

External Environment and Personal Growth in Anthropomorphic Animation: A Practice-Based Study Through Nurture

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Abstract: Plants sustain themselves by rooting and blooming, providing strong and natural parallels to human persistence and mental growth. However, animation research has largely focused on animal characters, leaving the narrative strength of plant anthropomorphism unexplored. This practice-based study created a 2D animated short film to illustrate what happens to a person facing neglect and lack of resources. We discovered that plant biological qualities offer an intuitive means to depict psychological conflict and self-realization. It demonstrates how 2D animation can convert plant properties into metaphors of resilience and personal development. The results are valuable to the animators, educators, and researchers, as they can use the proven, symbolic model that will allow children and other young viewers to realize how to discover inner power in the face of adversity and achieve self-development independently.

Keywords: Anthropomorphic design; Metaphorical narrative; Environmental animation; Practice-based research; Children's education

Online publication: September 26, 2025

1. Introduction

Animation has always been recognised as a meaningful approach to storytelling, delivering and processing complex human emotions and social concerns via symbolism. Anthropomorphism generally refers to the attribution of human appearance, emotions, or behavioural characteristics to non-human beings^[1]. This technique allows animation creators and audiences to more naturally connect with these non-human characters and engage in emotional communication through them^[2]. Although anthropomorphic figures in animation are most often animals, as seen in Disney's *The Jungle Book* (1967), which humanises jungle creatures to explore moral and social values^[3], similar techniques appear in *Zootopia*^[4], where combines animal personification with cultural and philosophical symbolism to communicate ideas of perseverance and identity^[5], the use of plants in this role has been relatively underexplored, despite their potential to symbolise resilience, vulnerability, and growth.

Anthropomorphism has been used as a narrative and aesthetic technique in 2D animation to influence the expression of human experience in non-human forms using artistic methods. Protagonists of classic works like *The Jungle Book*

(1967) and *Bambi* (1942) by Disney were animals to discontinue morality, loss, and societal order^[3]. Subsequent films such as *Zootopia*^[4] continue the same tradition where anthropomorphism is used to resolve the problem of prejudice, diversity, and coexistence^[4]. These movies reveal how the 2D animated flexibility and expressiveness can be used to identify with emotions and retain the symbolic abstraction. Without realism, animators can create empathy through motion, colour, and line. Despite its commonness, however, much research and practice have been done on animal-based anthropomorphism with little exploration of plant-centered narratives^[2].

Though the anthropomorphism of animals has been researched extensively, the anthropomorphism of plants is a poorly developed field of both theory and practice in animation. Plants have specific symbolic and biological attributes, which provide new possibilities to visualize such concepts as patience, rootedness, and endurance. The proposed paper will address this gap through the analysis of how 2D animation can be used to change plant traits into metaphors of resilience and individual development. This gap is addressed through the practice-based creation of the short film *Nurture*, which uses a cactus family's story to explore themes of neglect, resilience, and self-discovery.

This study is guided by the following research questions:

- (1) How can the biological characteristics of plant anthropomorphism (such as rooting and blooming) effectively visualise psychological struggles and processes of resilience in animated characters?
- (2) How can plant anthropomorphic animation balance entertainment and educational value while effectively communicating complex social themes, such as familial neglect, to young audiences?
- (3) How does a practice-based research methodology facilitate the reciprocal relationship between animation theory (anthropomorphism) and creative practice (character design and narrative construction)?

2. Literature review

2.1. Anthropomorphic animation and plant anthropomorphic animation

In many ancient mythologies and traditional legends, plants have long been entwined with human emotions, often serving as conduits for human emotions, transformation, or moral symbolism^[6,7]. The humanisation of plants provides the essence of this study because of the cultural tendency as a side product, which mirrors plants' reaction to human emotions. This study aims to transfer this connection to the visual and symbolic language of 2D animation as the medium.

Towards the 19th century, fairy tales and children's literature developed, which made the theme of plants having a more lively life. Flowering plants and trees in such stories ceased to be figures in the background; they started to have human traits: they can talk, think, and even feel and make ethical decisions. The anthropomorphic plants in fairy tales tend to be employed to deliver truths in the form of morals. Young readers can easily learn lessons about good and evil, empathy, and courage from these characters due to their natural and familiar appearances. This progression, from mythical symbols to educational carriers in folklore, established plants as active participants in narrative and cognitive activity. This cultural legacy informs the use of anthropomorphic plants in modern media, including the short film *Nurture*, which engages motifs of endurance and self-development within this creative tradition.

Recent research indicates that anthropomorphic characters enable children to form stronger attachments to story protagonists. Despite changing circumstances, children learn from these characters that they can overcome challenges^[8]. Resiliency has emerged as a trend in modern children's animation productions. Shows like *Bluey* provide young viewers with tangible examples of resilience^[9]. This is precisely what *Nurture* was about, which involves the anthropomorphic plant main character proving the existence of the spirit of self-renewal and perseverance to thrive in the uncertain, difficult world.

Studies indicate possible emotional resilience development among children when they use animation as a source of education, since the coping strategies and values are incorporated in the stories. In addition, as well as providing young viewers with rather practical knowledge, like health, hygiene, or literacy, such stories can also help them build up a sense of self-efficacy and perseverance^[10]. These stories imbue non-human life with human-like emotions and vitality, conveying

a core message: true identity and determination should not be swayed by external difficulties^[11]. These findings form the conceptual foundation of *Nurture*, which transforms resilience into a straightforward visual metaphor through the anthropomorphic representation of plants.

2.2. From myth to media: The evolution of plant anthropomorphism in educational animation

Over the past few decades, the use of plant anthropomorphism in children's educational animations has gradually evolved from a novel attempt to a mature and effective teaching method. One of the earliest examples in British children's television is *The Herbs*^[12], in which a variety of garden plants and herbs are anthropomorphised through stop-motion animation to inhabit a walled garden world. Its characters assume human social roles, helping young viewers associate botanical characteristics with social identities^[12]. Studies of this series suggest that plants can carry narrative and symbolic weight equivalent to animal or human characters within children's media.

The other intriguing example is the British stop-motion animated series *Windfalls*^[13]. The animation itself is a collection of characters who are examples of a particular plant species, and in an outdoor adventure through plots, the series tells a child about nature, changes in the seasons, and the qualities of herbs^[13]. *Windfalls* is an indication of how vegetative characters may find a balance between creativity and realism that triggers the curiosity, sympathy, and education of small viewers. This imaginative style had a direct impact on the narrative and design presentation of *Nurture*, which uses analogous concepts to examine psychological and emotional survival using the plant as a metaphor.

All of the examples provided above illustrate the development of plant anthropomorphism in children's animation in recent decades and its increase. With time, though, they took different roles and became more active in the narration and ceased to be in the background or a symbol but rather excavated emotional undertones, moral agency, and ecological exclusiveness. Plant anthropomorphism has been assigned various roles in modern animated education, such as assisting children in achieving an understanding of plant vocabulary, showing interdependence within the ecologies, and supporting the invention of programs that are based on emotional learning. This development of the past gives conceptual meaning to *Nurture* that further develops this tradition of creativity by carrying with it the attributes of perseverance and individual development in the form of the plants.

3. Methodology

In this research, its practice-based research (PBR) methodology is applied, where creative practice is the process and product of research. Practice-based research is referred to as a method whereby the very process of creation is a form of generating knowledge, and thereby the theoretical questions can be inquired into with the help of artistic production^[14]. It is within this context that this paper makes the creative process of the original 2D animated short film *Nurture* the research object of main interest. The film tells the story of a young cactus in a harsh desert environment, using this narrative to explore how plant traits can visualize psychological growth under external adversity and familial neglect.

The theoretical framework combines Anthropomorphism Theory^[1], which guides the design and interpretation of the plant characters, and the Metaphorical Narrative Approach^[15], which informs the film's symbolic structure. These theories are examined through Visual Narrative Analysis, involving the close reading of cinematography, colour, and movement to understand how visual language constructs meaning.

The creative process, documented through storyboards, character designs, and reflective journals^[16], generated the qualitative data for this study. This data was systematically analyzed using Braun and Clarke's thematic analysis^[17]. The analysis identified four central themes: External Environment as Metaphor for Societal Pressure; Familial Dynamics and Emotional Neglect; Growth Through Resilience; and Metaphorical Narrative and Accessibility.

4. Project and case study

4.1. Narrative summary

As an important part of this practice-based research, Nuture is a 2D animated short film that tells the story of a small cactus's journey towards recovery and self-realisation in an environment of material deprivation and emotional indifference. Set against the vast expanse of a desert landscape (**Figure 1**), the story centres on a family of three: a caring yet partial mother, a favoured elder brother, and a neglected younger brother who serves as the protagonist. Unequal family relationships form the emotional core of the story. Visually, the composition reinforces this imbalance. The mother and older brother are positioned at the centre of the frame, while the younger brother is positioned slightly further away. This arrangement creates a subtle yet clear atmosphere of emotional distance and favouritism (**Figure 2**).

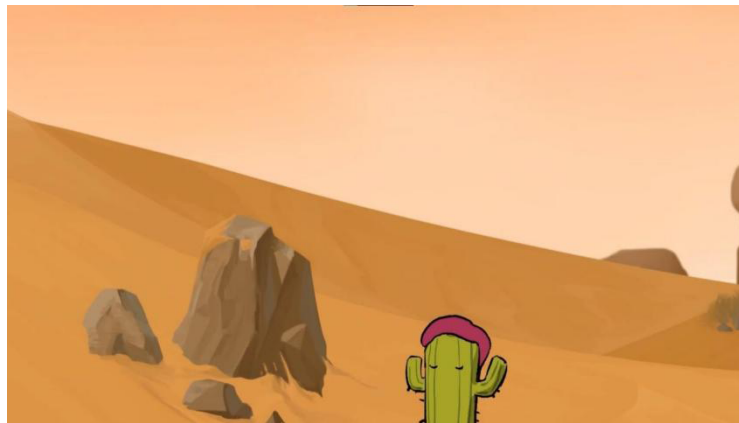


Figure 1. The vast desert landscape.



Figure 2. The unbalanced family composition.

Water is turning out to be an absolutely scarce commodity as the desert is growing drier. It is the material objectivity required to survive, as well as the emotional feeding and support it brings. When the valuable drops of water come, the mother never shares them with his brother and leaves the protagonist without the material support and emotional comfort that he is accustomed to. Carrying out the hopeless efforts to touch the water, which are treated with indolence and non-response, this is the onset of the protagonist realizing himself and conflicting with himself. At this stage, deprivation changes from a physical state to a mental one, leading to her awakening and willingness to become independent in the protagonist.

Following a series of disappointments, the burst of a sandstorm (**Figure 3**) is the symbolic expression of the unstoppable external influences, such as social, emotional, and environmental, which further enhance the conflict within the main character. In the confusion, the mother protects the older brother, who is more preferred, and the main character is left unguarded at the mercy of both nature and family abuse. Instead of giving in to despair, the cactus burrows through the ground, converting the state of helplessness into self-dependence. This downward rooting to rise upward becomes a powerful

metaphor to deal with psychological well-being^[18]. The protagonist is taller and more dignified when the storm finally passes, providing him with a small blossom (**Figure 4**), a visual symbol of independence, rebirth, and self-actualization.



Figure 3. The sandstorm scene.



Figure 4. The protagonist's blossom.

The animation ends with the figure of a single cactus in the expansive desert (**Figure 5**). The surrounding world is encompassing and cruel, but it is the inner strength of the protagonist and the changed attitude that have turned into their own food and hope. The last picture summarizes the main argument of the movie: that the ability to develop as an individual is not predetermined by the surrounding reality and other people but by the ability to adjust and to renew oneself. The single cactus that is grounded but growing up is a metaphor of the human spirit that is resilient and that nothing can bring it down even in the very harshest environments.



Figure 5. The final shot of the resilient cactus.

4.2. Visual language and symbolism

Emotional richness of *Nurture* is massively dependent on the visual language, in this particular instance, cinematography and colour, which are two interrelated elements that report the inner realm and transformation of the protagonist. The repeated occurrence of the wide-angle shots leads to the stress on the isolation of the main character in the large desert environment, whereas close-ups and tight framing help add the reemerging stressful moments of emotional rejection and conflict.

Colour charts the psychological transformation: the palette shifts from the soft ochres and greys of the arid desert to the intense reds and browns of the sandstorm, culminating in the vivid hues of the final blossom, symbolising hope and renewal.

The cacti retain their original plant forms in the movie, their hard texture, shreds, and lack of mobility, but they also express feelings with a few human-like etchings, including bending, stretching, and leaning, that the audience can easily sympathize with without a need to use language to turn them into humans.

5. Discussion

The findings of this study demonstrate that anthropomorphised plants provide a particularly fertile metaphorical framework for representing human emotional and psychological development. Through the application of thematic analysis, recurring visual motifs such as drought, rooting, and blooming were identified as central symbolic patterns within *Nurture*, each corresponding to distinct stages of emotional experience. The cactus's downward rooting during the sandstorm, for example, was consistently coded under the theme of growth through resilience and represents an internal shift from dependence to self-sufficiency. The self-actualization in the final act of the play was translated as the flourishing and rise that the protagonist had to follow. These results confirm that the anthropomorphism of plants can be used to express rather complex inner lives in embodied, visual behaviours. The plants cannot move due to their immobility, which makes them metaphors of perseverance and individual adjustment, unlike animal heroes whose mobility can mean escape and allow for outside alteration. This difference broadens the theoretical approach to anthropomorphism by focusing on continuity, persistence, and the interactions of environmental interdependence as forms of resilience.

Upon further research, the researchers found out that *Nurture* is appropriate to be used as an educational resource in the emotional learning of children. Its aestheticism (minimum anthropomorphism, palette, and no verbal narrative) implies an intelligent approach toward preserving communicative clarity, as well as thematic sophistication. This implies that a figurative story can be handled in terms of understanding without the necessity of a verbal clarification. Through this, *Nurture* proves that animation of children can serve both the role of entertainment and education in the same way, and since the symbolism of emotion is more effective in capturing the audience and conveying the appropriate message, it can be enhanced.

The combination of the practice-based research (PBR) and the thematic analysis (TA) was instrumental in coming up with these conclusions. This methodological synergy allowed for a continuous dialogue between creation and interpretation. For example, the desert landscape design at the beginning of the movie is perceived only as a representative of the aesthetic ornamentation of the image in the beginning, but with the help of reflection, the image is redefined as an ecological allegory of social limitations and the malady within the system. In the same manner, the unequal water allocation by the mother cactus was also initially understood to be part of the narrative, but in connection to coding and cross-referencing with psychological texts about parental favoritism^[19], it was identified as a visual display of emotional neglect and disparity to the grave of the family unit. Consequently, the visual and emotional arrangement of the animated short film is not only the object of the research but also a research tool, which allows having a profound discussion between the practices and the theory.

In summary, *Nurture* does not only has the aesthetic benefits of plant anthropomorphism, but it also expands its pedagogical possibilities. The film redefines the traditional behaviours and design of anthropomorphism with plants

instead of animals and places the emphasis on the internal psychological change instead of the outside factors. In addition, this study also demonstrates that metaphorical narrative can be an efficient tool of emotional communication and teaching.

6. Conclusion

These findings suggest that anthropomorphism of plants in 2D animation is an effective narrative technique that can successfully be used to show how extreme environments interact with psychological development through anthropomorphism. The *Nurture* short illustrates how the visual metaphors, including rooting, withering, and blooming, explain even the inner issues of the protagonist and his adaptation and transformation. Thematic analysis uncovers that the cactus is being faced with parental neglect and the hostile nature of its environment, ending up in what Masten calls ordinary magic, nothing short of resilience, wherein survival and self-actualization take place as a result of perseverance and inner energies as opposed to external approval ^[18].

The research paper is part of the current discourses of animation studies and media education because it shows that anthropomorphic animation aimed at children may be entertaining, educative, and inspirational. Furthermore, it indicates that the advent of anthropomorphic children's animation can entertain the audience and inform and empower them by providing new lessons to the current debates about animation studies and media literacy. *Nurture* makes use of the metaphorical narrative methods, which allow the readers of various languages and cultures to comprehend and identify with its themes and feelings, thus increasing the universality and readability of the work. Therefore, the animation will strike a balance between entertainment and education, which has been a fundamental issue of children's media since time immemorial.

Disclosure statement

The author declares no conflict of interest.

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