Why human qualities and attachments are placed on inanimate objects

Angelina Milillo

November 15, 2023

PSY470 Evolutionary Psychology

Introduction

From children crying when they can't take their favorite blanket to their first day of kindergarten, to a woman wearing a necklace her husband gave her while he is deployed, having an attachment to foreign objects is a piece of the human condition that everyone experiences in some capacity. Unlike every other animal on earth, modern humans have created a complete dependance on inanimate objects to the extent that they are carried or used to function in every aspect of the day, even in cases where those objects may hold no benefit beyond comfort. This is not only present in what is observed on a daily basis, but it is how modern human behavior is defined. Object attachments can present themselves in many ways, children will often seek out a single object for a source of comfort, expressing distress when this object is lost, altered, or even washed in some cases. In adulthood, objects often help maintain bonds with loved ones that cannot be reached. Some adults will even carry sentimental objects with them throughout their everyday life. Often the presence of significant object to elicits some type of positive and comforting emotion, that is otherwise felt through interacting with people who have close relations with the individual.

The idea of ownership of is extremely important when identifying objects, with many treating their personal objects as non-replaceable past simple monetary value. People also take great consideration into an object's past, with many people taking special care of objects owned by diseased loved ones, or being disgusted at objects owned by others with a negative reputation (Gelman & Davidson, 2016). Placing great care and attachment to objects deemed "unique" by the individual can be observed at a very early age, with many children, over half in the western world, becoming attached to a single object as a source of comfort. This type of attachment can also lead to adopting human qualities towards the object, as anthropomorphism is a very common piece of human nature (Gjersoe et al., 2015).

In this paper, we will delve into the question of why humans become emotionally attached to objects in the same fashion that they do with human counterparts, and explore the evolutionary history and adaptive mechanisms behind this widespread phenomenon, with emphasis on how this portion of human psychology changes in nature and intensity throughout an individual's life.

Theories behind object dependence and anthropomorphism

Cognitive development in early humans through the lens of inanimate objects

The importance of inanimate objects for survival as a species can be traced extremely far back in human history. In fact, archeologists are able to track how modern human behavior progressed by assessing fire and tool use by early humans. The origins of using fire in a controlled manner can be traced back to as early as 2.6 million years ago, which marks a renaissance in our species and an arrival of fire dependance. Food cooking came as a result, with served as a catalyst for changes in body morphology such as smaller teeth, smaller guts, and a decrease in sexual dimorphism (Herzog et al., 2022). Shortly afterwards in evolutionary history, tool use arose with the Oldowan stone tool nearly 2.5 million years ago, in which sharp flakes were produced as tools to be used in activities such as cutting and scraping. Evidence suggests that due to the wide geographic evidence of these flakes, that it is some of the original implication for human social learning and even early language, marking a major advancement in human cognition (Morgan et al., 2015). Both of these are not only famous examples of early human cognitive development and sociality, but represent the very early dependance on altering features in the surrounding environment for survival and advancement.

Mechanisms behind general anthropomorphism and superstition

As our cognition continued to progress, not only did inanimate objects become part of daily lives, but the use of symbolism as well. This can be seen throughout the globe in different capacities, such as the anthropomorphism of star patterns of Native Americans, or the development of mythology to explain natural phenomena in European cultures. It is human nature to use human qualities to help ground ourselves to the world around us, which is greatly in part due to humans evolving through the lens of sociality. The attachment theory is thought to play a large factor, which interests the psychological and emotional bonds between humans (Wan & Chen, 2021). The root of this theory come from the fact that infants are fully dependent on their caregiver for the first milestones of their life as humans are born extremely early in development due to increased encephalization. This suggests that infants are most likely to attach to figures that are sensitive to their signals and respond effectively to their needs. This does not only target biological needs, but psychological needs as well, such as affirmations of self-identity and self-efficacy. This translates to foreign objects as the items that are most often anthropomorphized are those that address similar needs to that of care givers, such as comfort and self-efficacy. This is identified as the sentimental value of an object, which refers to the ability to provide such pleasantness (Wan & Chen, 2021). This sentimental value can be held for a variety of reasons, it may have been obtained during an important event or by a special person giving it "symbolic representation", or it may have been present through trying times, making it "personally symbolic" of achievement or hardship. There are many ways an object can be deemed sentimentally important, which can be gained through both positive and negative experiences (Grayson & Shulman, 2000).

Another major modern example of symbolism that is seen throughout human nature is the tendency towards superstition. These behaviors can be defined as any action performed to affect

the probability of a beneficial outcome occurring despite the knowledge of the performer that there is no explained relationship between the action and the outcome (Abbott & Sherratt, 2011). Superstitious behaviors have often been marked as an evolutionary mystery due to the fact that they hold no benefit, and may even act to decrease the fitness of the individual performing them depending on the cost of the action.

As a result from the nature of the actions, superstitions that have evolved over human history should almost always be "cheap", and cause no harm relative to their perceived benefits. Superstition has arisen namely as a trade-off from our exploration-exploitation strategy, which identifies causal relationships between actions and outcomes. It is more advantageous to commit to cheap actions that may have effect on an outcome, rather than to not perform the action at all. This evidence was backed up in an experiment that found a relationship that the probability of superstition in a controlled scenario is higher if the exploration type was cheap rather than costly (Abbott & Sherratt, 2011). It is notable that these beliefs in superstition are a result of sociality, as many superstitious behaviors can be credited to have been transmitted through different cultures throughout history. With the use of superstition in culture comes the outcome of anthropomorphism in objects as well, such as attributing a rabbit's foot or lucky coin for a good outcome.

Object dependance throughout life

Childhood

In order to fully understand how object attachment has an effect on people in the modern world, the stages of life must be analyzed separately, as the significance and emotions behind objects surrounding everyday life often change with age. Infanthood to late childhood is well known for being the point in many people's lives where emotional attachment and dependance to objects is

widely seen in many instances. Children have also been described as promiscuous anthropomorphizers in literature, with evidence being that object with self-initiated movements, such as the sun and moon, are often given human-like qualities (Gjersoe et al., 2015). It is estimated that 60% of young, middle-class children use soft objects as soothers or comforters in western culture. This bond to an attachment object is specific to only that item, and when convinced that a machine could produce and exact duplicate of their object, children consistently still chose the original instead, indicating a higher value placed on the authentic object and sensitivities to unique individuals (Gelman & Davidson, 2016). When given the opportunity to trade their object for a newer, "better" version, children would still choose their original, indicating a sense of ownership (Gelman & Davidson, 2016). Many debates have arisen on if this is a normal part of human life, or displays insecurity and maladjustment within these children (Lehman et al., 1995).

To provide evidence for this debate, a study involving 108 children between the ages 1 and 3 investigated if blanket attachment had any link to insecurity within the participants by assessing presence of attachment alongside a parental report of the child's fears. It was found that intensity of attachment was unrelated to fearfulness ratings, suggesting that maladjustment and insecurity are independent of level of attachment. This study failed to assess whether fearfulness was increased when attachment objects were removed though, as it is possible that the object itself could be the cause of the fearlessness within the attached children (Passman, 1987).

Another debate had risen on whether children are able to identify that inanimate objects that they can interact with lack mental states. One study interviewing children from 2 to 5 years old displayed little confusion on whether or not an object had feelings, regardless of it having a face or if it was used in imaginary play. This goes against older theories which believed that the

line is blurred between what had feelings and what did not due to some objects having faces and caregivers presenting the objects with human-like feelings for imaginary play (Gjersoe et al., 2015). This study had failed to assess whether the same results could be seen within objects the children were attached to though, as all of the original objects presented were completely novel. In order to address this, a newer study utilized a questionnaire where 60 children ages 2 to 3 were asked whether both a foreign toy and their own attachment toy had mental states. It was found that children attributed significantly more mental states to their attachment toy even if the toy had no personifying features such as a blanket, when compared with another favorite toy. It was also found that if the toy's state was altered in any way, such as being lost, washed, or mended, that it caused the children significantly more distress. Despite this, the toy was not used in imaginary play more significantly than a favorite toy, suggesting that the toy's role in imaginary play did not have an effect on anthropomorphism (Gjersoe et al., 2015).

Another study included 27 children aged 4 to 5 and 27 children aged 6 to 8 to assess object attachment within different older age groups. Children with object attachments all described the importance of texture in their objects, all of which being soft or plush. Some also discussed the preference of haptic movements, such as twisting, playing, or rubbing certain spots which may contribute to self-soothing mechanisms. It was seen that the older group was better able to distinguish that their attachment objects were inanimate better than those in the younger age group. Notably, those without an attachment object at all had little understandings of both an object's ability to soothe and adopting traits to an object beyond its actual function. In fact, those without an attachment object reported that they believed those that had one would have fewer friends, which suggests a negative view towards the phenomenon (Lehman et al., 1995). In order

to have a deeper understanding of the results though, more participants must be used in future studies.

The cause for this attachment is still not well known, but it had been noted that children's descriptions often reflected a sense of confidence in their ability to endure many different situations. It is thought that infants form an emotional bond to objects present in their crib as a replacement for their caregivers when they are not present. This can also be used to explain why children tend to think about their soother object differently than they do for other inanimate objects in their environment (Gjersoe et al., 2015). In order to address this theories, future studies can include children who slept with their parents throughout infanthood to examine whether the same level of attachment still arises in inanimate objects. There is also a wealth of research indicating that ownership in children plays a critical factor in self identifying their own rights and actions, promoting their sense of self (Gelman & Davidson, 2016). Research is lacking in these concepts outside of western culture though, so it is not ruled out if this is a factor of human nature or that of cultural practices and values, so more research must be done throughout difference societies to rule out this possibility.

Adulthood and Senior Citizenship

As individuals enter late childhood and adulthood, many grow out of their childhood attachments and anthropomorphism due to a combination of experience, explicit teaching, and cognitive maturation. Despite this, anthropomorphism is still seen within older individuals in different forms, with some even maintaining their childhood attachments. It has been suggested that this phenomenon is a result of our sociality, and marks a need for social connectiveness throughout our lives. When this is not fulfilled, individuals may adopt human-like properties onto non-human agents, especially within pets (Gjersoe et al., 2015). Those who reported to be

lonelier were more likely to adopt these tendencies, which could also likely be translated to children who are left alone for long periods of times as well. It has also been seen that humans tend to attribute more complex mental states to those that they enjoy being around, and lesser states to those they feel detached from, which can reflect similar processes in object attachment (Gjersoe et al., 2015).

Being a social species, people generally have a significant amount of experience with human personalities and actions. As a result, people often find comfort in things that remind them of those familiar qualities (Wan & Chen, 2021). This makes humans more inclined to experience objects in an emotional or human way, with humanness bringing generally positive feelings, with individuals who have a tendency towards anthropomorphism often finding greater perception of emotional comfort and security. This can also be related to interpersonal attachment style, as those with an anxious attachment style were more likely to attach to objects that were anthropomorphized (Wan & Chen, 2021). Many people also have objects that they consider irreplicable regardless of objective value. When a group of 30 college students were asked if they had irreplicable objects, many reported having such objects with relations to indexicality (holding a deeper meaning), with a slight difference in gender (Grayson & Shulman, 2000). This study can be better tested in a larger group to gain statistical significance, with a deeper exploration on gender being controlled for variables such as attachment style and life history.

Because of our tendency to adopt human attachment onto objects, another common instance of object attachment is seen through the sentimentality of objects relating to a loved one who the person is unable to directly interact with, using the object as a temporary substitute for human attachment. These objects may trigger nostalgia through semantic or episodic memories

involving their loved ones, and an increase of attachment behavior similar to that of children can often be observed (Niemyjska, 2019). A three-part study was conducted in Poland with over 100 self-reporting participants who either currently had, or lost romantic partners due to a death. It suggested that when surrounded by photographs and keepsakes, material objects could suggest the presence of a loved one when unable to reach the person directly, and attachment to the objects can maintain subjective closeness to their partner with the object being viewed as "part" of their partner. Due to the importance of close relationships in humans, with would be highly adaptive to have a mechanism for coping with loss or absence, with these "social safeguards" being an evolutionary adaptation to cope with one of the trade-offs of sociality. This can be one of the major contributors to object attachment in humans of all ages (Niemyjska, 2019). Given that this study cannot be within-subjects due to the nature of the experience of the study, some reliability is lost, but the study itself still remains strong.

As humans become older, a higher rate of both animistic and anthropomorphized thinking can be observed, with a surprising increase in those diagnosed with Alzheimer's Disease. A study was conducted utilizing 20 healthy young adults, 20 healthy elderly adults, and 24 patients with Alzheimer's was conducted to compare the animistic nature of the participants. It was found that in all groups there were participants who found motion and activity to be indicators of life, with 30% of healthy elderly participants being considered animists (Zaitchik & Solomon, 2008). Those with Alzheimer's took a more child-like approach, with half of the participants attributing life to artifacts, and occasionally assigning life to objects whose movements are not self-generated, with animism increasing with the severity of the disease. Evidence shows that the reason why movement and activity play such a major role in human's description of living things is due to the fact that humans are predisposed to interpret self-generated movement as being

capable of goal-directed behavior. This is due to our familiarity with humans due to sociality, and could also be attributed to a lesser understanding or construct of what it means to be "alive" (Zaitchik & Solomon, 2008).

Conclusion

Within literature, certain trends can be seen that may provide explanation to humans taking such emotional significance behind "special" object in their life. With the use of fire and tools being within our species history for millions of years, humans have evolved alongside objects that are not only used for survival, but object of great value are also kept in possession for later use rather than being discarded (Morgan et al., 2015). Humans also depend on sociality for survival and comfort. Being born completely helpless, all humans depend greatly on caregivers to fulfill both their basic and psychological needs. A massive trade-off behind this intense need for human companionship is the fact that throughout any stage of life, humans experience great discomfort when there is an absence of significant people present in their day-to-day activities. Regardless of their stage of life, there will be occasions where people will not have access to the people they find comfort in. In order to cope with this discomfort, it is theorized that humans have developed an adaptation to find comfort in objects that have a history with themselves, or the person in their life that they are longing (Niemyjska, 2019). This concept then translates onto all objects, where there is a tendency to track an object's value not only through monetary value, but also of its history of ownership and use by other people (Gelman & Davidson, 2016). This can also be used to explain why children so frequently create an attachment to objects that provide comfort and warmth, as from a young age they are used as a soother when their caregiver is unable to provide for them.

Despite research being extensive within children, it is still lacking in some capacity. Many theories that have been explored have failed to be extensively tested for confounds of history with parents and culture in which the children were raised. Literature is also greatly lacking for adults as well, alongside the different natures of object attachment, such as becoming attached to an object they may simply wear or encounter on a day-to-day basis. In order to better understand these phenomena, much more work in terms of research must continue to be explored.

Although the mechanisms behind how humans attach to objects are not fully known, it is certain that this is a phenomenon that persists in a diverse array of attachment styles that can vary based on factors such as age, gender, life events, and even the history of the object itself. Objects owned and used by humans continue to be one of the most defining features of our history and advancement, with tool use marking a massive advancement in cognition and sociality. Being such highly social beings, not only are objects relied upon for everyday use, but can also aid in coping with emotions such as loneliness or loss. As a result, the nature of describing what it is to be human includes the close and ever evolving connection with the objects that surround us.

References

Abbott, K. R., & Sherratt, T. N. (2011). The evolution of superstition through optimal use of incomplete information. *Animal Behaviour*, *82*(1), 85–92. https://doi.org/10.1016/j.anbehav.2011.04.002

Gelman, S. A., & Davidson, N. S. (2016). Young Children's preference for unique owned objects. *Cognition*, *155*, 146–154. https://doi.org/10.1016/j.cognition.2016.06.016

Gjersoe, N. L., Hall, E. L., & Hood, B. (2015). Children attribute mental lives to toys when they are emotionally attached to them. *Cognitive Development*, *34*, 28–38. https://doi.org/10.1016/j.cogdev.2014.12.002

Grayson, K., & Shulman, D. (2000). Indexicality and the verification function of irreplaceable possessions: A semiotic analysis. *Journal of Consumer Research*, *27*(1), 17–30. https://doi.org/10.1086/314306

Haidle, M. N. (2010). Working‑memory capacity and the evolution of modern cognitive potential. *Current Anthropology*, *51*(S1). https://doi.org/10.1086/650295

Herzog, N. M., Pruetz, J. D., & Hawkes, K. (2022). Investigating foundations for hominin fire exploitation: Savanna-dwelling chimpanzees (Pan troglodytes verus) in fire-altered landscapes. *Journal of Human Evolution*, *167*, 103193. https://doi.org/10.1016/j.jhevol.2022.103193

Lehman, E. B., Arnold, B. E., & Reeves, S. L. (1995). Attachments to blankets, teddy bears, and

    other nonsocial objects: A child's perspective. *The Journal of Genetic Psychology*, *156*(4),

    443–459. https://doi.org/10.1080/00221325.1995.9914836

Mangel, M. (2011). Faculty opinions recommendation of the evolution of superstition through

    optimal use of incomplete information. *Faculty Opinions – Post-Publication Peer Review*

    of the Biomedical Literature. https://doi.org/10.3410/f.11984957.13111055

Morgan, T. J., Uomini, N. T., Rendell, L. E., Chouinard-Thuly, L., Street, S. E., Lewis, H. M.,

    Cross, C. P., Evans, C., Kearney, R., de la Torre, I., Whiten, A., & Laland, K. N. (2015).

    Experimental evidence for the co-evolution of hominin tool-making teaching and

    language. *Nature Communications*, *6*(1). https://doi.org/10.1038/ncomms7029

Niemyjska, A. (2019). When do keepsakes keep us together? the effect of separation from a

    partner on directing attachment to inanimate objects. *Personal Relationships*, *26*(2),

    262–285. https://doi.org/10.1111/pere.12274

Passman, R. H. (1987). Attachments to inanimate objects: Are children who have security

    blankets insecure? *Journal of Consulting and Clinical Psychology*, *55*(6), 825–830.

    https://doi.org/10.1037/0022-006x.55.6.825

Wan, E. W., & Chen, R. P. (2021). Anthropomorphism and object attachment. *Current Opinion*

    in Psychology, *39*, 88–93. https://doi.org/10.1016/j.copsyc.2020.08.009

Zaitchik, D., & Solomon, G. E. (2008). Animist thinking in the elderly and in patients with alzheimer's disease. *Cognitive Neuropsychology*, *25*(1), 27–37. https://doi.org/10.1080/02643290801904059