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VISUALISING ANTHROPOMORPHISM AS A CREATIVE COMMUNICATIVE MODE IN SAMIT BASU AND ASHISH PADLEKAR'S THE TALL TALES OF VISHNU SHARMA: PANCHATANTRA

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Abstract. In today's ocular-centric era, vision and visuality play a significant role in representing ideas. This article analyses anthropomorphism as a communicative mode that helps readers comprehend a story's underlying meaning, using a socio-semiotics metafunction as a lens. The study focuses on Samit Basu and Ashish Padlekar's adaptation of the famous Panchatantra collection, The Tall Tales of Vishnu Sharma: Panchatantra (published in 2015), where creatures with the ability to speak are the central characters. This story emphasises a diverse group of characters from the world of *Panchatantra* who communicate their problems to Vishnu Sharma, their chosen guardian, through the transformation of animals into humans. Through the use of animated letters, mascots, and anthropomorphic parameters, barriers can be eliminated in a creative approach. The paper underscores the significance of studying signs and interpreting visually represented social phenomena in order to articulate culture, society, and historical context. The research is divided into two sections: the first section explores the function of images by analysing image artefacts that question the presence of anthropomorphism. In contrast, the second section introduces the four degrees of anthropomorphism and their characteristics. The hypothesis posits that anthropomorphism can effectively convey meaning, especially in stories aimed at children. This study seeks to contribute to a greater comprehension of the use of anthropomorphism as a creative mode of communication in contemporary literature.

Keywords: anthropomorphism, communicative mode, creative adaptation, graphic novel, socio-semiotics.

1. Introduction

Visuals, including games, videos, films, animations, and photographs, have become a key attraction for Millennials, Generations Z and X (Roberts & Foehr, 2008). Images play a predominant role in visual communication as they offer a direct visual representation of context, eliminating the need to search for the meaning of each word to understand a text (Aiello & Parry, 2019). Functioning as a language, images convey connotative and denotative meanings, leading them to permeate various industries, such as advertisements, newspapers, journals, data analysis, biology, architecture, and education (Reid, 1990; Deriu, 2012; Mietzner et al., 2005; Fischman, 2001). Picture books also support children's learning by providing accessible content on unfamiliar subjects (Strouse et al., 2018; Iordanaki, 2021). Moreover, visual texts are crucial in addressing global problems like ecological awareness (A. M. Ramos & R. Ramos, 2011) and sustainable issues (Peacock, 2004; Ritchie, 2016). Combining images with text, as

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seen in graphic books or comics, preserves classic works and reinforces traditional culture across generations (Tarif, 2022). Research indicates that verbal and visual texts, especially graphic novels, aid in literacy development and pique readers' interest, making them effective instructional tools for conveying messages (Mayer, 2003; Stokes, 2002). In contemporary literature, anthropomorphism has become a popular tool for communicating complex ideas and emotions to readers, particularly children.

Anthropomorphism is a creative communicative mode used in literature for centuries, involving assigning human characteristics to non-human entities. This study focuses on The Tall Tales of Vishnu Sharma: Panchatantra (TTVSP) by Basu and Padlekar (2015), an adaption of Panchatantra, an ancient Indian fable where talking animals are main characters. TTVSP (Basu & Padlekar, 2015) is different from the original source Panchatantra by Vishnu Sharma in text medium, storyline, plot, setting, and theme, initially as series published from 2008 to 2014. Later, it was compiled into a book by Basu and Padlekar (2015). In contrast to the original Panchatantra by Vishnu Sharma, which is a collection of short animal fables with morals, TTVSP (Basu & Padlekar, 2015) is a graphic novel that features two worlds - the ancient Panchatantra world (inhabited by animals) and the contemporary modern world (the realm of the chosen quardian). The novel introduces (Basu & Padlekar, 2015) an animal crew from the Panchatantra world, who enter the modern world in search of their chosen guardian, Vishnu Sharma, to protect them from the disaster caused by their enemies. However, Vishnu Sharma remains oblivious to their existence, engrossed in technological gadgets. Basu and Padlekar's (2015) reimagining of these tales elevates anthropomorphic animals to explore the human condition and societal norms. The study delves into the role of anthropomorphism in Basu and Padlekar's (2015) interpretation of the Panchatantra and how it enhances the communication of its moral messages. The hypothesis posits that anthropomorphism can be an effective communication mode, especially in children's stories. By employing anthropomorphism as a communicative mode, readers can better understand the essence of the story and develop empathy towards nature. Panchatantra by Vishnu Sharma was originally written for children's learning, and Basu and Padlekar's (2015) adaptation can foster their creative imagination. Wright (2010) suggests that the connotative association of represented images stimulates children's creativity. The question remains: why do stories with animals in humanised form still hold relevance in the modern world?

Kress and van Leeuwen's (2005) idea of reading images attempts to unveil the meaning behind images, focusing not only on how images work and convey meaning but also on how each stroke, colour, positioning, structure and gaze as structures of the meaning. A detailed understanding of these artefacts helps produce a meaningful context aligned with the author's purpose. Mirzoeff (1999) observes that contemporary civilisation is ocular-centric, not just because visual pictures are prevalent in today's society, but because experiences are now better understood as wholly constructed visual experiences. Additionally, Kress and van Leeuwen (2005) asserts that the world projected in images is different from reality. Analysing TTVSP by Basu and Padlekar (2015) highlights the importance of visual aids and their representation in conveying complex ideas and emotions through anthropomorphism. The study offers a valuable contribution to the field of literary analysis and communication studies.

2. Methodology

This paper aims to analyse the graphics of Basu and Padlekar (2015) TTVSP from the perspective of anthropomorphism as a creative communication mode. The study consists of two parts: an application of socio-semiotics in identifying image artefacts to produce meaning; and an introduction to the four degrees of anthropomorphism present in a single comic book. The visual analysis method employed in this research to find four degrees of anthropomorphism in the Indian graphic novel, Basu and Padlekar's (2015) TTVSP. The Handbook of Visual Analysis (van Leeuwen & Jewitt, 2004) describes visual analysis as a method for understanding art that focuses on visual elements such as colour, scales, texture and line that explores the differences between the degrees of anthropomorphism in this study. Descriptive analysis is a widely accepted method for interpreting works of art, as it establishes the foundation for interpretation. The interpretive tool includes both internal and external information about the source, such as comparisons, contexts, connotations, and denotations. The study's scope is limited to interpreting selected images from the book to emphasise the degree of appropriateness. A sample visual analysis was conducted on a single image to provide a vivid understanding of visual artifacts. The study also uses socio-semiotics to explore anthropomorphic characters, presenting them through three socio-semiotic metafunctions: representational, interactive, and compositional metafunction. The study's scope is further limited to interpreting selected images to highlight the degree of appropriateness. A sample socio-semiotic analysis was performed on a single image to understand visual artifacts vividly. Through visual analysis and a socio-semiotic approach, anthropomorphism can be considered a communicative mode. The study aims to illuminate the representation of social contexts through anthropomorphic characters.

3. Background

Anthropomorphism is a subject of frequent criticism in the field of science, with scholars raising concerns about its intellectual and emotional implications. However, the widespread use of anthropomorphism and its impact on cognition, communication, and emotional engagement has generated significant scientific interest. For instance, the important work of Gombrich (1994) explores the psychology of graphic representation and visual perception. His research on how people prefer to see human-like characteristics in abstract representations - while not exclusively anthropomorphic - helps us comprehend the anthropomorphic inclinations in visual storytelling. The consequences of anthropomorphism in social robots are examined by Duffy (2003). The research demonstrates how designing human-like robots may promote social acceptability and engagement since people often attach human traits and emotions to these machines. The social simulation hypothesis, put out by Mar and Oatley (2008), contends that literature, which often has anthropomorphised characters, may be used to encourage social interactions and improve readers' emotional intelligence and empathy. Sundar's (2008) MAIN (modality, agency, interactivity, navigability) model focuses on media effects and credibility. The concept discusses how visual design aspects, particularly anthropomorphism, may affect perceived credibility, trustworthiness, and persuasion in digital media communication

even when it is not centred on it. While not solely focused on anthropomorphism, Gopnik's (2009) book provides valuable insights into children's cognitive development and imaginative thinking. It explores how children perceive and engage with anthropomorphic characters, offering a broader understanding of the phenomenon's significance in child psychology. Taylor and Carlson (1997) investigate the connection between children's understanding of fiction and their grasp of appearance-reality distinction. Anthropomorphism, commonly present in children's stories, can challenge children's comprehension of the boundary between reality and fantasy, which is essential for cognitive development. Anthropomorphism is frequently employed in children's narratives, and understanding the relationship between the theory of mind and anthropomorphism can shed light on the cognitive processes involved in creative storytelling. Zimmerman et al. (2007) examine the effects of television and video viewing on children under two years old, a demographic where anthropomorphic content is prevalent. The research highlights the need for careful consideration of the content children are exposed to, including the use of anthropomorphism, due to its potential influence on young minds.

The key studies explain the use of anthropomorphism despite anti-anthropomorphism beliefs, critical anthropomorphism, biocentric anthropomorphism and animal-centres anthropomorphism (Wynne, 2007). According to Dydynski (2021), animal mascots' and characters' attractiveness is a factor in attracting readers. Increased emotive strength may emerge from animal characters using emotions and gestures that are similar to those of humans. The main design elements of a character may be utilised to improve communication in general; in particular, the employment of appealing traits like big eyes can improve the general comprehension of stated emotions. Epley et al. (2007) propose a three-factor theory of anthropomorphism, encompassing the tendency to ascribe human mental states (mind perception), human-like physical appearance (humanoid appearance), and human-like behaviours (behavioural mimicry) to non-human entities. The study highlights how anthropomorphism emerges as a cognitive shortcut to understand and interact with complex systems, leading to more meaningful interactions. Considering the constructive advantage of anthropomorphism, this study aims to fill the gap in viewing how different degrees of anthropomorphism (degree A, degree B, degree C, and degree D) are employed in a single graphic novel, TTVSP by Basu and Padlekar (2015), to convey complex ideas and emotions. While there have been studies on anthropomorphism in literary and communication studies, few have explored the nuanced use of multiple degrees of anthropomorphism within a single narrative work and how these degrees impact the readers' engagement and comprehension of the story's themes. This research delves deeper into the graphic novel's visual grammar and socio-semiotic aspects, focusing on the representation of characters with varying levels of anthropomorphism. The study seeks to uncover how these visual cues contribute to the readers' emotional connections and understanding of the narrative by analysing how each degree of anthropomorphism is utilised to present characters' personalities, motivations, and emotional expressions. Additionally, the work aims to investigate the significance of these degrees of anthropomorphism in enhancing communication between the reader and the characters. By pinpointing specific instances in the novel where anthropomorphism is employed, the study intends to shed light on the distinct effects and nuances associated with each degree, leading to a more comprehensive understanding of their impact on reader empathy and interpretation. Furthermore, this research contributes to literary and communication studies by providing a detailed analysis of how visual storytelling through anthropomorphism influences reader engagement, comprehension, and emotional attachment within the context of a single literary work. It highlights the unique attributes and contributions of the graphic novel medium in utilising anthropomorphism effectively to communicate complex ideas and emotions. By exploring this specific aspect in-depth, the study aims to provide valuable insights into the creative potential of anthropomorphism as a literary mode of expression while also considering the distinctive features of the graphic novel medium in achieving effective visual storytelling.

4. Analysing artefacts

Analysing artefacts involves investigating and interpreting objects or artefacts from cultural, historical, or artistic perspectives to gain insight into their significance, meaning, and value. This procedure may entail various techniques, including physical examination and analysis, cultural and historical contextualisation, and interpretation. Many of the same techniques used when investigating physical artefacts can be utilised when analysing artefacts in images. Nevertheless, the visual medium necessitates additional considerations. The image's composition and design is a crucial element to consider. This includes elements such as the use of colour, line, and shape and the positioning of objects and figures within the frame. By analysing these elements, we can discern the artist's aesthetic and stylistic choices, as well as the cultural and historical context in which the image was created. The image's symbolism and iconography is an additional crucial element to consider. This involves analysing the objects and figures in the image and their placement and interactions. Analysing the symbolic significance of these elements provides insight into the cultural and social significance of the image as well as the messages or concepts the artist intended to communicate. The novel *TTVSP* conceals creativity that is absent from the original source.

The appreciation of the artefact's utilisation reveals this creativity. Figure 1 is utilised as an example of an analysis to demonstrate how visual artefacts function. Figure 1 was chosen due to its limited number of characters and panels, encouraging readers to examine images critically. The following is a general interpretation of the image: Figure 1, the panel 1 portrays a humanised monkey and lion attempting to enter the *Panchatantra* universe. Figure 1, panel 2 depicts both characters being distracted by something; panel 3 depicts the humanised monkey being startled; and panel 4 depicts both characters staring at Vishnu Sharma, who is bearing papers in a confused state while carrying them in his hands. According to the plot, both the monkey and the lion are astounded when they see Vishnu Sharma with the lost *Panchatantra* pages, which serve as the entrance to the *Panchatantra* universe. In critical analysis, the image is examined through the lens of socio-semiotics metafunctions adapted from *Reading Images: The Grammar of Visual Design* (Kress & van Leeuwen, 2005).

Socio-semiotics is a language of social interpretations; while semiotics is a sign of language, socio-semiotics are socially oriented. Halliday (1978), a linguistic theorist, coined the term social semiotics in his book Language as Social Semiotic: The Social Interpretation of Language and Meaning. He suggested that there are three "metafunctions" of language: interpersonal, ideational, and textual. Later, it was refined in Social Semiotics by Hodge and

Kress (1988) as the analysis of social practice by means of semiotics systems. O'Toole (1994) investigated visuals in *The Language of Displayed Art* by employing Halliday's (1978) systemic functional grammar. In *Reading Images*, Kress and van Leeuwen (2005) also combined multimodal texts and socio-semiotics. They proposed the grammar of visual design as an update to Halliday's (1978) metafunction: representational, interactive, and compositional. According to Bezemer and Jewitt (2009, p. 2),

"Social semiotics is concerned with meaning makers and meaning-making. It studies the media of dissemination and the modes of communication that people use and develops to represent their understanding of the world and to shape power relations with others".

According to van Leeuwen and Jewitt (2004, p. 134) in The Handbook of Visual Analysis,

"Social semiotics of visual communication involves the description of semiotics resources, what can be said and done with images (and other visual means of communication) and how the things people say and do with images can be interpreted".

Social semiotics differentiates social actuality from images' reflective meaning. It examines how humans utilise semiotic resources to create and comprehend communicative artefacts in the context of particular social settings and practise (Bezemer & Jewitt, 2009). "If children are to learn how to analyse the ways images make meanings, they need to gain knowledge of the visual meaning-making systems deployed in images" (Unsworth & Wheeler, 2002, p. 69). Some authors (Syed-Ahmad et al., 2013) employed images as an index in order to elucidate icons and symbols in semiotics and confirm how individuals define specific culture-creativity images through images. Anthropomorphism and its communicative artefacts are analysed from a social semiotic perspective to interact with and interpret the meaning of visuals.

According to Kress and van Leeuwen's (2005) social semiotics paradigm of visual grammar, the anthropomorphic characteristics of artifacts, such as layout, stroke, gaze, and colour,



Figure 1. Panels identification for analysis (source: Basu & Padlekar, 2015)

are defined. This paradigm comprises three metafunctions of visual grammar, namely the representational, interactive, and compositional metafunctions, which work together to create meaning. Several scholars have employed Kress and van Leeuwen's (2005) framework as a basis for their work in socio-semiotics. Subclassification of the metafunctions is illustrated in Figures 2–4.

The representational metafunction concerns how images represent reality, with narrative and conceptual processes being crucial in explaining the representation of objects and human experiences with visual media (Kress & van Leeuwen, 2005).

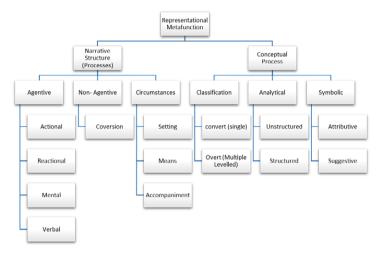


Figure 2. Representational metafunction (source: created by authors)

In terms of visual representation, Figure 1, panel 4 can be classified as a narrative depiction rather than a conceptual one. It portrays an action-oriented, reactive, mental, and verbal process that is agentive. The direction of the boy's movement creates a vector narrative, with the anthropomorphised figures of the lion and monkey and the lost papers of *Panchatantra* as the vector point. The purpose of this view is to grab the crew's attention by displaying the lost papers of the animal world of *Panchatantra*. The narrative progresses as the boy receives a reaction from the lion and monkey's point of view. The mental representation is the boy's possession of the wayward papers, which signifies the sense of discovery. The thought balloon provides readers with a complete narrative representation of the image. In Figure 1, panel 3, the monkey's gaze towards the audience, and in panel 4, the puzzled look of the boy towards the crew indicates the action taking place in a tense situation.

Interpersonal metafunction explains the social connection between the author, reader and represented object. The subdivisions are contact, distance, and point of view (Kress & van Leeuwen, 2005).

The analysis reveals that the boy's stare in Figure 1, panel 4 is a hesitant giving glance, not directed at the spectator, while the girl in panel 3 is demanding of the viewer. The distance changes from a short close-up angle (Figure 1, panel 3), which is personal or intimate, to a long spectrum (Figure 1, panel 4), which is impersonal. The angle projection is the third point

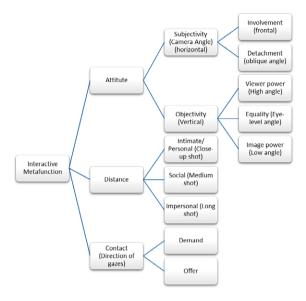


Figure 3. Interpersonal metafunction (source: created by authors)

of view. Figure 1, panel 3 is from a frontal viewpoint, emphasising the viewer's engagement, while panel 4 is from a low aspect points the performers' power over the spectator.

Compositional metafunction is a representational and interpersonal metafunction composition to form a meaning as a whole. Verbal and nonverbal elements are measured by their values (placement), framing (space management) and salience (arrangement) (Kress & van Leeuwen, 2005).

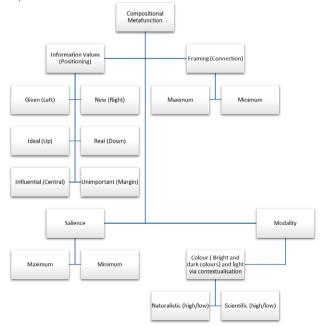


Figure 4. Compositional metafunction (source: created by authors)

Firstly, information value is the position of the participants in the images to make meaning. Figure 5, panel 4 is divided into four sections: section A, the left upside is filled with darkened trees for "given" "ideal"; section B, the lost paper is positioned in the right upside for "ideal" "new"; section C, lion's back head in the left downside of the picture is "given" "real"; section D, monkey's side view in the right downside is "new" "real". The representation of the position suggests that the position of the lost paper is "ideal" and "new". It is to represent the lost culture or tradition of the society; dark trees positioned in section A (given ideal) states that the living environment of the society is being destructed; section D is a new real position that reveals the state of people in the viewer position of the action around them; given and real position, section C presents the choice of the readers to be a viewer or an actor of the situation.

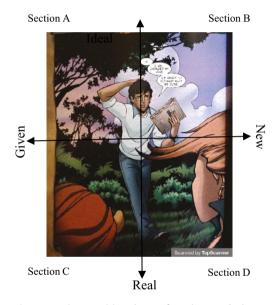


Figure 5. Compositional metafunction analysis (source: Basu & Padlekar, 2015)

Secondly, salience is discerned by glancing at the space occupied by the boy's figure. It is positioned in the left half of the image that is foregrounded, while all other individuals and objects are intentionally backgrounded. By depicting Vishnu Sharma, who unearthed the forgotten things of the old *Panchatantra* travelling towards the transformation, urges the reader to act as a leader for the betterment of society.

Thirdly, the absence of framing in this image emphasises the stress of the relationship between the elements. Here everything is backgrounded apart from the boy and *Panchatantra*'s lost papers. The main focus on a boy is to emphasise that the action of the boy is more important than looking at him as a viewer.

Fourthly, there is a modality with intriguing contradictions; the colour notions are highly naturalistic of bright and dark colours (Figure 1, panel 4). It conveys the message's intensity and encourages action for effective change.

Figure 1 is analysed from the perspective of a metafunction. This fundamental analysis shows how the image was structured to make meaning. These three metafunctions explain the context of communication and the intended image modulation. Though signs are conventionalised, meaning-making differs from one semiotics mode to another. Kress and van Leeuwen's (2005) views on creating signs are solely based on the sign maker's "interest". In Kress' (2010, p. 62) words,

"Signs are made – not used – by a sign-maker who brings meaning into an apt conjunction with a form, a selection/choice shaped by the sign-makers 'interest', interests that are shaped by the environment and circumstances of use".

Hence, images must be studied intensively to understand the sign's meaning rather than being considered decorative. The study shows that the image as a whole is generally viewed as a spectacular formation of the story, but when an image is approached through socio-semiotics, the literary representations can be explored. Here, a literary element "anthropomorphism", takes place but the question is *why a humanised animal is employed in the graphic novel?*

5. Anthropomorphism as a communicative mode

Anthropomorphism is a creative communication mode that can be used to convey moral messages, explore the human condition, and spark a sense of wonder and imagination. Anthropomorphism is giving human traits, emotions and intentions to non-humans and objects (Fisher, 1991). It can take various forms, such as representing gods (Schoen, 1990; Shaman et al., 2018), animals (Urquiza-Haas & Kotrschal, 2015), trees (Gebhard et al., 2003), birds (Anderson, 2014) and objects (Wen Wan & Peng Chen, 2021). Even imitating the human form is also considered a kind of anthropomorphism which is pointed out by DiSalvo et al. (2004) with four kinds structural, gestural, aspects of the character, and awareness, which questions dehumanisation (Jörling et al., 2020).

Creators can make non-human entities more relatable and accessible to audiences by imbuing them with human-like characteristics, allowing them to communicate complex ideas and emotions in a more engaging and intelligible manner. Anthropomorphism has a lengthy history in art and literature and is present in numerous cultures and traditions across the globe. For example, ancient Egyptian art often depicted gods with animal skulls, and Native American folklore is replete with tales of animals with human-like traits.

In recent years, anthropomorphism has gained popularity in popular media, including animated films, animations, and video games. The use of anthropomorphic characters creates emotional connections between the reader and the characters, leading to better comprehension of the story's themes and messages. Anthropomorphic characters can also present abstract ideas in a concrete and relatable manner. Orwell's (2009) *Animal Farm* (originally published in 1945), for instance, employs anthropomorphic pigs to represent the Soviet Union's leaders. Similarly, in *TTVSP*, to convey relatable and engaging moral teachings and societal norms.

Anthropomorphism is also an effective narrative device for generating awe and imagination. By envisioning a world where animals can speak and act like humans, authors can

evoke a sense of whimsy and fantasy that can captivate readers of all ages. This sense of awe is especially potent in children's literature, where anthropomorphic characters can inspire generations of readers. According to "Storytelling among Children: A Survey" (2020), children enjoy anthropomorphised animal stories (J S & R, 2020).

Empirical research, such as Epley et al. (2007) study on "On Seeing Human: A Three-factor Theory of Anthropomorphism" supports the idea that anthropomorphism enhances human communication and comprehension by fostering a sense of familiarity and relatability. When animals or inanimate objects are given human traits and emotions, they create a sense of empathy and emotional investment in readers, leading to greater engagement with the plot. In conclusion, anthropomorphism is a creative mode of communication that allows authors to create relatable, concrete, and engaging characters capable of conveying complex ideas and moral teachings in an approachable manner. It serves as a bridge between the sender and recipient, enabling the transmission of messages in various forms, including visual symbols.

Humans use animals to transcend the boundaries of their own species and selves, as well as to dramatise, represent, and shed light on many facets of human experience and fantasy (Daston & Mitman, 2006). The Anthropomorphic Lens: Anthropomorphism, Microcosmism and Analogy in Early Modern Thought and Visual Arts examines the conflicts between magical and rational, theoretical and practical thought that anthropomorphism involves by exploring the paradoxes and tensions inherent in the ideas of analogy and microcosm (Melion et al., 2015). Parkinson (2020) worked on how anthropomorphised animals are widespread in popular culture, while some research shreds evidence that anthropomorphic depictions influence children to distinguish the real characteristics of animals (Marriott, 2002; Ganea et al., 2014; Waxman et al., 2014). Strouse et al. (2018) review highlights that realistic animal depictions may be ideal for biology instruction, but there is a need for anthropomorphism when fostering



Figure 6. Presence of anthropomorphism (source: Basu & Padlekar, 2015)

empathy for animals (Paul, 2000; Signal & Taylor, 2007). Moreover, anthropomorphic reasoning helps to protect nature (Gebhard et al., 2003). Thus, "Anthropomorphised agents can act as powerful agents of social connection when human connection is lacking" (Epley et al., 2007, p. 865). Figure 6 shows how an old man and two girls are reimagined as a tortoise and two white cranes. Why is a turtle used to represent an elderly person? It represents wisdom and understanding and also because of its lengthy lifetime, sluggish movement, and wrinkled look (Ball, 2004). Authors commonly use anthropomorphism to convey delicate subjects and modern facts directly or indirectly (Guthrie, 1997). Guthrie (1997) mentions anthropomorphism is an "involuntary perceptual strategy" and a significant stimulus to mirror oneself. Kellogg Markowsky (1975) claims anthropomorphism helps a reader to identify themselves for a flight of fantasy, variety, and humour. Additionally, anthropomorphism is acquainted with stories to entertain, enlighten, and make meaning understandable (Knight, 2005). The core of the communication mode is to transmit the message in a clear and concise manner (Duck & McMahan, 2009, p. 368). It is a bridge between the sender and recipient (Johannessen, 2021, p. 106), and it might take the form of a gesture, words, photographs, letters, facial expressions, synthetic speech and visual symbols. Berlo (1966) developed Shannon-Weaver model of communication as "the sender-message-channel-receiver" (SMCR) model.

In a way, taking the SMCR model of communication, anthropomorphism is a medium to communicate social meaning. This novel analysis throws light on degrees of anthropomorphism that explain how anthropomorphism communicates. Here, anthropomorphism takes different forms to insist on the intended message. In the novel, Vishnu Sharma's grandparent talks about guarding the *Panchatantra* universe but Vishnu Sharma ignores it and has no idea about the universe until the animal crew approaches. The type of communication that happens here makes the difference; his grandparent communicates the importance of the *Panchatantra* universe, which was in human form with verbal mode, but when the crew approaches Vishnu Sharma, that happens in visual mode with anthropomorphised form. Furthermore, following Xenophanes (Lesher, 2001), May Hill Arbuthnot (Kellogg Markowsky, 1975), and Emslie's (2007) categorisation, the feature of medium or mode is examined and assessed as degrees in the study.

5.1. Degrees of anthropomorphism

Xenophanes introduced two divisions, such as attributing human-like physical characteristics to non-humans and attributing human-like intellect to non-humans (Lesher, 2001); Kellogg Markowsky (1975) highlights Hill Arbuthnot's three categorisations of animals in children's book, animals act and dress like humans, animals talk but act naturally, and objectively described; Emslie (2007), a cartoonist, in his blog observes four degrees, animal behaviour from the prediction of human emotion, acts and communicates among animals, partially humanised with animal specification, and fully humanised. The need for degrees of anthropomorphism arises from the desire to create more effective and engaging messages that resonate with audience. By using anthropomorphism strategically and creatively, communicators can create powerful and effective messages that connect with their audiences on a deeper level. A novel may use all the degrees of anthropomorphism instead of using just one degree because it allows for a wider range of creative expression and can create a more complex

and nuanced world. By using multiple degrees of anthropomorphism, authors can create more dynamic and interesting characters and explore a wider range of themes and ideas. For example, using just one degree of anthropomorphism, such as giving animals human-like personalities, may limit the range of emotions and behaviours that the characters can exhibit. However, using multiple degrees of anthropomorphism, such as giving animals human-like appearances, emotions, and behaviours, the characters can become more fully realised and exhibit a wider range of emotions and behaviours. Additionally, using multiple degrees of anthropomorphism can create a more immersive and engaging world for the reader. By creating a world where non-human entities have a wide range of human-like characteristics, the reader can become more invested in the story and more easily suspend disbelief. The previous study, "Anthropomorphism in Indian Visual Narratives" (J S & R, 2022), explores degrees of anthropomorphism from the collection of Indian graphic narratives. Accordingly, the present study aims to display anthropomorphic degrees in a single novel, Basu and Padlekar's (2015) *TTVSP*, to explain how anthropomorphic characters' form changes concerning the reader's interest and societal relevance.

 Degree A: animals with their biological identity in a human world (subtle anthropomorphism).

This level involves the use of small clues or hints of human characteristics in non-human entities, such as a smile on a car's grille or a frog with expressive eyes. These clues are often used to create a sense of familiarity and relatability between the audience and the non-human entities.

Socio-semiotic analysis: Figure 7 illustrates how animals are frequently neglected by society. On the other hand, the character of Vishnu Sharma resembles the members of society, while the animals represent the diversity of forgotten characters and values. The image attempts to depict the relationship between individuals and society or primordial values. Panels within panels are used to provide a clear view of the expressions of the characters



Figure 7. Degrees of antropomorphism: degree A (source: Basu & Padlekar, 2015)

in order to emphasise the emotion and tension of the setting. The impact of the artefact is analysed in terms of its colours and animal selection, which represent the characteristics of human existence in society and the types of values present in society.

Overview: in Vishnu Sharma's classic *Panchatantra* tales, animals had the ability to speak and act like humans in the animal world; however, in Basu and Padlekar's (2015) *TTVSP*, animals perform in their corporeal form, but in the human world (Figure 7). The first degree discusses animals' morphological characteristics and ability to communicate. As depicted in Figure 2, a lion, monkey, and bull arrive in the modern world in pursuit of a chosen guardian in order to converse with a human boy named Vishnu Sharma. However, Vishnu Sharma consoles himself by imagining that the events occurring around him are a mirage, refusing to heed the animal crew. Vishnu Sharma is the only human character in the narrative. He represents the audience, and his unwillingness to listen to the crew's message demonstrates the medium's failure. After a brief conversation with the animals, Vishnu Sharma denies that the animals are communicating, so this cannot be considered a communication failure. Therefore, it is necessary to upgrade the anthropomorphic form to accommodate technologically advanced humans.

 Degree B: animals face with the human body in the human world (partial anthropomorphism).

This level of anthropomorphism entails imbuing non-human entities with a broader variety of human-like characteristics, such as emotions and intelligence. This is a common technique in animated films, in which animals are given human-like personalities and voices while retaining their animalistic characteristics.

Socio-semiotic analysis: the transformation of creatures into humans illustrates the need for human characteristics in order to survive in a social setting. The presence of various animals in the image differentiates the relationships between characters, highlighting the diversity of people in contemporary society. Visually, the author's voice is concealed but still audible via a dialogue balloon. The composition of the image divides it into "given real" and "new real" to illustrate the reality of the native inhabitants and the need for change in order for society to survive. The impact of the artefact examines the transformation of animal bodies and the current societal emphasis on body structure. The crew's gaze and dialogue demonstrate their confidence in their ability to adapt, but when Vishnu Sharma ignores them as animals, they alter their appearance to advocate for their survival.

Overview: when a child disregards the presence of talking animals, the crew transforms into human-like creatures with animal heads and human characteristics. In Figure 8, a lion and a bull are transformed into a handsome young man, while a monkey becomes a woman with an animal cranium. Comparing Figures 7 and 8 reveals that Vishnu Sharma is concerned with the crew's transformation from animal form to a new (human body with an animal face) aspect. The crew's structural modification catches the attention of a human child (Vishnu Sharma). As depicted in Figure 8, it was undeniably successful, as Vishnu Sharma was taken aback by their transformation. This aroused his curiosity, and he eagerly desired to learn more about them. Both Figures 7 and 8 are anthropomorphic entities that cause bizarre events that fascinate the audience; however, why was Figure 7 unable to communicate? This could be due to his interest in novel developments or his familiarity with the ancient *Panchatantra* tale of



Figure 8. Degrees of antropomorphism: degree B (source: Basu & Padlekar, 2015)

animal communication. The unique new form of a human with animal visage characteristics made degree B more successful than degree A, which failed to attract the attention of Vishnu Sharma. Thus, degree B is comparable to Nowak's (2004) research, which accentuates the attractiveness of anthropomorphic images.

Degree C: animals as humans in the human world (full anthropomorphism).

This level entails constructing fully realised, human-like characters from non-human entities, complete with their own personalities, motivations, and communication styles. This is frequently seen in fiction, such as Orwell's (2009) *Animal Farm*, in which animals are given human-like characteristics and behaviours.

Socio-semiotic analysis: Figure 9's analysis depicts animals as humans, suggesting that adaptation is necessary for social survival. The figure is divided into "given ideal", "given real", "new ideal", and "new real" sections, each with unique lighting and facial expressions that disclose the emotions and motivations of the characters. The facial expressions of each character emphasise distinct emotions, such as astonishment, anger, confusion, doubt, cunning, and composure. It uses visual storytelling techniques to introduce characters and emphasise the significance of facial expressions in conveying emotions and situational tension. Moreover, it suggests that the actuality of society is always comprised of a variety of individuals with differing emotions in the same situation.

Overview: after agreeing to safeguard the ancient *Panchatantra* universe, Vishnu Sharma chose to escort the crew to his grandfather's house. He stepped out of his home and requested that the crew alter their appearance. Although Vishnu Sharma, an individual, accepts the new form of an animal face with the human body (degree B), the crew had to convert into a fully human shape in order to be accepted by society. Figure 9 depicts the crew's humanisation (having a human face) for the human world's acceptance. It represents that animals or



Figure 9. Degrees of antropomorphism: degree C (source: Basu & Padlekar, 2015)

people are accepted in the natural environment. The crew followed Vishnu Sharma in animal shapes outside the house, whereas inside, they partially altered their animal form to converse with Vishnu Sharma. Following this, Vishnu Sharma instructs the animals to transform completely like a human and not to be distinct from humans as the crew starts their journey to Vishnu Sharma's grandfather's house, which explicitly describes how people act according to the structure of society.

Degree D: animals with human traits in the animal world (hyper-anthropomorphism).

This degree of anthropomorphism entails the extreme exaggeration of human-like characteristics in non-human entities. In animation and cartoons, animals are frequently endowed with human-like bodies and abilities, such as speaking, walking upright, and donning clothes.

Socio-semiotic analysis: Figure 10 differs from Figures 1, 5–9 in that it contains a panel within a panel, and the outer edge of the panel is designed to resemble worn paper, leaving the animal inside the panel exposed. The silhouette of a man transforming into an animal appears alone and conveys significance. It implies that new transformations disregard ancient values as if the old paper had lost its vitality. When a man transforms into a bird, it demonstrates that even some individuals value the environment and adopt a more natural lifestyle. Similarly, it demonstrates that humans transform into animal characters based on their circumstances.

Overview: degree D differs considerably from degree A in its projection of a different world, but the animal-like appearance of the character is maintained. Degree D focuses on the animal kingdom, while degree A is concerned with the human sphere. As they entered the ancient *Panchatantra* animal realm, the animal crew assumed animal forms. Vishnu Sharma did not alter his human appearance to blend in with the crew; this is another instance in which



Figure 10. Degrees of antropomorphism: degree D (source: Basu & Padlekar, 2015)

Vishnu Sharma represents human readers, as readers remain readers until the conclusion of the narrative. Figure 10 depicts the transformation of the human form into a crow. From degree D onward, the crew's and Vishnu Sharma's uniqueness or individuality in the animal world is emphasised.

Vishnu Sharma was disinclined to aid the guardians, so he decided to grant the *Panchatantra* gateway to the animal crew that Vishnu Sharma was tasked to protect from foreign invaders. To avoid his responsibilities and the disappointment of the *Panchatantra*'s morals (a lion kills his companion cow, as written in the original *Panchatantra*), he leads Shadow Khan to the *Panchatantra* animal world's entrance. When Vishnu Sharma saw that the animal crew was fighting against their enemy to defend others in addition to himself, he realised that the team needed his assistance and joined the group despite his physical inability to fight. It resembles the Clive Staples Lewis' (1994, 2002a, 2002b, 2002c, 2002d, 2002e, 2008) novel series, *The Chronicles of Narnia* (originally published in 1950–1956), in many ways. In addition, the novel's presentation of animals as anthropomorphic figures with human connections will strengthen the reader's emotional attachment to the animals. Paul (2000) and Signal and Taylor (2007) conclude that anthropomorphism fosters animal empathy.

6. Limitation

This research contributes to the understanding of anthropomorphism as a creative mode of communication in contemporary literature. The analysis of Basu and Padlekar's (2015) *TTVSP* emphasises the significance of visual aids and their representation in the anthropomorphic communication of complex ideas and emotions. The research makes a significant contribution to literary analysis and communication studies. This study is limited to analysing a single novel, *TTVS* by Basu and Padlekar (2015), for precision in meaning-making and to generate a new dimensional perspective of images. As it is a graphic novel, specific images are analysed in this article to describe the metafunctions; however, the entire book should be read

to better understand those functions. Future research will add value to the semiotic pattern analysis of the social relevance of individual degrees. Consequently, the investigation can be expanded by anthropomorphism factors.

7. Conclusions

Anthropomorphism has been identified as a potent literary device that encourages effective communication and reader engagement. The utilisation of anthropomorphic characters establishes affective bonds between the reader and the characters, leading to a deeper comprehension of the story's themes and messages. By attributing human traits to non-human characters, readers can relate to their experiences, struggles, and emotions, fostering empathy and investment in the story. The act of personifying complex or abstract concepts enhances their accessibility and facilitates comprehension, especially among readers who are younger or less experienced. Anthropomorphism successfully achieves transferring information, human behaviour, values, and social dynamics, thereby prompting readers to contemplate their own behaviours and convictions. Basu and Padlekar's (2015) use of anthropomorphic creatures in TTVSP exemplifies the creative potential of anthropomorphism as a literary mode of expression. It demonstrates the role of three metafunctions in meaning-making: representational, interpersonal, and compositional. The model created by Kress and van Leeuwen (2005) is utilised to understand the complexity of images in deciphering meaning. This study aims to increase children's visual engagement by capitalising on their fascination with images and animals. This study's primary objective is to examine anthropomorphism's creative adaptation through the lens of communicative mode. It also emphasises that, following the modernist movement, people realised that examining the facts increases their understanding. Each level of anthropomorphism has its advantages and disadvantages and can be utilised for various purposes depending on the context and medium. For instance, subtle anthropomorphism may be used in advertising to create an approachable and relatable brand image, whereas full anthropomorphism may be used in literature to create complex characters and investigate human nature. Thus, the analysis of novel results, each degree supports the argument by examining unique characteristics of anthropomorphism, such as degree A: animals with the ability to speak for communication; degree B: partially humanised form for attention; degree C: humanised animals for acceptance; and degree D: returning to its original form for identity. Consequently, the findings of this study indicate that anthropomorphism is an effective method of communication.

References

Aiello, G., & Parry, K. (2019). Visual communication: Understanding images in media culture. SAGE Publications Ltd. https://doi.org/10.4135/9781529721522

Anderson, P. K. (2014). Social dimensions of the human–avian bond: Parrots and their persons. Anthro-zoös: A Multidisciplinary Journal of the Interactions between People and Other Animals, 27(3), 371–387. https://doi.org/10.2752/175303714X13903827488006

Ball, K. M. (2004). Animal motifs in Asian art: An illustrated guide to their meanings and aesthetics. Dover Publications. Inc.

- Basu, S., & Padlekar, A. (2015). The Tall Tales of Vishnu Sharma: Panchatantra #1-5. Graphic India.
- Berlo, D. K. (1966). The process of communication: An introduction to theory and practice. Holt, Rinehart and Winston.
- Bezemer, J., & Jewitt, C. (2009). *Social semiotics*. In J. Verschueren, J.-O. Östman, J. Blommaert, & Ch. Bulcaen (Eds.), *Online resources collection. Handbook of pragmatics online* (Vol. 13, pp. 1–14). John Benjamins Publishing Company. https://doi.org/10.1075/hop.13.soc5
- Daston, L., & Mitman, G. (Eds.). (2006). *Thinking with animals: New perspectives on anthropomorphism*. Columbia University Press.
- Deriu, D. (2012). Transforming ideas into pictures: Model photography and modern architecture. In A. Higgott & T. Wray (Eds.), *Camera constructs: Photography, architecture and the modern city* (pp. 159–178). Ashgate Publishing Limited.
- DiSalvo, C., Gemperle, F., & Forlizzi, J. (2004). Imitating the human form. In J. Redmond, D. Durling, & de A. Bono (Eds.), *Futureground Design Research Society International Conference 2004* (pp. 69–78). Monash University Press.
- Duck, S., & McMahan, D. T. (2009). The basics of communication: A relational perspective. SAGE Publications, Inc.
- Duffy, B. R. (2003). Anthropomorphism and the social robot. *Robotics and Autonomous Systems*, 42(3–4), 177–190. https://doi.org/10.1016/S0921-8890(02)00374-3
- Dydynski, J. M. (2021). Semiotic modeling of cuteness in cartoon characters/mascots. In *Dissertationes Semioticae Universitatis Tartuensis* (Vol. 36) [PhD/Doctoral Dissertation, University of Tartu, Estonia]. University of Tartu Press.
- Emslie, P. (2007). If I could talk to the animals. *The Cartoon Cave*. https://cartooncave.blogspot.com/2007/08/if-i-could-talk-to-animals.html
- Epley, N., Waytz, A., & Cacioppo, J. T. (2007). On seeing human: A three-factor theory of anthropomorphism. *Psychological Review*, 114(4), 864–886. https://doi.org/10.1037/0033-295X.114.4.864
- Fischman, G. E. (2001). Reflections about images, visual culture, and educational research. *Educational Researcher*, 30(8), 28–33. https://doi.org/10.3102/0013189X030008028
- Fisher, J. A. (1991). Disambiguating anthropomorphism: An interdisciplinary review. In P. P. G. Bateson & P. H. Klopfer (Eds.), *Human understanding and animal awareness. Perspectives in ethology* (Vol. 9, pp. 49–85). Plenum Publishing Corporation.
- Ganea, P. A., Canfield, C. F., Simons-Ghafari, K., & Chou, T. (2014). Do cavies talk? The effect of anthropomorphic picture books on children's knowledge about animals. Frontiers in Psychology, 5. https://doi.org/10.3389/fpsyg.2014.00283
- Gebhard, U., Nevers, P., & Billmann-Mahecha, E. (2003). Moralizing trees: Anthropomorphism and identity in children's relationships to nature. In S. Clayton & S. Opotow (Eds.), *Identity and the natural environ*ment: The psychological significance of nature (pp. 91–112). The MIT Press. https://doi.org/10.7551/mitpress/3644.003.0007
- Gombrich, E. H. (1994). The image and the eye: Further studies in the psychology of pictorial representation. Phaidon Press.
- Gopnik, A. (2009). The philosophical baby: What children's minds tell us about truth, love, and the meaning of life. Picador/Farrar, Straus and Giroux.
- Guthrie, S. E. (1997). Anthropomorphism: A definition and a theory. In R. W.Mitchell, N. S. Thompson, & H. L. Miles (Eds.), *Anthropomorphism, anecdotes, and animals* (pp. 50–58). State University of New York Press.
- Halliday, M. A. K. (1978). Language as social semiotic: The social interpretation of language and meaning. University Park Press.
- Hodge, R., & Kress, G. (1988). Social semiotics. Cornell University Press.
- Iordanaki, L. (2021). Older children's responses to wordless picturebooks: Making connections. Children's Literature in Education, 52, 493–510. https://doi.org/10.1007/s10583-020-09424-7
- J S, C. R., & R, B. (2022). Anthropomorphism in Indian visual narratives. *Theory and Practice in Language Studies*, 12(9), 1811–1818. https://doi.org/10.17507/tpls.1209.14

J S, C. R., & R, B. (2020). Storytelling among children: A survey. *Journal of Critical Reviews*, 7(15), 36–43.

Johannessen, J.-A. (2021). Emerald points. Communication as social theory: The social side of knowledge management. Emerald Publishing. https://doi.org/10.1108/9781800439849

Jörling, M., Böhm, R., & Paluch, S. (2020). Mechanisms and consequences of anthropomorphizing autonomous products. Schmalenbach Business Review, 72, 485–510. https://doi.org/10.1007/s41464-020-00100-3

Kellogg Markowsky, J. (1975). Why anthropomorphism in children's literature? *Elementary English*, 52(4), 460–462, 466.

Knight, J. (Ed.), (2005), Animals in person: Cultural perspectives on human-animal intimacies. Berg.

Kress, G. (2010). Multimodality: A social semiotic approach to communication. Routledge.

Kress, G., & Leeuwen, van Th. (2005). Reading images: The grammar of visual design. Routledge. https://doi.org/10.4324/9780203619728

Leeuwen, van Th., & Jewitt, C. (Eds.). (2004). *The handbook of visual analysis*. SAGE Publications. https://doi.org/10.4135/9780857020062

Lesher, J. H. (2001). Xenophanes of colophon: Fragments. University of Toronto Press.

Lewis, C. S. (2008). The chronicles of Narnia. Book 1: The lion, the witch and the wardrobe. HarperCollins.

Lewis, C. S. (2002a). The chronicles of Narnia. Book 2: Prince Caspian. HarperCollins.

Lewis, C. S. (2002b). The chronicles of Narnia. Book 4: The silver chair. HarperCollins.

Lewis, C. S. (2002c). The chronicles of Narnia. Book 5: The horse and his boy. HarperCollins.

Lewis, C. S. (2002d). The chronicles of Narnia. Book 6: The magician's nephew. HarperCollins.

Lewis, C. S. (2002e). The chronicles of Narnia. Book 7: The last battle. HarperCollins.

Lewis, C. S. (1994). The chronicles of Narnia. Book 3: The voyage of the dawn treader. HarperCollins.

Mar, R. A., & Oatley, K. (2008). The function of fiction is the abstraction and simulation of social experience. Perspectives on Psychological Science, 3(3), 173–192. https://doi.org/10.1111/j.1745-6924.2008.00073.x

Marriott, S. (2002). Red in tooth and claw? Images of nature in modern picture books. Children's Literature in Education, 33, 175–183. https://doi.org/10.1023/A:1019677931406

Mayer, R. E. (2003). The promise of multimedia learning: Using the same instructional design methods across different media. *Learning and Instruction*, *13*(2), 125–139.

https://doi.org/10.1016/S0959-4752(02)00016-6

Melion, W. S., Rothstein, B., & Weemans, M. (Eds.). (2015). Intersections: Interdisciplinary studies in early modern culture. The anthropomorphic lens: Anthropomorphism, microcosmism and analogy in early modern thought and visual arts (Vol. 34). K. A. E. Enenkel (Series General Ed.). BRILL. https://doi.org/10.1163/9789004275034

Mietzner, U., Myers, K., & Peim, N. (Eds.). (2005). Visual history: Images of education. Peter Lang.

Mirzoeff, N. (1999). An introduction to visual culture. Psychology Press.

Nowak, K. L. (2004). The influence of anthropomorphism and agency on social judgment in virtual environments. *Journal of Computer-Mediated Communication*, 9(2).

https://doi.org/10.1111/j.1083-6101.2004.tb00284.x

Peacock, A. (2004). Eco-literacy for primary schools. Trentham Books Ltd.

O'Toole, M. (1994). The language of displayed art. Fairleigh Dickinson University Press.

Orwell, G. 2009. Animal farm. Transaction Publishers.

Parkinson, C. (2020). Routledge human–animal studies series. Animals, anthropomorphism and mediated encounters. H. Buller (Series Ed.). Routledge. https://doi.org/10.4324/9780429203244

Paul, E. S. (2000). Empathy with animals and with humans: Are they linked? Anthrozoös: A Multidisciplinary Journal of the Interactions between People and Other Animals, 13(4), 194–202. https://doi.org/10.2752/089279300786999699

Ramos, A. M., & Ramos, R. (2011). Ecoliteracy through imagery: A close reading of two wordless picture books. *Children's Literature in Education*, 42(4), 325–339. https://doi.org/10.1007/s10583-011-9142-3

Reid, D. J. (1990). The role of pictures in learning biology: Part 2, picture–text processing. Journal of Biological Education, 24(4), 251–258. https://doi.org/10.1080/00219266.1990.9655153

Ritchie, Ch. (Ed.). (2016). *Exploring children's learning: 3–11 years*. Routledge. https://doi.org/10.4324/9781315641164

- Roberts, D. F., & Foehr, U. G. (2008). Trends in media use. *The Future of Children*, 18(1), 11–37. https://doi.org/10.1353/foc.0.0000
- Schoen, E. L. (1990). Anthropomorphic concepts of God. *Religious Studies*, 26(1), 123–139. https://doi.org/10.1017/S0034412500020254
- Shaman, N. J., Saide, A. R., & Richert, R. A. (2018). Dimensional structure of and variation in anthropomorphic concepts of God. *Frontiers in Psychology*, 9. https://doi.org/10.3389/fpsyg.2018.01425
- Signal, T. D., & Taylor, N. (2007). Attitude to animals and empathy: Comparing animal protection and general community samples. *Anthrozoös: A Multidisciplinary Journal of the Interactions between People and Other Animals, 20*(2), 125–130. https://doi.org/10.2752/175303707X207918
- Stokes, S. (2002). Visual literacy in teaching and learning: A literature perspective. *Electronic Journal for the Integration of Technology in Education*, 1(1), 10–19.
- Strouse, G. A., Nyhout, A., & Ganea, P. A. (2018). The role of book features in young children's transfer of information from picture books to real-world contexts. *Frontiers in Psychology*, 9. https://doi.org/10.3389/fpsyg.2018.00050
- Sundar, S. Sh. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. In M. J. Metzger & A. J. Flanagin (Eds.), *The John D. and Catherine T. MacArthur foundation series on digital media and learning. Digital media, youth, and credibility* (pp. 73–100). The MIT Press.
- Syed-Ahmad, Sh. F., Musa, G., Klobas, J. E., & Murphy, J. (2013). Audience response to travel photos and Arab destination image. *Journal of Travel and Tourism Marketing*, 30(1–2), 161–164. https://doi.org/10.1080/10548408.2013.751279
- Tarif, J. (2022). Collective and corrective memories of a classic: Mapping Oliver Twist's memory of translation. In Sh. Deane-Cox & A. Spiessens (Eds.), Routledge handbooks. The Routledge handbook of translation and memory (pp. 297–312). Routledge. https://doi.org/10.4324/9781003273417-22
- Taylor, M., & Carlson, S. M. (1997). The relation between individual differences in fantasy and theory of mind. *Child Development*, *68*(3), 436–455. https://doi.org/10.2307/1131670
- Unsworth, L., & Wheeler, J. (2002). Re-valuing the role of images in reviewing picture books. *Reading*, 36(2), 68–74. https://doi.org/10.1111/1467-9345.00189
- Urquiza-Haas, E. G., & Kotrschal, K. (2015). The mind behind anthropomorphic thinking: Attribution of mental states to other species. *Animal Behaviour*, *109*, 167–176. https://doi.org/10.1016/j.anbehav.2015.08.011
- Waxman, S. R., Herrmann, P., Woodring, J., & Medin, D. L. (2014). Humans (really) are animals: Picture-book reading influences 5-year-old urban children's construal of the relation between humans and non-human animals. *Frontiers in Psychology*, *5*. https://doi.org/10.3389/fpsyg.2014.00172
- Wen Wan, E., & Peng Chen, R. (2021). Anthropomorphism and object attachment. *Current Opinion in Psychology*, 39, 88–93. https://doi.org/10.1016/j.copsyc.2020.08.009
- Wright, S. (2010). *Understanding creativity in early childhood: Meaning-making and children's drawing*. SAGE Publications Ltd. https://doi.org/10.4135/9781446251447
- Wynne, C. D. L. (2007). What are animals? why anthropomorphism is still not a scientific approach to behaviour. *Comparative Cognition and Behavior Reviews*, *2*, 125–135. https://doi.org/10.3819/ccbr.2008.20008
- Zimmerman, F. J., Christakis, D. A., & Meltzoff, A. N. (2007). Television and DVD/video viewing in children younger than 2 years. Archives of Pediatrics and Adolescent Medicine, 161(5), 473–479. https://doi.org/10.1001/archpedi.161.5.473