



Unraveling the Halo and Horn Effects: Exploring Ethical Considerations in Visual Communication Design

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Abstract. Effective communication is a dynamic aspect of human interaction that involves various modes of expression, both verbal and non-verbal. The utilization of images and symbols in visual communication design is highly effective in transmitting symbolic messages to a broad audience due to the ease of recognition and comprehension. Visual communication design is not immune to communication barriers, one of which is the occurrence phenomenon of halo and horn effects. This psychological phenomenon has the ability to influence the audience's processing of information, making judgments, and responding to a message. Therefore, it's important for communicators to be aware of the halo & horn effects and manage their messages wisely to avoid potential errors in judgment that could arise, as this ensures the ethical standards of their profession which serve as the competency standard in carrying out their work. This study aims to gain a deeper insight into the halo and horn effects in visual communication design, recognize applicable models and strategies, and analyze ethical decision-making patterns by utilizing primary data collected and observation notes through qualitative methodology. The study highlights the importance of providing ethical education to designers as role models in shaping unbiased and influential communication by emphasizing ethics and comprehending its effects and advocates also promoting collaboration among professionals from diverse fields in a transdisciplinary manner.

Keywords: Communication Barrier, Visual Communication Design, Design Ethics, Design Strategy, Transdisciplinary.

1 INTRODUCTION

Visual communication is a fluid landscape that continues to evolve with new technologies and practices. It requires designers to possess certain qualities such as flexibility, adaptability, and forward-thinking. They are encouraged to stay curious, open-minded, and willing to embrace change so they can create relevant and impactful visual communication in a rapidly changing world with creativity.

In the framework of Object-Oriented Ontology (OOO) Theory, the fundamental premise is that every entity, regardless of whether it is a human or a non-human object, possesses a unique and inherent existence [1]. This existence is not reliant on our perception of it, instead, each entity exists autonomously and independently in its own way. Moreover, OOO suggests that each entity has a distinct capacity to influence our perception of reality.

The Halo and Horn Effect, two psychological phenomena, offer a compelling way to understand how the presence of an entity can impact our perception, often in contrasting ways [2]. These two phenomena provide valuable psychological insights into how our perceptions can be influenced, both positively and negatively, by the attributes and qualities we perceive within these entities. These scenarios facilitate our understanding of the link between our perceptions and the agency of entities in the OOO framework.

This research endeavors to shed light on how the Halo and Horn Effects, as understood within the framework of Object-Oriented Ontology Theory, can either facilitate or hinder communication effectiveness in the context of responsible media communication. It is imperative for businesses and academic institutions alike to recognize the significance of ethics in design and incorporate ethical frameworks into their processes. Addressing ethical concerns in a design project can prevent potential ethical challenges and enhance the integrity of designers.

2 CONTENTS

2.1 The Phenomenon of Halo & Horn Effects in Visual Communication

The phenomenon of halo effect occurs when a positive trait or aspect of something influences the overall perception of information [2]. Otherwise, the horn effect or devil effect occurs when a negative trait or aspect influences the overall perception [2]. Both in general are typically experienced by receivers or individuals interpreting communication and they can significantly influence their judgment, especially when forming first impressions of communication media, messages, or the communicators themselves. In this instance, if a visual design is presented in an appealing way, viewers might subconsciously associate positive qualities with the product, even if those qualities aren't explicitly conveyed. On the other hand, if a visual design has a noticeable flaw, viewers might disproportionately focus on that flaw and develop a negative impression of the entire design or message. Such examples can be found in case studies related to deepfake technology. Deepfake refers to a type of content created using a combination of deep learning and fake elements, with the intention of imitating a particular subject [3].

In recent years, the proliferation of deepfake technology has raised serious concerns in the realm of visual communication design. Within the framework of Object-Oriented Ontology (OOO) theory, these phenomena underscore the agency of non-human entities—such as AI algorithms and digital media—in shaping our perception of reality. The Halo Effect can manifest when deepfake technology creates remarkably

convincing visuals, leading to trust and credibility attributed to these manipulated media, potentially blurring the line between fact and fiction. Conversely, the Horn Effect emerges when misinformation or malicious deepfakes are exposed, eroding trust in all media sources and casting doubt over the authenticity of visual content. Understanding these cognitive biases within OOO's context highlights the intricate interplay between technology, ethics, and human perception in today's media landscape, necessitating responsible design practices and critical engagement with visual information to mitigate their effects.

In today's diverse and fast-paced world, effective communication involves not only creating but also skillfully interpreting messages, making it a crucial skill in a wide range of situations and contexts. Differences in the interpretation of messages between individuals alone are a factor that contributes to communication barriers. The challenge now is how addressing ethical concerns in a design project can prevent potential ethical challenges and enhance the integrity of designers.

It's crucial for designers to be aware of biases and take steps to eliminate or mitigate their impact for effective communication. To be a good communicator, designers should indeed possess attributes associated with ethos [4] which include good will, good sense, and good moral character [5]. Integrating ethical considerations into their practices is essential for promoting responsible and ethical communication. Ethical Considerations in design are explained as follows:

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1. **Good Will:** Ethical communication involves a genuine intention to communicate honestly, transparently, and in the best interest of the audience. Designers should aim to create content that serves a positive purpose and provides value to users.
2. **Good Sense:** Ethical designers apply critical thinking and good judgment to their work. They consider the potential impact of their designs on various stakeholders and ensure that the message is clear, accurate, and respectful.
3. **Good Moral Character:** Upholding moral principles is essential in design. Designers should avoid deceptive practices, manipulation, or exploitation in their work. Ethical character includes honesty, integrity, and a commitment to ethical standards.

In good design practice, designers supposed to avoid the repetition of noticeable flaws or mistakes in their work, resulting in more effective and successful designs [4]. Manipulating visual elements to create cognitive biases for deceptive purposes can raise possible ethical concerns.

2.2 The Role of Ethics in Visual Communication Design

Ethical considerations function as a driving force in decision-making processes aimed at resolving challenges within visual communication design and wield significant influence in shaping strategic design by directing the decisions and behaviors of organizations as they strive to attain their goals [6]. The strategic design process involves choosing messages based on the level of influence, interest, impact, and expectations of both the communicator and the receiver. By incorporating ethics into strategy development, organizations can create more effective and sustainable plans that prioritize the needs and well-being of all stakeholders. Ethical considerations help to ensure these choices are characterized by integrity, equity, and social accountability. Incorporating ethical principles prevents detrimental practices such as exploiting vulnerable communities, promoting misleading information, or prioritizing short-term gains over long-term sustainability.

The process of design involves constant creation, refinement, evaluation, and improvement in a cyclical or iterative manner [7]. This acknowledges that the initial concept or solution may not be perfect and allows designers to enhance their work through each iteration based on feedback and insights gained. With an increasing focus on sustainability and ethical considerations, designers are facing the challenge of incorporating environmentally responsible practices and considering the ethical implications of their designs. By integrating ethics into their strategies, designers can ensure that their actions align with their values, promote responsible behavior, conform to societal norms, positively contribute to society, and aid in conflict management for better design outcomes.

3 METHODOLOGY

3.1 Data Collection Technique

This study used qualitative research methods to conduct an in-depth investigation into the complexities of the halo and horn effects within the realm of visual communication. The aim was to explore how these cognitive biases shape human perception, decision-making, and ethical considerations in strategic design. To achieve this objective, an extensive analysis of relevant literature was carried out by the researchers to acquire a more profound comprehension of the influence of these biases on communication. The study also looked at effective strategies for minimizing bias in visual communication and the importance of ethical principles in promoting transparent, equitable, and responsible communication in design. Overall, this research offers a comprehensive exploration of the Halo and Horn Effects' influence on communication and design, with a strong emphasis on ethical considerations and responsible practices. The objective is to provide insight into the correlation of these effects with the need for ethical considerations in the development of strategies. By utilizing a multidimensional methodology, the study investigated the ways in which these effects shape individuals' perceptions, choices, and ultimately, the ethical aspects of strategic design.

3.2 Data Analysis

This research explores the Halo and Horn Effects within the context of Object-Oriented Ontology (OOO) Theory, which posits that all entities, human or non-human, have inherent existence and unique capacities influencing our perception of reality. The Halo and Horn Effects, cognitive biases in OOO Theory, reveal that an entity's attributes can shape our perception of it. In media communication, the Halo Effect, associated with positive attributes, can enhance audience receptivity to content, impacting responsible communication positively or negatively. Conversely, the Horn Effect, tied to negative attributes, can engender doubt or skepticism, hindering effective communication. Ethical media practices necessitate transparency, accountability, and avoiding manipulative tactics to counteract these effects while maintaining a balance between ethical communication and effectiveness. Understanding and managing these biases are imperative for responsible and ethical media communication.

This analytical approach revolves around a comprehensive understanding of how these biases impact the field of visual communication. The methodology not only clarifies how these biases are expressed but also explores the strategies and techniques used to effectively convey visual messages while mitigating bias. Additionally, it incorporates the essential dimension of ethics in visual communication, addressing the ethical considerations and practices necessary for promoting transparent, fair, and responsible communication in design.

4 FINDINGS

4.1 The Problems in Visual Communication

Perception, as a cognitive process [8], involves the intricate interplay of three fundamental activities. The first activity, known as selection, encompasses the complex processes of attention and sensation, whereby individuals selectively focus on particular stimuli amidst the vast array of sensory information available to them. This process serves as a crucial filter, allowing individuals to allocate their cognitive resources to stimuli that are deemed relevant or salient. The second activity, organization, entails the intricate arrangement and placement of stimuli upon one another, with the ultimate aim of forming a cohesive and unified whole. Through this process, individuals systematically organize and structure the various stimuli they encounter, allowing for a more coherent and meaningful perception of the world around them. Lastly, the third activity, interpretation, or meaning-making, plays an essential role in the perception process, as it involves the decoding and assigning of significance to the stimuli perceived. This interpretive process allows individuals to extract meaning and comprehension from the stimuli they encounter, thereby facilitating understanding and sense-making in the intricate domain of communication.

The perception of an object or event can vary among individuals based on surrounding factors. This will certainly impact the way they conduct personal assessments. It's important to remember that our perception is not always objective and can be influenced by external factors beyond our control. From this, the terms 'priming' and 'framing' then emerge. 'Priming' and 'framing' are two psychological concepts related to how the information presented can influence a person's perceptions and judgments.

According to psychological research, the initial stimulus presented to an individual, known as the priming stimulus, can influence and prepare the individual's mind to respond in a particular manner to a subsequent stimulus. This phenomenon has been observed to occur across a wide range of contexts and can have significant implications for how individuals process and interpret information. The priming effect occurs when exposure to a stimulus affects a person's later response or behavior toward a related stimulus, whether conscious or unconscious [9]. As a result, people may carry similar associations or standards in their minds into future familiar situation.

Another term to consider is 'framing', it occurs when the way information is presented or "framed" influences people's choices or decisions [6]. This framing effect demonstrates how the same information presented in different ways can affect outcomes. People tend to be more sensitive to the way options are phrased or framed than to the objective content of the information. The framing effect can play a significant role in shaping people's perceptions, judgments, and decisions in various situations, including marketing, politics, and decision-making scenarios.

The phenomena known as "priming" and "framing" offer potential explanations for the occurrence of halo and horn effects. Priming involves the activation of positive mental schemas within an individual, which can result from exposure to positive stimuli or information. Consequently, individuals may exhibit a heightened focus on perceiving positive attributes in the situations they encounter, thereby elucidating one of the

underlying causes of the halo effect. Conversely, framing pertains to the horn effect as it entails the presentation of information or messages in a negative manner, which subsequently triggers individuals' inclination to perceive more negative aspects. This tendency can have a detrimental impact on our overall judgment, yielding a negative outcome.

The phenomenon of halo and horn effects in the field of visual communication represents a cognitive bias that have a significant impact on the cognitive, affective, and behavioral processes of individuals. Cognitive bias is a distortion in human thinking or judgment that shapes one's perception of the world around them. It refers to a mistake in decision-making and thinking that arises due to the influence of personal experiences, beliefs, and preferences on our perception of a situation typically caused by a combination of learned behavior and value sets, originating from the individual's social, cultural and personal settings [10]. The table below illustrates how halo and horn effects affect cognitive processes, affective responses, and behavioral decisions in visual communication design.

Table 1. How the halo and horn effect can affect an individual's perception

The impact of the phenomenon on individuals		Phenomenon
Psychographics	Halo Effect	Horn Effect
Cognitive	When individuals encounter visually appealing or positively designed elements in visual communication, it can create a cognitive bias wherein they perceive the entire message or content more positively. This can lead to a more favorable interpretation and understanding of the communicated information.	When visual communication design includes elements that are unattractive, confusing, or negatively perceived, it can lead to a cognitive bias where individuals may view the entire message or content more negatively. This can hinder comprehension and information retention.
	The positive visual aspects can evoke positive emotions, enhancing the overall affective response to the message. Positive emotions are often associated with increased receptivity and engagement.	Negative visual elements can evoke negative emotions, which may lead to decreased engagement and receptivity to the message.
Behavioral	The halo effect can influence behavior by encouraging individuals to take desired actions or engage more with the content. They may be more likely to share, like, or act upon the information presented.	The horn effect can result in individuals taking less favorable actions, such as avoiding or disregarding the content, due to the negative visual impression.

When we engage in communication, we may unknowingly bring our own biases into the conversation. These biases can create barriers that hinder effective communication and understanding. Overcome communication bias in design decision-making could started by knowing six most common types of data bias: confirmation bias, selection bias, historical bias, survivorship bias, availability bias, and outlier bias [11].

Identifying themes and common patterns of ethical decision-making in visual communication design involves considering various models and approaches that guide ethical thinking and decision-making. While there might not be specific models tailored exclusively for visual communication design ethics, ethical frameworks from broader contexts can be applied effectively.

A problem-based approach to the ethical aspects of visual communication design entails the examination and resolution of particular ethical predicaments and quandaries that designers may face. The Shannon-Weaver model provides a structured framework for understanding communication problems at different levels: technical (related to transmission), semantic (related to meaning and interpretation), and effectiveness (related to achieving communication goals) [14]. Identifying and addressing these problems is essential for improving the clarity and efficiency of communication processes. Methods for addressing communication issues that are approached instinctively through the field of visual communication design can be executed according to these three levels of communication problem approaches.

In the technical problem-solving approach, the concept coined by Marshall McLuhan, 'The medium is the message' [15] could be used, suggesting that the medium or form through which information is conveyed holds equal significance to the content or message itself, influencing decision-making in channel optimization. The importance of predicting the best way to deliver output implies the need to anticipate and choose the most suitable medium for conveying information which involves understanding the characteristics of the audience, the message, and the desired outcome. The content being delivered should meet specific expectations and objectives such well-structured, relevant, and aligned with the goals of the communication. Selecting a clear communication strategy emphasizes how the content is visually or structurally presented (the form) to fulfill its intended purpose (the function). The manner in which information is organized, formatted, and visually represented can have a significant impact on its effectiveness.

The media acts as a mediator in shaping our perception. It functions as a framework and a sieve for information, exerting an influence on our cognition of reality. When considering the selection of media for the presentation of visual concepts, two primary methodologies should be taken into consideration: static design and dynamic design. The previously mentioned duo possesses distinct qualities and achieves diverse objectives based on the intended outcome. The key characteristics of static design include a steadfast and unvarying appearance, suitability for printed materials and non-interactive digital content, limited engagement due to the absence of movement or interactivity, and a primary focus on conveying information or messages through visual elements. Dynamic design offers an engaging and immersive user experience, allowing the conveyance of complex information through interactive elements. It adjusts according to user interactions and utilizes cutting-edge technologies to enhance user involvement

with real-time data. Dynamic design often relies on advanced technology and technology-mediated tools and processes. In essence, static design focuses on creating visually appealing content through creativity that conveys information effectively, while dynamic design takes it a step further by adding movement and interaction to create a more captivating and participatory experience.

Next, semantic problem-solving, refers to the process of identifying and resolving issues related to the meaning of words, phrases, or concepts in communication, language, or information processing. It involves addressing challenges or misunderstandings that arise due to ambiguity, vagueness, or misinterpretation of the intended meaning of words or expressions. The study of semiotics plays a significant role in semantic problem-solving. Semiotics is the field of study that examines signs, symbols, and their meanings in communication. When applied to semantic problem-solving, it helps individuals and researchers understand how language, symbols, and signs convey meaning and how they can be effectively used or interpreted in various contexts.

Effectiveness problem-solving, refers to the process of identifying, analyzing, and resolving challenges or obstacles that hinder the achievement of desired outcomes, goals, or objectives in an efficient and successful manner. This involves identifying effective solutions or approaches to address specific challenges or improve the overall performance of a system, operation, institution, or individual. The objective of effective problem-solving is to generate outcomes that align with the ambitions of the organization, enhance efficiency, augment decision-making, and handle difficulties in a manner that optimizes favorable consequences. It necessitates a fusion of analytical thinking, inventiveness, collaboration, and adaptability to find and implement the best solutions to complex issues. feedback and effectiveness problem-solving are intertwined in a continuous and dynamic process. Feedback informs decision-making, guides improvements, and validates the success of problem-solving efforts. By leveraging feedback, individuals and organizations can enhance their problem-solving capabilities and achieve more favorable outcomes.

4.2 Creating and Conveying Visual Messages

The act of generating and transmitting visual design ought to conform to principles that uphold values, responsibilities, and obligations. Additionally, designers should analyze the effects of their designs on society as a whole and work towards creating designs that are beneficial rather than harmful to individuals, communities, and the environment. These principles encompass facets such as maintaining interpersonal obligations, which are:

1. **Keeping Interpersonal Commitments**

This refers to designers maintaining their promises, agreements, and commitments to clients, colleagues, and stakeholders. It involves delivering work on time, meeting expectations, and being transparent about any changes or challenges.

2. **Meeting Social Role Obligations**

Designers have a role and responsibility in society beyond creating visually appealing content. This aspect involves considering the broader impact of

design choices on culture, identity, and societal well-being. Meeting social role obligations means creating designs that are respectful, inclusive, and contribute positively to social discourse.

3. **Conforming to Social Rules**

Adhering to social rules encompasses following laws, regulations, and ethical standards that guide the design industry. This includes issues like copyright, intellectual property, avoiding plagiarism, and respecting cultural sensitivities.

Businesses and academic institutions that engage in design should follow ethical guidelines and regulations to ensure fairness, safety, and user respect, while also staying up to date with the latest advancements in order to effectively communicate. Ethical knowledge influences a designer's understanding of current situations and encourages virtuous behaviors like designing with ethics. This involves being transparent in data collection and use, avoiding biases and discrimination, and ensuring user privacy and security.

In designing a strategy, there are several factors that must be considered in carrying out practices ethically. These factors, namely moral sensitivity, moral creativity, and moral advocacy, play a pivotal role in ensuring that the design strategies being formulated align with ethical principles and values. The primary factor is moral sensitivity, which refers to the ability to identify and understand the moral implications of design decisions. This necessitates understanding the ethical dimensions of the design process and grasping how the strategies could impact different stakeholders. The second factor, moral creativity is about creating innovative and ethical solutions in complex ethical situations. This involves thinking outside the box and designing solutions that meet practical needs and uphold ethical principles. Lastly, moral advocacy involves actively promoting ethical principles in the design process. This includes advocating for the rights and well-being of all individuals affected by the design strategies and opposing any potential harm or injustice. By embracing these ethical guidelines, developers can ensure that their design strategies are effective, efficient, morally upright, and socially conscious.

5 Conclusions & Discussions

In summary, the halo and horn effects in visual communication are examples of how cognitive biases can impact how individuals perceive and respond to visual stimuli. Communicators, including designers, can better create effective and ethical communication strategies that resonate with their target audience and align with their goals by understanding these effects. The creation of designs that are both visually appealing and coherent is done in order to ensure that they are in line with the intended objectives and messages that are to be conveyed. This is a crucial aspect of design, as it helps to ensure that the message is communicated effectively and that it is able to capture the attention of the target audience by paying close attention to the various elements of design. After all, improving the design strategy can significantly enhance the impact of visual communication design.

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