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This paper assesses the aesthetic experience provided by AI-generated visual art to assign aesthetic values to the same. Following from an experiential theory of aesthetic value, the notion of value remains inseparable from that of the experience of the aesthetic object in question. By conducting a detailed exploration of a complete, unified, and correct aesthetic experience through aesthetic judgement, I argue that AI-generated works lack the intentional relation thus providing an incomplete aesthetic experience - resulting in aesthetic values lower that than of anthropogenic works valued for a unified aesthetic experience. In doing so, the paper additionally answers recent allegations of human bias in perceiving AI art. The findings of this paper contribute to the field of computational creativity by treading on novel ground and providing a qualitative unravelling of the aesthetic values such works hold and their credibility as a tool to aid human creativity.

Keywords: Aesthetic Experience, Computational Creativity, Artificial Intelligence, Conscious Experience, Aesthetic Value, Art Bias

#### Introduction

With the phenomenal traction gained by new technologies such as generative models and LLMs, especially in the field of creativity,<sup>2</sup> it becomes increasingly important to have a nuanced understanding of their outputs. Recent quantitative (Franceschelli & Musolesi, 2022) and qualitative (Shanahan & Clarke, 2023) evaluations of AI creativity reveal valuable insights into computational creativity's abilities. Although sophisticated, these studies leave out the crucial concept of the type of value they assign to AI creativity. The notion of value remains a multi-faceted concept yet to be deeply explored in its distinctive aspects of AI creativity. Most studies (Magni, 2023) and consensus discussions highlight the social, economic, and decorative value whilst referring to the creative capacities of generative models.

On one hand, value derived from a socioeconomic standpoint is appraised to AIgenerated artworks; for instance: in the case of MidJourney's prize-winning artwork Théâtre

D'opéra Spatial.<sup>3</sup> But on the other hand, it appears that these frameworks pose a threat to artists. Studies by Horton Jr et al. (2023), Magni (2023), and Hong (2020) indicate a prevailing bias that places higher value on anthropogenic artworks as opposed to AI generated works. When addressed as artworks, it is crucial to define the function of art in this context. The function of art encompasses the amusement, novelty, experience, and most of all aesthetic recognition, which in turn accounts for the importance of aesthetic value. Upon adopting Beardsley's theory to account for this: art with aesthetic value allows for a distinctive and complete experience through *affects* of feelings in a spectator (Dickie, 1974).<sup>4</sup> In referring to AI works as *art*works in the *art world*, it is imperative that they are subject to the aesthetic principles (Kant, 1914) of the art world (Danto, 1964) and subject to an analysis of their aesthetic values over and above social and economic values.<sup>5</sup> Aesthetic value here refers to the properties and qualities of an experience

<sup>&</sup>lt;sup>2</sup> Creativity as defined by Sternberg & Lubart (1999) is "the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e. useful, adaptive concerning task constraints)". For comparative psychology theories of creativity see Cushen & Wiley (2012) and Weisberg (2015). Also refer to Dietrich (2004) for the neuroscience of creativity and divergent thinking. And, Berys Gaut (2010) for the importance of psychological capacities in creativity. Lastly, see Boden (2003) for historical and psychological creativity and its types that I further refer to in section 2.

<sup>&</sup>lt;sup>3</sup> Awarded at the Colorado State Fair 2022; Jason Allen x MidJourney.

<sup>&</sup>lt;sup>4</sup> Affects are phenomenally conscious states involving emotions and feelings. There can also be un-conscious affects, but when speaking of affects with context to an aesthetic experience, I refer to phenomenally conscious states with affects.

<sup>&</sup>lt;sup>5</sup> These refer to guidelines often used to assess or create art. These principles allow for judgement, analysis, and evaluation of artworks.

that is considered valuable from an aesthetic standpoint. (Beardsley, 1969)

Whilst quantitative evaluations are crucial to machine learning frameworks, LLMs and generative models, it is equally important to have an intricate evaluation grounded in the philosophical literature of aesthetics to form a critical aesthetic judgement (Kant, 1914) of AI art.<sup>6</sup> In this respect, I advocate for an enquiry into the *aesthetic value* of AI-generated visual works over and above pre-existing studies on the social and economic values of AI tools. Adopting Goldman's experiential theory of aesthetic value and Beardsley's notion of a unified aesthetic experience, I conduct a critical evaluation of the relations in aesthetic properties underlying AI-generated artwork and thus reflect upon the aesthetic value it may hold.

Section 1 presents the motivations of this paper by clarifying the misunderstood nature of value when it comes to art and provides a deeper understanding of how an aesthetic experience is shaped through the aesthetic properties of an artwork. It explores the need to assign aesthetic value to AI art to answer the question of human bias in judging AI art. By providing insights into the properties and relations underlying aesthetically valuable anthropogenic artworks (Cole, 1833), argument 1 shapes the groundwork for a complete, unified, and correct aesthetic experience (AE) (Beardsley, 1969) that results in a high aesthetic value.

Section 2 highlights the properties underlying AI-generated works and presents argument 2, which posits a lack of certain cognitive properties and a particular relation that I term "the intentional relation." Grounding the evaluation in Beardsley's theory of aesthetic experience and Goldman's (2006) experiential theory of aesthetic value, it is evident that the aesthetic experience provided by AI art remains incomplete, leading to a lower aesthetic value when compared to anthropogenic works holding all necessary properties and relations of a unified AE. Section 3 tackles the applications of such an evaluation in answering questions about using AI as a creative tool, the changes in aesthetic values when parameters like temperature are increased, and the place of AI art in the art world.

## **1.** The Complete Aesthetic Experience and Aesthetic Value

The value an object holds depends upon the evaluation and aspect of value one scrutinises. Moreover, whilst placing some sort of value on art, one does so based on what they take the function of art to be. Upon an experiential theory, the function of art stands on the pillars of aesthetic recognition and a unified experience. When it comes to works like Théâtre D'opéra Spatial, the value seems to be derived from spectator reception: a response of people's surprise, awe, and astonishment at the rising capabilities of such systems.

#### 1.1. The Value Problem

When I speak of "the value problem", I refer to the uncertainties in the definition of the broader term value. The values placed in AI works are heavily derived from their function as a tool to aid human users, thus resulting in social, economic, and even decorative value upon their creations. It is important to factor in the aspect of aesthetic recognition as an underlying necessity of the function of all art over and above the function of aiding human users in the case of generative models.

Recent studies (Shanahan & Clarke, 2023; Franceschelli & Musolesi, 2022) treat the concept of value as unified, without taking apart and defining the many facets of value. But when it comes to the evaluation of AI creativity in terms of the artworks it generates, it is crucial to account for aesthetic value. This area remains under-explored in the domain of AI art and I encourage this exploration for two reasons. First, with AI artworks receiving awards, it becomes wholly accepted that AI-generated works have stepped into the art world. And second, the developing field of computational creativity would benefit from a deep dive into the aesthetic principles of the art world as it

<sup>&</sup>lt;sup>6</sup> Aesthetic judgement involves critically analysing the fundamental properties and qualities of an artwork. © *Cambridge Journal of Artificial Intelligence* 

enters an existing domain with pre-existing judgements.<sup>7</sup>

The question of value is further mystified by the bias that exists in perceiving AI art. Horton Jr *et al.* (2023) suggest that spectators prefer to assign a higher value to anthropogenic works as opposed to AI-created works. It is rational to ask whether this bias is warranted and grounded in existing theories or simply a social consensus. A deep dive into the aesthetic nature of AI visual arts will bring us closer to understanding *why* the bias problem exists from exploring a judgement of AI art based on its qualities rather than personal taste.

Such a question can be solved only through understanding the value of the quality of the said works. A feat possible to uncover through understanding the *aesthetic experience* of the artworks. To solve the value problem, one must single out the several distinctive types of value and conduct evaluations on each of these separately. From here on, I will focus on the aesthetic value of AI artworks. Art can be defined as an object with perceptual, intentional, and representational properties when regarded from an aesthetic point of view. Thus, such a point of view as the aesthetic must be adopted in valuing any such object that may be considered art, in this case AI-generated works. In evaluating the aesthetic value of AIgenerated works, it is clear one can form a balanced understanding of its place in the art world, its interactions with spectators and the future of AI creativity alongside human artists.

# 1.2. Range of Aesthetic Value: The Intensity of an Aesthetic Experience

Assigning aesthetic values to any form of art depends upon the lens a critic chooses to look at a said work of art. Since the notion of aesthetic experience is subjective, and personal tastes may vary it is important at this stage for me to explain a conceptual difference in placing value based on taste and judgement. The concept of taste (Hume, 1757) stems from an individual's subjective preferences for what makes an artwork beautiful. Whereas aesthetic judgement is an analytical feat wherein the spectator engages in a critical analysis based on objective and subjective elements including evaluative and non-evaluative properties of an artwork. In this paper, I place aesthetic judgement on artificial creativity to thus assign aesthetic value upon the said objects. To avoid misinterpretations from several theories, I will focus on the experiential theory of aesthetic value (Goldman, 2006) combined with an analytical judgement of formal and representational properties and their relations to unify an aesthetic experience.

The aesthetic properties of an artwork underlying an aesthetic experience include the internal: formal (shape, contrast, balance), evaluative (beauty, sublimity), non-evaluative texture), representational (style: (colour, impressionism, realism), cognitive (conceptual depth, intentionality, symbolism, complexity) and phenomenal (perceptual and feeling) properties. Moreover, external properties of an artwork also play a role in the experience of it, for example, the spectator's state of mind, existing social constructs of value, beauty, and appreciation. But when there exists, amongst all properties, certain relations that allow the properties to marry one another to give rise to an experience, such an experience would be unified.

When looked at certain pleasing artworks, one realizes the gravity of their experience in so far simultaneously places aesthetic as one judgement on the overall experience. This placing of judgement on internal and external aesthetic properties of the artwork coupled with the overall objective and subjective aesthetic experience of the artwork leads to assigning value to the said piece of work. Some evaluative properties such as beauty and sublimity should not be confused with the aesthetic experience of the work - simply because these intrinsic properties symbolise the *quality* of the experience. There are many more properties and relations that account for a unified experience like the artwork's phenomenological and cognitive properties as mentioned above.

For instance, when prompted to list the qualities I expect in an artwork I most value, the paramount qualities encompass an evocation of

<sup>&</sup>lt;sup>7</sup> The aesthetic principles include an aesthetic judgement in order to place aesthetic value upon an object.

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emotion, a moving ordeal, overwhelming even, in some cases. Not merely an artwork that signifies genuine beauty, but something inexplicable that allows for contemplation, interpretation and feeling. These qualities over and above the formal properties allow for an aesthetic experience unparalleled.

This brings me to Thomas Cole's series: The Course of Empire (1883-1836). Cole's paintings marry form, structure, and colour beautifully with the symbolism of transience. Through an intricate depiction carrying realism, it is evident that his paintings hold value in terms of evaluative properties like sublimity. But the strength of communication that allows for contemplation and meaning is what transcends its formal beauty. I believe Cole combines elements of imagination, originality, and intentionality to create, what I believe to be, an extremely valuable series of art. These are the properties cognitive of artworks that additionally allow for a certain relation that I refer to as "the intentional relation", wherein the creative agent's intention to create an intense aesthetic experience in the spectator through drawing intentional links into various internal properties of his artwork. In the case of Cole's series, his intention is reflected in the poem he advertised his paintings with:

"There is the moral of all human tales; 'Tis but the same rehearsal of the past. First freedom and then Glory – when that fails, Wealth, vice, corruption – barbarism at last. And History, with all her volumes vast, Hath but one page..."

#### (Canto IV of Byron's Childe Harold's Pilgrimage)

The creative agent's control in intending a certain AE is as important as any other formal or representational properties of his artwork. Without the cognitive properties and the intentional relation between formal, representational, cognitive properties, the AE remains incomplete. If one were unaware of Cole's intent, one's experience of his series would be of a lesser magnitude. Although Cole does a splendid job of conveying his intention

and imagination through form and colour, it is the intentional relation he develops to see the formal properties of his paintings flourish. And this in turn reflects in a higher aesthetic value derived from a rich and unified aesthetic experience. Following from this, "the notion of aesthetic value cannot come apart from the value of the experience of it" (Goldman, 2006).

Here I speak of an anthropogenic work to explain the notion of aesthetic value. This comparison with anthropogenic artworks to understand AI art is inevitable as the aesthetic principles of the art world are based on human created artworks and experiential properties.

The greatest works of art those that allow for an experience unparalleled, involving not only the perceptual faculties but also the cognitive faculties. Allowing for contemplation, appreciation, and effects of feelings.<sup>8</sup> Thus, giving rise to a pleasurable unified experience encompassing the entirety of the spectator's mind for that moment in time. Few, if not many, artworks have such a quality to give rise to an intense experience in the spectator, and following from the experiential theory of aesthetic value, it is then the case that such an artwork also holds a higher magnitude of aesthetic value. Beardsley provides an account of such a value as "the aesthetic value of [an object] is the value [it] possesses in virtue of its capacity to provide aesthetic gratification when completely experienced" correctly and (Beardsley, 1982, 27).

In Beardsley's formalist theory of aesthetic experience, he dwells upon the importance of the formal properties of artworks like colour, shape, form, texture, and their interactions with one another to give to affects of feelings that form a unified experience. His internalist theory has a few misgivings as the internal properties of an artwork are not the sole matter of judgement (Goldman, 2006). I adopt his later work (Beardsley, 1969; Dickie, 1974) that encapsulates both the internal and external properties of an artwork in creating a complete and correct AE, whilst still maintaining the notion that aesthetic value is proportional to the

<sup>&</sup>lt;sup>8</sup> Beardsley's theory places value on emotional responses from art, i.e., the affects of feelings from an experience of an artwork.

intensity of the experience the aesthetic object projects. This strengthens a qualitative evaluation such as the one I conduct by critically grounding an aesthetic judgement in properties (internal and external) and their relations. Below, I provide premises to account for an artwork having a higher aesthetic value as opposed to one having a diminished value based on the AE of the artwork and its underlying properties and relations. This argument follows from Isenberg's (1949) interpretation of aesthetic judgements and his premises on how a critic's argument must be developed.

#### **Argument 1**:

P1: Artworks having F, R, r, C, I are better for having F, R, r, C, I. $^9$ 

P2: T is such an aesthetic object having all F, R, r, C,  $\rm I.^{10}$ 

C1: Thus, T is so much better for having F, R, r, C, I.

P3: W is an artwork having F, R and r but lacks C and I.

C2: Thus, W is **not** as good as T.<sup>11</sup>

Wherein:

F = formal, evaluative, non-evaluative properties

R = representational and phenomenological properties

r = relations between such properties

C = cognitive properties

I = intentional relations resulting from the intertwining of C with F, R and r

3. Therefore, *W* is so much the better for having *p*. I do not follow from his original argument as Davies (1990) and Bender (1995) present objections to it. Their objection revolves around how there cannot be one property that is good-making in all artworks. Therefore, I suggest the criteria of several necessary properties for a unified aesthetic experience, rather than one property that equates to a good piece of work. I also develop on Isenberg's original argument © *Cambridge Journal of Artificial Intelligence* 

Applying the premises with context to a unified aesthetic experience:

P1: F, R, r, C, I are necessary and sufficient for a <u>unified aesthetic experience</u> (AE-u)

P2: T fulfils the necessary and sufficient criteria.

C1: Therefore, T allows for AE-u.

P3: W only fulfils F, R, r but not C and I

C2: Therefore, W does not allow for AE-u.

From the premises I present, one can say that a certain work (T) that includes an entirety of the formal. evaluative, non-evaluative, phenomenological, representational, and cognitive properties as well as relations between them, in particular the intentional relation, qualifies for a work with a higher aesthetic value as it allows for AE-u. It follows from fulfilling the necessary and sufficient criteria for such a result. All artworks do not necessitate the combination of all these criterions. But for an artwork to provide a unified aesthetic experience, the criteria above are necessary and sufficient.

Thus, Artwork T is assigned a higher aesthetic value following from a complete and unified AE, whereas artwork W is assigned a comparatively lower aesthetic value in accordance with an incomplete AE lacking C and I. The criteria stated above is necessary and sufficient in this sense for AE-u because aesthetic judgement involves critically analysing the fundamental properties and qualities of an artwork.

### 2. Properties and Relations in AI-generated Art

Having understood the motivations for this enquiry along with a clear image of the path to undertake it, we move forward to gauge the aesthetic experience of AI-generated works

<sup>&</sup>lt;sup>9</sup> Isenberg's (1949) original argument is:

<sup>1.</sup> Artworks having p are better for having p.

<sup>2.</sup> *W* is an artwork having p.

and present it as an argument that allows the comparison between two works T and W, as something can only be better or worse when in comparison with another.

<sup>&</sup>lt;sup>10</sup> F, R, r, C, I are necessary and sufficient for a unified aesthetic experience, therefore T is so much the better for having F, R, r, C, I.

<sup>&</sup>lt;sup>11</sup> W is not as good as T as it doesn't fulfil the necessary and sufficient criteria for a unified AE. Although, W does fulfil the F, R and r criteria, therefore it stills holds aesthetic value, but not as high as T.

## through laying out the properties and relations present in such works.



Fig 1: Théâtre D'opéra Spatial (TDS), MidJourney x Jason Allen

TDS's enticing scape has caused reactions of surprise in various spectators. Its evaluative properties of beauty seem to account for a level of value. But this value raises questions of whether it should reside in the object, in this case, the digital photograph, or in the input prompt posed by Jason Allen. Some may argue, the image would not exist without the prompt, thus the value resides within Allen's will and imagination to create such an image. But this paper does not question *where* the value lies, it rather focuses on *whether* the artwork itself holds aesthetic value.

The formal perceptual properties of colour, form, and contrast reflect upon the evaluative quality of beauty and even sublimity in the experience of this work. The feelings of overwhelmingness in appreciating the beauty of this work accounts for an aesthetic experience in a spectator. Although, one cannot help but wonder what prompt Jason Allen assembled as an input for MidJourney: a facet unknown to most people. It is often the case with artworks with a high aesthetic value that the artist's intention behind creating a said aesthetic experience reflects in the spectator's reception of it. In this paper, I defend the necessity for the existence of cognitive properties reflecting a creative agent's intention to create a certain aesthetic experience and the intentional relations a creative agent supposes to exist within the properties of the artwork. Leaving that out may still account for an artwork to have © Cambridge Journal of Artificial Intelligence

aesthetic value, although the aesthetic experience of it remains incomplete. As mentioned above in Section 1.2, the range of aesthetic value of an artwork is linearly proportional to the intensity of the aesthetic experience that it allows for.

Below, I further explain why certain cognitive properties "z" and certain relations "I", i.e., intentional relations, remain unattainable in AIgenerated works and how this affects the overall aesthetic experience of W.

### 2.2. Cognitive properties and intentional relations: the lack thereof in AI Creativity

The intensity of experience is not only dependent on the intrinsic formal properties of the artwork but also the intention of the creative agent to envision a certain aesthetic experience for the viewer. There are certain artworks that lack the artist's intention. But in the experiential view, for one to have a unified experience, one must consider all the properties attached to the work of art. And the properties associated with the creative agent are as important as any other. These properties allow for the relations between all other properties to blossom. The addition of these properties allows for a high magnitude of the AE, thus allowing for a higher aesthetic value overall. Below I highlight 3 such cognitive properties that are associated with the creative agent in artworks with high aesthetic values.

#### Intention

Although a contested notion that intention is crucial for valuable artworks, if one assumes the experiential theory of aesthetic value as I do here, it becomes imperative to address the cognitive property of intention. For two main reasons: one being that the creative agent's intention to create a unified AE in the spectator allows for the birth of the intentional relation between the formal, representational, phenomenal, and cognitive properties of the artwork. And second, the inclusion of intention as an appealing property for a unified AE does not mean that we engage in the intentional fallacy because the view I defend places aesthetic judgement based on several properties over and above intention. Going forward from there, as Cole's example in section 1.2 shows, the intention of the creative agent does contribute to the overall aesthetic experience of the spectator. In many cases, like intentionalism in aesthetics (Livingston, 1998), an artist's intent plays a heavy role in the aesthetic judgement placed upon the work.12

#### Imagination

To arrive at something potentially novel with value - upon the definition of creativity - one must imagine. One must visualise, feel or think of their creation. Take for example scientists and philosophers that imagine their theory to understand whether it is cohesive. The process of imagination may occur before the creative output is produced by the creative agent. And it is an elementary step. But also note that the scientist additionally has an intention to imagine the theory in question. And to imagine, also has mental representations one corresponding to intentionality. Imagination allows one to create intentionally or spontaneously. Therefore, the cognitive properties of intention, imagination and novelty all intertwine with unique relations and amount to value in creativity. Some have gone so far to argue that imagination is the epitome of higher levels of creativity. Birds and Hills (2019) suggest that "imagination is the cognitive source of genuine creativity" and suggest that imagination is an ability to produce a particular type of mental representation.

#### iii. Novelty and Originality

Amongst various theories of creativity, the criteria that remain prevalent are novelty and value. Although recent work by Bird and Hills (2019) suggests the importance of originality and rejects value as a crucial criterion. When one talks of novelty and originality, one refers to the production of something authentic. One may argue that nothing can ever be novel as most ideas may pre-exist, especially words and art and poetry. This argument also goes so far as to say that most art is inspired from pre-existing art, thus leaving out novelty. To this I respond that the criteria here is *potentially* novel and original insofar as the creative agent in question recognises its originality or potential novelty. are then valued Artworks for the accompaniment of the criteria I list in argument 1 wherein novelty is displayed in the way the existing properties within the work are married.

To achieve an intense and unified aesthetic experience yielding the highest of aesthetic values, an artwork must carry (i), (ii) and (iii). To carry these 3 crucial cognitive properties, the creative agent (Ca) must have:

- a) An understanding of existing domains and the means to explore the same.
- b) A deep imagination that allows for transformational insight.<sup>13</sup>
- c) A recognition of originality and value from the Ca herself.

a, b and c can require several other prerequisites including experience, value, and novelty but they are set in cognitive processing and thus also form the cognitive properties of an artwork.

When a creative agent exercises such properties to bring to life their intended aesthetic experience in the spectator, they in turn birth *"intentional relations"* amongst formal and representational properties internal to the work. In so far as these intentional relations

<sup>&</sup>lt;sup>12</sup> Intentionalism in aesthetics encompasses a broad range of views including types of intentionalism: fictionalist, moderate, extreme, hypothetical and anti-intentionalism. See Livingston (1998).

<sup>&</sup>lt;sup>13</sup> Boden's transformational creativity occurs when the constraints of an existing domain are altered, or completely redefined. (Boden, 1998).

persist between properties, they unify an aesthetic experience to allow for a complete and correct aesthetic experience that is intense. Thus, leading to a higher range of aesthetic value placed on the said aesthetic object.

But can such properties as cognitive and intentional relations exist in artificial systems? Below, I present my second argument that allows one to draw the conclusion that such cognitive properties and intentional relations cannot be produced by AI frameworks as these tasks are set in cognitive processing and consciousness.

#### **Argument 2:**

P1: Artificial creative intelligence in current robust generative models displays x and y, but lacks z.

#### Wherein:

x = ability to coalesce existing information in a conceptual space to create potentially novel outputs.14

y = ability to engage and explore structured conceptual domains to generate expected and unexpected outputs.<sup>15</sup>

z = transforming a conceptual space to create a new one entirely, i.e., creating of its own volition and intentionality; self-awareness; creative cognition; the ability to draw from its inner life of subjective experiences to create novel outputs.

P2: Generative Artificial Intelligence (GAI) can display x and y because these tasks are set in intelligence and computation, which requires the right computation and syntax to allow the system to create a desirable output based on its training data set.

C1: Thus, GAI displays creative intelligence in this sense as associated with *x* and *y*.

P3\*: But to have the ability to perform a task related to z would require understanding, *imagination* as well as subjective experience over and above intelligence and computation.

C2: Thus, GAI cannot perform tasks associated with *z* as they are set in cognitive processing and consciousness.<sup>16</sup>

Creative intelligence refers to a specific type of intelligence that contributes to tasks involving creativity, like problem solving, generating new ideas, creating art and so on.<sup>17</sup> In this paper the central enquiry remains art and creativity, wherein creative intelligence is central. And this also takes centre stage in the field of computational creativity. Therefore, going forward from there, I list down the capacities of generative models in context with creative intelligence.

In premise 1, I highlight the creative capacities of generative models. I then suggest that these models can perform tasks associated with x and y; the distinctions I make in x and y rise from types of creativity wherein x Boden's corresponds to combinational p-creativity and y suggests an overlap in combinational and exploratory p- creativity. So, tasks in x, for instance, could be providing answers to certain enquiry-based questions which entails combining existing information from datasets to form the right output. Tasks in x could also be instances of writing potentially novel sentences, engaging in conversation or even writing an

<sup>&</sup>lt;sup>14</sup> Also, Boden's combinational p-creativity; Tasks like forming sentences, e.g.: ChatGPT engaging in potentially novel conversations.

<sup>&</sup>lt;sup>15</sup> Also, Boden's exploratory p-creativity; Tasks like creating potentially novel images from prompts; e.g.: DALLE 3/Midjourney creating art.

<sup>&</sup>lt;sup>16</sup> Also note that there exist viable theories of creativity that focus on unconscious states rather than conscious. See Jung (1966), Freud (1908), Wallas (1926) and Fromm (1959). Such theories could have potential for applicability in cases of generative models if one does not want to engage in the AI consciousness debate. But it remains crucial for me to engage in the importance of consciousness and cognition in the cognitive properties of an artwork, especially in context with © Cambridge Journal of Artificial Intelligence

the intentional relation. Also note that intentionality is a fundamental aspect of consciousness, and refers to the capacity of mental states to represent things, properties, and states of affairs. Therefore, if an individual has intentional states, then it is to say that the individual has mental representations.

<sup>&</sup>lt;sup>17</sup> Sternberg's (1985) Triarchic theory of intelligence outlines creative, practical and analytical intelligence wherein he defines creative intelligence as "the capacity to deal with novel situations and to generate new ideas" According to him this aspect of intelligence involves "using existing knowledge to handle new problems and cope in new situations, and it is integral to innovation and problem-solving in complex, dynamic environments."

analysis essay. Now coming to y, these tasks include the exploring and combining of information to produce expected or unexpected outputs, like creating images or artwork based on input prompts, writing poetry and short stories, or even creating marketing campaigns. These tasks involve exploring in an existing domain and combining relevant elements to produce a desired result that is potentially novel. Jason Allen and Midjourney's Théâtre D'opéra Spatial is an example of y. When it comes to aesthetically evaluating it, this artwork has beauty due to the existence of formal, evaluative, non-evaluative and representational properties. But does it have high aesthetic value? In what follows, I will explain this through the conclusion of argument 2.

Coming to z, which mainly highlights Boden's transformational creativity. But, for any such task, I believe, it would be a culmination of all three types that Boden talks about. When it comes to transformational creativity, this process encompasses creating an entire new domain that does not exist. In order to exercise such creativity, one requires first: a *true* understanding of existing domains, second: an imagination to envision abstractions and third: the ability to self-represent certain subjective experiences to then birth them into artworks.

Therefore, premises 1 and 2 lead to conclude that generative models can perform tasks x and y as these tasks are set in access of information and in particular, they are associated with the computation of a goal-oriented tasks that intelligence involve and pre-existing algorithmic syntax. But, tasks in  $\mathbf{z}$  seem to be over and above the computation of information. This leads me to the conclusion at hand: the said criteria for z tasks are set in cognitive processes and conscious experiences. Because z requires the ability to draw on one's inner life of subjective experiences, create self-referential representations and understanding. Therefore, there must be *something it is like* for the creative agent to be themselves in order to have selfreferential representations, as well as in innerlife of subjective experiences in order to exercise transformational creativity.<sup>18</sup>

It is now clear that the properties thus associated with cognitive processes and conscious experiences that allow an aesthetic object T to have 'intentional relations' is missing in AI-generated works W. Circling back to argument 1, the lack of C and I in W would make it less appreciative due to an incomplete aesthetic experience. Leading to a diminished aesthetic value. Thus, AI artworks seem to have lower aesthetic value derived from an incomplete aesthetic experience due to the lack of certain properties (cognitive) and relations that contribute to a unified aesthetic experience.

## **3. AI Art, The Incomplete Aesthetic Experience and More**

Below I address the applications of this evaluation in understanding how aesthetic values affect the use of AI as a tool for creation, and its place in the art world. Moreover, I highlight further objections and expand on the bias problem.

#### 3.1. AI as a Tool for Creation

Since AI models are not capable of creating through volition and only aid human artists as a tool to create, it is important to factor in the cognitive properties coming from the human agent that provides the prompt. This inclusion of certain cognitive properties enhances the aesthetic experience. An important objection to my arguments rises here when one uses AI as a tool for creation in such a way that the human agent provides his envisioned image through a prompt allowing for cognitive properties congruent to his imagination and intention to come to fruition in the artwork. My response here still maintains my initial premise that AIgenerated works provide an incomplete aesthetic experience due to the lack of certain properties or relations. Let's take for example that we, as spectators, did have knowledge of the prompt Jason Allen used and thus, to an

<sup>&</sup>lt;sup>18</sup> Phenomenal consciousness refers to there being something it is like (Nagel, 1974) to be the subject in question. Phenomenal consciousness is subjective experience and certain cognitive tasks are intertwined with phenomenal consciousness in the sense that there is something it is like for the subject to understand their own creation, i.e., have a subjective experience of understanding their artwork. This © *Cambridge Journal of Artificial Intelligence* 

also adheres to intentions as a cognitive property. There is also something it is like for the creative agent to have a certain intention they aim to fulfil by means of creating relations between formal, representational, and cognitive properties of their artwork. Therefore, the cognitive properties of imagination, intention and ability to recognise the novelty of one's work is intertwined in conscious experience.

extent, the aesthetic experience included cognitive properties of Allen's intention to create his envisioned image. But what remains lacking here is the *intentional relation*: a relation birthed from the artist's intention to marry each property to another in a specific way to give rise to a unified experience. Whilst using AI as a tool to create, the autonomy and control to exercise the intentional relation cannot still reside with the human prompter. This is because the authority to marry properties then resides with the tool. The system unintentionally allows various formal and representational properties to interact to form an artwork, no longer allowing the intentional relation to exist.

How this does affect the overall aesthetic value of the artwork still follows from Argument 1. Even if W happens to have C, without "I" the aesthetic experience would remain incomplete and not as unified as T which encompasses the intentional relation.

Another important question that presents itself here is would it be worth for an artist to lose the intentional relation in order to use AI as a tool? In adopting the experiential view of aesthetic value, the loss of the intentional relation would only lead to a diminished aesthetic experience, further questioning the value of collaborations between human artists and AI and the resultant works of art. Another interesting caveat here is that of how an incomplete aesthetic experience (therefore, a lower aesthetic value) would inform other dimensions of value of a said artwork, like the socio-economic aspects. This allows me to highlight two important research domains: one, the reliance of different dimensions of value on each other, for example, how may aesthetic value inform socio-economic or decorative value. I would voice here that aesthetic value can in turn inform spectator reception merely based on the aesthetic experience the spectator undergoes, thus indirectly influencing the other dimensions of value. But this is also dependent upon societal outlook and society reception of certain works. Take the case of generative models like DALL E 2, the surprise and awe such a system inspired in users set aside the evaluation of the aesthetic simply because of its socio-economic value. Alas, it is situations like these that inspire the arguments I present here, especially due to the

lack of a deep-dive into the aesthetics of Algenerated works. And second, further research studies in computational creativity, especially in the domain of how a system marries certain properties in the visual works it generates is warranted here.

### 3.2. The Spectator: Existing Bias in Perceiving and Valuing AI Art

In this paper, an important problem I avoid is the intentional fallacy (Wimsatt & Beardsley, 1946) which follows from placing sole value on an artwork based on the artist's intention to create. The arguments in this paper evade this by the inclusion of several other formal, and external properties whilst internal. accounting for the overall aesthetic experience. Because it is important to note that in a unified aesthetic experience, there also is a presence of external properties over and above the internal properties we have so far spoken of. One such external property crucial to the evaluation of AIgenerated works is the bias Horton Ir et al. (2023) present that is a source of resistance in equal value AI placing to works as anthropogenic works.

Whilst having an aesthetic experience of an aesthetic object, or artwork, the spectator is also subjected to external properties including phenomenological feelings of a subjective nature not related to the aesthetic object that plays into the experience. As well as pre-existing social, environmental, and political constructs and consensus that form beliefs. One such external property that is pivotal during an aesthetic experience of an AI-generated work is bias. (Schmitt, 2020) suggests that preferential treatment towards humankind contributes to the anthropocentric view that places more value on human-created art and contributes to the bias when it comes to viewing, evaluating, and valuing AI-generated art. It is valid that such a bias will surely influence consumer and spectator tastes and beliefs, and thus affect the process of placing value on AI-generated works.

My response here is twofold:

The value I talk of in this paper is not a social, political, or economic value assigned to objects for their contribution to a resulting gain. But instead, I focus on aesthetic values that are not measured quantitatively or through a trade-off

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that comes with dependent variables. Aesthetic value is of a subjective nature, based on a nuanced understanding of the quality of the aesthetic experience of the artwork. It cannot be reduced to a utilitarian notion wherein common belief shapes value. It is wholly dependent on the aesthetic experience the object allows for. Aesthetic value is not dependent on feelings of pleasure or displeasure, but rather on feelings of affects (Beardsley, 1969) from the experience.<sup>19</sup> So, a feeling of displeasure from a pre-existing bias cannot contribute to the aesthetic judgement but rather forms a part of personal taste. Coming to the key difference here that I believe is pivotal. The assigning of aesthetic value is not through tastes or beliefs, it is instead based on an aesthetic judgement; the type of judgement that follows from a theoretical framework grounded in literature. Thus, this enquiry is not clouded by ideas of pre-existing bias against AI art, and I do so by providing valid arguments for why the aesthetic experience is incomplete in AI works.

Moving onto the other side of the bias coin: A pre-conceived societal notion is, in fact, an external aesthetic property that may linger in the mind of the spectator during the aesthetic experience, unbeknownst. This may affect the affects of feelings (Dickie, 1974) that rise within a spectator and thus form a different aesthetic attitude towards AI-generated art as opposed to human artworks. Regardless, whilst making an aesthetic judgement, one must make an informed evaluation considering the unity of experience. And in this case, the external property of preference to human art is evident and cannot be separated from the unity of the aesthetic experience. The reasons for placing a lower aesthetic value, in this paper, are grounded in an experiential theory of aesthetic value rooted in the necessity of certain properties (Argument 1).

#### 3.3. Temperature and Chaos:

Parameters of temperature, or chaos, only complicate the value problem and allude to referring to creativity as something that can be controlled with adjusting the uncertainty of responses. Shanahan and Clarke (2023) present examples of altering the temperature in large language models to gauge the literary creativity it displays.

Understanding whether the aesthetic value of certain AI-generated works would vary if chaos/temperature was changed is vital. Increasing the chaos on a system like Midjourney would result in a much more creative output derived from uncertainty and surprise. Now, this could alter certain aspects of value but when it comes to aesthetic value: the previous argument still holds. Without a unified aesthetic experience, one can only assign a certain amount of aesthetic value. Let's call it  $\varphi$ . So  $\varphi$  is the aesthetic value of an artwork that does not have a unified aesthetic experience but still follows the aesthetic principles. Now, if we increase or decrease chaos, this could affect individual aesthetic properties like colour, structure, representation and so on. Reducing temperature would result in  $0 \leq \varphi < 1$  and increasing would result in  $0 < \phi \leq 1$ . Whilst maintaining that the  $\varphi$  if an artwork providing a unified aesthetic experience would be  $\varphi$ +n depending on the intensity of the experience. Therefore,  $\varphi$  remains the domain in which the aesthetic experience remains limited when speaking of generative models, due to the lack of the intentional relation.

#### 3.4. AI Art in the Art World

The place of AI art in the art world remains open to interpretation. The enquiry I present of the aesthetic value of AI-generated works merely provides a starting point for artists to truly engage in AI accompanied creation. Although the importance of human artists in the art world is evident through this evaluation, this paper does not contribute to the existing bias. It simply presents a case to understand the place if AI art in the art world through an aesthetic point of view. But with increasing collaborations as well as human creativity in prompt generation, the place of AI in the art world is one that remains everchanging.

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<sup>&</sup>lt;sup>19</sup> Note that I do **not** adopt aesthetic hedonism. This is a view where aesthetic value is value because things having it give pleasure when experienced. In the view I depend, the unified experience is not reliant on pleasure but on a complete © *Cambridge Journal of Artificial Intelligence* 

experience, which may have affects, any affects. The affects needn't be solely pleasurable but could also be paradoxical in nature. Beardsley's earlier work defended aesthetic hedonism, but my arguments merely draw upon his views.

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