

Extending Object Longevity: Considering the Role of Anthropomorphism in Furniture Design

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Introduction

This dissertation explores the significance of human and object relations, considering the influence of anthropomorphism within furniture design. This will be analysed through the consideration of anthropomorphic qualities within valued furniture to reveal insights into the significance of their design on object longevity.

Chapter 1 aims to collate the existing theories surrounding human-object relations. Mihaly Csikszentmihalyi, Eugene Rochberg-Halton and Carolyn Curasi's ideologies among others which contribute to this focus will be expanded. With reference to aspects of sustainability and obsolescence, the role and influence of design will be discussed with relation to furniture.

Chapter 2 will focus on anthropomorphic design in relation to object attachment in furniture design. A newly emerged framework by Penelope Forlano regarding qualities of an object to promote a psychological connection will be analysed. Theories of anthropomorphic forms will be discussed and applied in the analysis of acknowledged anthropomorphic furniture design and cherished items of furniture within past literature. This will aim to reveal insights into the intersection of anthropomorphism and emotional connection to furniture.

Finally, *Chapter 3* will aim to briefly explore a selection of modern anthropomorphic furniture. Utilising insights gained from *Chapter 2*, this analysis will explore the potential longevity of furniture designs that have attempted to intertwine a consciousness of sustainability and predict attachment through anthropomorphic forms.

Through integrating anthropomorphic theories of attachment with furniture design, this research aims to offer a multidimensional analysis contributing to literature surrounding the longevity of objects, human emotional resonance, anthropomorphism and their relation.

Chapter 1 - Understanding Sustainable Human-Object Relations

Firstly, exploring the works Csikszentmihalyi and Rochberg-Halton (1981) will allow for a review of an objects purpose for human interaction and the essential components necessary for an interaction of significant value. By analysing the significance of intergenerational objects, the opportunity to discuss the themes of longevity and design for emotional value will be identified. The following section identifies factors of sustainable consumption within design through the works of Packard (1960), Hebrok (2014), and Chapman (2005), focusing on human connections to furniture for longevity.

1.1. An Objects Purpose

The significance of object existence in a historical context is first important to understand. In most cultures, phases of history are shaped by the type of artefacts that people were able to create. Historian, Macgregor (2012) concludes that although the scope is wide, almost every object communicates a message of 'people, environment and interaction'. Furthermore, recognising objects as storytelling tools allows for an understanding of human existence and responsibilities that objects can hold when the range of narratives tied to them are revealed (Ibid.). Religious relics and symbols of communities are examples of objects carrying a narrative. Yet it is important to further explore objects on an individual level to the human, such as in the formation of identity or preservation of personal memories. This will narrow the understanding of the multifaceted subject of human-object relations.

The Meaning of Things, Domestic Symbols and the Self, by Csikszentmihalyi and Rochberg-Halton (1981), recognises that to improve an understanding of the relationship between objects and humans, one must first make sense of which objects are valued and why. This is a vital factor to consider before exploring the influence of anthropomorphic design within the longevity of human and object relationships in Chapter 2.

Man-made objects are not merely significant for their utility but essential in the formation of human individuality (Ibid.). The thoughts of Csikszentmihalyi and Rochberg-Halton are extensive, however an object's function is differentiated into the following categories:

- Objects as symbols that mediate conflicts within the self
- Objects as signs that express qualities of the self
- Objects as signs of status

- Objects as symbols of social integration
- Objects as role models
- Objects as memory

These findings recognise an object's purpose beyond its primary function, identifying them as catalysts for creating and preserving relationships and personal identity. This implies that they generate psychological connections. When a human attaches an emotional value to an object, it begins to play a meaningful role in the transfer of memory (Ibid.). This generates a durable sentimental value which could extend the life span of the object. With relation to growing modern day topics of sustainability and longevity, emotional connections are valuable for environmental preservation. (O'Daniel, 2017).

For these emotional connections to take place, there is a third factor beyond the human and the object. Csikszentmihalyi and Rochberg-Halton (1981) define the workings of relations between humans and objects as having three components – the person, the thing and the transaction. This theory argues that objects of a personal kind gain their significance through a transaction, described as a 'psychic activity' (Ibid.). In short, they propose three essential modes of transaction:

1. Aesthetic quality
2. Channelling of psychic energy
3. Outcome or goal of the transaction

Aesthetic qualities refer to unique characteristics of an interaction that can outline aesthetic experience (Ibid.). *Psychic energy* refers to the way attention is focused during an interaction (Ibid.). Lastly, the outcome of the person-object interaction refers to personal growth or identity (Ibid.). By suggesting that every interaction involves multiple scopes, the importance of the object to the human is therefore dependent on the viewpoint taken in understanding the transaction. This poses the question of whether one mode of transaction could perhaps influence the significance of the others and therefore the significance of the object to the human. For example, the outcome of a personal connection towards an object could be strengthened by close attention to aesthetic form and detail. This highlights how design tactics, such as the use of anthropomorphic forms, could impact the process of forming sustainable and emotional relationships between humans and objects.

1.2. Intergenerational Objects

As identified, psychological connections play an important part in the longevity of such relationships. These connections can often occur from objects that are intergenerational. By researching this category of objects, valued viewpoints on why and how meaningful human-object relations can be made significant through human-human relations are offered.

Chapman (2005), suggests that objects of longevity, are often not preserved for their intended function, but for intention of being passed down to future kin. When defined as intergenerational, they exert the power to influence a familial group, attaining historical and educational influence. They 'embody an understanding that requires their possessors to keep these objects within their group's membership' (Curasi, Price, Arnould, 2004). Csikszentmihalyi and Rochberg-Halton (1981) suggest that objects are pointedly a 'part of oneself' beyond a numinous or figurative sense, presented as tangible evidence of familial connections.

Furthermore, Curasi (2011) states that these objects symbolise a need for maintenance and preservation, suggesting they signify a power to out-live the disposal phase. This again relates to Csikszentmihalyi and Rochberg-Halton's (1981) theories, as the objects invite psychic energy regardless of aesthetic as owners view them to be inalienable. Therefore, making any transaction with them emotionally significant (Curasi, Price, Arnould, 2004). Ingham (2011) discusses the analysis of heirloom design as a technique that combines themes of longevity and design for emotional value. She emphasises the potential success of this two-fold strategy on furniture that lies in their common goal: extending the life of these objects (Ibid.). This approach supports further analysis of cherished objects in *Chapter 2*. The investigation into anthropomorphic qualities that promote themes of longevity and emotional attachment will aim to reveal insights into the significance of their design.

1.3. Factors of Sustainability: A Focus on Furniture

To balance the psychological and emotional influences on object longevity, it is important to address concerns of consumption. Current consumerist cultures of disposable objects creates a major challenge in the preservation of meaningful human-object relations. The rate at which materials go from object to waste is astonishingly quick. In 2005, above 90% of materials removed from the earth were discarded in just 3 months (Chapman, 2005). The rate of waste, as well as manufacture, has only increased. In 2020, the UK produced 191.2 million tonnes of waste (UK Government,

2022). Furniture specifically, is a commonly disposed object and in the UK, approximately 1.6 tonnes of furniture are discarded every year (RSA, 2015). Although the consumer can be partly responsible for rates of disposal, the objects they are disposing of would cease to exist without the works of designers. Design therefore emerges as a vital and often provocative factor in enabling durable connections to furniture. The crisis of consumerism and disposal rates of furniture, introduces an ecological motive to provide insights into why we cherish some designs over others.

Furniture is often now deliberately designed to breakdown, denying the user of any meaningful connection to them (Chapman, 2005). Findings show that 80-90% of furniture is discarded of after the first six months of purchase (Demirarslan, Demirarslan, 2021). These issues surrounding planned obsolescence emerged in the 1950's. Packard (1960) was one of the first to address the shift in object manufacture and consumerism. He acknowledges three types of obsolesce – desirability, function and quality (Packard, 1960). Obsolescence of function, within reason, is seen as a natural progression in the world of design and can be achieved sustainably through areas such as material choices. Designers are constantly reimagining ways in which a product can reach its full potential in terms of function. This example shows the *LC series (1928-30)* designed by Le Corbusier, Charlotte Perriand and Pierre Jeanneret (Roth, 2012). Featuring the LC-3 armchair, these designs are a mark of iconic modernist design. (Ibid.).



Figure 1: Leather LC-3 Armchair

Manufactured by Italian furniture brand Cassina and originally crafted with leather upholstery, they are now available in a range of fabrics.



Figure 2: Outdoor fabric LC-3 Armchair

Cassina offers the design in a synthetic fabric composed from 100% recycled plastic, suitable for outdoor use (2019).

This is an example of functional obsolescence whereby the original design, although still functional as a seat, is rendered dis-functional for outdoor use. Still, the new design is introduced with an environmental awareness and does not impact the primary function of the original design.

Obsolescence of desirability and quality are less admirable. Packard (1960) condemns the design of objects which are intentionally made to fail prematurely for economic gain. This leads to short object lifecycles, wasted materials and increased costs as objects need to be replaced faster. The white plastic chair, often referred to as a *Monobloc chair*, is a mass produced and cheaply manufactured item of furniture (Vitra, no date). The chair design was a product of the works of many designers exploring one-material chairs. *HS-011* (2016) manufactured by Taizhou Changheng Trade Co. is an example of a monobloc chair (V&A, 2016). Despite being the most used chair in the world, it meets no sustainability standards and represents the worldwide mass consumption of generic objects (Ibid.). Due to its easy replaceability and cheap material, it neglects to create meaningful connections with users on a personal level beyond consumption.



Figure 3: HS-011 Monobloc Chair

Obsolescence of desirability relates to trends making newly manufactured objects more wanted (Packard, 1960). This can be difficult for designers to predict as trends are ever-changing. However, the unnecessary manufacturing to make trendier objects purely for economic gain can contribute to over-consumption. For example, furnishing retailer IKEA, although aiming for a transition to a circular company by 2030, could be viewed as a contributor to obsolescence of desirability (Garcia, 2021). Their popular *Lövet table* designed in 1956 was re-introduced in 2023, in three bold colours (IKEA, no date).



Figure 4: Lövet Table



Figure 5: Lövbacken side table, blue



Figure 5: Lövbacken side table, green



Figure 7: Lövbacken side table, orange

The new design is purely for aesthetic purposes, adhering to current interior trends. This reinforces the need for considering specific design principles that allow the user to engage with the object beyond the appeal of aesthetics or function, to decrease rates of over consumption. Expanding more recently on the judgments of Packard (1960), are Cooper (2010) and Chapman (2005). They too recognise this pressure of sustainable consumption that weighs on factors of design. Chapman (2005) describes a disposed of functioning object as having committed a ‘crime,’ being incapable of withstanding empathy with their owner. Similarly, Cooper (2010) discusses that users may view an object they already own as inferior to a newer model, highlighting the neglect that occurs when an object fails to create a durable connection. Although easy to replace, a new product can never initially hold the same sentimental value as one with attached memory. (Csikszentmihalyi, Rochberg-Halton, 1981). Therefore, trends and desire can perhaps struggle to overrule memory.

Obsolescence of desirability is also acknowledged by Hebrok (2014), when discussing furniture design. In reference to Bowker and Star’s analysis of categorising how items transfer between groupings, she acknowledges the spectacle of an object’s social life (Hebrok, 2014; citing Bowker, Star, 1999). Hebrok (2014) explains that post-war furniture in the 50’s, would have then been conceived as trendy. After a decade, it is labelled as used but still stylish and after another decade its perhaps perceived as retro (Ibid.). As time progresses, it becomes either old-fashioned or waste (Ibid.). It must be noted that this categorisation of furniture is conditional of the user’s taste and understanding of design. However, it can be argued that emotional and sentimental motives can out way this judgment of style.

Personally chosen by an individual to habitually attend to or have nearby, furniture is one of the most involved objects in the creation of identity (Csikszentmihalyi, Rochberg-Halton, 1981). Hebrok (2016), articulates furniture as ‘tools’ that enable for social rituals to occur, providing spatial and social structure, physical comfort and expression of individuality within personal environments. This parallels Csikszentmihalyi and Rochberg-Halton’s (1981) analysis of how an object can have an array of functions

beyond its primary purpose. Their research through interviews concluded a total of 638 meanings specifying why furniture was considered as 'special' to a human's identity (Ibid.). Individuals often stressed the relationship between the item of furniture and their direct family (Ibid.). It then becomes intriguing as to why an object so involved in a human's identity, relationships, and their homes has been shown to be so commonly disposed of.

Through a series of interviews during visits to a leading recycling centre in Norway, Hebrok (2016) reveals interesting factors that lead to furniture disposal. These include changes in life phases, style, materiality and emotional and moral values (Ibid.). Life phases are unpredictable such as financial changes; however, materiality is a concern of practicality. Hebrok (Ibid.), acknowledges that design researchers frequently focus on material recyclability, identifying the use and disposal phases of objects still functioning, somewhat unexplored. For example, as of 2024 about 55% of the materials used in IKEA's products are renewable and just under 20% are recycled (IKEA, 2024). Being the largest furniture supplier in the world, this highlights the advances being made in sustainable material choices. However, this also suggests a neglect of designers understanding how to manifest long lasting relations between humans and their designs out-with material choice.

Returning to Hebrok's (2016) findings of reasons for disposal, style or taste can be influenced by design methods whereas emotional ties can either extend or reduce lives of furniture conditional to the kind of attachment. Emotional attachment presents itself as most complex in forming attachments as a negative association with an object can end its life prematurely. Therefore, Hebrok's (Ibid.) conclusions show that the combination of these factors presents a challenge for designers in determining where design principles could impact the longevity of certain furniture (Ibid.).

These insights identify how design can enhance and strengthen the function and longevity of furniture. They highlight why furniture is an interesting topic to explore within the realms of sustainable design. A factor less acknowledged within furniture longevity however is how specific design principles such as physical form or details can allow for a better understanding of meaningful relationships. Gathering the insights revealed in this chapter allows for the exploration of anthropomorphism within furniture design and attachment in *Chapter 2*. This will aim to understand the role that anthropomorphism can play in enhancing and strengthening the function and longevity of furniture. This intends to reveal further insights into design principles that could perhaps influence this longevity.

Chapter 2 - Anthropomorphic Design

This chapter will advance from the insights of Csikszentmihalyi, Rochberg-Halton (1981), Hebrok (2016) and others surrounding an object's purpose, focussing on furniture design. The theories of Forlano will be analysed and applied to an introduction of anthropomorphic design within patterns of object attachment and longevity. Theories of anthropomorphism's relation to object attachment will be discussed with an analysis of selected items of furniture displaying anthropomorphic forms. The connection between anthropomorphic forms of design increasing sustainable psychological attachment will be discussed. Findings by Csikszentmihalyi, Rochberg-Halton (1981), O'Daniel (2017) and Danto (1987) will be referred to. Their works reveal accounts of specific items of cherished furniture. These specific examples of furniture designs will additionally be analysed with a focus of anthropomorphism in relation to emotional resonance.

2.1. Forlano's Framework: Object Qualities

As discussed, design can influence emotional attachment and therefore the life cycle of an object. Forlano (2015) considers how designers can promote consumer needs towards attachment through specific object qualities. She suggests that it is out of designers' control to influence the person-object relationship after acquirement but is within the designer's control to promote positive behaviours of ownership (Ibid.). Forlano's framework strongly leans into psychological theories of attachment but with design insights concluding that objects should generate a 'kinship knowingness.' This breaks down the qualities required to craft an object predicted to have a long lifecycle, splitting them into two categories: intrinsic and extrinsic.

Intrinsic qualities refers to 'knowledge about the object by the human' (Forlano, 2015, p.156), prompting a physical expression of knowing whereby the user believes they have attained 'specialist knowledge' (Ibid.) of how the object works. The qualities include a 'unique tactile engagement' (Ibid.) and 'versatility or control of functionality' (Ibid.). The physical contact and regular use of an object will allow the user to understand its inner workings and view it as an extension of themselves, as if they know how one another function.

Extrinsic qualities are described as 'knowledge shared between person to person through the object' (Ibid.). They should be successful in generating the recollection of positive memory. Through a psychological lens, the extrinsic qualities deemed as most significant by Forlano (2015) are uniqueness and rarity. Additionally, a feeling of

discovery through the use, or engagement with an item should demonstrate symbolic evidence (Ibid.).

Chapman (2005) claims human behaviour towards objects to be sporadic and hard to predict. However, analysing the physical qualities of objects logically balances functionality and sentimental value. Forlano (2015) concludes that through these various methods of knowing, the object can be reimagined as a 'social other' and promote a sustainable emotional attachment. Building upon her framework, a conceptual angle could possibly bring new insights to further understand the patterns of object transfer. The qualities deemed important when creating objects of emotional resonance are valuable and relevant however there is little discussion of the physical form replicating that of a human. In her viewing of an object as a 'social other' (Forlano, 2015, p.163) with knowledge and human understanding, it corresponds with aspects of anthropomorphic design. Since *Chapter 1*, generated insights into why furniture is cherished, it is logical to explore specific qualities of cherished furniture as anthropomorphism has been linked to object attachment but not to furniture longevity. The application of Forlano's framework to explore qualities of furniture as anthropomorphic, allows for a discussion surrounding the links between human-like objects and an increase of attachment for longevity.

2.2. Understanding Anthropomorphism

Existing research links anthropomorphism to object attachment, however not specifically to the increase of object longevity from an environmental and emotional approach. Anthropomorphism is the viewing of non-human objects as if they are human (Wana, Chen 2021). Anthropomorphism refers to features such as size, form, qualities of performance, behaviour and interaction (DiSalvo, Gemperle 2003). The scope is wide when classifying an object as anthropomorphic. It is not simply objects with a human likeness, but objects that act or perform in an anthropomorphic fashion irrespective of how human-like they physically are. The reasons behind anthropomorphising are debated within the realm of social sciences. DiSalvo and Gemperle (2003) identify these theories as follows:

- Familiarity Thesis
- Comfort Thesis
- Best-Bet Thesis
- Social Thesis
- Object Subject Interchangeability
- Command and Control

In sum, theories such as the *familiarity*, *best-bet* and *object subject interchangeability* theses are largely cognitive incentives for anthropomorphism (Ibid.). These theses explain that by comparing it to oneself, humans anthropomorphise objects to better understand them. This is very similar to the purpose of intrinsic qualities discussed above when analysing Forlano's (2015) framework. This proposes that anthropomorphising objects allows for the preservation of the self, to help define the world around us. The *comfort* and *command-control* theses, are primarily emotional stimulus for anthropomorphism. The *comfort* thesis defines anthropomorphism as a technique to reduce discomfort. The *command-control* thesis outlines that anthropomorphism is utilised to justify relationships with objects and apply a sense of ownership and personal connection towards them. These theses are discussed in the context of generalised object attraction. Individuals who anthropomorphise objects report stronger observations that a specific object will remind them of a human-to-human relationship (Wana, Chen, 2021). Therefore, applying such theses to exploring the reasons behind why we cherish furniture could support the link between anthropomorphism and the longevity of human-object relations.

Since the initial understanding of human resemblance in objects, anthropomorphism has slowly become a common theme in design. It is often seen in the sale of domestic appliances from an economical stance as the *familiarity theory* suggests that a human will understand it to have a likeness of oneself. The more an object resembles the human, the more attractive the object becomes to attain. As identified by DiSalvo, Forlizzi, and Gemperle, (2004), there are four recognised kinds of anthropomorphic form in design: structural, gestural, character and awareness.

Structural form refers to the use of volumes or forms through physicality to imitate the configuration of the human body. (Ibid.). Gestural form is a focus on the use of motions or actions that reflect humanistic gestures or behaviours (Ibid.). Anthropomorphic form of character emulates specific traits or roles, drawing upon stereotypes of practices that define an individual character (Ibid.). Lastly, anthropomorphic form of awareness describes the adoption of the human capability to think or communicate (Ibid.). These types of anthropomorphistic forms in design makes clear the ways that anthropomorphism can be presented in all manner of objects. An example of these forms in product design is the work of Alessi, an Italian design factory founded in 1921 (Alessi, no date). Their popular homeware and furnishing designs have a recognisable image, incorporating a variety of anthropomorphic forms such as structural and gestural. For example, these forms are displayed in the *Alessandro M.* and *Alessandro M. Anna G.* corkscrews and the *Diva* watering-can.



Figure 8: Alessandro M. Corkscrew



Figure 9: Anna G. Corkscrew



Figure 10: Anna G. Corkscrew – in use



Figure 11: Alessi anthropomorphic products



Figure 12: *Diva Watering Can*

Alessi utilises anthropomorphic form to emphasise function. For example, the *Anna G.* corkscrew uses gestural anthropomorphism to highlight that the arms raise up and down to assist in the removal of a cork. The *Diva* watering can uses structural anthropomorphism of the form of a human mouth and arm to highlight where water should be poured and dispensed. These designs use anthropomorphic form to create character within inanimate objects and communicate function as a marketing technique to attract users. However, it has seldom been discussed in relation to how long this attraction will last. Hence why the opportunity arises to explore anthropomorphism through patterns of object transfer and cherishment.

2.3. Analysis of Anthropomorphic Furniture

The following analysis will first discuss examples of anthropomorphic furniture to provide context of anthropomorphism in design. The further analysis of furniture closely linked to patterns of object transfer will aim to reveal anthropomorphic qualities linking to emotional attachment. This will be explored through the furniture's appearance, terminology, symbolism and function aiming to reveal the scope of anthropomorphic qualities within items of cherished furniture. This analysis is also in line with evidence of individuals anthropomorphising objects forecasting larger sentimental values (Kwok, Grisham, Norberg, 2018).

Some of the earliest forms of functional objects such as tribal objects are anthropomorphically composed (DiSalvo, Gemperle, 2003). The Taino Ritual Stool from

the Dominican Republic is estimated to be from around 1200-1500 AD (MacGregor, 2012).



Figure 13: Taino Ritual Stool

Carved from dark wood, it is thought to have been the seat of a leader within the Taino community (Ibid.). The physical appearance presents a structural and gestural anthropomorphic figure with a wide mouth and arms that form the legs of the stool. Recognised by archaeologists as not simply a piece of furniture but rather a being, it indicates a symbolic position of where a chief would stand (Macgregor, 2012; citing Oliver, 2009). On one occasion, a leader was buried sitting in his ritual stool (Ibid.). This portrays an example of strong emotional and symbolic connections that can occur between a human and an anthropomorphic form. It is said to have been a power of prophecy, allowing for access into the 'realm of spirits' (MacGregor, 2012, p.356). This historical object therefore had multiple functions, a seat, a symbolic position, a portal and a sense of community. Additionally, the design now allows people of the present day to understand how cultures differed from others, displaying extrinsic qualities. As they had no means of writing, this ceremonial article now provides one of the only ways to understand how the Taino people imagined their world. This stool links to the theories surrounding objects as signs of status, memory and symbols of social integration. The anthropomorphistic design of this stool suggestibly influenced and supported these functions (Ibid.). Therefore, perhaps anthropomorphic appearance can enhance fundamental object qualities identified through Forlano's (2015) insights,

as well as Csikszentmihalyi and Rochberg-Halton's (1981) three essential modes of transaction to increase longevity.

Within the realms of furniture design, many celebrated anthropomorphic forms exist. The following examples are experimental through form to challenge the conventions of functional design, displaying deeper meanings.

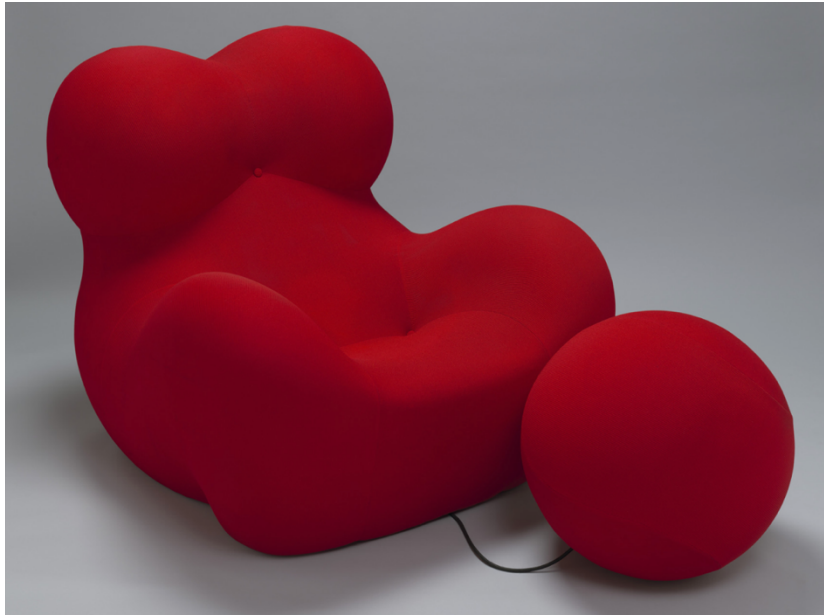


Figure 14: La Mamma Up Chair



Figure 15: Orange Femme Commode



Figure 16: Blue Eye Lamp

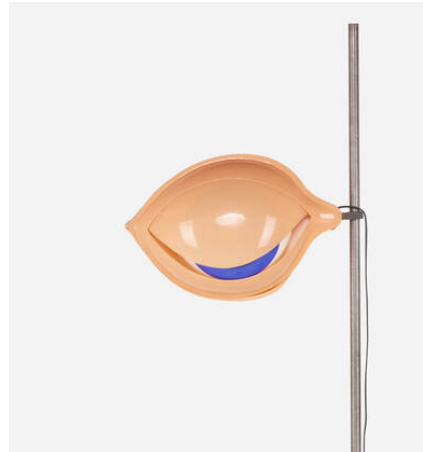


Figure 17: Blue Eye Lamp – in use



Figure 18: Stacking Side Chair

Gaetano Pesce's *La Mamma Up* chair (1969) follows a structural feminine form, expressing wider themes of motherhood, captivity and female oppression (Cotoranu, 2010). Designer, Nicola L., explores themes of identity, gender, and the body through her anthropomorphic work (Cohen, 2019). *Orange Femme Commode* (1969), is modelled on the feminine form through structural anthropomorphic techniques. The *Blue Eye Lamp* (1969) displays both structural and gestural anthropomorphic forms. Her work was dedicated to uniting people through aesthetic uniqueness and blending the line between function and pure concept (Ibid.). Lastly, the *Stacking side chair* (1959) by Verner Panton was an icon of 20th century furniture design, being one of the first single injection plastic moulded chairs (Roth, 2012). Unlike the *Monobloc chair*, this design was made from fibre-glass-reinforced polyester providing a durable and long-lasting material (V&A, no date). The anthropomorphic form is subtle yet sculptural to appeal to the ergonomics of the body for comfort and function. These all share a theme of anthropomorphic form which has influenced their popularity and timeless as furniture designs. They address wider themes of social issues such as identity and gender. This shows how anthropomorphism can allow for designs to transcend beyond primary functions. However, there is no evidence of them being personally cherished by an individual. As identified, in order lead to object longevity this type of connection often stems from an emotional or sentimental value.

The following analysis will therefore focus on furniture that is closely linked to patterns of object transfer. This will aim to reveal unintentional anthropomorphic qualities that link to attachment for longevity.

An item of furniture known for being transferred and cherished between generations, is the grandfather clock. Described in literature as a symbol of material prosperity, it holds a significant role in the maintenance of the past and intergenerational relationships (Doolittle, 2011). Factors of craftsmanship, wealth and sentimentality are often held accountable for the longevity of the grandfather clock (Ibid.).



Figure 19: Traditional Grandfather Clock

However, the anthropomorphic form could influence the design's longevity. The terminology of a clock echoes that of the human body. The circular form on the façade of a grandfather clock, is referred to as the face, alongside the hands. Referring to the theses of anthropomorphic attachment, such as the familiarity and best-bet theories (DiSalvo, Gemperle 2003), this terminology suggests that the clock shares humanistic physical traits through a structural form. Through the identified theories of anthropomorphism, this could allow for the user to acquire a better understanding of the object by comparing it to oneself. Although abstract, the silhouette of a grandfather clock could structurally resemble that of a human. Its counter piece, the grandmother clock, often appears to be shorter in height suggesting it to be female. This is another example of structural anthropomorphism and perhaps character anthropomorphism. The anthropomorphic form could emphasise the intrinsic qualities of the clock as it allows the user to further understand the workings of the hands and the face. This

supports Forlano's (2015) framework suggesting that the presence of an intrinsic quality is essential for a user to develop a long-lasting connection to an object.

2.4. The Rocking Chair and The Cantilevered Chair

Csikszentmihalyi and Rochberg-Halton's (1981) interviews relating specifically to furniture reveals the chair as an object of strong relation to the human. One individual recalls memories of two upholstered chairs and their significance as a reminder of furnishing her home and raising her children (Ibid.). Another describes a wicker chair engaging memories of past family members (Ibid.). On these occasions, the chair demonstrates an anchor for intergenerational relationships. Here, understood as a more than an object, it acts as the transfer of memory. Csikszentmihalyi (1981) recalls of his own memories surrounding his ancient living room chair. The recollection of this chair resurfaces memories of scents and textures that formed his consciousness of its qualities (Ibid.). 'That chair is as much as a part of myself as anything can possibly be' (Ibid.). These reports begin to form a pattern of the chair as a cherished item of furniture. As the chair ergonomically reflects the human form, it perhaps encourages a greater sense of attachment, suggesting an influence of anthropomorphic form. However, these accounts do not specify details of qualities apart from the mention of materials. It is therefore relevant to further explore specific designs of cherished chairs seen in more recent research.

When exploring the interplay between furniture and intergenerational possession transfer, O'Daniel (2017) focuses on the value tied to a rocking chair inherited from her grandmother. Her findings of object attachment are in line with those of Curasi (2004), Csikszentmihalyi and Euegen Rochberg-Halton (1981) regarding sentimental value altering patterns of longevity. However, her focus on a rocking chair creates an opportunity to analyse the link between anthropomorphic forms and furniture design.

In recollection of memories, she refers to the chair as a 'transformational object' (O'Daniel, 2017, p.15). Regardless of intergenerational relationships, the chair is amongst the few objects that transcend purpose on a basic level due to its functional versatility and ability to serve as social constructs for interaction. Wilhide describes the chair as 'a spatial marker[...] a status symbol[...] and a statement of artistic intent' (Alkholy, 2024, p.1752; citing Wilhide, 2000). The simple placement of a chair within a spatial setting can tell a detailed narrative of human relationships (Weinthal, 2011). Alkholy (2024) argues that the chair should be viewed as a living artwork. There are endless perspectives in literature surrounding the significance of the chair to the human throughout history, design and art. In many ways, the chair is therefore an extension of

the human form. As this chapter is specifically exploring anthropomorphism, the chair lends itself as a useful example of human centred design.

With relation to the rocking chair, O'Daniel (2017) speaks of the rocking motion. Cranz (1998) similarly discusses the rocking motion as a design which is conscious of the body. The design is initially reactive to the human body, followed by status (Ibid.). This is an example of ergonomically centred design whereby the anatomy and needs of the human body for comfort are considered. However, psychological needs are equally as important for sustainable attachment. Anthropomorphism in combination with ergonomic design allows for a consideration of both physical and psychological elements of longevity.

Originating from the design of European cribs, the rocking motion was applied to chairs in the 1750's. An example of a traditional rocking chair is the *Windsor Rocking Chair* (Evans, 1997).



Figure 20: Windsor Rocking Chair

This chair design existed initially as a four-legged stationary chair but began to appear in America with rockers fitted to their legs (Ibid.). The gradual acceptance of the chair can be largely attributed to its intention to accommodate a range of users, from the elderly to the young (Ibid.). This emphasises intergenerational theories of attachment. As the rocking of the chair is associated with multiple generations, when preserved it therefore transfers memory and sentimental value. Cranz (1998) argues that the form of the

rocking chair also communicates an emotional message beyond its primary function as a seat. The rocking motion would be classified as a gestural form of anthropomorphism and a quality that could be both intrinsic and extrinsic with reference to Forlano's (2015) framework.

Another renowned rocking chair design is by Michael Thonet. More ornate than the traditional Windsor rocking chairs, the steam-bent wood design was patented as a crafting technique (Lim, Chung, 2006).



Figure 21: Thonet Rocking Chair

This organic and iconic chair is the ideal combination of preferred form and method of manufacture (Ibid.). In terms of design, the organic curve seen in rocking chairs is of more natural appeal to the human eye than linear forms (Heatherwick, 2023). This rounded appearance holds a resemblance to the natural curves of a human body, suggesting a structural anthropomorphic form. The aesthetics of the form are therefore not just appealing to the function but also elements of attraction and therefore perhaps attachment.

In O'Daniel's (2017) analysis, she reintroduces the rocking motion to the chair once inherited, as if reminding the chair of its motion. She does not mention anthropomorphism, but instead of how the chair has metaphorically absorbed the spirit of its previous owner, becoming a catalyst for visualising a loved one rocking back and forth (Ibid.). This would be described as the *command-control* or *comfort* theory,

however it could also be viewed as the anthropomorphic form of character. The specific habits of the previous user are then reflected in the movement of the chair. This understanding of a rocking chair as an anthropomorphic object aligns not only with Forlano's (2015) framework, but additionally Csikszentmihalyi and Rochberg-Halton's (1981) idea of a *transaction*. *Chapter 1* questions whether one mode of transaction could perhaps influence the significance of the others and therefore the significance of the object to the human. In this example, the aesthetics of the chair allows for the anthropomorphic comfort of the rocking motion, which is the *psychic activity*. This then leads to an increased outcome of personal connection. This reveals a conceptual understanding of how anthropomorphic traits in furniture design can circumstantially enhance the retaining of memory, movement and emotions tied to their previous user.

Expanding on theories regarding the anthropomorphic connection between human and chair, Danto (1987) views the chair as a philosophical metaphor. He describes the chair as a form of art, status, comfort and identity; a seat for the soul in which a human's sanities are free for thought (Ibid.). He recalls an occurrence from his youth whereby the lack of two legs in a cantilevered chair made him unsure of the stability of the design. Introduced in 1927, Mies van der Rohe's cantilevered chair was one of the more famous cantilevered designs (National Museum of Scotland, no date). The design captures modern uniqueness through a minimalist form, using the most basic methods of bending tubular steel.



Figure 22: The Cantilevered Chair



Figure 23: MR20 Armchair



Figure 24: Brno Cantilevered Chair

Other versions featured bentwood and plated metal. Danto (1987) recalls the design in relation to his father buying and cherishing cantilever chairs, demonstrating an emotional attachment of memory to an item of furniture (Ibid.). He cherishes the design through memory of his father and memory of its unique form. His analysis concludes that the design was a captivating modern blend of danger and certainty at the time. This links to ideas of desirability discussed in *Chapter 1*, highlighting that at the time, the chair was unique and sought after. However, this design has not lost desirability with age as the aesthetic approach was well designed. Through an anthropomorphic lens, the form appears as an example of structural anthropomorphism. The bending of the steel legs resembles a human figure kneeling. Additionally, the design of two legs, opposed to the standard four legs of a chair, echoes human anatomy. This design creates a comforting bouncing motion through the suspension of the steel despite its unsupported appearance, displaying a form of gestural anthropomorphism.

Danto concludes, when a chair becomes an ‘instrument of comfort’ (1987, p.162) it acquires meaning beyond primary function. Here, the cantilevered chair becomes a comfort to the mind as well as the body through its anthropomorphic form aiding in the recalling of memory. This shows an example of a cherished design with anthropomorphic qualities, ergonomically supporting emotional attachment. This analysis displays the design transcending the primary function of being a comfort to the physical human body by increasing the user’s perception of its sentimental value.

To conclude this chapter, Forlano’s framework proposes that various *methods of knowing* allows an object to be reimaged as a social other, encouraging sustainable emotional attachment (Forlano, 2015). Therefore, the analysis of anthropomorphism in cherished items has revealed a conceptual *method of knowing* to further support the exploration into such attachment (Ibid.). The projection of human values seen within these specific cherished items of furniture, aligns with anthropomorphic design principles that understand humans to be more attracted to items of a similar resemblance to them (DiSalvo, Gemperle, 2003). The analysed designs are specific, to keep the research accurate to genuine reports of cherished furniture within literature. Though not intentionally anthropomorphic, through the memory and personal connections attached to them, the anthropomorphic qualities within the designs are revealed and arguably heighten the function. Some qualities are additionally identified as emphasising the intrinsic or extrinsic qualities deemed to be vital in the formation of meaningful connections between user and object (Forlano, 2015).

To reinforce the significance of these insights, it is important to remember the aspects of sustainability identified in *Chapter 1* that are relevant furniture longevity. It is widely acknowledged that psychological connections can extend an objects longevity. The crisis of disposed functioning furniture and the growing issue of over consumption reinforces the need for considering specific design principles. Therefore, the consideration of anthropomorphic design principles, has revealed how the user can

engage with the object beyond the appeal of aesthetics or function when it resembles a likeness to human form.

Chapter 3 – A Modern Consideration of Intentional Anthropomorphism

This chapter will aim to briefly explore a selection of intentionally anthropomorphic modern furniture designs that have attempted to intertwine a consciousness of sustainability and attachment through anthropomorphic forms. As acknowledged by Hebrok (2016), predicting an emotional attachment to an object, surfaces as most complex as many factors can end its life prematurely. This presents the clear challenge for designers in determining where design principles could impact the longevity of certain furniture. Therefore, this analysis will expand on the discussion of anthropomorphic forms and principles as effective techniques for promoting and encouraging positive attachment to furniture.

As previously identified, materiality choices are of large importance to the longevity of objects and therefore the permanence of human-object relations. An item of furniture designed with longevity in mind however should not only be durable through material choice but also through form and design. Before discussing contemporary anthropomorphic furniture designs, it is important to understand the existing evidence between the influence of anthropomorphistic design on sustainable choices. Although not widely covered, it is newly evidenced that consumers are more likely to choose a sustainable product displaying anthropomorphic forms over non-anthropomorphic forms. (Shirai, 2023). For example, this form could be displayed through the packaging, logos, marketing or physical form. These conclusions support the understanding of anthropomorphic forms within design to increase consumer acceptance of sustainable consumption. The same acceptance of sustainable choices through anthropomorphism could be transferable to extend the life of furniture, if they too display anthropomorphic forms.

Modern designer Pierre-Emmanuel Vandeputte, experiments with designs to evoke feelings of uniqueness, and embrace surrealism. With an understanding of craftsmanship, Vandeputte explores subtle form of anthropomorphism to generate

emotional value. His furniture collection, *Legs* (2019), is a series of steel structures meant for the modern home.



Figure 25: *Legs* furniture collection

His furniture designs are described as having ‘limbs’ that stretch to corners of forgotten spaces to remind the user of their presence (Vandeputte, 2019). This suggests how the designer anticipates the designs to evoke the user’s memories of their environment when viewed as a social other, aligning with extrinsic qualities (Forlano, 2015). The furniture’s legs as mingling with the users as they discover each other’s purpose. This implies the anthropomorphic form encourages intrinsic qualities such as tactile engagement through use. The anthropomorphic form is subtle but intentional, reflected in the varying scale and proportions to suggest someone stretching or crouching. This is similar to the cantilever chair, however here the anthropomorphic forms are deliberate rather than revealed through the users interpretation of the design. The sculptural furniture functions individually as a chair, table, stool, clothes rail and step ladder (Morris, 2022). This demonstrates a balance between function and aesthetic, allowing for a transaction to take place, which is fundamental for emotional connections to occur (Csikszentmihalyi, Rochberg-Halton, 1981). Although Vandeputte’s designs follow principles identified as significant for longevity, his work lacks a consciousness of sustainable materials. Beyond the durability of steel, Vandeputte’s material choice does not explore any other practices of sustainability.

Contemporary designer Casey McCafferty also creates furniture and sculptures defined as anthropomorphic. Combining human features with rich materials and organic forms, they demonstrate structural anthropomorphism. (David, 2024).

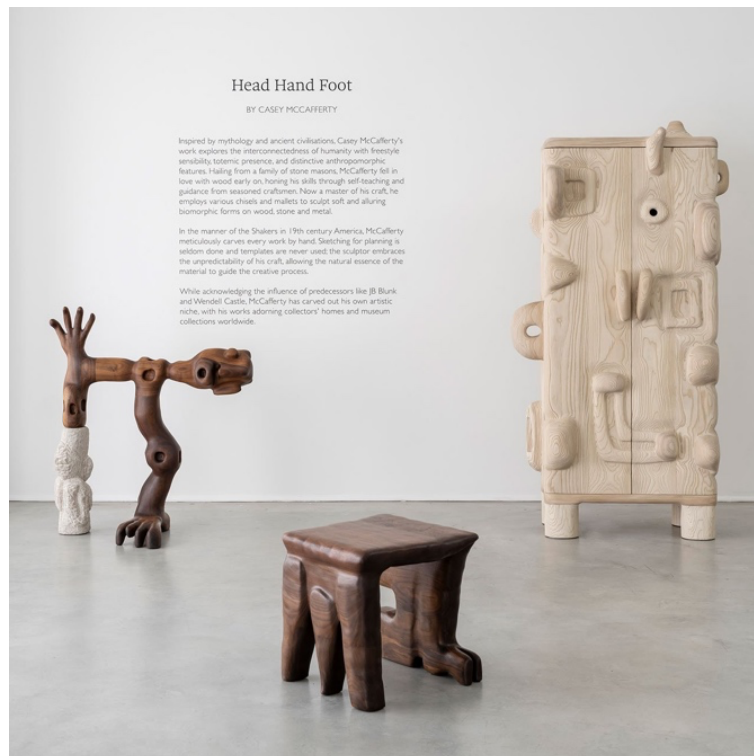


Figure 26: Head Hand Foot furniture collection

He expresses a desire for his unique anthropomorphic designs to hold individual significance to each person (Ibid.). This parallels the above analysis in which it is possible for attachment to be enhanced when a design displays anthropomorphic qualities. McCafferty expresses his process of crafting each design as an intimate tactile experience, creating a lasting bond between creator and object (Ibid.). As discussed in *Chapter 1*, when a user understands the inner workings of an object, such as how it is crafted, interaction becomes more likely (Ingham, 2011). This again links to the insights discussed in *Chapter 2* whereby extrinsic qualities, such as knowledge shared between person to person through the object increases object interaction and attachment. Therefore, McCafferty's sculptural furniture demonstrates elements of Forlano's framework whereby the intentional combination of unique qualities could increase attachment, and consequently longevity. Additionally, his use of natural materials such as wood and stone, demonstrates his admiration for raw materials and sustainable techniques such as crafting by hand.

The last example of a designer who has endeavoured to intertwine a consciousness of sustainability, anthropomorphic forms and object attachment is Chris Wolston. *Forbidden Fruit* (2019) features a series of anthropomorphic chairs crafted from sustainable wicker grown within the Amazon (Dorn, 2020).



Figure 27: Nalgona Dinig Chair 01

These chairs display structural anthropomorphic forms through the abstract design of human limbs as the structure of the seat. Like McCafferty's craftsmanship, Wolston's traditional weaving techniques communicate an intimate tactile experience suggesting an extrinsic quality. This is identified to encourage user interaction and possibly the longevity of a user to object relationship (Forlano, 2015). His work is infused with a balance of 'environmental urgency' and uniqueness through the contemporary practice of abstract yet intriguing anthropomorphic designs (McCafferty, 2024). This combines the insights of sustainability, anthropomorphic design principles and attachment previously identified as being significant for object longevity.

These designers have been acknowledged due to their unique sculptural anthropomorphic approaches. Their creations combine careful considerations of material choices, form and function. Whilst these designers do discuss the connections that could develop between the user and the object they have created, these are purely ideals. Without further research into the life cycle of these modern furniture designs, it is hard to predict the emotional connections that could arise. Still, the insights gathered from analysing cherished objects through an anthropomorphic lens imply that anthropomorphism could enhance the connection between user and object and therefore object permanence. This therefore highlights the need for extended research into intersection of sustainable consumption and attachment with anthropomorphic furniture to provide further evidence of their relation.

Conclusion

To conclude, the integration of anthropomorphism within design, acknowledges interlinking factors of psychological attachment and longevity relating to furniture amongst other artefacts.

Primarily, this research has discussed and compared theories surrounding human-object relations, sustainability, obsolescence and the role of design in furniture forms. Exploring the importance of specific design principles such as physical form and attention-to-detail, has uncovered a comprehensive understanding of meaningful interactions between humans and anthropomorphic objects.

In this research, an analytical framework which considers object qualities alongside psychological attachment was applied to past examples of cherished items of furniture. Such insights suggest anthropomorphic considerations are invaluable to user-object connections and overall object permanence.

The analysis of cherished objects in this research was limited, with few true descriptions existing in past literature of specific designs of cherished furniture. Future research could therefore benefit from a wider scope of specific furniture descriptions which include in-depth details of design.

To further these findings, research should focus upon the life cycles and relations of modern anthropomorphic furniture designs to humans, evaluating longevity and wider applicability to sustainable living.

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