

Creativity in the Age of AI: Rethinking the Role of Intentional Agency

James S. Pearson (University of Amsterdam; University of Lisbon)

Matthew J. Dennis (TU Eindhoven)

Marc Cheong (University of Melbourne)

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Abstract

Many theorists of creativity maintain that intentional agency is a necessary condition of creativity. We argue that this requirement, which we call the *Intentional Agency Condition* (IAC), should be rejected as a general condition of creativity, while retaining its relevance in specific contexts. We show that recent advances in generative AI have rendered the IAC increasingly problematic, both descriptively and functionally. We offer two reasons for abandoning it at the general level. First, we present corpus evidence indicating that authors and journalists are increasingly comfortable ascribing creativity to generative AI, despite its lack of intentional agency. This development places pressure on the linguistic intuitions that have traditionally been taken to support the IAC. Second, drawing on the method of conceptual engineering, we argue that the IAC no longer fulfils its core social function. Rather than facilitating the identification and encouragement of reliable sources of novel and valuable products, it now feeds into biases that distort our assessments of AI-generated outputs. We therefore propose replacing the IAC with a consistency requirement, according to which creativity tracks the reliable generation of novel and valuable products. Nonetheless, we explain why the IAC should be retained in specific local domains.

Introduction

In recent decades it has become common for theorists of creativity to posit intentional agency as a necessary condition of creativity (Gaut 2010; Gaut & Kieran 2018; Livingston 2018; Moruzzi 2025; Runco 2023; Stokes and Paul 2021). In this context, ‘intentional agency’ is generally taken to mean acting in accordance with consciously represented goals. According to this view, for an object to qualify as ‘creative,’ it needs to be a product of purposeful action in addition to being both novel and valuable.¹ We call this requirement the *Intentional Agency Condition* (IAC). Many theorists who endorse the IAC contend that since generative AI produces novel and valuable outputs (texts, pieces of music, scientific hypotheses, visual images, etc.) without intention, these objects are, at best, merely *pseudo*-creative (Brainard 2023; Hoel 2022; Moruzzi 2025; Runco 2023; Stokes and Paul 2021).² In this article, we challenge this view by exploring why the IAC might not in fact be a necessary condition of creativity. Our primary aim is to show that recent advances in generative AI place significant pressure on conceptions of creativity that treat intentional agency as a necessary condition. Our secondary objective is to expose how such conceptions may even hamper our collective ability to identify the original and valuable products that generative AI now seems to be able to create on a remarkably regular basis.

We employ a conceptual engineering approach, according to which concepts should be modified to better serve our collective needs (Queloz 2021; Thomasson 2021). In other words, concepts should be revised when doing so better enables them to fulfil their core social functions. When a concept suffers a loss of functional value, this often indicates that we need to engineer the intension and extension of that concept, along with its related language, to ensure its continued functionality (Thomasson 2021), especially if this concerns a generic human need (Queloz 2021). Our application of this ameliorative approach involves showing that the concept of creativity that includes the IAC has long since satisfied an important generic human need, though with the rise of generative AI, it is increasingly failing to serve this purpose. We sketch how the IAC might be adapted in light of recent developments in generative AI so that the concept of creativity can maintain its functionality.³

¹ Depending on the theorist in question, various supplementary conditions are also posited. Some of these will be discussed later in this paper.

² By generative AI, we are especially referring to large language models (LLMs) and text-to-image or text-to-sound diffusion models such as Dall-E, Stable Diffusion, Midjourney, and Suno.

³ Others have applied a conceptual engineering approach in the context of AI. See, e.g., Himmelreich and Köhler (2022), who examine how AI has shifted the functionality of the concept of ‘responsibility’. See Löhr (2024) for

So, what is this vital function? In this paper, we draw on the common view that a key function of the language of creativity is to express praise (e.g., Stokes 2011; 2021; Paul and Stokes 2018; Kieran 2014), and that ascriptions of creativity are often accompanied by the allocation of resources (Amabile and Mueller 2008; Loewenstein & Mueller 2016; Magni et al. 2024). On this basis, we suggest that the core social function of the language of creativity is to identify, endorse, and encourage the generation of novel and valuable artefacts. The IAC, then, functions to prevent people from endorsing or investing in an agent or productive system that has only generated such artefacts blindly or by accident. Yet there is now empirical evidence suggesting that the IAC may be biasing people against the novel and valuable outputs of generative AI. As such, there is reason to think that the IAC is rendering people *less* able to identify and encourage consistent sources of novel and valuable products.

We motivate our conceptual engineering approach with two corpus analyses. Multiple commentators who advocate the IAC appeal to intuitions about natural language use (e.g., Paul and Stokes 2018). We analyze two corpora – Ngram and News of the World – to show that it is becoming increasingly common for users of English to ascribe creativity to AI despite its conspicuous lack of intentional agency. This puts pressure on the philosophical intuitions on which the IAC is founded. These analyses signal that classificatory tendencies among competent language users may be undergoing a sea change, and that with this, the IAC is increasingly at odds with ordinary linguistic practice. We propose that a functional analysis could do a great deal to clarify and explain this widening discrepancy. Additionally, these corpus analyses show that our call to drop the IAC, and to broaden the extension of ‘creativity’ to include generative AI, fits with an ongoing trend in linguistic evolution. This in turn implies that our recommendations for engineering the concept of ‘creativity’ are not overdemanding, but rather move with the flow of existing linguistic change. In this way, our approach is at once revisionary and conservative.

Although we are rejecting the IAC at a general level, we nonetheless want to make space for how intentional agency seems to be essential to many subtypes of creative output. This is especially the case with genres of aesthetic creativity where *sincerity* is of particular importance (e.g., love letters and eulogies). In certain contexts, the IAC has clear functional value, and so we are not advocating that it be altogether abandoned.

a review and critique of existing attempts to use conceptual engineering in the ethics of AI. While there is a lively ongoing debate regarding the nature of conceptual engineering and whether it can be effective, we broadly follow the models advanced by Thomasson (2021) and Queloz (2021).

We proceed as follows. In Section 1, we outline what is commonly referred to as the *standard definition* of creativity, and we explain why theorists of creativity added the IAC to this definition in the first place. We highlight the appeals to intuition and functional arguments that theorists typically use to support the IAC. From this we extract what we take to be the core social function of the language of creativity and, more specifically, the IAC. In Section 2, we explain how generative AI disrupts the IAC, and we outline the arguments *against* considering AI to be creative. We then show why these claims can be successfully rebutted, and we give a functional argument for why the IAC should be rejected as a general condition of creativity. On this basis, we conclude that AI can qualify as creative. In Section 3, we outline how the concept of creativity should be engineered so that this concept can maximally fulfil its core function (as outlined in Section 2). Lastly, we underscore the pluralist, context-sensitive quality of our proposed conception of creativity. We do this by drawing attention to the valuable function that the IAC serves within certain spheres of inquiry, and with respect to certain subtypes of creative product.

1. Intention and the Standard Definition

In the early days of creativity research, Morris I. Stein (1953: 322) suggested that “[t]he creative work is a novel work that is accepted as tenable or useful or satisfying by a group at some point in time.” Echoing Stein’s formulation, many subsequent theorists of creativity have often singled out a) novelty and b) value (or ‘appropriateness’) as two necessary and jointly sufficient criteria for considering an object creative. Runco and Jaeger (2012) identified this paradigm and labelled it the “standard definition” (hereafter SD). According to this view, an agent or productive system is then creative if they generate such objects.

Various additions to SD have been proposed. For instance, that creative objects must be “surprising” (Boden 2004), exhibit “flair” (Gaut 2010), or that they must not cause serious harm (Novitz 2003). But one recurrent addition is particularly relevant given recent developments in generative AI – namely, the IAC. The foremost proponent of this criterion is Berys Gaut (2010), though it has also been posited by a significant number of other theorists (e.g., Brainard 2025; Kieran 2014; Livingston 2018; Paul and Stokes 2018; Stokes 2011; 2021).

Theorists typically add the IAC to SD to defuse counterexamples to SD. One of the strongest of these counterexamples is offered by Gaut (2010: 1040), who asks “[s]uppose that in walking through a studio you accidentally knock over a set of paints, which spill onto a

canvas, and they happen to combine to produce a beautiful and original painting.” Gaut thinks, naturally enough, that it would be inappropriate to speak of creativity in this case. According to Gaut, neither the painting, nor the individual who knocked over the set of paints should be called ‘creative,’ since the agent did not *intend* to create the painting, and the painting was therefore not a product of intentional agency.

For Gaut, the same applies in the case of some processes we witness in nature. Although a tree may produce an “elegant and distinctive canopy of leaves”, it “is not acting at all, since it lacks desires, beliefs and other intentional states; so *a fortiori* it cannot be acting creatively” (Gaut 2018: 129; Gaut 2010: 1040). Gaut is not alone in holding these views. Others also exclude non-agential natural phenomena from the domain of genuine creativity (e.g., Livingston 2018: 116). These arguments often rest on either explicit or implicit claims about the intuitive inappropriateness or linguistic unnaturalness of ascribing creativity to subjects that have not exhibited any intentional agency in generating a given novel and valuable object (e.g., Paul and Stokes 2018: 201–202).⁴ When the IAC is added to SD in this way we call this SD+. What is notable about SD is that it allows for *any* products that are perceived as original and novel to be considered creative, regardless of the generative processes that yielded these products. SD+, by contrast, demands that these products are the result of the cognitive processes that constitute intentional agency.

Some have tried to further explain *why* it is intuitively incorrect to ascribe creativity to non-agential sources of novel and original objects. The prevailing explanation points out that ascriptions of creativity are *approbative* (Stokes 2011; 2021; Paul and Stokes 2018; Kieran 2014). Paul and Stokes (2018: 197) thus claim that to call someone ‘creative’ is to express praise towards that person, and “praise is not appropriately given to subjects who lack responsibility for their actions.” They conclude that it does not make sense to praise someone for something they produced by accident. Similarly, it does not make sense to praise trees or other natural processes since they proceed without intention in the fully fledged sense of the term. The IAC is therefore clearly motivated by anti-accident considerations.

⁴Paul and Stokes (2018: 200–4) also defend the IAC with an argument based on justificatory practice. They argue that people typically appeal to certain processes (such as agency) when asked to justify their ascriptions of creativity. While this argument is not merely descriptive, it nonetheless relies on considered intuitions about what ordinarily counts as a valid reason for ascribing creativity, and thus remains closely tied to intuitions about standard classificatory practice. Paul and Stokes add a modal argument for the IAC, analyzing which possible worlds we would regard as “devoid of creativity” (specifically, worlds in which agency does not feature). However, here too the force of the argument appears to depend upon intuitions about how we would be inclined to ascribe creativity across different counterfactual scenarios. Our contention is not that these intuitions are altogether illegitimate, but that their generality is increasingly questionable given recent shifts in natural language use, which we highlight in Section 2.

Importantly, ascriptions of creativity do not simply imply praise. They are often accompanied by the allocation of status and resources. For example, social psychologists have found that individuals who are judged to be creative are more likely to be promoted (Loewenstein and Mueller 2016); and that there is a direct relation between the judgment that a project is creative and the allocation of resources (Amabile et al. 1996: 1161). Furthermore, there is evidence that consumers' evaluation of a product's relative creativity has a strong influence on their decision to purchase that product (Horn et al. 2009; Loewenstein & Mueller 2016).

These considerations point to a generic need that is satisfied by the language of creativity: it indicates where we can profitably invest resources to positively reinforce, understand, or harness activity that generates novel and valuable products. This in turn points to what we might consider the primary functional value of the IAC – namely, that it prevents us from allocating resources to agents that cannot consistently replicate the 'creative' process, such as in cases when the creative output was entirely unintended. For example, there is little point awarding a stipend to a painter on the grounds that they have produced a decent painting by accidentally knocking over a set of paints – that is, unless they can reproduce the process intentionally. Likewise, it would be imprudent to allocate resources to Nature in order to reward and encourage its creativity, since it is unable to respond to such inducement. Sacrifices to the creative muses may be thought of in this way – for example, Pythagoras' habit of sacrificing an ox to the muses upon making a discovery (Martinez 2012). Today, such superstition is rightly regarded as wasteful, since it has absolutely no effect on generating further creative products. These conclusions follow from the widespread idea that ascriptions of creativity are approbative, and that they regularly condition the allocation of resources. However, it should be underscored that in positing a primary functional value to creativity and the IAC we are not denying the existence of other auxiliary functions. The IAC can serve an array of other crucial purposes depending on the context.⁵ Second, as we will presently show, the characterization of the language of 'creativity' as an approbative term is in need of refinement, and implementing this will change how we characterize the primary function of the IAC.

⁵ See Queloz (2021) on the relationship between generic and local functions. In Section 3 of this paper, we enumerate some of the important local functions fulfilled by the IAC.

2. How Generative AI Disrupts SD

Generative AI has created a problem for SD+. This is because generative AI consistently produces outputs that are often judged to be creative by both laypeople and domain experts in controlled evaluation settings. Generative AI consistently yields new and valuable products in design, painting, architecture, poetry, etc., and does so in a manner tailored to users' specific prompts. These are neither anomalous accidents, nor are they naturally occurring phenomena.⁶ Moreover, AI has been shown to outperform most humans on a range of standardized creative tests (Guzik et al. 2023; Haase and Hanel 2023). Reflecting on the outputs of generative AI, Peter Langland-Hassan (2024: 4) remarks the “strong *prima facie* evidence that contemporary generative AI is creative”.⁷ While Langland-Hassan is referring to mediocre, everyday forms of creativity, others are confident that these systems will eventually be able to engage in the higher kinds of creativity that we associate with major scientific breakthroughs, or artistic genius.⁸ Some think this ambitious goal has already been achieved; indeed, this was precisely how the winning moves of DeepMind’s AlphaGo were described when, almost a decade ago, it beat Lee Sedol, the South Korean go champion (Halina 2021; Metz 2016).

The issue for SD+ is that generative AI is not capable of intentional agency.⁹ Despite a lively public debate about the supposed sentience of AI, it is clear that today generative AI cannot *consciously* pursue goals (Porębski and Figura 2025). Since generative AI is unable to represent target outputs as ideas prior to producing them, it is incapable of satisfying the IAC.

Some intentional human input is invariably present when generative AI systems produce objects that people consider creative. This principally takes the form of the programmers writing algorithms and selecting the training data, and individual users writing prompts (Kind 2022: 51–2). Although hybrid or co-creativity between humans and generative AI is increasingly common (Ivcevic and Grandinetti 2024; Wojtkiewicz 2024), programming or prompting do not provide the thick kind of intentional agency required by SD+.¹⁰ One way

⁶ Though computational systems do also sometimes enable chance discoveries (Green 2004).

⁷ James Kaufman also subscribes to this view (Marchant 2025).

⁸ See the discussion of Hiroaki Kitano in Hutson (2023).

⁹ Although a small minority of commentators have explored the possibility of computational systems being capable of intentional agency while lacking consciousness (e.g., Ventura 2019; Guckelsberger et al. 2017), we take consciousness to be an essential component of intentional agency.

¹⁰ We might analogously think of a patron of the arts commissioning a portrait of themselves. Take, for example, Napoleon’s request that Davide paint him “calme sur un cheval fougueux” (calm on a fiery horse) (Bordes 2005: 91). This kind of request, which could be viewed as comparable to the typical prompt, cannot be equated with creativity, or even co-creativity, since it constitutes insufficient intentional agency. We do not ascribe the creativity of the resulting painting of Napoleon crossing the Alps to Napoleon. We leave aside the vexed question of whether a certain fine-grainedness of prompt might in fact qualify as sufficiently thick agency for the SD+ conception of creativity. We can remain agonistic about this threshold question, since we are specifically interested in the

of dealing with the tension between such cases and SD+ is to double down on the IAC and exclude generative AI from the domain of genuine creativity, as others have excluded the technology from the domain of genuine art (e.g., Nannicelli 2025). This requires adopting a strong prescriptivist position, and insisting that the growing tendency to refer to AI as ‘creative’ is simply erroneous. This response has some influential proponents, most notably Marc Runco, who claims that “... it makes no sense to refer to ‘creative AI.’ ... it may be the most accurate to recognize the output of AI as a kind of *pseudo-creativity*” (Runco 2023: 1).¹¹ Others similarly contend that generative AI is only able to engage in partial, incomplete or inferior forms of creativity (Kelly 2019; Kind 2022).¹²

Theorists who deny that generative AI or its products could ever be considered genuinely or fully creative do so on the basis of what we can call a *process-first approach* to creativity. This means that they insist that in determining whether an object, or source of novel and useful objects, is creative we give priority to the *processes* that yielded those objects. Those who adhere to the process-first approach refer to a range of specific cognitive processes that they take to be essential to the creative process – for example, imagination, curiosity, flair, and intrinsic motivation (Brainard 2025; Gaut 2010; Paul and Stokes 2018; Kieran 2014). However, intentional agency is arguably the most fundamental of these since their realization usually presupposes such agency.¹³ In the context of the IAC and the argument against AI, this approach looks as follows.

The Process-First Approach

P1: All truly creative products arise from a process that involves sufficient intentional agency.

P2: The products of generative AI do not arise from a process that involves sufficient intentional agency.

C: The products of generative AI cannot be truly creative.

situation where there is clearly not sufficient agency for creativity, and as Nannicelli (2025) indicates in his discussion of AI artistry, this describes the vast majority of prompts.

¹¹ For comparable arguments, see also Hoel (2022); Stokes and Paul (2021).

¹² Boden (1998) similarly argues that certain types of creativity may be out of reach for computational systems.

¹³ Indeed, Paul and Stokes (2018: 197), in their survey of the various proposed process-first supplements to SD, take the IAC to be the predominating candidate.

Our first objection to this approach, and the IAC more specifically, concerns the appeals to intuitions about linguistic practice on which it is commonly based. As Figure 1 and Figure 2 indicate, many people do not share this intuition when actually using the language of creativity in the context of AI. Moreover, many people are comfortable referring to natural processes as ‘creative’ (Arnheim 2001; Currie and Turner 2023).

To substantiate this, we tracked the use of language surrounding AI in published books from 1900 to 2022 (inclusive), using Google Ngram Viewer (Google 2024).¹⁴ We chose the following bigrams to compare a range of different creative subjects: “*AI creates*”, “*scientist creates*”, “*painter creates*”. Figure 1 shows a sharp upward spike for the bigram “*AI creates*” since *circa* 2017, coinciding with that year’s so-called ‘AI summer’ or ‘AI boom’ (Lohr 2017).

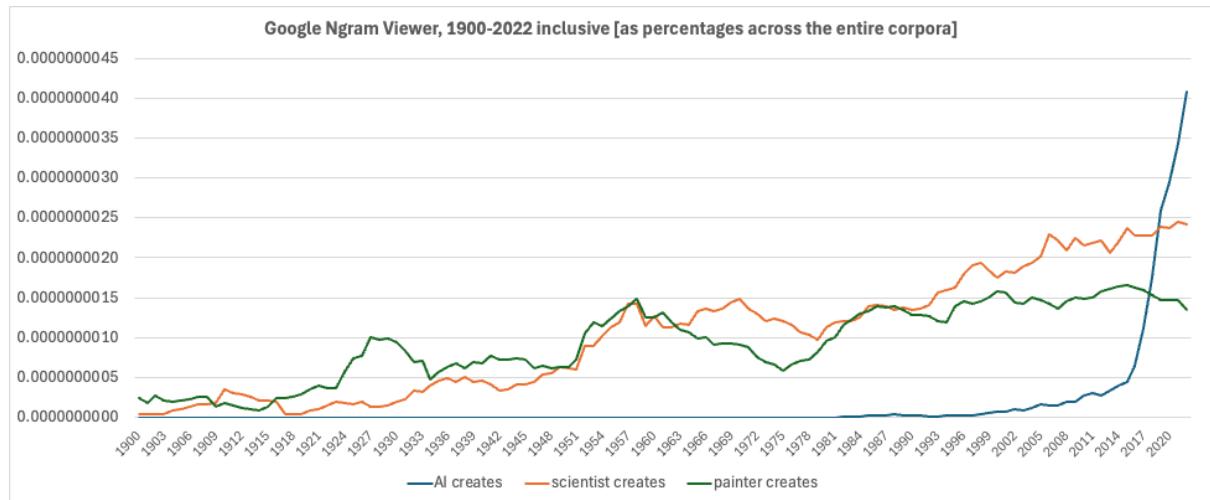


Figure 1. Google Ngram Viewer trend data for *{AI creates, scientist creates, painter creates}*, 1900–2022 inclusive. The score returned by Google Ngram Viewer is expressed as a percentage of all available bigrams in Google’s corpus, up to and including the year 2022 (at time of writing). Adapted from raw data by Google (2024); search conducted 12 Nov 2025 at URL = https://books.google.com/ngrams/graph?content=AI+creates%2Cscientist+creates%2Cpainter+creates&year_start=1800&year_end=2022&corpus=en&smoothing=3.

To further support our hypothesis, we also analyzed discussion of AI in news media (Figure 2). Our source corpus was News on the Web, or NOW, which houses “23.5 billion words of data from web-based newspapers and magazines from 2010 to the present time” (Davies, 2016–). NOW allows searches for the same bigrams, to provide us with annual trends of textual utterances and phrases, in absolute frequencies, over time.

¹⁴ For those unfamiliar, n-gram refers to a sequence of n contiguous words (hence, a bigram is simply a 2-gram, or two contiguous words). Ngram Viewer is a Google tool to analyze bigram frequencies in published books since *circa* 1800 CE (see Michel et al. 2011 for a full technical explanation).

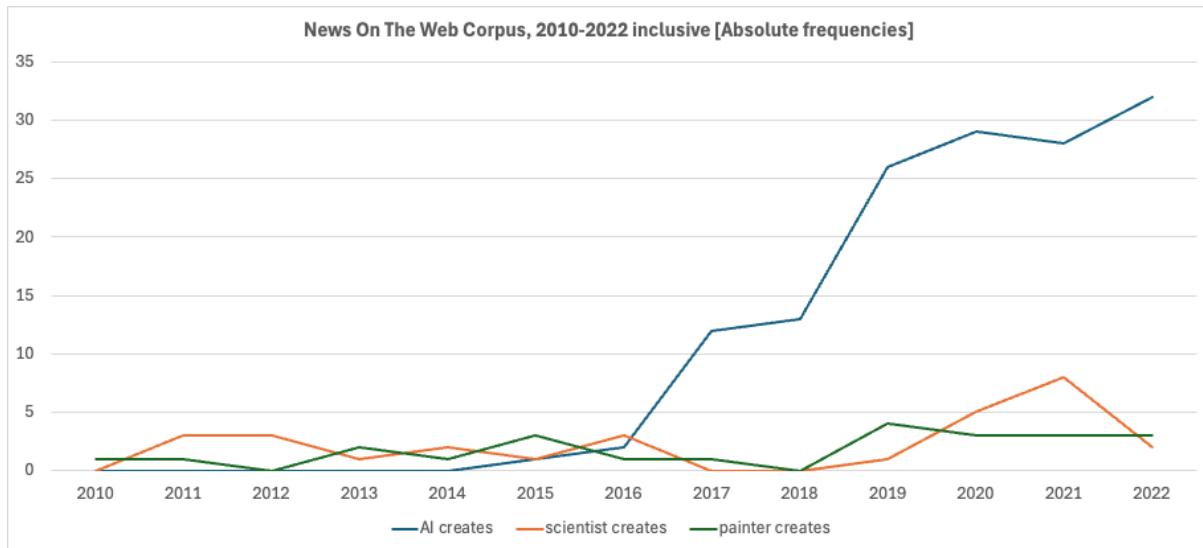


Figure 2. News on the Web trend data for {AI creates, scientist creates, painter creates}, 2010–2022 (inclusive). Adapted from raw data by Davies (2016–); search conducted 12 Nov 2025 at URL = <https://www.english-corpora.org/now/>. To standardize the cut-off date with our previous investigation of Google Ngram Viewer (see Fig. 1), we chose 2010 to 2022 (inclusive) as the search window.

Trends in both Google Ngram and NOW show a clear upward trajectory in the frequency of the phrase “AI creates”. This indicates an increasing willingness among authors and journalists to *attribute* creativity to AI, even if such attributions are sometimes metaphorical or unreflective. While this does not mean that such usage is necessarily correct, nor that this usage reflects peoples’ considered intuitions, it seems reasonable to require that theoretical accounts of creativity broadly cohere with the way that the vocabulary of creativity is currently used.¹⁵ What this data minimally demonstrate is that a significant linguistic shift is underway. The frequency with which people are ascribing creativity to AI is rising sharply. This does not refute intuition-based defenses of the IAC, but it undercuts their claim to reflect stable or widely shared linguistic competence. Moreover, in many cases, linguistic drift does not warrant conceptual revision – for instance, where concepts representing natural kinds and other scientific facts are concerned. However, ‘creativity’ appears to be a social concept, rather than a natural kind, or at least there is no tight consensus among experts about what natural kind the concept picks out, though the generation of novel and valuable objects seems to represent a relatively stable core.¹⁶ This is why we take it to be reasonable to require theoretical

¹⁵ It may be that those who ascribe creativity to generative AI are projecting intentional agency onto it. Although this would seem to fit with evidence that people are prone to anthropomorphize AI (Salles 2020), a recent survey-based study shows that only a small minority of people take AI to be conscious (Dreksler et al. 2025). It is also worth pointing out that some of these ascriptions shown in Figure 1 and Figure 2 could be critical or ironic – for instance, stating that ‘creative AI is not possible.’ However, we take it to be highly unlikely that such outlying cases could account for the magnitude of the shift represented in these figures.

¹⁶ As should be clear from the fact that we are proposing a conceptual engineering approach, we are not Platonists about the concept of creativity. While the concept may have a relatively stable core meaning – pertaining to the

accounts of creativity to roughly track and explain how people actually use the language of creativity. Rather than simply dismissing this linguistic usage as incorrect, it would be more appropriate and illuminating to see if we can engineer a conception of creativity that can accommodate generative AI while still excluding cases where novel and valuable products are produced by accident. In Section 3, we argue that the concept of creativity can be engineered in precisely this way.

Our second objection is that the IAC no longer serves the pragmatic function that it did prior to the emergence of generative AI. Recall the chief functional motivation for adding the IAC to SD: it prevents us from wastefully allocating praise or resources to people or processes that are not *responsible* for generating a given novel and valuable product. But the endorsement of, and allocation of resources to, generative AI systems that yield novel and valuable products *can* in fact stimulate more creativity, and is therefore *not* necessarily wasteful. It has a potentially huge payoff insofar as it incentivizes the developers of these AI systems, and further encourages users to incorporate these technologies into their daily lives. Paying for subscriptions, investing in AI development, and integrating AI into existing creative practices already seems to be augmenting the quantity of novel and valuable outputs available to society. Imposing the IAC on generative AI therefore risks discouraging warranted endorsement and investment in a demonstrably productive source of novel and valuable outputs.

Third, there are empirical indications that the process-first approach – of which the IAC is an integral part – biases our perception of the originality and value of products generated by AI (Magni et al. 2024). Assessing the creativity of a given product in an unbiased manner is a difficult task. For example, one needs significant knowledge about the domain in question, and researchers have highlighted many other context-sensitive considerations (Runco and Smith 1992). When people lack the necessary expertise to make a well-grounded judgment, they employ heuristics, which bias their decision making (Licuanan et al. 2007; Mastria et al. 2019; Ritter and Rietzschel 2017). One common heuristic is judging the creativity of a product on the basis of our knowledge about its producer. The key question here is whether the producer is widely considered to be a creative individual. Have they already, in the past, produced works that are widely recognized as creative? And do they possess the character traits that people commonly associate with creativity (e.g., are they young and imaginative)? The more positively people are inclined to answer these two questions, the more likely they are to infer that the

generation of novel and valuable objects – we do not believe that it possesses any essential or immutable features. The new standard definition proposed in Section 3 of this paper is intended to describe and explain current patterns in the use of the language of creativity, and to clarify why these new conventions are functionally advantageous.

product is creative (Hattori et al. 2024; Rietzschel et al. 2016). This has been called the *producer-identity effect* (Magni et al. 2024). But the producer-identity effect is underpinned by the implicit theories that people hold about the types of *processes* that the producer is likely to have gone through to generate the output in question. For instance, one group of researchers have shown that many people use *perceived effort* as an indicator of creativity (Magni et al. 2024; see also Kruger et al. 2004). These researchers showed that when people know that a producer is unlikely to have invested sufficient effort in generating a given product, they are less inclined to consider it creative or valuable.

These biases are worrisome because they distort our perception of the originality and value of the object in question, which need to be assessed independently of our knowledge of who produced it, or the processes involved in its production (Amabile 1982; 2020). As a baseline, we can consider how valuable and original an object is judged to be under conditions of blind evaluation, where neither authorship nor the production process is known. A distortion occurs when we employ heuristics that cause us to under- or over-estimate the creativity (i.e., originality and value) of the object in comparison to this baseline. This prejudicial sort of judgment causes us either to overlook how we might serviceably use that object, or to overinvest attention (or other resources) therein. Although heuristics often evolve because they are adaptive, when our environment changes, these heuristics can become maladaptive, failing to serve the function they initially fulfilled (Haselton et al. 2009). We have already seen how, prior to the emergence of AI, the IAC on average serves an adaptive, pragmatic function. What we want to claim, however, is that it becomes maladaptive, and feeds into harmfully distortive biases, in the context of AI-generated objects.

There is abundant evidence that both the producer-identity effect and the effort-heuristic bias people when they judge what they take to be the outputs of generative AI (Di Dio et al. 2023; Hattori et al. 2024; Haverals and Martin 2025; Henestrosa et al. 2024; Porter and Machery 2024; Proksch et al. 2024; Magni et al. 2024). These studies show that when people believe that a creative output has been generated by AI, rather than by a human, they value it significantly less, and are significantly less likely to label it creative, than when they either did not know the source of the output, or when they mistakenly believe it to have been created by a human. This form of the producer effect has been called ‘algorithm aversion’ (Proksch 2024). These studies showed that participants actually *favored* AI-generated products over human-created products when the producer of these products was not labelled, or they were misleadingly labelled (Haverals and Martin 2025; Proksch 2024). So, although people are increasingly comfortable using the language of creativity in the context of AI, producer-identity

bias against AI nonetheless pulls against this trend, making people less inclined to ascribe creativity or value to objects they believe to have been produced by generative AI.

From these studies we can see that people tend to implement some form of process-first approach as a heuristic tool when making judgments about creativity. People implicitly seem to think that generative AI is constitutionally incapable of the processes required for creativity. However, this approach renders individuals worse at correctly identifying the originality and value of objects in their environment because it skews their perception of an increasingly significant quantity of objects – namely, those generated by AI.¹⁷ The IAC and the process-first approach explicitly endorse, and thereby reinforce, our biases against generative AI. Both emphasize the importance of thinking about the *producer*, and their capacity to perform certain processes, when evaluating potentially creative objects. This means that not only do the functional benefits of the IAC no longer apply in the case of generative AI, but there are marked functional *disadvantages* to applying the IAC, insofar as it can cause individuals to underrate objects that they would otherwise correctly consider to be novel and valuable.

3. A Context-Sensitive Conception of Creativity

Is there a better way to conceptualize creativity than the process-first approach outlined above? In other words, is there a conception of creativity that can more effectively serve our generic need to identify, understand and harness reliable sources of novel and valuable objects? In what follows, we make the case for a general approach that prioritizes *products* rather than the underlying processes that give rise to these products. At this general level, we therefore propose dropping the IAC. However, we also acknowledge that in some specific contexts, it will remain functionally valuable to impose the IAC, and to adopt a more process-oriented approach. We therefore call our proposal the *context-sensitive conception* of creativity since it allows for the general notion of ‘creativity’ to be modulated in specific situations to include the IAC and a process-first approach.

At the most general level, then, we argue that a product-first conception of creativity is functionally superior to the process-first approach. Theresa Amabile encapsulates this perspective when she argues that “judges of creativity *shouldn’t need to know where a product came from*. If they [see] it as novel relative to other products within its domain, and appropriate

¹⁷ This casts doubt on Moruzzi’s (2025) claim that the issue of whether we should define AI as creative – and whether we should adopt the process- or product-oriented approach – is not particularly urgent. The empirical evidence suggests that these definitional questions have real practical significance.

for some task or problem, then we would have to accept their judgments as such” (Amabile 2020: 4; emphasis added).¹⁸ According to this view, any source of such products can then be labelled ‘creative’, regardless of the processes by which that source generated the product in question. Theorists have remarked that the product-first approach allows for generative AI to be classified as ‘creative’ (Amabile 2020; Moruzzi 2025). We can express this view syllogistically as follows:

The Product-First Approach

- P1: A system is creative if it produces objects that are both novel and valuable.
- P2: Many generative AI systems produce objects – i.e., outputs – that are both novel and valuable.
- C: Many generative AI systems are creative.

Although we broadly concur with this view, we see one feature of the productive source, and the relevant generative process, as crucial when evaluating creativity – namely, the *consistency*, or at least potential consistency, of that source. Why is actual or potential consistency important? If we are looking to maximize the functional value of the term ‘creativity’ and its related concepts then in most cases we should be looking to use these concepts to identify consistent sources of novel and valuable products. When we identify a consistent source of novel and valuable objects, we know that we can profitably invest resources in trying to understand the underlying processes, and in trying to harness and promote this source such that we obtain more novel and valuable objects.

As we saw above, where we explained the logic behind construing ‘creativity’ as a praise term, it is important that people avoid endorsing merely accidental sources of novel and valuable objects. This is because we need to avoid wastefully investing resources trying to understand or promote such haphazard or one-off sources. The core function of the IAC lies in its ability to prevent this type of scenario, for instance, we saw that multiple commentators frame the demand for intentional agency as a block on granting unwarranted praise. However,

¹⁸ Or, as Monroe Beardsley puts it: “The true locus of creativity is not the genetic process prior to the work but the work itself as it lives in the experience of the beholder” (Beardsley 1965: 302).

we have seen that there is good reason to believe that the IAC has become dysfunctional insofar as it now causes us to overlook and undervalue the novel and valuable products yielded by generative AI. The requirement of *consistency* is therefore an improvement on the IAC insofar as it militates against wasteful investment, while nonetheless allowing us to endorse and promote generative AI by ascribing the approbative language of creativity to it.¹⁹ This thin consistency requirement would still exclude Gaut's toy example of the painting that is created by accidentally knocking over a set of paints, and it would do so without needing to bring the thicker notion of intentional agency into consideration. As such, the principle of parsimony, as well that of functional superiority, both speak in favor of replacing the IAC with this consistency requirement.

The consistency we propose is not a mere matter of statistical frequency, but of having context-relative grounds for expecting further outputs of comparable novelty and value. Such grounds provide *pro tanto* justification for ascribing creativity: the more robust and well-supported the expectation, the firmer the ascription can be. Like many evaluative concepts (e.g., reliability or competence), creative consistency is inherently context-dependent and will admit borderline cases, intersubjective disagreement, and defeasibility. We regard this indeterminacy as a virtue, however, insofar as it allows the concept of creativity to remain flexible across different domains of creativity.

The consistency requirement has the further advantage of allowing non-human natural processes to be labelled 'creative' (supporting Arnheim 2001; Currie and Turner 2023). For example, if evolution develops creative solutions to environmental obstacles, classifying these as 'creative' can encourage us to invest in learning about the processes that give rise to these solutions – for example, the evolutionary processes of variation and selection. So, while the term 'creativity' is indeed an approbative term that expresses approval, endorsement and positive valuation, our functionalist approach implies that it should not be conceived as a *praise* term unless it is specifically being used in the context of human agents.²⁰

From this we can see that imposing the IAC at a general level will only frustrate efforts to identify, understand and promote a wide range of original and valuable phenomena,

¹⁹ This explains why individuals who do *not* consistently generate creative products are often not taken to be genuinely creative, hence the derogatory terms "flash in the pan" or "one-hit wonder."

²⁰ Currie and Turner (2023) develop a comparable line of argument with reference to evolutionary processes. However, they do not employ the functionalist lens that we do here, rather they simply argue that creativity requires flair, and that the praise requirement can therefore be dropped. By contrast, we are recommending that the idea that the language of 'creativity' expresses *praise* should be amended to the more inclusive idea that it expresses 'endorsement'.

especially those produced by generative AI. In response to the considerations outlined in this section, we propose a New Standard Definition (NSD).

NSD: An object is ‘creative’ if it is a) novel; b) valuable; and c) the product of a system that can *consistently* generate novel and valuable objects. A system is then ‘creative’ if it can consistently generate such objects.

While NSD drops the IAC as a necessary condition of creativity, we maintain that the IAC still has functional value in specific local contexts – across multiple disciplinary spheres, and with respect to a range of subtypes of creativity – and this is why we advocate a context-sensitive conception of creativity. For instance, in cognitive science, the IAC is often appropriate, and ought to be plugged into NSD. Researchers wishing to identify what defines *human* creativity need to ensure that they are dealing with human agents. It would be self-defeating if psychologists who are trying to explain human creativity were, unbeknownst to them, studying outputs that were produced by generative AI, natural processes, or human accidents. This kind of scenario is an issue for survey-based research in the social sciences, with scientists in the field now having to take measures to ensure that they are interviewing bona fide human subjects, instead of chatbots or other sources of artificially generated content (Webb and Tangney 2022). Insisting on the IAC in this context prevents researchers who are studying human creativity from mistakenly interpreting the responses of AI chatbots as evidence about human creativity. The situation is comparable in jurisprudence, where lawyers or legal scholars are often focused on ascribing responsibility for acts of malevolent creativity (Copley et al. 2008), such as terrorist attacks or acts of fraud.²¹ The IAC is essential to ascribe legal responsibility, since we cannot hold an accidental process or non-agential system legally accountable. So, while chatbot outputs and unintentionally harmful ‘dark’ creativity could qualify as ‘creative’ according to NSD, it will often be functionally valuable for cognitive scientists and lawyers to exclude such cases from their field of study by insisting on the IAC.

As well as disciplinary contexts, the IAC appears to be essential in relation to specific kinds of creative objects. This applies, for example, especially where authenticity conditions how we evaluate creative products. This includes creative products that are tightly intertwined with our intersubjective relationships, such as personal correspondence or eulogies (or similar

²¹ For an account of how malevolent creativity might be compatible with the idea that labelling something ‘creative’ expresses endorsement, see Pearson (2021).

commemorative speeches). For these creative products to be instances of authentic communication, they need to be sincere expressions of their authors' views, feelings and voice. For example, many people would find a love letter written by ChatGPT to be as unacceptable as a ghostwritten one, because for a love letter to be valuable at all it needs to demonstrate intentionality, effort, and genuine emotion. As the story of Cyrano de Bergerac illustrates to dramatic effect, such missives are expected to come 'from the heart' of their author. In other words, this kind of creative product needs to be generated *intentionally* and to result from genuine feeling. Dutton (2009: 259) calls this "expressive authenticity", which requires that a creative product be the "true expression of an individual's or a society's values and beliefs." In these cases, what endows these creative objects with value is precisely the way that they communicate another person's perspective to us – they tell us how others see, feel, value and understand the world around them (Kelly 2019). If we discovered that a love letter that we had previously received and admired was authored by generative AI then we would be right in denying that it exhibits sufficient creative value, regardless of its originality. This is because the creative worth of these products is conditioned by their expressive authenticity.

Likewise, in the realm of high art, we often value works, such as those of van Gogh on account of how they vividly convey the artist's first-personal point of view and their struggle with life (Boden 2007; Cropley et al. 2025; Lyas 1983).²² As Colin Lyas (1983: 35) points out, these kinds of creative works tell us how an actual person responded to an actual concrete situation, and because of this it "adds to my knowledge of the functioning of human beings." Such insights hold obvious functional value for the audiences of authentically expressive art.²³

Intentional agency is necessary for expressive authenticity because authentically expressing something requires that an agent intentionally endeavor to express themselves. The ostensible intentions of the agent that we perceive in an expressive, creative product need to broadly correspond to the actual intentions that motivated the production of that specific product. The agent must not be engaging in subterfuge, nor should they be acting accidentally, without intent. Given that generative AI lacks a capacity for intentional agency, first-personal experience, care and emotion, it is precluded from being creative in any domain where the value of the creative products depends upon those products being expressively authentic (Cropley et

²² Against this, Beardsley (1958: 59–60) argues that only "illocutionary acts" need to be sincere. By contrast, in Beardsley's view, art does not.

²³ Expressive authenticity is not only necessary in the realm of aesthetics. It has been shown that consumers also care about the expressive authenticity of businesses. Consumers often want to see that companies are "motivated by love of the task, rather than the possibility of financial reward." They want products created by people who are "genuine in their intent" (Carrol and Wheaton 2009: 12; quoted in Newman and Smith 2016). For more on the importance of expressive authenticity and sincerity, both in art and beyond, see Trilling (1972).

al. 2025). If it were to be used to produce this genre of aesthetic product, the resulting outputs would in all likelihood lack sufficient value, and would therefore not qualify as creative in the most general sense described by NSD.

In contrast, where creative solutions are being sought as a purely instrumental means of solving practical problems – e.g., in finance, engineering, science, etc. – the expressively authentic status of a proposal is unlikely to impact our evaluation of it. For instance, if a cure for cancer were discovered by an LLM, the lack of expressive authenticity of that solution is unlikely to significantly affect our valuation of it. Provided the novel treatment effectively solves the practical problem, it could legitimately be referred to as a creative solution.

This is why we have proposed a context-sensitive conception of creativity. This would involve treating the NSD – which does not include the IAC – as a general definition of creativity. However, there will be many domains of creative practice and creativity research in which intentional agency conditions the value of the products being generated or examined within those domains. As such, the IAC is fitting and has salient functional value within those fields.²⁴ In taxonomic terms, the IAC should be excluded from our definition of the *genus* of creativity, but retained as a means of distinguishing between certain *species* of creativity.

Before deciding whether to apply the IAC in any given context, we therefore need to carefully assess the functional value of doing so. We do not aim here to provide a comprehensive account of where the IAC ought to be applied but only to show that it should be retained in specific contexts. Our main objective has rather been to show that the IAC should be dropped as a necessary condition of creativity. We propose a modest but significant revision to how creativity is defined and deployed, aimed at preserving its core functional value under contemporary conditions. Although critics of conceptual engineering have objected that trying to actively change how we use concepts or words is for all intents-and-purposes infeasible (Cappelen 2018: 74), others have contested this, arguing that we can in fact actively shape how concepts and terms are used (Thomasson 2021). In the context of generative AI at least, we believe that the prospects are good for conceptually engineering ‘creativity’ in the manner that we are proposing because it follows the current trends in usage represented by Figure 1 and Figure 2.

²⁴ This goes against those who say that if we cannot tell the creative outputs of machines apart from those of humans, then we will have no real basis for distinguishing between the two types of creativity (e.g., Chen 2018).

Conclusion

In this paper we have outlined why theorists originally introduced intentional agency as a condition of creativity. In positing the IAC, they at once made explicit and affirmed what appears to be an imperative constraint on our engagement with novel and valuable objects – namely, that people avoid endorsing and investing in accidental sources of creativity. We also saw that the IAC was further supported by intuitions about natural language use. However, we then explained how the rise of generative AI, with its impressive ability to produce original and valuable artefacts without intentional agency, has rendered the IAC problematic. And we saw that multiple commentators respond to this tension by simply insisting on the IAC and excluding generative AI from the domain of genuine creativity.

We have challenged this deflationary response by highlighting how intuitions about the creativity of generative AI appear to be rapidly inverting. We argued that the deflationary approach goes strikingly against the grain of how the language of creativity is currently being used. Second, we have tried to show that the IAC has high functional costs when applied to the outputs of generative AI. In this context, the empirical evidence suggests that the IAC merely feeds into biases that hamper the recognition, uptake and further production of novel and valuable objects. As such, there are strong functional reasons for excluding the IAC from the most general conception of creativity.

Generative AI is a consistent source of novel and useful objects, and it is therefore a source that we *can* harness and promote, and which accordingly merits the approbative language of creativity. But we have further argued that *any* consistent source of novel and useful objects merits the label ‘creative.’ To broaden the concept in this way, we underscored why we need to reconceive ‘creativity’ as an ‘endorsement’ term, instead of a ‘praise’ term. Engineering the concept in this way allows us to accommodate the idea that ascriptions of creativity express approbation, but to do so without requiring the intentional agency that conditions the granting of praise.

We further proposed that ‘creativity’ at the most general level should be conceptually engineered by replacing the IAC with a consistency criterion. This latter requirement avoids the problematic biases associated with the IAC, while still preventing the kind of wasteful investment of unwarranted applause and resources that the IAC is geared to block. Compared with the IAC, the consistency requirement leaves us better placed to identify and leverage the creative force of generative AI.

Conceptual engineers regularly encounter the problem of convincing speakers to adopt newly engineered concepts. One advantage of our approach is that it simply explains, and supports, a linguistic change that is already underway. There is much evidence that natural language use tracks the functional needs of speakers (Koslow 2022), so the increasing tendency of language users to ascribe creativity to AI should come as no surprise. We merely hope to facilitate this process by counteracting the biases that we believe are reinforced by theorists insisting on the IAC and pressing for a deflationary approach to AI creativity. By doing this, we merely hope to align ourselves with the existing direction of linguistic evolution, and in rationalizing this shift, to encourage it, albeit within constraints. As a result, although our approach is normative, it does not require us to be forcefully prescriptive.

Finally, it is important to note that despite the serious problems we identified with the IAC, we have not sought to altogether jettison this criterion. On the contrary, we emphasized multiple reasons to retain it in contexts where it has functional value. Demarcating the areas in which intentional agency should be required for ascriptions of creativity is a pressing task that we have merely sketched in the final section of this study. Getting a clearer view of where the IAC is functional, and where it is not, is critical because of the increasing tendency of natural language users to disregard the IAC in response to generative AI. There is a live risk that AI could encroach on spheres of creativity where it is liable to have a detrimental impact, particularly domains where expressive authenticity ought to be treated as sacrosanct. Nevertheless, this concern does not warrant a blanket exclusion of generative AI from the sphere of creativity. Rejecting generative AI on these grounds not only runs counter to clear shifts in natural language use, but also undermines our ability to identify and engage with the limited creative value present in our environment.

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