20) = 5.29$, $p < .001$, China, $t(20) = 3.01$, $p = .007$, or partially (*similar* condition), United States, $t(20) = 2.43$, $p = .024$, Mexico, $t(20) = 1.99$, $p = .061$, China, $t(20) = 2.77$, $p = .012$. The only major difference in 6-year-olds' response patterns cross-culturally was in the comparison of their evaluations of similar and identical work. Chinese 6-year-olds did not distinguish the similar drawers from the identical drawers, $t(20) = .19$, $p = .85$, whereas the American and Mexican 6-year-olds significantly evaluated the identical drawers more negatively than the similar drawers and the results were identical for the two countries, $ts(20) = 2.47$, $ps = .023$. These results are presented in Fig. 1.

Compared with the responses of the 6-year-olds, the 4-year-olds' evaluations were much more variable cross-culturally, as indicated by a significant Culture \times Condition interaction in 4-year-olds, $F(4, 120) = 2.69$, $p = .03$ (Fig. 1). For the most critical comparison involving the unique and identical conditions, only Mexican children rated the unique drawers as significantly more positive than the identical drawers, $t(20) = 2.15$, $p = .04$, and American and Chinese children did not significantly distinguish the two conditions, $ps > .13$. In addition, comparing children's ratings for the unique and similar conditions, American and Chinese 4-year-olds rated unique drawers significantly more positively than the similar drawers, $ts(20) > 2.61$, $ps > .02$, but Mexican children reacted similarly to those who drew similar pictures and those who produced unique work, $p = .18$. Finally, 4-year-olds from each culture reacted differently to the similar and identical conditions. American children did not significantly distinguish these two conditions, $p = .56$, Mexican children tended to rate similar drawers more positively compared with those who drew identical pictures, $t(20) = 2.12$, $p = .05$, and Chinese 4-year-olds surprisingly rated those who drew similar pictures significantly more negatively than those who drew identical pictures, $t(20) = 2.77$, $p = .01$. The younger group's results did not converge to a unifying cross-cultural picture and need to be replicated before we can make definite conclusions about cultural differences. Taken together, these results suggest that consistent cultural-general patterns of evaluating plagiarism emerge at 6 years of age, whereas there were more cultural-specific variations at 4 years of age.

Discussion

In this cross-cultural study on children's evaluations of copying, we investigated whether children from different cultures evaluate plagiarism similarly. Although there was much cross-cultural variation in 4-year-olds' responses, we saw remarkable similarity across children in all cultures at 6 years of age. Specifically, we found that 5- and 6-year-olds in three cultures—the United States, Mexico, and China—evaluated those who drew unique drawings more positively than those who drew pictures similar or identical to those drawn by another artist. In contrast, younger children (3- and 4-year-olds) from the three cultures did not consistently and significantly distinguish the unique drawers from the similar or identical drawers.

One notable and surprising cross-cultural difference was observed in Chinese children's reactions to the similar and identical drawers. Chinese 6-year-olds did not distinguish the similar drawer from the identical drawer, and Chinese 4-year-olds unexpectedly rated the similar drawer more negatively than the copier. Although we would like to see this result replicated before reading too much into it, one possible explanation could be that Chinese children, especially the younger ones, may have valued two things—original creations and also copying correctly, as they are often encouraged to do in school. Perhaps the similarity case was seen as both a failure to copy well and a failure to create something novel. If we exclude the similarity case, the general developmental pattern—showing an increasing concern with plagiarism and valuation of novelty—was similar across these three cultures despite the great cultural differences in terms of how much ideas are valued and protected in the United States, Mexico, and China.

These results may imply that children's negative reactions to plagiarism are not the result of simple instruction or the influence of educational and legal practices. Of course, children still likely learn that

plagiarism is wrong through exposure to their environment or observing others, but the interactions they observe may be very basic and prevalent in many cultures. For example, despite the weak macro-level public awareness of protecting intellectual property in the Chinese society, the micro-level social interactions may still involve people reacting negatively to plagiarism and a recognition of the value of ideas—whether they be creative solutions to problems or a simple entertaining story. These common experiences with seeing that ideas are valuable may all signal the importance of appropriately crediting the source of ideas. Therefore, even in cultures where people do not pay special attention to the value of ideas, children may still be exposed to social practices that lead them to believe plagiarism is wrong.

Although we selected these countries because of their different approaches to dealing with ideas and intellectual property, there are certainly societies that have even less protection of intellectual property. The three countries we tested are all reasonably integrated into the global economy and have some regulations involving intellectual property (WIPO, 2013). Perhaps a comparison between any of these cultures and those with no formalized intellectual property laws at all, such as hunter–gatherer groups, will give us more conclusive information about what kinds of cultural experiences play a role in influencing people's evaluation of plagiarism. There is some ethnographic evidence that ideas, or at least displays of creative abilities such as pottery, are valued even in small hunter–gatherer societies (e.g., Bird & Smith, 2005), but systematic investigations like the current one have not been conducted in such societies.

Importantly, we should note that, unlike the original Olson and Shaw (2011) study, American children at 3 and 4 years of age here evaluate unique drawers significantly more positively than similar drawers. In the previous study, the difference between the unique and similar conditions was not significant in this age group. Importantly, however, both studies show that 3- and 4-year-olds did not significantly distinguish plagiarizers from unique and similar drawers, whereas this tendency is significant at around 5 and 6 years of age in both samples. Critically, although one explanation for age change in the American sample would be a transition from preschool to kindergarten, this explanation does not work in the other samples where the 5-year-olds, and sometimes even the 6-year-olds, were in the same exact schools and classrooms as the 3- and 4-year-olds, as was the case in many of the schools in this study.

Perhaps the biggest remaining question is this: Why do children begin to evaluate copiers negatively at around this age? Shaw et al. (2013) suggested that children may begin to think plagiarism is wrong because they think it is wrong to steal reputational credit away from someone else. As we reviewed in the Introduction, having good ideas can significantly improve one's social standing and likability (Henrich & Gil-White, 2001; Miller, 2000). Perhaps as children grow older, they develop an increasing appreciation for the fact that ideas are important signals of one's creative talents and abilities and, thus, they grow to negatively evaluate those who try to falsely represent that they have such talents and abilities. This account predicts that if younger children were shown or taught that ideas are valuable signals of talent, they may suddenly begin to negatively evaluate plagiarism like their 5- and 6-year-old counterparts.

Children's negative evaluation of idea theft emerges as young as 5 years of age, but it is relatively late compared with their negative evaluation of theft of physical objects. By 3 or 4 years of age, children already understand that people can own and have rights over objects (Neary & Friedman, *in press*; Rossano, Rakoczy, & Tomasello, 2011), and they evaluate stealing other people's properties as serious transgressions (Smetana, 1981). One reason why children understand intellectual property violations later than those of physical objects may be that in order to understand that plagiarism is wrong, children need to first understand ideas as creations of the mind and need to value these creations of the mind. Previous work suggests that both of these are difficult for young preschoolers to understand. Research on children's theory of mind has indicated that young children's understanding of thoughts in general may be fundamentally different from that of older children and adults. For example, when 4- and 5-year-olds are taught some novel information, they tend to report that they have known it for a long time (Taylor, Esbensen, & Bennett, 1994). In addition, understanding that the mind can actively process and interpret information is also challenging for young children; it may first emerge at 4 or 5 years of age, but a more mature understanding is not achieved until 7 or 8 years of age (Carpendale & Chandler, 1996; Perner &

Davies, 1991). If young children have a limited understanding of how ideas are created or acquired by the mind, they might not understand that ideas are unique and, thus, do not evaluate copying them negatively. This account is not mutually exclusive with the account based on ideas functioning as a signal of one's abilities and talents. Perhaps in order to realize that ideas are signals of an individual's creativity and ability, children must first recognize that not everyone has access to ideas. Future research should investigate the links between children's understanding of ideas and their subsequent negative evaluations of plagiarizers.

A second developmental milestone necessary in order to evaluate copying negatively is likely to be the understanding that ideas are valuable at all. Recent work by Li et al. (2013) has suggested that 6-year-olds value ideas over physical labor, but 4-year-olds do not do so systematically. That is, whereas most 6-year-olds think that someone who came up with an idea for an art project should get to take it home rather than someone who implemented that idea, 4-year-olds are split on that decision. Perhaps this result can help to explain the current results in which 6-year-olds showed an overwhelming tendency to evaluate copying negatively, whereas 4-year-olds showed a much smaller and less consistent tendency. Perhaps the very same 4-year-olds who value novel work are the ones who would also say the idea generator, rather than the laborer, should get to take the final product home. Future work could investigate such a question.

Although the current study provides some evidence of cross-cultural similarities in children's development of negative reactions to plagiarism, it is not without its limitations. For example, we asked children to judge whether the character was good or bad. We think asking the question this way should have prompted children to make social–moral judgments of the actor. However, it is possible that some children might evaluate the plagiarizers negatively not based on social–moral concerns but rather because they thought copying made the plagiarizers bad drawers who produced pictures with no new ideas. Future studies could include procedures to tease apart the possible reasoning underlying children's reactions to plagiarism.

Another limitation is that our investigation of children's evaluations of plagiarism was based on just one type of plagiarism (i.e., artwork), and so we cannot know whether the results would generalize to other forms of intellectual property. We thought of art as one representative domain of intellectual property, and we do not see a reason in principle that we would not find similar negative reactions to plagiarism of ideas in other domains such as jokes, stories, and inventions. However, based on our current data, we cannot know whether or not these effects are specific to art. We chose artwork as a domain to investigate the development of negative reactions to plagiarism for three reasons. First, young children often have more experience with artwork than other forms of intellectual creations such as technological inventions. For this initial investigation, we wanted to provide children with a simple test case so that we could detect whether or not children had this aversion toward plagiarism at all cross-culturally. Second, artwork has been used in previous investigations of plagiarism (Olson & Shaw, 2011), and so we wanted to be able to compare our results with this previous work. Finally, intellectual property law covers artwork and not certain other creative endeavors (e.g., jokes, recipes, fashion design), providing some face validity to our approach. These results provide reason to think that there is some consistency to children's negative reactions to plagiarism, at least for artwork. One area where one might expect to find interesting cross-cultural differences is in the types of ideas that are valued by societies and receive protection from plagiarism (e.g., perhaps in some societies artistic creations cannot be plagiarized but practical inventions can be or vice versa). We might further expect to find cross-cultural differences in the aspects of the idea that can and cannot be copied (e.g., perhaps in some societies it is acceptable to copy the characters from some piece of artwork but not the plot structure or vice versa).

Despite these limitations, these results reveal similarities in children's evaluation of plagiarizers across societies that differ greatly in their attitudes toward ideas and intellectual property violations, suggesting that negative reactions to plagiarism develop reliably in very different cultural circumstances. This is not to deny the importance of culture, which will obviously influence many norms surrounding intellectual property. But these results do suggest that cross-culturally even 5-year-old children recognize a simple truth: No one likes a copycat.

References

- Arieli, D. (2010). *The upside of irrationality*. New York: HarperCollins.
- Bird, R. B., & Smith, E. A. (2005). Signaling theory, strategic interaction, and symbolic capital. *Current Anthropology*, 46, 221–248.
- Blake, P. R., & Harris, P. L. (2009). Children's understanding of ownership transfers. *Cognitive Development*, 24, 133–145.
- Bontis, N. (1998). Intellectual capital: An exploratory study that develops measures and models. *Management Decision*, 36, 63–76.
- Buccafusco, C., & Sprigman, C. (2010). Valuing intellectual property: An experiment. *Cornell Law Review*, 96, 1–45.
- Carpendale, J. I., & Chandler, M. J. (1996). On the distinction between false belief understanding and subscribing to an interpretive theory of mind. *Child Development*, 67, 1686–1706.
- Chan, D. W., & Chan, L. K. (1999). Implicit theories of creativity: Teachers' perception of student characteristics in Hong Kong. *Creativity Research Journal*, 12, 185–195.
- Cheng, V. M. (2004). Progress from traditional to creativity education in Chinese societies. In S. Lau (Ed.), *Creativity: When East meets West* (pp. 137–167). Singapore: World Scientific.
- Cheung, W. M., Tse, S. K., & Tsang, H. W. (2003). Teaching creative writing skills to primary school children in Hong Kong: Discordance between the views and practices of language teachers. *Journal of Creative Behavior*, 37, 77–98.
- Dewett, T., & Denisi, A. S. (2004). Exploring scholarly reputation: It's more than just productivity. *Scientometrics*, 60, 249–272.
- Fasko, D. (2001). Education and creativity. *Creativity Research Journal*, 13, 317–327.
- FlorCruz, M. (2013). China's counterfeit culture: Even buildings fall victim to copycats. *International Business Times*. Retrieved June 1, 2013, from <http://www.ibtimes.com/chinas-counterfeit-culture-even-buildings-fall-victim-copycats-999514>.
- Friedman, O., & Neary, K. R. (2008). Determining who owns what: Do children infer ownership from first possession? *Cognition*, 107, 829–849.
- Furby, L. (1976). The socialization of possession and ownership among children in three cultural groups: Israeli kibbutz, Israeli city, and American. In S. Modgil & C. Modgil (Eds.), *Piagetian research: Compilation and commentary* (Vol. 8, pp. 95–127). Windsor, UK: NFER.
- Furby, L. (1978). Possession in humans: An exploratory study of its meaning and motivation. *Social Behavior & Personality*, 6, 49–65.
- Furby, L. (1980). The origins and early development of possessive behavior. *Political Psychology*, 2(1), 30–42.
- Gardner, H. (1989). The key in the slot: Creativity in a Chinese key. *Journal of Aesthetic Education*, 23, 141–158.
- Goncalo, J. A., & Staw, B. M. (2006). Individualism–collectivism and group creativity. *Organizational Behavior and Human Decision Processes*, 100, 96–109.
- Goodenough, O., & Decker, G. (2009). Why do good people steal intellectual property? In M. Freeman & O. Goodenough (Eds.), *Law, mind, and brain* (pp. 345–372). London: Ashgate.
- Henrich, J., & Gil-White, F. (2001). The evolution of prestige. *Evolution and Human Behavior*, 22, 165–196.
- Kanngiesser, P., Gjerse, N., & Hood, B. M. (2010). The effect of creative labor on property-ownership transfer by preschool children and adults. *Psychological Science*, 21, 1236–1241.
- Kanngiesser, P., & Hood, B. (in press). Not by labor alone: Considerations for value influence use of the labor rule in ownership transfers. *Cognitive Science*, doi: <http://dx.doi.org/10.1111/cogs.12095>.
- Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology*, 77, 785–800.
- Li, V., Shaw, A., & Olson, K. R. (2013). Ideas versus labor: What do children value in artistic creation? *Cognition*, 127, 38–45.
- Merges, R. P. (2000). One hundred years of solicitude: Intellectual property law, 1900–2000. *California Law Review*, 88, 2187–2240.
- Miller, G. (2000). *The mating mind*. New York: Doubleday.
- Neary, K. R., & Friedman, O. (in press). Young children give priority to ownership when judging who should use an object. *Child Development*, doi: <http://dx.doi.org/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.
- 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.
- Perner, J., & Davies, G. (1991). Understanding the mind as an active information processor: Do young children have a “copy theory of mind”? *Cognition*, 39, 51–69.
- Rossano, F., Rakoczy, H., & Tomasello, M. (2011). Young children's understanding of violations of property rights. *Cognition*, 121, 219–227.
- Shaw, A., Li, V., & Olson, K. R. (2012). Children apply principles of physical ownership to ideas. *Cognitive Science*, 36, 1383–1403.
- Shaw, A., Li, V., & Olson, K. R. (2013). Reputation is everything. In M. Banaji & S. Gelman (Eds.), *Navigating the social world* (pp. 220–224). New York: Oxford University Press.
- Shkodriani, G. M., & Gibbons, J. L. (1995). Individualism and collectivism among university students in Mexico and the United States. *Journal of Social Psychology*, 135, 765–772.
- Smetana, J. G. (1981). Preschool children's conceptions of moral and social rules. *Child Development*, 52, 1333–1336.
- Sprigman, C., Buccafusco, C., & Burns, Z. (2013). What's a name worth? Experimental test of the value of attribution in intellectual property. *Boston University Law Review*, 93, 1387–1433.
- Taylor, M., Esbensen, B. M., & Bennett, R. T. (1994). Children's understanding of knowledge acquisition: The tendency for children to report that they have always known what they have just learned. *Child Development*, 65, 1581–1604.
- Wang, J., & Mao, S. (1996). Culture and the kindergarten curriculum in the People's Republic of China. *Early Child Development and Care*, 123, 143–156.
- World Intellectual Property Organization. (2009). *World intellectual property indicators*. Geneva, Switzerland: Author. Retrieved June 1, 2013, from http://www.wipo.int/freepublications/en/intproperty/941/wipo_pub_941.pdf.
- World Intellectual Property Organization. (2013). *WIPO Lex*. Geneva, Switzerland: Author. Retrieved June 1, 2013, from <http://www.wipo.int/wipolex/en>.