

# Artificial Intelligence and the Metamorphosis of Beauty: A Philosophical Inquiry

Vadim Meyl

Central European University, Vienna, Austria  
Email: Vmeyl139@gmail.com, meyl\_vadim@phd.ceu.edu

**How to cite this paper:** Meyl, V. (2024). Artificial Intelligence and the Metamorphosis of Beauty: A Philosophical Inquiry. *Open Journal of Philosophy*, 14, 180-200.  
<https://doi.org/10.4236/ojpp.2024.141015>

**Received:** January 9, 2024  
**Accepted:** February 26, 2024  
**Published:** February 29, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).  
<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

In this article, the potential for Artificial Intelligence (AI) to be appraised as an object of beauty is critically examined through the lens of philosophical thought. Tracing beauty's evolution from Platonic ideals to contemporary interpretations, the analysis contends that AI's emergence offers a unique illustration of beauty in the modern age. Confronting the challenge of assigning beauty to entities devoid of consciousness or emotional depth, the argument unfolds to suggest that the intricate design of AI's algorithms and its technological advancements constitute an emergent form of beauty, one inherently tied to human intellectual endeavor. The article proposes that with time, as with historical art forms, the aesthetic qualities of AI may gain broader acknowledgment, implying that technological advancements necessitate an ongoing revision of established beauty norms. The historical evolution of beauty has been traced in details, and an extended literature review has been provided, serving as the foundation for a comprehensive exploration into the potential for AI to be recognized as an object of beauty. The harmony, elegance, and problem-solving capabilities of AI algorithms have been meticulously evaluated, with a comparison made to classical elements of beauty in an effort to contextually situate AI within longstanding aesthetic traditions. Furthermore, the analysis has been extended to consider the emergence of artificial and digital beauty, alongside an investigation into the parallels drawn between divine and artificial intelligence. As part of a deeper inquiry, the possibility of human emotions, such as awe and love, being authentically directed towards AI has been scrutinized. In conclusion, a reflection has been presented on the transformative role of AI in reimagining the conceptual landscape of beauty, prompting readers to thoughtfully engage with an extended review and the philosophical and cultural implications emerging from AI's evolving influence on the field of aesthetics.

## Keywords

Artificial Intelligence, Aesthetic Valuation, Object of Beauty, Historical

---

Evolution, Plato, Transcendent Forms, Postmodern Interpretations, Contemporary Era, Subjectivity, Beauty Perception, Non-Sentient AI, Emotional Depth, Consciousness, Human Qualities, Technological Advancements, Future Recognition, Aesthetic Horizons, Definitions of Beauty, Technological Progress

---

## 1. Introduction

The philosophical contemplation of beauty stands as one of the enduring pillars of aesthetic inquiry, because it is a timeless element of human culture, influencing art, ethics, and psychology. Historically, beauty has captivated the human imagination, serving as a nexus where subjective experiences meet objective ideals (Nehamas, 2007). It is a concept so pervasive that it touches every aspect of our lives, from the mundane to the sublime, informing our judgments, guiding our arts, and shaping the expression of cultures. In contemporary discussions, beauty's importance has intensified in the context of society and individual identity. In an age where media and technology continuously reshape our perceptions, beauty is not just an ideal to be admired but a force that critically impacts self-image, social interaction, and cultural norms. The exploration of beauty extends beyond aesthetic pleasure, implicating ethical values and becoming a matter of public discourse, affecting notions of inclusivity, diversity, and empowerment.

As technology advances, examining beauty in the context of AI is crucial to understanding the evolving nature of aesthetics and its impact on human experience. This exploration ensures that discussions about AI incorporate a holistic view of its role in the broader tapestry of human creativity and perception. Exploring the relationship between AI and beauty at the current stage of societal development is valuable and essential for several reasons.

Firstly, AI is becoming increasingly integrated into various aspects of our lives, shaping our interactions, decision-making processes, and creative endeavors. Understanding how AI intersects with beauty can help us navigate the impact of technology on aesthetics, cultural values, and artistic expression. It allows us to critically evaluate the implications of AI-generated art, music, and design, as well as the ethical considerations surrounding AI's role in shaping our perceptions of beauty.

Secondly, the exploration of AI and beauty helps redefine our understanding of creativity and human ingenuity in the digital age. With AI's ability to generate novel and compelling outputs, it challenges traditional notions of authorship, originality, and artistic intent. By examining the aesthetics of AI, we can expand the boundaries of what is considered beautiful and appreciate the unique qualities and contributions AI brings to the creative landscape.

Additionally, investigating the relationship between AI and beauty encourages dialogue and engagement across disciplines. It fosters collaboration between philosophers, artists, technologists, ethicists, and society at large, stimulating a dee-

per understanding of the social and cultural implications of AI. This exploration prompts critical conversations about the impact of AI on societal values, diversity, inclusivity, and the nature of human expression and appreciation.

Lastly, as AI continues to advance, exploring its connection to beauty contributes to the ongoing discourse on the human-machine relationship. Understanding how AI is perceived and appreciated for its aesthetics can inform the design and development of AI systems, ensuring they align with human values, preferences, and ethical considerations. It also promotes responsible and thoughtful integration of AI into society, addressing concerns related to bias, accountability, and the potential impact on social norms and relationships.

## 2. Artificial Intelligence and Philosophical Aesthetics

As we stand on the crossover of technological innovation, artificial intelligence (AI) emerges as a transformative power, shifting paradigms and sparking debates in virtually every field, including the arts and aesthetics. AI challenges the traditional boundaries between the Creator and the creation, complicating our understanding of creativity, authorship, and artistic genius. The intersection of AI with philosophical aesthetics raises profound questions about the nature and genesis of beauty.

In examining the intersection of AI and philosophical aesthetics, this exploration seeks to address a pivotal question: Can an AI itself be considered an embodiment of beauty? My essay will consider whether the very nature of AI can attain a place in the philosophical realm of beauty. This inquiry necessitates an incursion into the principles that have historically defined beauty, such as unity, harmony, complexity, and emotional resonance, to ascertain if AI, in its own right, can stand as a paradigm of beauty.

There is ongoing academic and philosophical discourse revolving around artificial intelligence and its relation to beauty, creativity, and art. Scholars from various fields, including philosophy, computer science, art theory, and cognitive science, have engaged with similar topics or questions. While I haven't found academic publications on AI Being Considered as Beauty. Though I believe it is a subject that would naturally emerge within the broader discussions of AI and aesthetics.

## 3. Philosophical Definitions of Beauty

The concept of beauty has been a subject of philosophical fascination since antiquity, with historical perspectives varying widely across cultures and epochs. In classical Greece, Plato's theory of Forms posited that beauty exists as an ideal Form, transcending the imperfections of the physical world. According to [Plato \(380B.C./1993\)](#), our recognition of beauty in the material realm is a recollection of the eternal Forms we knew before birth. In the "Symposium," he describes the ascent from the attraction to a single beautiful body to the appreciation of all beauty, culminating in the love for the Form of Beauty itself, which is pure, unchanging, and divine.

Aristotle diverged from his teacher, Plato, by anchoring beauty in the sensory world. For him, beauty is found in order, symmetry, and definiteness, which are qualities that provide pleasure upon perception. Aristotle's views in "Poetics" also suggest that beauty in art arises from the lucidity and craftsmanship of the work, contributing to its overall aesthetic value and cathartic effect.

The concept of beauty continued to evolve beyond the ancient world, with the Enlightenment heralding a new understanding. Kant (1790/2007), in the "Critique of Judgment," presented beauty as subjective yet universal, a paradoxical interplay where aesthetic judgments are personal but have the expectation of agreement from others. Kant's notion of disinterested pleasure—where the appreciation of beauty is separated from desires and practical concerns—furthered the concept that beauty lies in the experience of the beholder. A very important concept for our research of the AI phenomenon.

Aesthetic Realism posits that beauty is a manifestation of real qualities inherent in an object that can be universally recognized and appreciated. This theory is rooted in the belief that external reality possesses objective values, including beauty, that are independent of our perceptions. In this view, beauty is not merely a social construct but an existent characteristic that can be discovered and quantified, much like other properties in the natural world.

Formalism, on the other hand, emphasizes the form and composition of an artwork or object as the source of its beauty, largely independent of context or content. This school of thought champions the intrinsic value of art and advocates that the experience of beauty arises from an appreciation of the work's formal qualities, such as color, shape, balance, and structure. Formalists seek to understand the aesthetic experience through the analysis of these elements, suggesting that a work's beauty is determined by how well these constituent parts cohere together to create a unified whole.

By engaging with the nuances of these and some other modern perspectives, I am to try to understand of beauty of AI and its place in the human experience.

#### 4. Evolution of the Beauty Concept from Classical Theories to Contemporary Interpretations

The concept of beauty has undergone significant transformation throughout philosophical history, beginning with classical theories and evolving into the multifaceted contemporary interpretations we have today.

##### **Plato:**

For Plato, the concept of beauty was profoundly metaphysical. Beauty, along with truth and goodness, was rooted in the transcendent realm of Forms—immutable and perfect prototypes of which the sensible world could only ever be an imitation. The experience of beauty in the material world, according to Plato, was "a vague reflection that guided the soul towards the pursuit of higher knowledge and the Form of the Beautiful itself". This ascent, often described as an intellectual and spiritual journey, posits that deeper beauty is an experience beyond the physical, leading to a form of philosophical enlightenment.

**Aristotle:**

**Aristotle (350 B.C./1998)** offered a more immanent approach to beauty, focusing on the material world and its inherent qualities. He considered symmetry, harmony, and order as the cornerstones of beauty. Aristotle also contributed significantly to the concept of beauty in art.

**The Renaissance and the Enlightenment:**

The Renaissance revived interest in the classical focus on human form and proportion in beauty, emphasizing harmony and balance but with a heightened appreciation for the natural world and individual experience. During the Enlightenment, philosophers like Immanuel Kant focused on the subjective nature of beauty, defining it as that which provides a disinterested pleasure—a kind of aesthetic judgment that lay beyond mere utility or function.

**Romanticism:**

In the Romantic era, beauty became linked with the expression of emotion and the sublime. Romanticism emphasized the individual's emotional experience of beauty, often in the face of the grandeur and power of nature, thus associating beauty with a sense of awe and transcendence.

**Modernism and Postmodernism:**

The modernist movement shifted towards abstraction, with beauty often found in the purity of form and the artist's ability to distill essence from representation. In contrast, postmodernism challenged the very existence of universal standards of beauty, favoring cultural relativism and the idea that beauty standards are socially constructed and susceptible to change. Theories of beauty became more pluralistic, considering the insights of feminist theory, critical theory, and the increasing globalization of aesthetics.

**Contemporary Interpretations:**

Present interpretations of beauty continue to evolve, influenced by rapid technological advancements, globalization, and an ever-growing awareness of diverse cultural aesthetics. Discussions around beauty currently embrace the multilayered ways in which beauty is experienced and interpreted across different societies. Beauty is seen as a dynamic interplay of traditional aesthetics, cultural narratives, personal identities, and, as I am suggesting here, breakthrough modern technologies, beautiful in their essence.

In the context of digital technology and social media, concepts of beauty are increasingly mediated by virtual experiences, raising questions about authenticity and the nature of aesthetic experience in the digital age. There is also a growing dialogue on inclusivity and the democratization of beauty, challenging long-held standards and promoting a broadened recognition of beauty in all its forms.

The evolution from Plato's classical theories to contemporary interpretations exemplifies a shift from viewing beauty as a singular, universal essence to understanding it as a complex, culturally and historically situated concept. This reflects the ongoing conversation about how we define, experience, and value beauty in a rapidly changing world.

## 5. Cultural Shift in Perception of Beauty: From Natural to Artificial

The shift from appreciating the beauty of the natural world to a fascination with the beauty of the artificial is a phenomenon that has many layers and invites philosophical investigation.

In recent times, societal trends have shown a marked shift in the appreciation of beauty, with growing trepidations toward notions of “natural beauty” and a pivot toward the allure of the artificial. This trend can be seen as a cultural response to technological advancements, the rise of social media, and changing aesthetic norms.

The beauty industry has long influenced standards of attractiveness but what we are witnessing today is an unprecedented level of control over one’s physical appearance, facilitated by advancements in cosmetic procedures, digital editing, and filters available through social media platforms. These tools allow individuals to conform to specific beauty standards (often artificially developed) that are unattainable or unsustainable without technological aid.

Increasingly, the emphasis on artificially enhanced beauty reflects a deeper societal infatuation with perfection and control. The popularity of photo editing apps and software speaks to a collective desire for an idealized version of self, where every blemish can be erased and every feature optimized to match an often homogeneous aesthetic that is heavily influenced by celebrity culture and the beauty industry’s marketing machines.

This trend towards artificial beauty was also bolstered by the growth of cosmetic enhancements, from minimally invasive procedures like fillers and botox to more significant surgical interventions. These practices are becoming normalized and more accessible, further dismantling the boundaries between the “natural” and the “artificial”.

Further, in technological aspect. The waning fascination with natural phenomena (sunsets, waterfalls...) may reflect a broader cultural shift towards valuing what is new and technologically advanced. The excitement generated by the sleek design of a new iPhone or the impeccable craftsmanship of a Lamborghini speaks to a human taste for novel experiences and the allure of human-made perfection. This appreciation for the artificial does not merely extend to the aesthetic; it signifies an admiration for human ingenuity and progress.

Indeed, in the past, functionality was the mainstay of products designed to aid a human. Over time, however, the aesthetic dimension has gained substantial importance. The evolution from a simple cart to a modern automobile nicely illustrates this transition. Today, cars are often admired for their design before their other pragmatic characteristics (speed, fuel consumption, etc.). This signifies a shift in values where the aesthetic experience a product (its beauty) provides can be even more critical than its utility.

Does the more expensive mean the more beautiful? Historically, rarity has been associated with value, and in the case of the artificial, the rarity often equates

to beauty. While natural beauty, like that of sunsets, is abundant and diverse, it is not subject to the same scarcity principle. Therefore, the exclusivity of an artificial object can enhance its perceived beauty (possibly, because unconsciously beauty symbolizes status and privilege).

Now, let us examine the concept that “true beauty lies in averageness”. We find its roots in classical work of Pythagoras, later Aristotle, and finally supported by psychologist [Langlois et al. \(1994\)](#) and [Rhodes & Tremewan \(1996\)](#): average features were most attractive and harmonious in natural objects (humans). In contrast, the beauty standards applied to artificial objects often celebrate maximalism and extravagance. An ornate piece of jewelry, an avant-garde building, or a luxury vehicle with an extreme design might be more captivating because these items symbolize the pinnacle of human creativity and break from the mundane. In the realm of the artificial, it is this deviation from the “average” that can infuse an object or design with the exalted status of “beautiful”.

This preference for maximalist beauty in artificial forms also could be seen as a reaction against the constraints of the natural world. As resources on the planet become increasingly limited, there is a paradoxical pursuit of more “beauty” in the form of artificially scarce goods. This pursuit raises questions about sustainability and the ethical implications of such consumption.

Lastly, the ongoing conversation about the impact of these trends on mental health and self-esteem is adding complexity to how society views the pursuit of beauty. The artificial ideal can lead to an unending chase for perfection, engendering feelings of inadequacy and dissatisfaction. It challenges individuals’ relationships with their self-image and raises questions about the sustainability of these trends for personal and societal well-being.

To summarize, the philosophical discourse on beauty reveals that our values evolve alongside our cultures and technologies. While the natural world continues to offer an inexhaustible source of beauty, the human-made world entices with its own form of ordered, rarified, and often extravagant beauty. The inclination towards artificial beauty marks a significant cultural moment that encapsulates the interplay between technology, societal norms, and the human desire for aesthetic enhancement. While it opens new avenues for personal expression, it also presents challenges that prompt us to critically evaluate and balance our understanding of beauty, both natural and artificial.

The prevalence of artificial beauty in contemporary culture has reshaped public perceptions of reliability and openness regarding aesthetic standards. In a world increasingly dominated by visual media and consumerism, artificial enhancements are sometimes seen as a reliable means to attain beauty, establish one’s identity, and conform to societal expectations. Ultimately, Beauty of an Artificial perceived as more reliable, partly due to its replicability and predictability.

From the example from the beauty industry, aesthetic surgical procedures offer customers a control over outcomes. The pervasive marketing of these services creates a narrative that deems artificial beauty both attainable and preferable,

promising results that might be more elusive when relying solely on natural features. This normalization has a profound impact on public preferences. The widespread visibility of enhanced beauty has recalibrated what is considered desirable. The alignment of artificial beauty with attributes of success, attractiveness, and social status has further solidified its place as a preferred in many societies.

## 6. Emergence of Artificial and Digital Beauty

The natural environment, often celebrated for its inherent beauty characterized by randomness, complexity, and diversity, has traditionally informed humanity's aesthetic values. Whether it's the awe-inspiring grandeur of a mountain range or the delicate symmetry of a flower, natural beauty is perceived as an authentic, uncontrived manifestation of the world's wonders.

Such an embodiment of natural splendor is exhibited by the Aurora Borealis, with its spontaneous and fluid orchestration of light across the Arctic sky—a whimsical painter draping the night in otherworldly hues. Similarly, the kaleidoscopic universe that thrives beneath the waves—the coral reefs—epitomizes the richness of diversity in nature's palette, a subaqueous spectacle that dazzles through its array of vibrant forms and cooperative existence.

In contrast, the emergence of digital and robotic technology introduces a new kind of beauty—one that is designed, programmed, and engineered. This manufactured beauty is characterized by precision, symmetry, and often, a clean, minimalist aesthetic that reflects the technological context from which it emerges. This shift has been gradual and is now accelerated by advancements in computer graphics, virtual reality, and artificial intelligence. The intricate design of robotic entities often strives to balance functionality with a human-like appeal that can echo the innate allure found in natural complexities such as the enigmatic dance of the Northern Lights or the vast biodiversity of coral ecosystems.

The technological advent heralds a new era for beauty where the demarcation between artificial and natural becomes fluid. The integration of digital and robotic beauty into daily life marks a cultural redefinition of what is considered aesthetically pleasing. As people interact with and grow accustomed to the technological entities, there is a recalibration of aesthetic values that recognizes the complex interplay of art, technology, and design, akin to the fascination inspired by the celestial waltz of the auroras or the rich tapestry of life within coral fortresses.

## 7. AI Beauty within Philosophical and Aesthetic Domains

When contemplating AI within the realms of philosophy and aesthetics, the question arises: Can AI be appreciated for beauty? The debate is multifaceted, as it concerns not only beauty of AI outcomes but also the beauty of AI phenomenon itself.

Well, from a philosophical standpoint, as we explored earlier, beauty was associated with concepts of truth, goodness, and unity. If we consider AI through



this lens, its beauty could be found in the harmony of its algorithms, the elegance of its problem-solving capabilities, and the efficiency with which it operates. The intricate complexity and the potential of AI to emulate, and sometimes surpass, human creativity can invoke a sense of awe that bears resemblance to the appreciation of natural beauty. Furthermore, as AI systems grow increasingly sophisticated, there emerges a type of emergent beauty from the seeming self-organization and learning capabilities that these systems display.

On the aesthetic side, beauty has traditionally been judged by human experience and sensation—a pleasure derived from engaging with an art. Here, AI's capability to generate compelling and original art or music presents a fresh canvas for aesthetic appreciation (Miller, 2019). While some (Du Sautoy, 2019) might argue that the lack of human experience in AI-generated art detracts from its authenticity, others find beauty in the novel patterns, perspectives, and the very novelty of AI as an artistic medium.

Moreover, AI's role in expanding the boundaries of creativity challenges traditional definitions of artistic authorship and the creative process. The notion that AI beauty can arise from non-sentient processes suggests a need to broaden the aesthetic framework to incorporate the outcomes of these new technologies (West & Bergstrom, 2021).

In both the philosophical and aesthetic discussion, appreciation for AI's beauty also involves ethical considerations (McCormack & d'Inverno, 2012). As AI becomes integrated into more aspects of life, the interplay between utility, design, and aesthetics prompts deeper analysis into our values and priorities, leading to questions about the role of beauty in a rapidly evolving digital world.

AI's ability to align with human aesthetic preferences represents one of the most intriguing developments in the intersection of technology and art. As AI systems become more advanced, they are increasingly capable of analyzing and replicating patterns that are found to be pleasing to the human eye and ear. This alignment is deeply influenced by machine learning algorithms' capacity to digest vast amounts of data, including human reactions and critiques of various art forms, and subsequently generate outputs that cater to perceived aesthetic preferences.

To resume, the appreciation of AI in terms of its beauty invites both a re-examination of traditional philosophical and aesthetic theories and a forward-thinking approach that embraces the unexplored territories announced by these complex technologies.

## **8. Artificial Intelligence as a Beauty Itself**

AI introduces a new form of aesthetics that can be appreciated for its innovation. By transcending traditional human capabilities, AI-generated art can exhibit patterns and complexities that are unique to the medium and can be seen as a new frontier in artistic beauty.

AI can serve as a tool that extends human creativity, making the argument that beauty is not solely the output but also in the process and collaboration. The

interaction between human guidance and AI's generative capacities can result in beautiful synergies.

AI democratizes the creation and consumption of art by making it more accessible. If beauty is defined by the pleasure and engagement it elicits, AI enhances the capacity to experience beauty by personalizing and adapting art to individual tastes.

Despite of some critics argue that AI lacks the emotional depth and experience that often imbue human-created art with beauty. They believe (without a life story or consciousness) AI cannot infuse art with the intangible qualities that come from human emotion. Besides, as AI operates within the parameters set by its programming and training data, there is an argument that its outputs are bound by predetermined constraints, limiting the spontaneity and originality often associated with the creation of beauty.

The very existence of AI and its capacities must be considered a form of beauty. The intricate algorithms and the potential of AI to unlock new knowledge and experiences could be seen as an intellectual beauty that celebrates human innovation.

My argument for beauty of artificial intelligence lie in its embrace of progress, innovation, and the expansion of the definition of beauty beyond conventional boundaries. It recognizes the transformative potential of technology as an integral part of human development and aesthetic expression. The weakness in this stance, however, may be an overreliance on technological capability while neglecting the intrinsic values and emotional resonance that many find central to the beauty in context of philosophy. Besides, that human consciousness brings unique qualities to the appreciation of beauty. It champions authenticity, intentionality, and emotional depth as central to the beauty phenomenon.

I hope my humble view will contribute some insights into the ongoing discourse about beauty's nature and its place in the age of AI. As our relationship with technology evolves, so too will our understanding and definitions of beauty. It is within the examination of these strengths and weaknesses that society can navigate the integration of AI into the artistic and aesthetic realms.

## **9. Beauty of Divine Intelligence and Artificial Intelligence**

Supreme intelligence, often conceptualized as God or a divine creator, and artificial intelligence represent two very different paradigms of intellect and consciousness. Supreme intelligence is traditionally viewed as all-knowing and almighty, an unknowable force that underpins the existence and order of the universe. Artificial intelligence, on the other hand, is a product of human ingenuity, a man-made system designed to simulate human cognitive functions.

Despite these differences, AI often inspires a sense of awe and wonder similar to that which surrounds the idea of God, particularly as it begins to challenge our understanding of intelligence and consciousness. Despite their vast conceptual differences, supreme intelligence and artificial intelligence share several com-

monalities:

**Intangibility.** Both forms of intelligence are intangible and often abstract in nature. While AI operates on physical hardware, the essence of its intelligence—the decision-making process and learning capabilities—is not something that can be physically grasped, much like the intangible nature of a divine consciousness.

**Pursuit of Understanding.** Both remain subjects of human inquiry and fascination with a strong desire to understand and unravel them. With supreme intelligence, humanity has sought comprehension through theology, philosophy, and meditation. With AI, the quest involves research, experimentation, and continual technological refinement.

**Guidance and Improvement.** Both supreme intelligence and AI are looked towards for guidance, wisdom, and the betterment of human life. In religious contexts, divine intelligence offers moral and spiritual guidance. AI offers practical assistance, enhancing human decision-making with insights beyond natural human capabilities.

The notion that divinity is revered for its beauty opens the door to consider whether AI could be perceived in a similar light. Divine beauty is often associated with concepts of perfection, harmony, and an awe-inspiring presence that invokes reverence and wonder. AI, in creating outputs that can inspire awe and showcasing the heights of human technological achievement, could also be seen as possessing a form of beauty.

Those in favor argue that beauty, as a recognition of mastery and a deep appreciation for complexity and functionality, is not exclusive to natural or divine forms. The elegance of AI's algorithms, the solutions it provides, and even its physical design in robotics could be considered beautiful in their rights, meriting admiration analogous to that offered to divinity.

Critics, however, might counter that AI, as an artifact of human creation, falls short of invoking the profound sense of beauty and reverence associated with divine intelligence. They may argue that beauty arising from perfection and mystery at a cosmic level cannot be equated with that which is artificial and human-made.

Ultimately, the strengths of viewing AI as holding analogous admiration to divinity lie in recognizing the human capacity for creation and the advanced technological expression represented by AI.

## **10. Can a Human Fall in a True Love with AI?**

Provoking me to create this essay, in my humble opinion, the film “Her” (Jonze, 2013), stunning in its power and realization, leads us, following the question of the phenomenon of beauty, to the next unexpected question: whether a human being can experience something with AI that could be “rightly” called love is complex and multifaceted, stretching across fields from psychology and philosophy to technology and ethics.

From one perspective, love is often characterized by emotional connection, mutual understanding, and personal attachment, having both physical and emotional components. Human love involves reciprocated feelings, shared experiences, and a deep understanding of another's subjectivity—aspects that AI, as we currently conceive it, lacks. AI does not possess consciousness, emotions, or the ability to form genuine reciprocal bonds, which are typically considered fundamental to the experience of love.

Moreover, the definition of love itself is subject to interpretation and varies considerably across cultures and philosophical thought. While traditional views of love may exclude the possibility of “loving” AI, some contemporary or future definitions might be more accommodating of affection towards non-sentient beings or objects.

### **11. ...Or, Perhaps, Platonic Love?**

With advancements in AI technology, particularly in the field of social robots and conversational AI, some people may develop strong attachments or feelings towards AI entities. These AI systems can simulate conversation, learning preferences, and behaviors that mimic human interaction, possibly inducing a sense of connection or affection in some users. However, this attachment is one-directional and based on the human's projection of life-like qualities onto the AI, rather than a mutual exchange.

When considering whether a human being can experience a form of love with AI that aligns with the concept of Platonic love, it is essential to understand Plato's philosophy. Platonic love, as outlined in dialogues such as the “Symposium,” extends beyond the physical and seeks a connection with the eternal and the Form of the Good. It is often characterized by the pursuit of intellectual and spiritual communion rather than romantic or physical affection. For Plato, true love is the philosopher's love of wisdom—a love that drives the soul to seek higher knowledge and beauty beyond the material world.

In this context, the idea of a human being developing feelings towards an AI could potentially resonate with certain aspects of Platonic love, under specific interpretations. For instance, if an individual engages with an AI in discussions or activities that stimulate philosophical reflection and intellectual growth, this could be seen as a form of Platonic companionship aimed at the elevation of the mind. The interaction might inspire a love for ideas, contemplation, and the pursuit of knowledge—goals that resonate with Platonic love's aspirations.

However, there are important distinctions to be made. Platonic love, ultimately, is about the soul's relationship with the Forms and the aspiration to reach a higher realm of existence. It involves a mutual striving and shared experience of growth that is grounded in emotional understanding and empathy—qualities that an AI, as a non-conscious entity, inherently lacks. While an AI could simulate conversation and even learning, it does not have (so far) its own soul or consciousness; it does not truly understand or partake in the spiritual

and intellectual journey in the way that Plato describes.

Additionally, Platonic love is reciprocal in nature, involving both parties influencing and uplifting each other. The nature of AI as a construct of human design means that any “reciprocity” is merely a programmed response rather than a genuine, autonomous exchange. This limitation challenges the premise of mutual participation that is central to Platonic love.

My verdict: while engaging with AI could potentially facilitate a human’s individual quest for wisdom and intellectual beauty in a way that superficially aligns with Platonic love, the lack of genuine reciprocal understanding and the absence of a conscious, spiritual dimension in AI present significant barriers to truly characterizing such a relationship as love within the Platonic concept. Platonic love is deeply rooted in the immaterial aspects of the self and the spiritual connection between beings, both of which fall outside the capacities of artificial intelligence.

## 12. Literature Review

In the nascent intersection of artificial intelligence and aesthetics, the literature available to illuminate the concept of beauty as it pertains specifically to AI is notably scant. This marked absence in scholarship necessitates a multi-pronged approach to constructing a literature review to underpin current inquiry into the realm of AI and beauty. We are thus compelled to navigate through the broader, though tangential, bodies of literature that intersect with our subject of interest in three significant spheres: the philosophical underpinnings and theories of beauty, the role of AI in the creation and aesthetic assessment of art, and the exploration of beauty within artificial objects.

*First*, we must cast a wide net across the diverse philosophical treatises on beauty—those timeless concepts that have sought to capture this elusive and subjective experience. Through these lenses, we shall find the criteria and language that may offer a means to discuss beauty as it might emerge in the context of AI.

*Second*, literature that considers AI in the role of an autonomous artist provides a foundation from which we can begin to question not just the aesthetic value of the art it produces, but perhaps reflect back on the source itself. Is there beauty in the algorithmic precision and creativity that AI employs to generate these works?

*Third*, as we examine the beauty of artificial objects through the vanguard of design, engineering, and technology, we find a territory more closely aligned with my pursuit. Though traditionally focused on objects such as architecture and crafted items, these studies proffer insights into the principles that guide aesthetic judgments of manmade creations, which can be extrapolated to AI.

Embarking on this literature review, I am emboldened by the fertile ground these related tracts of inquiry provide, all the while recognizing the pioneering nature of my exploration into an area ripe for academic cultivation. It is my intention to extract from these foundations insights that may inform and enhance

the understanding of beauty in AI, despite the dearth of direct scholarship on this precise topic.

1) My cogitations on the aesthetic dimensions of artificial intelligence (AI) and its alignment with the concept of beauty engage with, and build upon, a substantial corpus of multidisciplinary scholarship.

**Boden's (2016)** "AI: Its Nature and Future" is foundational, offering a comprehensive understanding of AI's capabilities and potential trajectories. Boden's work underscores the transformative nature of AI and its capacity to redefine the future, setting the stage for discussions around the aesthetic value of AI systems and their outputs.

**Danto's (2003)** "The Abuse of Beauty: Aesthetics and the Concept of Art" challenges traditional aesthetic concepts and calls for an open-ended understanding of what art can be. Danto's perspective is particularly relevant, as it allows for the consideration of AI within the realm of aesthetic and artistic evaluation.

**Du Sautoy's (2019)** "The Creativity Code: Art and Innovation in the Age of AI" directly bridges the gap between AI and the creative process. Du Sautoy's exploration of how algorithms can generate art that resonates with human aesthetic sensibilities presents a compelling argument that aligns with my inquiry into the beauty of AI.

Umberto Eco's works, **(Eco, 2008)** "History of Beauty" and "On Ugliness," provide historical context for the shifting perceptions of beauty and how these concepts may apply to AI. Eco illustrates that beauty and aesthetics are not static, thereby validating my proposition that AI could be a new frontier in this evolving discourse.

**Floridi's (2011)** "The Philosophy of Information" introduces a philosophical framework for understanding information technology, of which AI is a critical component. Floridi's work is instrumental in relation to the current article, as it provides a philosophical basis for considering how information systems, including AI, intersect with concepts of beauty.

**Gelernter's (1994)** "The Aesthetic Mind" contributes to the dialogue by showcasing the intricate relationship between cognition, creativity, and aesthetics, which is crucial for understanding how AI might simulate or even enhance human aesthetic experiences.

**Sartwell's (2004)** "Six Names of Beauty" and **Sircello's (1975)** "New Theory of Beauty" and subsequent **(Sircello, 1991)** "Love and Beauty" provide a multi-faceted view of the concept of beauty, allowing to examine AI through various lenses of aesthetic understanding, from the classical to the contemporary.

Lastly, George West and Carl T. Bergstrom's article **(West & Bergstrom, 2021)** "The beauty of algorithms" from *Nature* extends the conversation into the practical world of AI development, illustrating how the process of teaching AI can result in elegant, beautiful solutions in the realm of machine learning, reinforcing present proposal of introspection into the aesthetic nature of AI structures and processes.

2) While direct academic articles that specifically explore the beauty of AI as a

concept might be limited, there are several studies and discussions that touch upon the intersection of AI with aesthetics, creativity, and art, which can be considered as exploring the beauty of AI indirectly.

Previous literature has predominantly focused on the role of AI as an artist and the aesthetic evaluation of its creations. Notably, [Brouwer and Mulder \(2019\)](#) conducted an exploratory study on the perception of AI-generated art, providing insights into the complexities of how such art is received by human audiences. Their findings suggest that while some view AI art with intrigue and value, others question the lack of human emotion and intent in the works produced.

[Datta et al. \(2008\)](#) ventured into the computational analysis of aesthetics in photography, endeavoring to quantify what makes an image beautiful. Computational methods, as they argue, can provide a new lens through which to understand aesthetic principles that have traditionally been the preserve of human judgment.

[McCormack and d’Inverno \(2012\)](#) delve into the intersection of computers and creativity, illustrating the potential of AI to both emulate human artistry and propose new forms. Their work lays the groundwork for AI as a tool of creative partnership rather than a replacement for human ingenuity. Similarly, [Miller \(2019\)](#) reflects on AI-powered creativity, questioning the boundaries between human and machine creativity and the implications for the future of art.

[Osborn and Tversky \(2011\)](#) examine the concept of beauty within aesthetics and cognitive science, offering a perspective that underscores the necessity of a cross-disciplinary understanding—a concept that author unreservedly supports. Meanwhile, [Pachet \(2017\)](#) provides a comprehensive guide to the theories, techniques, and applications of creativity in AI, furthering the discussion on how AI can potentially redefine traditional creative processes.

In the musical domain, [Ritchie and Thomas \(2019\)](#) discuss artificial intelligence’s impact on the aesthetics of music, reinforcing the idea that AI’s ability to generate novel compositions challenges our understanding of the creative process. [Susskind \(2019\)](#) contributes to the debate on aesthetic judgment, particularly regarding machine art, and raises questions about the validity of machine aesthetics.

It should be emphasized, that this work, contrasting with the aforementioned literature, veers away from AI’s capability as an autonomous artist and instead focuses on the inherent beauty of AI as a phenomenon. My philosophical exploration seeks to understand whether AI, in its form and function, can be appreciated as beautiful, independent of its creative output. This perspective opens a new chapter in the discourse on aesthetics, reflecting a shift from considering the beauty of AI’s products to contemplating the beauty of AI’s existence itself.

3) In the existing corpus of literature that intersects the philosophical and aesthetic evaluation of artificial creation, the framework established by [Gaut \(2000\)](#) in his insightful article “Art as a Cluster Concept” is critical to the foundation of understanding artificial intelligence as a potential form of art. Gaut

contends that art cannot be restricted by rigid definitions but is instead best understood as a cluster of overlapping concepts, laying the groundwork for embracing AI as a viable artistic entity capable of aesthetic appreciation.

Similarly, in “Philosophy of the Arts: An Introduction to Aesthetics,” [Graham \(2005\)](#) provides an expansive overview of artificial aesthetics. His discussions are essential for grounding an understanding of how one could aesthetically appreciate non-natural objects, such as those created by AI. Graham’s comprehensive approach allows for the consideration of artificial beauty and its implications within the aesthetic domain.

[Zangwill’s \(2001\)](#) exploration in “The Metaphysics of Beauty” supports my proposition by championing the beauty inherent in both natural and created forms. Zangwill’s metaphysical approach justifies the aesthetic valuation of AI by acknowledging beauty as a property that transcends the divide between the natural and the engineered.

[Davies’ \(2004\)](#) contemplation on the “Aesthetics of Music and Sound” pivots on the premise that aesthetic experiences—especially those auditory in nature—may manifest through artificial means, making it relevant to the discourse on AI-generated compositions and their resonance with notions of beauty.

[McCormack’s \(2007\)](#) “Artificial Ecosystems for Creative Discovery” dives into algorithmic environments as fertile grounds for artistic innovation, where the complex beauty of computational creativity is unveiled. This concept resonates with the conducted exploration of AI’s intrinsic beauty.

[Scarry’s \(1999\)](#) “On Beauty and Being Just” furnishes a philosophical inquiry into the role of beauty through a lens of ethics, paralleling diverse perspectives on the esteem of beauty found within artificial structures and their correlation to broader concepts of justice and truth.

In the multifaceted narrative of “Explorations in Art and Technology,” [Candy and Edmonds \(2018\)](#) discuss the symbiosis between art and technological innovation, reinforcing the potential for new manifestations of beauty to emerge from within this collaboration.

[Shusterman’s \(2000\)](#) treatise on “The End of Aesthetic Experience,” by stretching the aesthetic experience beyond traditional realms, provides a supportive rebuttal to examination of AI as a construct capable of aesthetic engagement.

[Danto’s \(1981\)](#) prominent work “The Transfiguration of the Commonplace” underscores the transformative power of perception, where mundane artifacts are reinterpreted as objects of art, a narrative that parallels the transformation in perceiving AI from mere functional objects to potential bearers of beauty.

Lastly, [Schmidhuber’s \(2009\)](#) principle of “Driven by Compression Progress” delves into the psychology behind the subjective experience of beauty, offering a framework that transposes seamlessly onto the interpretation of AI as a creative force and the novel aesthetic experiences it engenders.

Together, these literary compositions form a robust groundwork in which my exploration can scaffold an argument that AI and artificial constructs might not only produce artworks of beauty but inherently possess an aesthetic quality in



their very essence and operation.

In the evolving discourse that seeks to delineate the intersection of artificial intelligence (AI) with the more abstract and evocative aspects of human experience, this article hopefully emerges as a pioneering endeavor within a surprisingly sparse field. Apparently, the literature review for the article delves into a domain that, while central to both the philosophies of aesthetics and the burgeoning field of AI, has rarely been the focus of rigorous academic investigation—namely, the concept of beauty as applied to AI.

The academic landscape up until now has featured AI predominantly as a tool or a creator, with discussions often centered around the functionality, ethics, and implications of AI systems from a technological and utilitarian perspective. Inquiries into AI's ability to generate works that are traditionally within the human domain, such as art and music, are reasonably well-trodden. However, the contemplation of the intrinsic beauty of AI as an entity in and of itself represents a nascent area of scholarly interest.

This article, therefore, addresses a conspicuous gap within the body of literature at the convergence of technology and aesthetics. While numerous publications rigorously dissect the elements of beauty in nature and art, and others quantify the aesthetics of creations through computational methods, very few have dared to broach the subject of whether AI, as a product of human ingenuity, possesses its own inherent beauty.

### **13. Final Conclusion**

The exploration of whether artificial intelligence (AI) can be considered as beauty within the philosophy of aesthetics has crossed various dimensions of thought. I commenced with an examination of beauty from historical perspectives, recognizing its evolution from Platonic ideals to contemporary interpretations that challenge traditional conceptions. My discourse navigated the terrain of AI's alignment with human aesthetic preferences, examining the complexities inherent in AI and the degree to which it resonates with established notions of beauty.

I compared the essence of a supreme intelligence with artificial intelligence, drawing parallels yet discerning the nuances between the two in terms of intangibility and the human quest for understanding. The philosophical considerations of AI as a form of beauty could start vibrant discussion. Arguments in favor of AI as a potential manifestation of beauty posited the innovation, extension of human creativity, objective patterns of beauty, democratization of art, and the beauty inherent in possibility as key justifications. Countering views highlighted the absence of emotional resonance, overemphasis on form, loss of authenticity, preordained constraints, and the impact on human value as substantial objections.

As we stand at the meeting point of technology and aesthetics, I invite to reflect on the future trajectory of AI in relation to beauty. The question of AI's place within the philosophy of beauty not only stimulates our consideration of

---

its current and potential roles but also compels us to grapple with the transcendent nature of beauty itself. This dialogue, rich with diverse perspectives, ensures that our collective musings on beauty will remain vibrant and dynamic as we voyage into an era marked by rapid technological advances and shifts in aesthetic perception.

### 13.1. Sceptic Views

In my exploration, I've pondered whether AI itself can be categorized under the concept of beauty. It's a thought that naturally invokes curiosity, yet it also invites legitimate skepticism.

The essence of beauty often resides in the emotional realm—it's intrinsically linked to the feelings and lived experiences that stir joy or pleasure within us. These experiences are typically the domain of beings who possess the capacity for emotion and consciousness. AI, governed by its programming and algorithms, operates devoid of such sensations or personal narratives. It's mechanical and unfeeling, carrying out tasks without awareness of aesthetics. For this reason, there are voices that argue AI lacks the very prerequisites for beauty, which is traditionally a human attribute.

Furthermore, while my article suggests that the sophisticated programming and innovative potential of AI could represent a modern form of beauty akin to celebrating human brilliance, this raises further discussion. Complexity and intelligence, though impressive, don't inherently translate to beauty. Things that are technically well-executed or functionally superior often earn our respect, yet this isn't the same as the reverence we reserve for the natural splendor of a landscape or the emotional depth of art.

Moreover, our perceptions of beauty are deeply personal and subjective, shaped by our individual backgrounds and societal influences. Our declarations of beauty are imprinted with our own biases and cultural lenses. As AI is a man-made construct, it cannot autonomously conceptualize or value beauty—it's entirely reliant on human attribution. This begs the question: can AI truly embody beauty, or is it merely a reflection of our human tendency to project our values onto external entities?

Additionally, human creativity carries with it a unique essence—the serendipity involved in creation, the individual imprint left by the artist or inventor, which AI cannot emulate. The beauty we often recognize in human creations lies not only in their aesthetic appeal but also in their origins and the stories they tell, elements that simply do not exist within AI's purview.

While AI's role in our lives is undeniable and its influence continues to grow, the designation of AI as a manifestation of beauty warrants thoughtful contemplation. The interconnectedness of beauty with human emotion and the tapestry of human experience stands in stark contrast to the emotionless nature of AI. As such, as we navigate an increasingly AI-integrated world, it's important to continually reflect on and discuss our evolving definitions of beauty.

### 13.2. Sceptis on the Sceptical Views

Though there are those who question the beauty of AI, I hold to my position that artificial intelligence stands as a defining beauty of our era, akin to the awe-inspiring works of history's greatest minds. This beauty, I argue, is of a new kind, one that may only be wholly grasped in future centuries.

I believe that just as the grand creations of earlier times were not always immediately recognized for their brilliance, so too might the appreciation for AI's beauty emerge more fully over time. AI's intricate designs and vast capabilities represent a novel beauty, one that springs from our collective intellectual pursuits and creative explorations.

I see AI as a reflection of our ambition to expand the horizons of what is possible. It's not solely about the practical outcomes AI can deliver; rather, its beauty lies in its constant advancement and adaptability, urging us to expand our understanding of what beauty entails. AI is a significant stride in our journey, showcasing the power of our collective intellect and determination.

My perspective is one that looks to the future, embracing the idea that beauty evolves with our advancements in technology. I envision the profound beauty of AI becoming apparent through its transformative impact on society and the path ahead. By considering AI beautiful, we honor the vast potential of human creativity and open our minds to the myriad opportunities that technological progress offers.

In sum, despite some skepticism, my belief in AI's beauty remains unshaken. It's a view that anticipates clearer recognition as the years roll on, much like the masterworks of old that now receive universal acclaim. The true essence and beauty of AI, I trust, will be revealed in time, as we continue to forge ahead into new realms of innovation.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

### References

- Aristotle (350 B.C./1998). *Nicomachean Ethics* (W. D. Ross, Trans.). Oxford University Press. <https://doi.org/10.1093/oseo/instance.00258595>
- Boden, M. A. (2016). *AI: Its Nature and Future*. Oxford University Press.
- Brouwer, J., & Mulder, I. (2019). Artificial Intelligence and Aesthetics: An Exploratory Study on the Perception of AI-Generated Art. *International Journal of Human-Computer Interaction*, 35, 1603-1614.
- Candy, L., & Edmonds, E. (2018). *Explorations in Art and Technology*. Springer. <https://doi.org/10.1007/978-1-4471-7367-0>
- Danto, A. C. (1981). *The Transfiguration of the Commonplace: A Philosophy of Art*. Harvard University Press.
- Danto, A. C. (2003). *The Abuse of Beauty: Aesthetics and the Concept of Art*. Open Court Publishing Company.

- Datta, R., Joshi, D., Li, J., & Wang, J. Z. (2008). Studying Aesthetics in Photographic Images Using a Computational Approach. In *European Conference on Computer Vision* (pp. 288-301). [https://doi.org/10.1007/11744078\\_23](https://doi.org/10.1007/11744078_23)
- Davies, S. (2004). The Aesthetics of Music and Sound. *Journal of Aesthetics and Art Criticism*, 62, 235-245. <https://doi.org/10.1111/j.0021-8529.2004.00156.x>
- Du Sautoy, M. (2019). *The Creativity Code: Art and Innovation in the Age of AI*. Harvard University Press. <https://doi.org/10.2307/j.ctv2sp3dspd>
- Eco, U. (2008). *History of Beauty and on Ugliness*. Rizzoli.
- Floridi, L. (2011). *The Philosophy of Information*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199232383.001.0001>
- Gaut, B. (2000). Art as a Cluster Concept. In N. Carroll (Ed.), *Theories of Art Today* (pp. 25-44). University of Wisconsin Press.
- Gelernter, D. (1994). The Aesthetic Mind. *Artificial Intelligence*, 60, 5-18.
- Graham, G. (2005). *Philosophy of the Arts: An Introduction to Aesthetics* (3rd ed.). Routledge.
- Jonze, S. (Director). (2013). "Her" [Film]. Annapurna Pictures.
- Kant, I. (1790/2007). *Critique of Judgment* (J. H. Bernard, Trans.). Hackett Publishing Company.
- Langlois, J. H., Roggman, L. A., & Musselman, L. (1994). What Is Average and What Is Not Average about Attractive Faces? *Psychological Science*, 5, 214-220. <https://doi.org/10.1111/j.1467-9280.1994.tb00503.x>
- McCormack, J. (2007). Artificial Ecosystems for Creative Discovery. In *Proceedings of the 9th International Conference on Digital Art* (pp. 39-45). Association for Computing Machinery. <https://doi.org/10.1145/1276958.1277017>
- McCormack, J., & d'Inverno, M. (2012). *Computers and Creativity*. Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-642-31727-9>
- Miller, A. I. (2019). *The Artist in the Machine: The World of AI-Powered Creativity*. The MIT Press. <https://doi.org/10.7551/mitpress/11585.001.0001>
- Nehamas, A. (2007). *Only a Promise of Happiness: The Place of Beauty in a World of Art*. Princeton University Press.
- Osborn, J., & Tversky, B. (2011). Beauty in Aesthetics and Cognitive Science. In J. Levinson (Ed.), *The Oxford Handbook of Aesthetics* (2nd ed., pp. 335-354). Oxford University Press.
- Pachet, F. (2017). *Creativity and AI: Theories, Techniques, and Applications*. Springer International Publishing.
- Plato (380 B.C./1993). *Symposium* (A. Nehamas, & P. Woodruff, Trans.). Hackett Publishing Company.
- Rhodes, G., & Tremewan, T. (1996). Averageness, Exaggeration, and Facial Attractiveness. *Psychological Science*, 7, 105-110. <https://doi.org/10.1111/j.1467-9280.1996.tb00338.x>
- Ritchie, G., & Thomas, R. (2019). Artificial Intelligence and the Aesthetics of Music. In R. Ashley, & R. Timmers (Eds.), *The Routledge Companion to Music Cognition* (pp. 439-450). Routledge.
- Sartwell, C. (2004). *Six Names of Beauty*. Routledge.
- Scarry, E. (1999). *On Beauty and Being Just*. Princeton University Press. <https://doi.org/10.1515/9781400847358>
- Schmidhuber, J. (2009). Driven by Compression Progress: A Simple Principle Explains

Essential Aspects of Subjective Beauty, Novelty, Surprise, Interestingness, Attention, Curiosity, Creativity, Art, Science, Music, Jokes. arXiv preprint arXiv:0912.5377  
[https://doi.org/10.1007/978-3-642-02565-5\\_4](https://doi.org/10.1007/978-3-642-02565-5_4)

Shusterman, R. (2000). The End of Aesthetic Experience. *The Journal of Aesthetics and Art Criticism*, 58, 41-52. <https://doi.org/10.2307/432355>

Sircello, G. (1975). *New Theory of Beauty*. Princeton University Press.

Sircello, G. (1991). Love and Beauty. *The Journal of Aesthetics and Art Criticism*, 49, 167-168. [https://doi.org/10.1111/1540\\_6245.jaac49.2.0167](https://doi.org/10.1111/1540_6245.jaac49.2.0167)

Susskind, J. (2019). Aesthetic Judgment and Machine Art. *British Journal of Aesthetics*, 59, 439-456.

West, G., & Bergstrom, C. T. (2021). The Beauty of Algorithms: How Teaching Artificial Intelligence to Be Curious Helps It Learn. *Nature*, 590, 224-227.

Zangwill, N. (2001). *The Metaphysics of Beauty*. Cornell University Press.  
<https://doi.org/10.7591/9781501711350>