

MARKETING FOR A SUSTAINABLE WORLD: REDUCING WASTE WITH PRODUCT ANTHROPOMORPHISM

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Abstract

Brand anthropomorphism refers to the tendency to attribute human-like characteristics and behaviors to non-human objects, a practice widely used in marketing to enhance consumer engagement. This approach, seen in strategies like brand ambassadors, human-like product designs, or brand characters, helps foster emotional connections between consumers and brands, resulting in positive outcomes like increased brand liking, loyalty, and consumer behavior. Additionally, the concept of the IKEA effect, where consumers value products they've personally interacted with or customized, further supports the idea that anthropomorphized products, through the psychological effort they require, can deepen consumer attachment and increase product longevity. In this paper, we argue that by applying the strategies developed for brand anthropomorphism to products, we can enhance the bond consumers feel towards their products, thereby potentially encourage more sustainable consumption practices by reducing the likelihood of product disposal.

Keywords: Anthropomorphism, advertising, storytelling, behavior change, sustainability

INTRODUCTION

In an era of escalating environmental challenges, the need for sustainable practices has never been more urgent. The rapid expansion of consumer markets has contributed to a culture of disposability, where products are frequently replaced rather than maintained or reused. This trend has led to significant environmental degradation, including mounting waste and resource depletion (1). As a driving force behind consumer behaviour, marketing has traditionally focused on fostering demand through strategies that often promote short product life cycles and consumerism. However, marketing can also be a powerful tool for sustainability when redirected toward fostering behaviours that reduce waste and prolong product use (2).

One particularly promising avenue is the anthropomorphising of products—assigning humanlike characteristics to inanimate objects. As seen in brand mascots and anthropomorphic product designs, anthropomorphism has been widely used in marketing to create emotional connections with consumers (3). However, its potential to promote sustainable behaviour remains underexplored. By fostering emotional attachment and encouraging consumers to view products as companions rather than disposable tools, anthropomorphism could play a transformative role in reducing waste and supporting sustainable development. This paper examines the theoretical underpinnings, psychological impacts, and practical applications of product anthropomorphism, culminating in a proposed model for leveraging this strategy to advance sustainability goals.

Anthropomorphism and Brand Anthropomorphism

Anthropomorphism is "the tendency to attribute humanlike characteristics, intentions, and behaviour to nonhuman objects" (3,4). The practice is often used in folktales (5) and religious literature (6). Different variations of brand anthropomorphism have already been widely adopted. For example, the practice of hiring brand ambassadors (e.g., Tiger Woods for Tissot), include a smile in a logo (e.g., Amazon), incorporate humanlike features into the external appearance of products (e.g., Dior's perfume bottles), or design a brand character (e.g., Mr. Muscle, Michelin Man, Ronald McDonald). By incorporating humanlike elements into a brand, consumers perceive a brand as a human being (7,8) and consequently consumers are better able to emotionally connect and engage with the brand (9).

Several positive effects of brand anthropomorphism have been shown. First, several authors have found brand anthropomorphism to positively influence consumer brand evaluations and attitudes (9–11). More specifically, it has been found that anthropomorphising leads to a higher emotional connection with a brand and more positive evaluations of a brand's personality, resulting in an increase in brand liking (10). This can, in turn, positively influence consumer behaviour (10,12). Second, several studies have shown that brand anthropomorphism can increase companies' sales and profits. For example, anthropomorphising can increase consumers' willingness to pay or donate (13,14) and can result in consumers choosing the more indulgent options of a brand's assortment (15).

Third, brand anthropomorphism has been found to improve consumer-brand relationships (10,16). More concretely, the consumer-brand relationship is improved through anthropomorphism because it results in consumer-brand identification (17) and fulfils consumers' needs for social affiliation, as the brand is seen as a likeable, trustworthy social agent (18). These closer, humanlike relationships can consequently result in increased

brand loyalty (19), purchase intention (20), and unwillingness to replace a product (21). The unwillingness to replace a product is based on the theory that anthropomorphism will result in consumers treating the brand as 'a friend'. Therefore, consumers will encounter empathy and concern for the brand, and replacing the product is incongruent with the human schema of how one should treat a friend (21,22).

This deeper relationship develops between a consumer and an anthropomorphised product, which we propose should be used to increase the duration for which a consumer uses a product. Unfortunately, this practice is only being used to develop a relationship between the consumer and the brand; however, we argue that if the marketing effort is put into anthropomorphising a product, it could result in an increased duration for which the consumer uses the product.

Anthropomorphism can aid Responsible Consumption and Production (UN SDG 12) in the sustainability perspective by making consumers think to maintain their products longer and take good care of them rather than use a new one in a short time. Emotional attachment to products since they possess human characteristics will make people fix, reuse, or keep them instead of disposing them. Such emotional appeal minimizes material waste, decreases the amount of new purchases and also minimizes the environmental cost associated with mass production and disposal.

The anthropomorphism that builds a long-lasting relationship between the consumer and the product is in accordance with the tenets of sustainable marketing which aims at producing value that is benefiting to the consumer and ecologically sustainable. With a change of marketing objectives toward encouraging longevity of the product and emotional investment, businesses will not only lead to a more circular economy, but the total resources depletion will also decrease.

IKEA Effect

The existence and persistence of the IKEA effect is the other line of argument that supports our assertion that product anthropomorphising can result in a stronger relationship between a product and a consumer and, hence, a more sustainable world. Goods and products are rarely valued in an objective way: who made an object (23), how it was made (24), or who it was previously owned by (25) all have a profound influence on an object's perceived value. Consumers also place a higher value on products they constructed themselves compared to identical items they did not construct – a bias termed the 'IKEA effect' (26). While this bias seems intuitive in scenarios where customisation of a product is key (e.g., arts and crafts), it also extends to utilitarian goods with no creative customisation, such as kit furniture (Norton et al., 2012, Exp 1a). Furthermore, consumers continue to value their own poorly crafted creations over those which have been well crafted by an expert (Norton et al., 2012; Exp 1b). The IKEA effect generalises to many different creation scenarios, such as food production (27) and online customisation of products (28).

Why might such a bias exist? While the IKEA effect is well documented, different explanations have been suggested for the mechanisms underlying this effect. The primary accounts include (1) a signal of competence, (2) effort justification, and (3) mere ownership. On the signalling account, participants value their creations because they signal competence, akin to a trophy (29,30). Mochon et al. (2012) demonstrated that feelings of competence mediated participants' willingness to pay for an object that they constructed. On the effort justification account, rather than signalling competence, creations reflect the investment of effort (31). A reward for a task is valued more highly when the task requires a considerable amount of effort, but valuation is reduced when the task requires low effort (Aronson & Mills, 1959). Thus, the increased value of a creation may be reflective of the effort invested. On the mere ownership account, creating an object leads to ownership claims (32) and enhances the creators' subjective feelings of ownership of that object (33). A consequence of enhanced ownership is increased valuation. Adults tend to value their own possessions more than equivalent but unowned items (34), possibly due to feelings of psychological ownership (35). Therefore, a boost in feelings of ownership could drive increased valuations of self-made objects.

We argue that establishing a bond between the consumer and the product requires psychological effort, and therefore, anthropomorphised products or goods will result in a greater attachment towards them, not just due to their humanlike characteristics but also due to the effort involved in creating a relationship with them, and therefore, result in people less likely to discard them.

Considering the sustainability perspective, the IKEA effect of sustainable consumption will promote longer longevity of consumption by consumers, who should cherish and preserve what they have and use to a greater extent. When people invest their time and efforts in making or tailoring a product, they get a feeling of ownership and pride which makes them not willing to dispose of a product. This type of behavior will reduce the amount of waste, facilitate the lifespan of a product, and be in line with the objectives of a circular economy that will consist of an efficient and responsible use of resources.

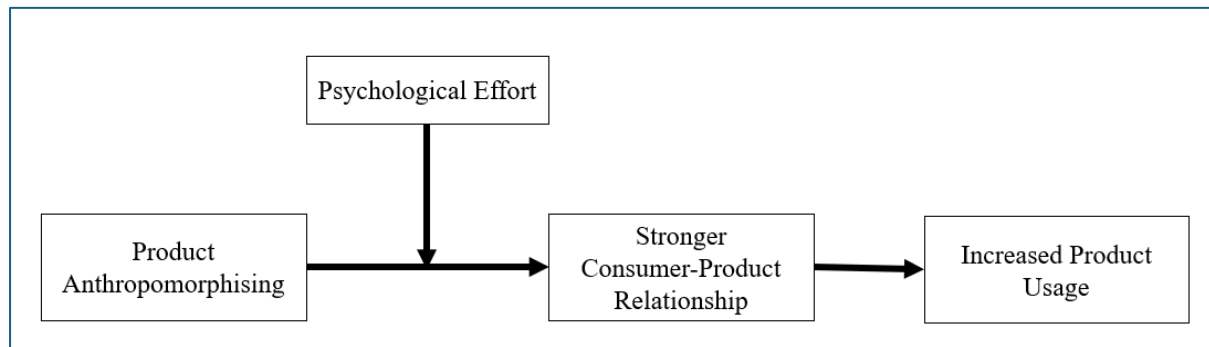


Fig 1: Conceptual Model of Product Anthropomorphism resulting in more sustainable product usage

How product anthropomorphism works

There are three key psychological drivers that result in product anthropomorphism, resulting in increased consumer-product attachment and, thereby, more sustainable usage.

At the emotional attachment and behavioural level, anthropomorphised products often elicit strong emotional bonds, transforming them from mere tools into cherished companions. This attachment can significantly influence consumer behaviour, encouraging care and maintenance rather than replacement. Chandler and Schwarz (2010) found that individuals who name or personalise their belongings are less likely to discard them prematurely, demonstrating the potential of anthropomorphism to reduce waste.

Another driver is memory; anthropomorphic features enhance product memorability and usability. Consumers are more likely to recall and engage with products that evoke emotional responses or possess unique, relatable traits (3). This effect not only strengthens brand loyalty but also aligns with sustainability goals by encouraging prolonged product use.

Lastly, anthropomorphism also has broader social and cultural implications. In collectivist societies, where relational ties are emphasised, anthropomorphism can integrate products into community-oriented values, reinforcing sustainable practices (36). Additionally, anthropomorphised products often become conversation starters, spreading awareness of mindful consumption.

These anthropomorphic psychological motivations of products can be essential in the context of sustainability, as the promotion of responsible consumption and less production will be possible. Through emotional, memory, and social attachment, consumers will have higher chances to take care of their possessions, fix them, and reuse them rather than discard them. The fact that it directly contributes to the Sustainable Development Goal 12 (Responsible Consumption and Production) by increasing resource lifecycles, reducing the demand, and preventing environmental impact through skewed material rotary.

Proposed Model: Anthropomorphism for Sustainability

The proposed model integrates anthropomorphism with sustainability goals to encourage behaviours that reduce waste and prolong product use. The model consists of three stages designed to align marketing practices with environmental objectives while maintaining consumer satisfaction.

The first stage involves product design. While humans are keen to see anthropomorphic characteristics in most products (3), given a good enough story (5), the product design stage involves the process of making it easier for them. Some examples include search assistants such as Siri and Alexa, where the designers made a conscious choice to give these virtual assistants names and personalities so that the users would feel more comfortable with them. This could also be extended to visual designs, where designers could incorporate humanlike features, such as "faces" or expressive elements, to enhance the product's relatability.

The most significant advantage of this approach is in stage two. At present, the advertising dollars being spent by brands are primarily aimed towards promoting their products/services and do not need to change. The only change required of marketers is to incorporate the anthropomorphic features they have developed in stage one in their promotional material. As brand anthropomorphism has been shown to result in increased sales/profits (13), it should not be too tricky for brands to take this route for their products.

Due to consumer demands, some companies have already started promoting a longer life of their products - for example, Samsung and Google offering eight years of software updates for their phones – to ensure that consumers use these products their whole life and have a deeper relationship with these products throughout the time they use them, brands should try to incorporate as many anthropomorphic characteristics in them.

We propose that policymakers push for initiatives that promote product ownership. Laws such as the right to repair are a step in the right direction. However, things like incorporating incentives for sustainable practices, which may include providing tax benefits or subsidies to companies that incorporate sustainable anthropomorphic designs, could reduce the resistance coming from the industry.

In order to bring this model more organized and practical, we stipulate that there are three levels in this framework, relating anthropomorphism to sustainable consumer behavior via psychological, design and policy processes. The model discussed is concerned with the way in which humanlike design and communication would prolong the life of products, minimize wastes and foster emotional attachment between users and their products. The point is that

in case customers see that the products possess personalities or emotional value, they will not want to dispose of them in a hurry.

1. Stage One: Anthropomorphic Product Design

The basis behind this model is producing products. Designers have been given a leading role in the design of objects that individuals can identify with. The anthropocentric design may be attained in a number of ways. First, with visual indicators - products may be provided with face or expressive qualities, the buttons that may take the shape of the eyes or lights that imitate expressions. Scientific evidence indicates that human beings are predisposed to giving objects which are similar to human faces emotions and intent. As an illustration, the automobiles with their eyes resembling headlights and grill mouths are commonly characterized by their amiable and violent characters. The tendency can be employed to ensure that products become easier to relate to and to love.

Interactions can be made closer through functional anthropomorphism. In devices that react to users in a friendly manner, or some means of remembering the preferences of past choices, companionship can be simulated. Examples include robot vacuums which thank users or apps using names, voices or greetings. All these characteristics form the feeling of social communication which provokes the empathy and responsibility to the object.

There should be the involvement and individualization. The consumers should be motivated to participate in customizing or maintaining their products like in the case of IKEA effect. In rarest instances when individuals apply time and efforts to assemble or alter a product, they appreciate it more. One can feel proprietary and proud of their design system by enabling customization, i.e., enabling covers to be changed or parts replaced or personalizing the software. This emotional attachment leads to less urge to change the products even faster.

Material and structural resilience of the products are also issues that must be taken into consideration in this stage by companies. Sustainability must not merely be an emotional thing but practical as well. The anthropomorphic products must be created with long life, easy modifications to repair, and in the form of modules. A combination of emotional and physical underpinnings of a product increases its life cycle, thus its waste is minimized.

2. Stage Two: Marketing Communication and Brand Relationship

The second phase is the marketing and communication. As the growth of consumption is the that most marketing activities are currently centered on, anthropomorphism for sustainability model intends to transform the psychology of substitution to dynamic. This is by making their products appear as companions or partners to the consumers but not a disposable resource.

Storytelling or character-based and animation advertisement can help the brands focus on the human-like features of their goods. As an illustration, a washing machine can be depicted as a hard-working assistant, which cleans up the clothes of the family. A phone can be interpreted as a "faithful friend" and also develops with its owner by updating and customizing. These kinds of messages make people empathise and the customer will find it emotionally challenging to give up the product as one would a friend.

Brand personalities are also very influential in this stage. The personality type in every product line can be a caring, reliable, playful or intelligent based on the targeted audience. Provided the consumers consequently, engage in long term emotional association with the brand, just as interpersonal associations. Brand anthropomorphism studies revealed that individuals who perceive a brand as a living entity will be loyal and even defiant in a social context.

The advertisements must also focus on the long life used by products and their flexibility in order to encourage the use of the same products instead of advertisements showing a new one each year to enhance the products. As an example, the campaigns can be aimed at product maintenance, repair services, and software updates. The consumers may be urged to keep their phone healthy or even make it remain young by repairing and updating a neutral old phone. This mental framing can develop markedly in changing the behavior.

Feedback loops can also be used by the marketers to improve the relationship between them and the users. Reminders such as I have been with you 2 years and thanks to keep me going can be sent by apps and smart devices. or sell sustainability badges to use in the long term. Such personal interactions of people of small nature will help to strengthen the emotional tie and make sustainability an engaging process.

3. Stage Three: Policy and Industry Integration

The third phase entails alignment of the policy environment and the industry. Although anthropomorphic strategies can be pursued by the businesses and designers separately, government policies and incentives can quicken their implementation. Anthropomorphic design is an acceptable instrument that policy makers should consider in encouraging sustainable behaviour and reducing wastage.

Product longevity is already being supported by such policies as the Right to Repair. Governments can however do more by offering incentives or tax incentives or sustainability certifications to the Navy of the products that use anthropomorphic designs to encourage the increased lifespan of the products. As an illustration, a sustainable design name could be put on companies that make repairable products that have an emotional appeal.

It is also possible to create awareness through educational campaigns concerning the advantages of keeping and caring about products. Anthropomorphic messages in sustainability efforts could be used in schools and communities, where the lessons involve teaching the people to respect what they have and to regulate the knowledge of their histories. This may develop an emotional accountability culture on material things.

Cooperation in the industry is also important. Companies, advertisers, and government agencies ought to collaborate in coming up with design principles that would not only be priced on emotions but also on

environmental objectives. This may involve policies on the development of anthropomorphic interface which does not control people who own the interface but rather promote being responsible.

4. Theoretical Framework of the Model

Anthropomorphism for Sustainability model relies on a number of psychology and marketing theories:

1. **Anthropomorphism Theory** – The human beings project human characteristics on non-human beings, particularly when they spend a lot of time with them, or when they demonstrate goal-oriented behavior.
2. **Attachment Theory** – The retention and provision can be affected by the feelings developed towards properties. Users view the products as companions thus treating them with love and care.
3. **IKEA Effect** – Shoppers attach importance to what they have labored over. When they make, manufacture or customize their products together, they get attached to them.
4. **Self-Extension Theory** – Individuals consider material things as a personal identity. This feeling of self-extension can be reinforced by anthropomorphic products, in which consumers desire to hold on to them. This implies that anthropomorphic design evokes empathy, empathy causes attachment and attachment generates care, repair and less disposal.

5. Expected Outcomes

The projected results of this model will be psychological and the environmental advantages. The psychological dimension also brings more satisfaction, emotional comfort and personal meaning to the consumers through the goods they have. In the environmental front, the longer product lifespan causes waste production to reduce, raw material demand to reduce and less production and disposal carbon emission.

Other benefits include brand loyalty, good image, and a long-term customer relationship to the businesses. With the help of emotional marketing that is being consistent with sustainability, business establishments can be able to meet both the profit and the environment requirements without significant trade-offs.

6. Potential Challenges and Considerations

The model has a number of challenges although it is promising. Other consumers can oppose anthropomorphic designs when they consider them to lack naturalness and manipulation. The risk of over-anthropomorphism, in which products become to human-like and discomfoting or the uncanny valley effect is also a possibility. Thus, designers should pay much attention to a balance between familiarity and novelty.

It is important that anthropomorphic messages should not make consumers feel over-attached or guilty, were eventually, they will dispose of them. Rather, they should focus on the positive enforcement of care and responsibility in an empowering tone in their messages.

Ethically, it is necessary to be transparent. The consumers ought to have known the anthropomorphic features are design mechanisms that are aimed at ensuring sustainability and not deception. A high level of trust and authenticity will be sustained through effective communication.

7. Model Summary

Anthropomorphism for Sustainability model relates emotional design and environmental responsibility in three major stages:

1. **Product Design** – Developing human like, durable and personalized goods that promote empathy and attachment.
2. **Marketing Communication** – Fostering emotional connection and care, longevity and renewal of use into brand reputation using storytelling and brand personality.
3. **Policy Integration** – Promoting such endeavors with help of incentive system, education, and design criteria, which recognizes sustainable anthropomorphic innovation.

Using such a model, the brands and policymakers may design a change in culture where individuals will no longer consider their products as a disposable tool but as a companion to be looked after. Although this change is a small one, in large-scale terms it can result in different behavior that will save waste and make the world more sustainable.

Challenges and Ethical Considerations

While anthropomorphism offers significant benefits, it also raises ethical concerns, which need to be taken into account. As with any product/service that involves psychological drivers, there is an inherent manipulation risk; marketers may be tempted to exploit these emotional connections to drive unnecessary purchases and thereby go against the aim of sustainability. The imagery of McDonalds to drive children to their outlets and consume unhealthy products is one such example.

In an era where a significant section of the population is prone to loneliness, some even calling it an epidemic, there is a severe risk of over-attachment. Consumers getting too attached to their products could result not only in psychological harm but also physical harm, as consumers may be unwilling to replace products beyond their usable life.

CONCLUSION

Anthropomorphism is a powerful yet underutilised tool for promoting sustainable consumption. By fostering emotional attachment to products, marketers can encourage prolonged use, reduce waste, and align their practices with global sustainability goals. However, the implementation of anthropomorphic strategies requires careful

consideration of ethical and practical challenges. As the world faces mounting environmental pressures, leveraging anthropomorphism offers a novel and impactful pathway to creating a sustainable future.

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