The Influence of Anthropomorphism on Giving Personal Names to Objects

Serge Brédart

University of Liège, Belgium

ABSTRACT

Some people give a proper name to an owned individual object, such as a car or a computer. The study examined whether giving a proper name to a specific object is associated with object personification, and more specifically, whether object personification is a prerequisite to name giving. The latter question was assessed by asking 130 participants whether, in their adult life, they had ever given a personal name to an object, and if so, whether they had attributed psychological characteristics to that named object. The general relationship between personal name giving and personification was assessed by evaluating whether the scores from a questionnaire on anthropomorphism differed in participants who reported having given a specific name to at least one personal object, compared with those who reported not doing so (Mann-Whitney's U test). Results showed that the scores from the questionnaire on anthropomorphism were significantly higher for participants who had given specific names to objects than for participants who had not done so. However, object personification was not found to be a prerequisite to name giving. Indeed, about 40 percent of people who reported giving personal names to objects did not attribute psychological qualities to these objects.

KEYWORDS

personification
anthropomorphism
proper names

INTRODUCTION

Object personification (or anthropomorphism toward objects) consists of the attribution of human-like qualities, such as gender and psychological attributes (cognitive abilities, mental states, moods, interests, attitudes, or personality) or social attributes (familial or nonfamilial relationships) to objects (Sobczak-Edmans & Sagiv, 2013; White & Remington, 2019). Such attribution of human properties to nonhuman entities has been associated with autism spectrum disorders (White & Remington, 2019; but see Castelli et al., 2002) and also with synaesthesia (Smilek et al., 2007). However, object personification also commonly occurs in the general population. In the recent White and Remington (2019) study, substantial proportions of nonautistic participants reported having viewed specific objects as having a gender (35%) or having attributed feelings (31%) or human-like features (22%) to objects. Overall, 33% of nonautistic participants reported object personification going beyond mere gender attribution.

Humans generally use proper names to designate persons and pets. Geographical unique entities, such as countries, cities, rivers, mountains, and landmarks (e.g., Big Ben, the Taj Mahal), as well as

Corresponding author: Serge Brédart, Psychology and Neuroscience of Cognition Research Unit, University of Liège, 4000 Liège, Belgium
E-mail: serge.bredart@ulg.ac.be

famous objects, such as trains (e.g., the Orient Express; see Coates, 2016), planes (e.g., the Spirit of Saint Louis, see Puzey, 2016) or ships (e.g., the Titanic, see Jones, 2016) can also be designated with a proper name. In everyday life, people may also give a proper name to an owned individual object, such as a car, a computer, or a bike (Kühn et al., 2014; Waytz et al., 2010).

Name giving and anthropomorphism have been previously associated in the literature. For example, in a study on the effects of anthropomorphism on trust in an autonomous vehicle, the experimenters gave a name to a vehicle along with a gender and a human voice in order to anthropomorphize it (Waytz et al., 2014). Having a name was described as an anthropomorphic feature for information systems (Pfeuffer et al., 2019), intelligent personal assistants (Cao, et al., 2019) or even brands of products (Yang et al., 2019). In these examples, name giving is viewed as a strategic, even commercial, means to make objects appear more human-like (personification follows name giving). In everyday life, people might give names to objects because they primarily perceive them as human-like (name giving follows personification; Chartrand et al., 2008; Epley et al., 2007). In the present study, this latter issue is addressed by exploring the nature of the association between anthropomorphism and the attribution of names to objects.

In this context, the aim of the present study was to examine whether giving a proper name to a specific personal object is associated with the tendency to attribute human-like psychological qualities (such as having feelings or thoughts) to objects, and to understand the nature of the possible relationship between object personification and name giving. Indeed, it could be that object personification is a prerequisite to name giving. In this case, name giving without personification would not be reported by participants. It is also possible that personification simply fosters the act of giving proper names to objects, but that it is not a necessary determining factor in name giving.

In the present study, this point was assessed by asking participants whether they had ever given a personal name to an object, and if so, whether they had attributed psychological characteristics to the named object (see the Procedure section). The relationship between personal name giving and personification in general was assessed further by evaluating whether the scores from the Neave et al. (2015) questionnaire on anthropomorphism were higher for participants who reported giving names to objects than for participants who reported not doing so.

METHODS

Participants

The sample consisted of 130 participants (69 females, 61 males). They were aged between 20 and 65 (M = 36.4; SD = 13.1). Data from eight additional persons were collected but not included in the analyses because those participants reported a history of a neurological condition. Participants were recruited from among the author's own acquaintances (e.g., colleagues, friends, or acquaintances) and by word-of-mouth. The participants' average educational level, as measured by the number of years of study completed to achieve their highest qualification, was 16.0 (SD = 2.7). This study was approved by the Ethics Committee of the Faculty of Psychology, Speech and Language Therapy, and Education of the University of Liège. All participants gave their written informed consent prior to participation. The study was conducted in French with native French speaking participants.

Procedure

Participants were screened using the following yes/no question: "Some people give a proper name to their car, their bike, their computer, a piece of jewellery or another specific object. Have you ever done this during your adult life (i.e., since the age of 18)? In other words, have you ever given a personal name to an object of yours?" If the answer was yes, the participant was asked the following questions:

- To how many objects did you give a personal name?
- Which objects were they? (The participants had to choose a maximum of three objects.)

For each object, the participants were asked to say the name they had given to it and, then, to answer the following open question: "How old were you when you gave a name to this object?"

They were then asked the following yes/no question "Do (did) you attribute feelings or thoughts to this object?" If the answer was yes, they were invited to clarify their response by circling the relevant option(s) from the following choices: (a) feelings or emotions, (b) thoughts or reasoning, (c) motivations or goals, (d) personal qualities or characteristics, or (e) relational qualities or characteristics.

After completing this short questionnaire, participants were invited to respond to the 10 adult items from the Neave et al. (2015) anthropomorphism scale (see the Supplementary Material section for these items and their French translation). It was first explained to the participants that anthropomorphism is the tendency to assume that objects and non-human entities have thoughts, feelings, and motivations, and that we were interested in the extent to which this tendency applies to different people (Neave et al., 2015). The experimenter then read out each item from the anthropomorphism scale and the participants gave their response on a Likert-type scale of 0 (*not at all*) to 6 (*very much so)*. The anthropomorphism score was calculated by summing the ratings given to the 10 items. This score could theoretically vary from 0 to 60.

Design

The main comparison involved two independent groups (participants who reported name-giving vs. participants who did not). The dependent variable was the level of anthropomorphism as measured from the adult subscale of the Neave et al. (2015) questionnaire. The childhood subscale was not used here in order to obtain a measure of the participants' anthropomorphic tendencies as adults with the aim of relating this measure to the name-giving behaviour at the same period of life.

RESULTS

Describing the Naming Practice

Overall, 47 out of the 130 participants (i.e., 36.2%) reported having given a personal name to at least one object during their adult life. On average, those participants had given a name to 2.3 objects (SD = 2.5, with a median of 1 and a mode of 1). The mean age for giving a name was 27.4 years (SD = 10).

The types of objects that most often received a personal name in our sample were cars (n = 34), electronic devices, such as computers or mobile phones (n = 8), cuddly toys (n = 6), houses or rooms (n = 5), household appliances (n = 4), bikes (n = 2), a knife (n = 1), a corkscrew (n = 1), a plant (n = 1), a guitar (n = 1), a pen (n = 1), and a statue (n = 1). The proportions of participants who reported giving names to objects was not significantly different in men (34.4%) and women (37.8%), Fisher Exact Test = .72.

Relating Personification to Personal Name Giving

Given that the number of participants in each group could not be determined a priori, it was decided to estimate post hoc the achieved power of the analysis, given an α level of 0.05, and a medium effect size of 0.5, for a two-tailed comparison between two independent groups with N_1 = 47 and N_2 = 83. The assumptions of distribution normality and equality of variance having both been violated (Levene test and Shapiro-Wilk test respectively: all ps < .05), the levels of anthropomorphism in participants who reported giving personal names to objects and in those who reported not doing so were compared using Mann-Whitney's U nonparametric test. In such conditions, the achieved power was .76 (G*Power 3.1; Faul et al., 2007). The analysis revealed that the mean level of anthropomorphism was higher in participants who gave names to objects (M = 19.06, SD = 14.22) than in participants who did not (M = 10.30, SD = 11.11), U = 1271, df = 128, p < .001; location parameter Hodges-Lehmann estimates = 8; 95% CI [3, 14]; rank biserial correlation = 0.348: 95% CI [.155, .516]).

Is Personification a Prerequisite to Giving Personal Names to Objects?

Of the 47 participants who gave a personal name to objects, only 28 (59.6%) attributed psychological characteristics to the named object. Of those who attributed psychological characteristics, 21 (75%) attributed feelings, 11 (39%) attributed personal qualities, 7 (25%) attributed motivations, 6 (21%) attributed relational qualities, and only 4 (14%) attributed thoughts to the named object. Since about 40% of participants who named objects did not personify them, personification could not be seen as a prerequisite to giving personal names to objects. Of the participants who reported giving names to objects, the proportion of participants who attributed psychological characteristics to objects was not significantly different between genders (men: 61.9%, women: 57.7%), Fisher Exact Test = 1.

DISCUSSION AND CONCLUSION

The results of the present study demonstrated a relationship between the participants' scores of anthropomorphism and the practice of giving personal names to objects. Indeed, the scores of anthropomorphism were significantly higher in participants who reported giving a personal name to an object (or objects) than in participants who did not. The effect size associated with this difference was medium to high (rb = 0.348).

Another aim of the study was to determine whether personification was a prerequisite to the practice of giving personal names to objects. The results clearly show that personification was not a prerequisite to name giving. Indeed, 40.4% of participants reported having given a personal name to at least one object without attributing psychological characteristics to that object. Informal discussions with participants about the reasons why they gave names to objects suggested that participants may have given personal names to objects just for fun, for pragmatic reasons, such as avoiding ambiguity of reference (e.g., if a family owns two storage cabinets, it may be useful to give a personal name to each of them in order to make reference easier), or because friends (or relatives) did it with similar objects. It was also possible for a name to be given because it described a salient feature of the object (for instance, one participant called his car "Josephine" because this name popped into his mind when he saw that the licence plate for the car began with the letters "JSP"). Thus, people may give names to objects for reasons that are quite independent of personification. It would be interesting to conduct a more systematic investigation of reasons for giving a personal name to objects in future research.

The absence of gender differences regarding the attribution of psychological characteristics to objects that were given a personal name is consistent with a previous study that reported no difference between men and women in terms of anthropomorphism towards artefacts (Chin et al., 2004). On a more descriptive level, it is interesting to note that the practice of giving a personal name to a specific object does not seem to be infrequent at all: more than one third of the participants reported doing, or having done, so. Another interesting result is that 34 participants (i.e., 72% of the participants who gave a name to personal objects) named their cars. The car is by far the most often named object. It would be interesting to understand why cars are so often given a name in comparison with other kinds of objects. The relatively high frequency of car naming could be due to the fact that certain facial traits (such as eyes, a mouth or a nose) tend to be perceived in car fronts (Windhager et al. 2008; 2012). An eye-tracking study even showed that eye movements and fixations while watching car fronts were similar to those when looking faces (Windhager et al., 2010). Moreover, a study using functional magnetic resonance imaging showed that the participants' tendency to see human features (e.g., femininity, elegance, or childishness) in car fronts predicted the level of brain activity in the right face fusiform area (Kühn et al., 2014). This brain region is typically associated with face processing (Kanwisher & Yovel, 2006). The relationship between the attribution of a personal name to a particular

object and the perception of facial features or other human features in this object should be explored in future studies.

The average level of education of participants involved in the present study is relatively high. This a potential bias. Therefore, it would worthwhile to replicate the study with a more representative sample of people.

In conclusion, it appears that personification is stronger in people who give personal names to objects, but is not a necessary determining factor in personal name giving since people may give a name to an object without personifying it. However, further empirical work is needed to assess whether when an object is personified, it is systematically given a personal name or not.

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SUPPLEMENTARY MATERIAL

Adult subscale of the Neave et al. (2005) anthropomorphism questionnaire:

1. I sometimes wonder if my computer deliberately runs more slowly after I have shouted at it. [Je me demande parfois si mon ordinateur fait exprès de fonctionner plus lentement après que je lui ai crié dessus.]
2. On occasion I feel that my computer/printer is being deliberately awkward. [Parfois, je sens que mon ordinateur (ou mon imprimante) rend volontairement les choses difficiles.]
3. I sometimes wonder if my personal possessions appreciate it when I have given them a good clean. [Je me demande parfois si mes objets personnels apprécient que je les nettoie à fond.]
4. On occasion I feel that the weather conditions are being deliberately bad in order to ruin a social event. [Parfois, j'ai l'impression que les conditions météorologiques font exprès d'être mauvaises pour gâcher une activité sociale.]
5. I do think that certain cars have a specific personality. [Je pense vraiment que certaines voitures ont leur personnalité propre.]
6. If I accidentally break one of my favourite possessions I make sure that I apologise to it for my clumsiness. [Si je casse accidentellement un de mes objets favoris, je lui présente mes excuses pour ma maladresse.]
7. I think that some trees are friendly while others have an air of menace. [Je pense que certains arbres sont amicaux alors que d'autres ont un air menaçant.]
8. I sometimes think that if my computer/printer is made to feel happy and/or wanted, then they will be less likely to malfunction. [Je pense parfois que si mon ordinateur et mon imprimante se sentaient heureux/désirés, ils tomberaient moins souvent en panne.]
9. I sometimes feel that the sea can be angry. [Je pense parfois que la mer est fâchée.]
10. Part of the reason why I picked a new car/electrical item was because when I first saw it I felt that it had a friendly personality. [Si mon choix se porte sur une nouvelle voiture ou un nouvel appareil électrique c'est en partie parce que la première fois que je l'ai vu(e) j'ai ressenti qu'elle/il avait une personnalité amicale.]