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The aesthetics of contingency

Abstract

This article is divided into two parts. The first part demonstrates the importance of contingency in art. There is a strong link between contingency and creativity, and it is possible to say that in art this contingency-dependent creativity makes art more “real”. In this first part the “creative contingency” or art model will also be transferred to the idea of the “art of life” as a mixture of ethics and aesthetics. The second part analyzes the capacity of algorithms to produce aesthetic expressions by following necessary rules and by excluding contingency. Is this cognitive model compatible with artistic creativity?

Keywords

Contingency, Creativity, Algorithmic art

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1. Contingency and creativity

Classical Western (Platonic-Aristotelian) philosophies tend to split the world and everything that exists in it into two sections. According to Rorty, Kant “splits us into two parts, one called ‘reason’, which is identical in us all, and another (empirical sensation and desire), which is a matter of blind, contingent, idiosyncratic impressions” (Rorty 1989: 32). Reason reveals necessary structures whereas contingency is ignorance and blindness. Already Epicurus tried to overcome this opposition by seeing the coincidence as a *rational* explanation. The division of the world into necessity and contingency became one of the most inveterate principles of Western thought.

The necessary-contingent opposition is related to the Platonic opposition of the real versus the appearance. In the *Republic* (VI: 509d-511c), especially in the *Allegory of the cave* (VII: 514a-517a), Plato differentiates between perceptible and intelligible phenomena and explains how the ever-changing realm of physical objects (particulars) is separate from the invisible and eternal universals, that is, from ideas or “forms”. The latter we perceive through reason (*noesis*) or – with regard to mathematical objects and abstract ideas – through intellect (*dianoia*). Physical objects, which are more random than reason-based ideas, can only be cognized through opinion (*doxa*), practical reason (*phronesis*) or trust (*pistis*). Images and appearances of objects occupy an even lower level of cognition than physical objects. Reason “sees” abstract ideas and concepts that are necessary whereas concrete objects and the appearances of objects remain more contingent. When it comes to images in art, we can even judge them by using taste rather than reason.

The light of reason illuminates the world of objects and appearances and shows necessary ideas; and thus, and only thus, randomness disappears. Causal determinists like Laplace merely reformulated this same idea at the end of the eighteenth century. The coincidence is not real but only a dream or an appearance that we perceive because we are scientifically incompetent. As sciences progress, the unreal world of coincidences will be replaced with the real world of necessity.

What does this mean for art? The Platonic distinction between the real and the apparent has dominated the Western philosophical scene for millennia. Concepts and ideas are real and necessary, whereas objects and especially images are random and contingent. Can art ever be a necessity that is recognized by reason, or is it forever bound to remain irrational and inessential? Can art only subsist within the shadows of con-

tingency, unaffected by the light of reason? Art is already an appearance; and beyond that, it integrates contingency into its expressions. Coincidences are important with regard to the production as well as the perception of art. Though multiple attempts to create a “science of art” (aesthetics) have been launched, especially since the eighteenth century, it remains obvious that reason cannot fully illuminate art. Reason cannot fully replace art’s intrinsic contingency in terms of necessity. From a scientific and necessity-seeking point of view, art remains ontologically inferior and therefore eternally obscure. Be it *symbebekos*, the scholastic *accidens*, *hasard*, or *Zufall* – most often, the coincidence signifies a diminution of essence. The problem with art is that it also expresses essences. Art can convey essential insights into life and the world. How can this be coordinated with the (apparently inessential) contingency to which art is also submitted? Does art have a particular way of dealing with contingency?

There are ways of combining necessity and contingency. The problem of free will, for example, usually handles the necessity-contingency problem by relying on a concept of ontological contingency. Enlightenment philosophers combined necessity and contingency by seeing reason not as an abstract power but as an entity constructed within random situations. Organic philosophies find that all order emerges internally and is not imposed upon by external forces. In another vein, Arthur Schopenhauer, in the Appendix to the first volume of his *The world as will and representation* (1859), establishes that “everything which is actual (*wirklich*) is also necessary” (Schopenhauer 2010: 493; *Welt*: 592). Schopenhauer’s aim is to develop the notions of necessity, actuality, and possibility in the light of the principle of sufficient reason (*der Satz vom Grunde*). Eventually, he finds that all three coincide. Not only does possibility presuppose necessity, but vice versa, necessity presupposes contingency: “Every object of any sort, e.g. everything that takes place in the actual world, is always simultaneously necessary and contingent: *necessary* in relation to the one thing that is its cause; *contingent* in relation to everything else” (Schopenhauer 2010: 493; *Welt*: 592). However, the ontologically interesting mix of necessity and contingency does not lead Schopenhauer to the conclusion that the coincidence is real and objective. Contingency merely *contributes* to actuality; as such, contingency remains a subjective perception: “Contingency (*Zufälligkeit*) proves to be a merely subjective phenomenon that arises from the limitation of the horizon of our understanding, and is thus just as subjective as the optical horizon where the sky meets the earth” (Schopenhauer 2010: 497; *Welt*: 596).

Once again, the coincidence is not real, but merely something that is ‘seen’ subjectively. Like the Greeks who had integrated contingency into ontology, Schopenhauer combines reality and illusion, suggesting that the subjective-objective way is how we normally perceive the world. Likewise, both always found contingency to be ethically and anthropologically irrelevant. Schopenhauer’s originality is that he does not conclude that the coincidence could be something other than an illusion; he refers to contingency as an ‘optical’ phenomenon¹. Not only *can* it be seen, but it always *is* seen. As long as we have an aesthetic view of the world (which we practically always have), we perceive contingency. Not only is the aesthetic contingent, but contingency *is* aesthetic. This does however mean, once again, that contingency is, or should be, excluded from the scientific and ethical realm².

1.1. *Art, nature, and liberty*

The Platonic reality-appearance dichotomy can be linked to yet another dichotomy: the one that opposes art to nature. It is the insistence on necessity as *the* real part of the world that leads to concepts of ‘essence’, ‘foundation’, as well as ‘nature’. Science can best illuminate nature as long as it believes nature to function along necessary rules. At least since Darwin, these assumptions about nature are no longer valid. While the twentieth century overcame a certain necessity-oriented determinism in

¹ Schopenhauer builds on Kant’s legacy. Kant initiated “secular” thoughts on contingency in his *Critique of pure reason* (1974: 119), where he uses the words “das Zufällige” for what Leibniz, in his *Theodicy*, had called *Kontingenzen* (I, §39). Kant thus secularizes contingency and creates a non-theological understanding of contingency that would become current in modern thought. Hegel, who sounds determinist when he declares in his *Philosophy of world history* that philosophy “has no other purpose than to eliminate the contingent (*das Zufällige*)” (Hegel 1955: 29), also suggest a dialectics of necessity and contingency in his *Science of Logic*. He believes this dialectics to be the driving force of any evolution – natural or historical. Hegel develops an elaborate theory of contingency, especially in the chapter on the modalities of reality, possibility, and necessity.

² From Schiller onwards contingency is more consistently integrated. Schiller designs play as a paradoxical combination of belief and skepticism or as a middle ground arising between liberty and dependence, sensuality and form, as well as between necessity and contingency (Letters 14 and 15 of his *Letters on the aesthetic education*). The play impulse (*Spieltrieb*) combines nature with morals, or random spontaneity with necessity.

science, in aesthetics, the contingency-necessity dichotomy still remains intact and can be represented through the following pattern:

contingent vs. necessary
apparent vs. real
art vs. nature

When reflecting on art, this system yields a variety of parallelisms. Nature is real because it is not contingent, whereas art cannot be real because it is not inscribed in the realm of necessary nature. Reason is on the side of both the necessary and the real, whereas contingency is unreal because it cannot be grasped by reason. Reason apprehends necessary structures – or at least probabilities – whereas the purely contingent part of the world escapes reason, which puts art in a peculiar position. According to Canguilhem (1947: 327), “reason is regular like an accountant whereas life is anarchic like an art”. If reason is already so structurally different from life, it is unlikely that it can ever appreciate art.

Part of the problem is the misconception that nature has an intrinsic, goal-oriented necessity; another problem is the misunderstanding of the relations between necessity and contingency in the realm of art. There is a strong link between contingency and creativity; art *needs* contingency because art is an assertion of liberty. Coincidences shape many human activities, but they are most important for creativity because in creative actions, the system, the logic, the ideology, or the theory, all of which claim to be based on necessities, must be enriched by fantasy. And fantasy is always submitted to coincidences, which goes for creative *productions* as much as for the *experience* of art. Contingency is an aesthetic quality capable of expressing artistic uniqueness, a uniqueness that the formal method of science has difficulties grasping. There is no necessary rule in art, and artists like to break rules. In artistic productions, more than in any other activity other than gambling, we are aware that every manifestation, every stroke that we see on the canvas, *could* also have been done otherwise. Similarly, in fiction, literary invention is up to the writer: he could have invented whatever he wanted. Not only are we aware of contingency but we admire it. Longinus said that “what is useful or even necessary for man is at his disposal. Yet, what he admires is the unexpected” (Longinus 2006: 5)³. In art we admire the unexpected, which becomes particularly clear not only in crime novels but also in aesthetic

³ *On the sublime* is a Roman-era Greek work of literary criticism of the 1st century AD. Its author is unknown but is conventionally referred to as Longinus or Pseudo-Longinus.

phenomena like the sublime or the uncanny (for example, in horror movies) and in Surrealism or Dadaism. The experience is similar to that of an accident, which is uncanny, and the less probable it is, the uncannier it appears. Such experiences give us the strange impression of realness being rooted in unrealness. The outcry 'I can't believe it' expresses this epistemic contradiction. "Can one know something and not believe it?" asks Pascal Massie. "Not only did it not have to happen, but in a sense, it should not have happened" (Massie 2011: 14). Art turns out to be the opposite of gambling. Though both are very much contingency based, in a game, the gambler hopes for *the expected* (as it helps him win) and fears the unexpected (the potential loss). Any formal game (and not merely "play") in which winning is no longer the purpose, becomes a work of art: deprived of a purpose (the winning), it becomes aesthetic⁴.

The real problem is that, at the same time, aesthetic beauty can very much appear determined by necessities. The slightest modification or the slightest change to a line in a drawing, can turn out to be disastrous because now the line is no longer where it *should* be. Paul Valéry (1942-43: 17) rightfully held that "*L'art est non-hasard – par définition*", which can also mean that in art, randomness becomes a necessity. Art is an adventure as opposed to a planned trip, but the random events appear as necessary *for this particular adventure*. What distinguishes the adventure from ordinary traveling is that in the former, random experiences are part of the project. They are necessary for the trip to be an adventure; and the trip as a whole even appears necessary *as an adventure*. In conclusion, in an adventure, contingency has become a necessity, and necessity and contingency form a unity. A further observation is that the adventure also becomes more real through contingency. We can think of adventure tourism where travelers desire to have experiences that are "more real" and more "authentic" than those that can be made during trips in which everything follows the necessities of a preconceived plan. In parallel, art becomes more real through contingency, too. More precisely, art is more real than 'regular' or factual life not merely because it contains contingency, but because art creates reality out of contingency, just as the adventure vacation is more 'real' because it is improvised. Similarly, a writer *creates* necessities by freely choosing a certain framework for their events with the result that single events, which could also be otherwise, begin to make perfect sense within the set plan. Often, they even make

⁴ A game that has really become art would be one in which all players aim to get even. It would not be a game but a ritual.

more sense here than they would in real life, which precisely confirms Valéry's idea.

Even artistic expressions like Surrealism and Dadaism, which play with the absolute coincidence and have broad and floating limits of plausibility, produce this kind of aesthetic necessity. The surrealist writer develops a sort of facticity in which contingency is supposed to be accepted – within the work of art – as a necessity. All writers of fiction do this, but in surrealism the outcome is most dramatic. Surrealists produce an aesthetic necessity within an environment of absolute absurdity and randomness.

Art produces its own necessities and is therefore less liable to external necessities laid down, for example, by nature, politics, religion, or the economy. As a result, throughout history, contingency could thrive better in the realm of the aesthetic because here it was protected from the strong appeals to necessity that Western philosophy, religion, and science have been issuing for two millennia. Science, apart from the purely theoretical speculations of the Greek materialists, absorbed the idea of chaos and contingency only at a very late stage. In biology, a perceived reproduction and multiplication of structures only made the idea of randomness scientifically relevant around the nineteenth century, while physics considered contingency noteworthy only in the twentieth century through a change of paradigm in the form of indeterminate physics, quantum mechanics, and chaos theory. Only in the 1920s did quantum physics suggest a coincidence-based concept of math and physics, and only in the 1980s does chaos theory begin to study apparently random behaviors within systems. In comparison, in art, chaos has always existed: it accepted contingency while science and religion still tried to explain the world as a necessary creation.

Before quantum physics, randomness was mostly considered only apparent and not real, simply because in complicated systems the causes could not be known. Only relatively recently did science discover an intrinsic unpredictability in natural phenomena, which led Stephen Hawking to conclude that even God is bound by the Uncertainty Principle: only late in the history of science could randomness receive the status of reality. If even God is gambling, this means that there is nothing beyond contingency, and consequently, the contingent world must be seen as real. In contrast, art has tended to know that its expressions are intrinsically unpredictable, that they cannot follow pre-established necessities (for example, they cannot simply imitate reality) and that art can create its *own* 'necessary' reality, and that it does so 'randomly'. Consequently, Stephen Jay Gould (2002: 1341) thinks that the natural sciences

can learn from the literati because even “scientific reality” is “bristling with possibilities, and nudgeable by the smallest of unpredictable inputs”.

Of course, all this concerns only ‘good art’. Bad art operates with necessities, rules, and stereotypes, and this rule-following attitude will most likely lead to kitsch. Propaganda art or any too quickly created commercial art follows “necessary” rules and thus eliminates a large amount of the contingency that is required for creative productions. The too quick and too consistent acceptance of commercial, political, scientific, or religious necessities leads to kitsch. No autonomous aesthetic necessity is created. Kitsch is indeed very often realistic and insists, in a formulaic fashion, on necessary ways to proceed aesthetically. ‘Good’ art should not follow these kinds of necessities because in art, necessity arises *from contingency*. Consequently, any aesthetics that integrates contingency into its works is anti-kitsch.

It is interesting to note that with regard to the *activity* of science, the coincidence had never been entirely excluded. Even in a time when it was still believed that the universe of science always followed necessary rules, Lichtenberg (1992: 1195) could point out that “all inventions are due to the coincidence (*Zufall*), some more, others less, because otherwise any reasonable person could sit down and make inventions just like one writes letters”. The scientist does not *only* follow methods established by necessity, and their scientific discoveries and decisions also depend on creativity, that is, on contingency. In Lichtenberg’s conception, the advancement of science is partly due to contingency, which brings it closer to art.

Aesthetics and contingency always go together. Already Aristotle saw contingency as a component of an aesthetics that is essential to the artistic production of the tragedy. In the tragedy, the coincidence comes forth through the narrative. Usually, coincidences collide with necessary ethical obligations. According to Aristotle, within certain aesthetic experiences (and especially within those experiences that are determined by the tragic) we become aware of contingency as an aesthetic quality. And in tragedies, this contingency can be experienced as a moment of truth about life. Victor Goldschmidt analyses this aspect of Aristotle’s concept of the tragic as follows:

There is thus coincidence in our life, there is this obscure cause which, as the first book of the *Physics* attempts to explain – within the limits of what science is able to explain. [The discourse] forces itself to conclude that coincidence is caused only “accidentally”. Tragedy, however, can make this cause intelligible, it can submit it to criteria that defy science and that are also pertinent for the development of

fables: [...] This is what Aristotle calls the wonderful. (Goldschmidt 1982: 404, my translation)

Creativity transgresses the boundaries of necessary systems and integrates coincidental and imaginative elements that acquire the status of an aesthetic necessity within the fable, the tragedy, or any work of art. In artistic renderings of life, there is always a cooperation of necessity and contingency, whereas in real life, coincidence and necessity tend to be carefully kept apart, for example when it comes to the cohabitation of the individual citizen (the coincidence) and the state (the necessity). Democratic political systems attempt to coordinate both forces, but this project requires many rules and policies because here we are, once again, in the realm of ethics.

1.2. *The aesthetics of life*

As the last paragraph indicates, the contingency-necessity pattern does not only concern art in the strictest sense but also the “art of life”, and thus ethics, or at least a mixture of ethics (which is about the right actions) and aesthetics. In general, to say that something is aesthetic, can attach a certain amount of contingency to an achievement, to an event, or even to a person’s entire life. For example, when we become aware of how much in our lives depends on chance and not on necessity, when we recognize that our lives are not as goal oriented as we had perhaps once thought them to be, when we take an ‘ironic’ and more distanced view towards our lives, then we might say that life is “like a work of art”. “Life is like a work of art” expresses the fact that life does not always evolve along the firm tracks of (genetically, ethically, or economically established) purposefulness, but that it can also appear as playful, as though it were an artistic production or an adventure. We recognize the contingency of decisions; just as we recognize the contingency of birth and of race. Mabogo More, in his book *Sartre on contingency: antiblack racism and embodiment*, argues that the notion of contingency is very useful in combating racism as it makes us recognize that “whatever exists, need not exist, and that therefore it can be changed; that the fact that one is born white or black without their choice, has no moral weight at all in treating others as though they are responsible for what they are” (More 2021, blurb). Life is meaningless as long as we only look for transcendental truths that lead *beyond* contingency. The meaning resides rather in

the contingency of events. Similar to a work of art, an entire life can dramatically *gain* in meaningfulness and ‘sense production’ once we look at it aesthetically, that is, once we detect and accept the amount of contingency that was invested in its “production”. It does not mean that we simply attribute everything to chance; on the contrary, the idea is rather to recognize how randomness has been turned into an aesthetic kind of necessity. For example, when we see a part of our life as a story or as an adventure, any apparent randomness can become an “aesthetic necessity”. What happened had to happen *because* the course of events was supposed to be a story or an adventure.

Sartre describes in *Nausea* how apparently random experiences take on a meaning as soon as we see them as narratives. Antoine Roquentin, the protagonist of the novel, has had an adventurous life and now looks at his past actions, as well as at other peoples’ actions, with irony and from a distance. Experiences are made of instances, but all these instances will become meaningful once experiences begin forming an adventure. Seen as an *aesthetic* structure, bits of experiences that were once random move towards an end. This does not mean that Roquentin’s life had a *telos* or was predetermined by God. The coincidences remain coincidences because otherwise the adventure character would not be sustained. Through a “life as art” perspective, the most meaningless life becomes meaningful and necessary, but the acceptance of contingency is a precondition. The aesthetic perspective requires a distance that remains impossible as long as we stick to preconceived, telic, or divine necessities. Normally, we do not have this perspective while in the middle of it but only afterwards. Sartre’s adventurer says:

Something is beginning in order to end: adventure does not let itself be drawn out (*ne se laisse pas mettre de rallonge*); it only makes sense when dead. I am drawn, irrevocably, towards this death which is perhaps mine as well. Each instant appears only as part of a sequence (*pour amener ceux qui suivent*). I cling to each instant with all my heart: I know that it is unique, irreplaceable – and yet I would not raise a finger to stop it from being annihilated (*s’anéantir*). (Sartre 1969: 42; *Nausée*: 60)

Things used to be chaotic, but *retrospectively*, everything looks coherent. The adventure is like an artistic slice of life. A few pages later, Roquentin describes how life becomes art as though it was a novel:

Nothing has changed and yet everything is different (*tout existe d’une autre façon*). I can’t describe it; it’s like the *Nausea* and yet it’s just the opposite: at last an adventure happens to me and when I question myself *I see that it happens that*

I am myself and that I am here; I am the one who splits the night, I am as happy as the hero of a novel. (Sartre 1969: 56; *Nausée*: 82, italics only in the French version)

Roquentin sees parts of his life as a finished narrative with an inner necessity. And to do so, he first had to take a distanced view at life. In adventures we are aware of contingencies. As an aesthetic experience, the adventure comes close to a game; and to *become* an adventure, the sequence of events only needs to be seen as such. Purposeful structures like those determined by ethics or religion, are replaced with aesthetic structures. As it avoids all ethical weightiness, the adventure has the “lightness” of a game. Normally, adventures are not supposed to have a lasting impact, and they are spontaneous and punctual by definition. As we say, “it was *only* an adventure...”.

In of itself, life is not logical or rational, and the shift from necessity to contingency implies a shift from ethics to aesthetics in order to see what life “really” is. In of itself, life is not ethical. Vice versa, the shift from aesthetics to ethics can imply a shift from contingency to necessity. Ethics is about rules whereas aesthetics plays with contingencies. Like science, ethics hates contingency, first of all, because contingency disables any discourse on reward and culpability.

2. Algorithm and conspiracy artistic production

When dealing with creativity, the Western mind will usually reserve a prominent place for contingency. There is, however, in more recent times, a strong tendency to rationalize creativity in order to find necessary rules even in the realm of art. Like in many other domains, the algorithm has become the principal tool employed to replace contingency with necessity. I will show in this section that the algorithm is a contingency coping device.

An algorithm is a self-contained mathematical operation used in data processing and automated reasoning. In automatization, everything follows necessary rules and there is no space for contingency by definition. (I agree that algorithms are not entirely automatized but often ‘disautomatize’ themselves on purpose by carefully introducing randomness into their calculations. Sometimes random options appear in YouTube, which represents an artificially installed ‘adventurous’ selection of items). Of course, applying this technique in the realm of art is problematic. On principle, contingent transformations, which can be read as metaphors for

creativity, are not predictable. Despite this, algorithms are used to predict musical trends and even to compose pieces that follow the ‘necessary’ rules of these predicted trends. Music producers and radio directors desire to know which song will please which listener, and which song can interest investors. In a way, they believe that the consumers ‘conspire’, and that this conspiracy exists in the form of a necessary rule hidden beneath the chaotic and contingent reality of the music market. And they try to detect this rule through algorithms.

Some people believe that the system has its limits. Franck Madlener, the director of the French music research institute IRCAM, holds that artificial intelligence “ignores the disruption which is part of the artist’s business. One can determine schemes and metrics, which create or follow certain tendencies, but there will always remain a contingent and chancy part. Be assured, AI will not compose the hit of tomorrow” (Carpentier 2021). When songs are calculated, a suprapersonal and supraindividual algorithm absorbs ingenious ideas, on the spot metaphors, and all those elements that usually surprise and amaze us in art.

Statistics show that individual and personal events or decisions follow inexorable laws similar to the laws of nature. However, these general laws are established *after* the collection of data about individual facts. It is, of course, tempting to turn the system upside down and suggest that these laws can predict individual actions. This would be to suggest that statistical laws do not merely describe (contingent) human behavior, but that they are laws in their own right, similar to objective laws about natural phenomena. This is like putting the conclusion before the premise. In statistics this is called confirmation bias, and in psychology it is called *positive test strategy* or *biased assimilation*: we interpret ambiguous events in light of what we already believe. In logic it is called fake reasoning. Much religious thought functions along these lines, of which Ziauddin Sardar provides the clearest example when writing that “in most non-western cultures truth is a priori given; in Islam [...] its source is revelation. In western perception, truth is arrived at by some act of observation and mathematical formulation; it is known only *a posteriori*. Thus, while non-western cultures start with a set of basic axioms, western civilization is forever searching for truth, something to believe in” (Sardar 2003: 340). Instead of proceeding from premise to conclusion, Sardar suggests writing the “a priori” conclusion down first, and then search for premises that match the conclusion. The inquirer is not concerned with finding the right answer but rather with an ulterior goal that is extraneous to the question. For believers, this circularity reinstates the validity of the argument. Algo-

rithms do nothing other than follow this religious pattern of reasoning; and narcissism functions along the same principles. The aim is to find the individual truth suggested by the algorithm, that is, to find the truth one wanted to find. The narcissist input confirms the proximity of such reasoning with kitsch: here too a ready-made aesthetic truth is supposed to be repeated and confirmed.

The drive to eliminate contingency in order to optimize outcomes does not only concern art but, again, also life as such. The philosophy behind the algorithmization of everything is that our lives, bodies, conversations, food, and sleep, become measurable and that the right calculation of their data will make our lives more efficient. In order to have the ‘best life’ – that is, the best lifestyle in terms of health, ethics, and aesthetics – life should be optimized by spelling out necessary rules that are supposed to lead to happiness. An ideal life partner can be identified with the help of algorithms. The problem is that contingency is an integral part of human life, and that happiness can also come about through the *right handling* of contingency and not only through its elimination. One might find a suitable partner by chance and against all rules of necessity.

The enthusiastic use of algorithms by which our era is so strongly marked is due to the “fear of the uncertain” or the “fear of the coincidence” that already Nietzsche (1970: 132) recognized as a major civilizational force of modernity. Western civilization has been evolving on this path for millennia. For Nietzsche (1970: 132), “culture means to calculate, to learn how to think causally, how to prevent, and how to believe in necessity”. At the same time, Nietzsche sees that a potential weariness (*Überdruß*) with security, beliefs, laws, and calculability, can engender the desire for coincidences. In a world in which everything is predetermined, we might desire uncertainty and suddenness, be it only because such elements provide a kind of thrill (*Kitzel*) that a precalculated world of necessity lacks⁵. Gambling as a social institution has the purpose of producing such thrills, and art can serve a similar purpose. Everybody sees the absurdity of algorithmically calculating the winning chances in a game of roulette. In art such calculations are no less absurd, but they are less obvi-

⁵ See Nietzsche in the posthumous fragments 1887-88 (KGA 8.2: 132): “Nun stellt die ganze Geschichte der Cultur eine Abnahme jener *Furcht vor dem Zufall*, vor dem Ungewissen, vor dem Plötzlichen dar. Cultur, das heißt eben *berechnen* lernen, causal denken lernen, prävenieren lernen, an Nothwendigkeit glauben lernen. [...] Ja, es ist ein Zustand von Sicherheitsgefühl, von Glaube an Gesetz und Berechenbarkeit möglich, wo er als *Überdruß* ins Bewußtsein tritt, – wo *Lust am Zufall*, *am Ungewissen* und *am Plötzlichen* als *Kitzel* hervorspringt”.

ously absurd when applied. Similarly, the careful calculation of one's entire life is just as absurd, though the "contingency reduction devices" such as insurances, vaccinations, genetic engineering, etc. are constantly trying to bypass the reality of contingency through calculations. Algorithms represent the latest version of such devices, and life coaching as well as the rise of personal development strategies in companies and in private life, are other manifestations of the same practice. Calculating artistic expressions and leaving nothing to chance even in art can be considered the peak of this development.

Nietzsche's reevaluation of values (*die Umwertung aller Werte*) also concerns the values of contingency and necessity. When affirming that civilization moves towards security and the gradual elimination of the coincidence, Nietzsche points to the decadence of such a civilization of necessity. For him, this is the civilization of the weak, and those who look for thrills in contingency are always stronger. The civilization of necessity is representative of naïve optimism. In contrast, gamblers and those who take risks and thrive within contingency, practice a "pessimism of strength" (*Pessimismus der Stärke*), which is, for Nietzsche, the "highest culture". Meaningfulness derived from necessities is always boring. Strong people find the senseless evil (*das sinnlose Übel*) more interesting and can even enjoy absurdity. In former times, necessity was guaranteed by God; now other necessities have replaced God. According to Nietzsche, strong people remain more thrilled by "a worldly disorder without God, a world of the coincidence in which the terrifying, the ambiguous, the seductive is essential"⁶. Authors like Simmel, Scheler or the Italian Futurists who read Nietzsche, preached a similar break away from the necessities that modern civilization imposes upon humans. They saw the First World War as an experience that enabled the thrill of contingency.

It is not difficult to guess what Nietzsche would have said about algorithms. The algorithm is emblematic of the rules followed by the weak who fatalistically submit to necessities. Paradoxically, those who employ the concept of necessity intend to combat what they call the "fatalism of contingency". Like *phronesis* in ancient times, the algorithmic calculation is advertised as an expert knowledge of how to behave in contingent circumstances. It is seen as a strength rather than as a weakness, which is a paradox because, as has been shown above, normally determinism is the result of a strong belief in necessity, and contingency liberates us from

⁶ "[...] so entzückt ihn nun eine Welt-Unordnung ohne Gott, eine Welt des Zufalls, in der das Furchtbare, das Zweideutige, das Verführerische zum Wesen gehört" (KGA 8.2: 132).

this determinism. In the world of algorithms, this paradigm is flipped: it is through reasonably calculated necessities, rather than contingency, that freedom is found. For the engineers of necessities, accepting *contingencies* means precisely falling into fatalism, which runs entirely counter to Sartre's and Nietzsche's idea of contingency as liberty and strength. For algorithm engineers, a well calculated probability has become an essence to which we should submit our existence, instead of, as Sartre urges, imposing our own existence upon the world and only determining essences *afterwards*. Through algorithms, we accept our own essentialization via quantification and construe this procedure as an act of freedom because what has been quantified are *our own* choices. The profile that the algorithm has derived from our browsing history is supposed to lead to authentic statements about our preferences. However, such assumptions of authenticity are only viable as long as we believe that choices are always necessary. How much of our browsing history is due to contingency? The algorithm is a superb example of how contingency is transformed into necessity; the problem is that it does not transform our lives into art but merely into a scientifically established entity. Against this, real life (as opposed to life constructed by algorithms) is much more like art. In real life, contingency, and especially the right handling of contingency, can lead to more authenticity and originality. But this authenticity *emerges* and is not *created*. Algorithms are machines that *create* authenticity, which means that they apply the model of creationism to real life.

As they do with creativity, algorithms also computerize symbolization, figures of knowledge, as well as the registration of knowledge, which means that contingency has been considerably reduced in these thinking processes. What gets lost most flagrantly is the expectation of the unknown. The future does not emerge but is *created* according to the rules of a machine-produced, static regularity. The algorithmization of the world is thus a sort of creationism. Algorithms contain self-sufficient necessities that must be called fake as opposed to real for the simple reason that the real always contains more contingency than algorithms typically allow. In still other words, algorithms transform our lives into kitsch lives in which a single rule and a single truth tend to establish "the real", and in which few nuances can be considered. Nuances will be calculated as probabilities, that is, as sub-rules of the necessary.

Carl Bergstrom (an evolutionary biologist) and Jevin West (a computer scientist) have identified, in their recent *Calling bullshit: the art of skepticism in a data-driven world* (2021), a social phenomenon that they call

“new-school bullshit”, which involves statistics and algorithms. This cultural phenomenon

Uses the language of math and science and statistics to create the impression of rigor and accuracy. Dubious claims are given a veneer of legitimacy by glossing them with numbers, figures, statistics, and data graphics. New-school bullshit might look something like this: ‘Adjusted for currency exchange rates, our top-performing global fund beat the market in seven of the past nine years’. (Berstrom, West 2021: 2)

The phenomenon they describe is a sort of scientific kitsch presented in the language of math and statistics. For Bergstrom and West (2021: 29), “the algorithms driving social media content are bullshitters”, which confirms the claim that algorithms create a kitsch world. Youtubers can be like sophists who operate with rhetoric, “likes”, and clickbait titles, and might insist that these items express truths. They might be ethically and even scientifically correct, but these sophists neglect the common good that can only be found in the “art of life”, which always contains contingency.

The above way of using sophisticated calculations in real life thrived around the turn of the nineteenth century. Statistics calculated “normality”, which permitted society to evaluate its own achievements mathematically. Robert Musil found that “the slightest decision requires today the competences and the intelligence of a Leibniz” (in Bouveresse 1997: 57). Algorithms begin even earlier, with the Bernoulli brothers, and the young Leibniz had already established, in his *De arte combinatoria*, an alphabet of human thought (an idea first presented by Descartes) and attempted to understand all possible concepts as mere combinations of some more basic concepts. Characteristically, Leibniz gave this technique the name “art”: *De arte combinatoria*. Everything thinkable can be expressed through the combination of basic elements, and the combinations can be calculated. *De arte combinatoria* provides a logic of creative invention that manifests many parallels with contemporary algorithms (see Rieger 1997). Cartesianism as well as Comte’s mechanical determinism – which Boutroux criticized in 1874 when insisting that mathematical and quantitative procedures cannot grasp the real world – would build further on these mechanistic premises prevalent since Descartes. Descartes’ ‘animal = machine’ paradigm, defined in Part V of the *Discourse on method* (1637), explains animal behavior in terms of the necessities dependent on the disposition of the animal’s organs. No contingency can interfere in this mechanics.

Despite their pretension to establish the best possible *real* life, algorithms work in the realm of appearance, which is, today, almost an intu-

itive truth given that much of the ‘real’ life they help produce takes place in virtual reality. Meetings are virtual, relationships are online, etc. But real life outside the internet *should* still be experienced as unpredictable and as something that cannot be produced by algorithms. Real life is simply more ‘aesthetic’ as it contains contingency. What is needed is not a Cartesian mechanism that explains the world in terms of necessary rules or an *Arte combinatoria*, but rather a real-world *phronesis* that helps us find our way amidst contingencies. This might not always be as safe as following the “necessary” rule of the algorithm, but it represents a way of life that *needs* to be adopted if one wants “real life”. “To be intelligent means to find one’s way (*se débrouiller*), to try, to grope, to be mistaken”, writes Alain (1920: 81). To live means to have the right to make mistakes, to be lost, to take risks, to lose time and money, to marvel at something one doesn’t really understand, and to shoulder the responsibility for mistakes one has made.

2.1. *The aesthetics of gambling*

The combination of contingency and necessity, or the ambition to overcome both in order to act naturally and be creative, relates to aesthetic actions. Contingency is real: it can create disasters or lead us out of painful conditions. Despite this, contingency remains an abstract term that is difficult to grasp in terms of real life. It might lurk behind this or that event, but how will we even know it was there in the first place? Through play, contingency becomes concrete and can be better handled. Alain declared that he prefers betting at horse races to more abstract forms of gambling (Alain 1920: 81). He wanted contingency to be linked to human activity, life, and labor, and not just be an abstract and mathematical concept. Play is a real-life activity and can even be a bodily activity; it is shaped by different “ways of doing” and it even has a style. To a large extent, a game’s style is determined by the right handling of contingency and necessity. In play, finding the right balance between the natural and the artificial is very much linked to a mastery of the necessity-contingency dichotomy.

The right handling of contingency and necessity also has ethical implications. Ethics is usually about what should be done out of necessity, but paradoxically, the assumption of such necessities only makes sense as long as we admit that contingency exists. Aristotle can present the “right action” as a moral problem only because there is contingency in life. If

human life took place in a world in which all actions were necessary, it would be absurd to talk about moral questions at all. This becomes clearest when we think of an action that we only enjoy because it is determined by coincidence: gambling. Gambling would lose its attraction if contingency were replaced with necessity. The number of right actions is relatively limited, but they cannot be *necessarily* followed and must be found whilst reckoning with contingency. At the same time, the gambler does not simply submit himself to contingency by considering it as an absolutely unforeseeable force; he rather tries to deal with it in a creative fashion by combining (sometimes illusory) necessities with contingencies. Contingency does not exist abstractly here as the contrary of necessity, rather necessity and contingency have been (apparently) relativized, and this is precisely the attraction of gambling. The creativity of the gambler lies in the fact that he does not calculate his chances beforehand. A non-creative approach towards gambling would calculate algorithms and thus transform contingency into necessity. Professional statisticians do indeed visit casinos to make profits. They are not only scientific, but also utilitarian, looking for businesslike efficiency, which is beneficial to them but not for the game (and the casino). In a Kantian “aesthetic” sense, the game should have no exterior purpose.

The same can be said about the gambler who consistently plays their lucky number in a roulette game to (erroneously) enhance his perceived sense of control. In reality, he only *loses* control by the very fact that he plays a number that will most probably never come. His “control” is an illusion, just like most control is an illusion in gambling; but in their case, the illusion is too obvious. We would deliver the same comments about the gambler who, when the odds are clearly stacked against him, believes he can transcend bad luck by holding on to a belief that destiny selected him for victory. Real gambling, which tries to benefit from contingency without transforming it into necessity, requires a certain psychological profile. We can say that the gambler needs to be ‘cool’. The concept of coolness also includes ethical notions and good gambling is a matter of aesthetics as well as ethics. Coolness means to stay calm under stress (see Botz-Bornstein 2010). It is unethical to submit gambling to (economic) rules of necessities; and a bad gambler (especially a bad loser) can be characterized as an unethical person.

There is a behavior that can be called “inverse resentment”: instead of only resenting his bad luck, the bad gambler applauds himself when he is lucky and does not recognize his luck for what it is, believing it to be a necessity. We can quote Nassim Taleb, who depicts in his *Fooled by*

randomness several narcissistic characters (who are mostly dressed in black business suits), and who have in this book been called kitsch characters. They advertise chance as necessity:

One may argue that the actor who lands the lead role that catapulted him into fame and expensive swimming pools has some skills others lack, some charm, or a special physical train that was a perfect match for such a career. I beg to differ. The winner may have had some acting skills, but so do all of the others, otherwise they would not have been in the waiting room. (Taleb 2001: 182)

The good gambler who has the right ethico-aesthetic attitude assumes responsibility for his losses and does not accuse imaginary necessities of his loss. He is supposed to keep a straight face even when losing and accept the game's contingency. A good gambler does not say, when losing, "why does this happen to me?" From an existentialist point of view, he could have avoided the loss he suffered by not gambling in the first place; once he decides to gamble, he is accountable. The same goes for the winner. Seeing necessity in contingency is unethical as well as an aesthetic mistake.

In gambling, the one correct ethico-aesthetic attitude is that of moderation. The good gambler is supposed to avoid fanaticism as well as exaggerated pride. In the end, it is only a game. Putting up with contingencies, which is the only demeanor that makes sense when gambling, requires an anti-conspiracy psychological profile. This does not mean that the good gambler is insensitive and does not care about loss. He should simply have no regrets and no resentment. Fanaticism as well as exaggerated pride are often the results of resentment.

The cool attitude of the gambler can also be called tragic irony. There is an awareness of loss, but an ironic distance created by the simultaneous awareness that 'everything is only a game', helps the gambler get over the losses. He does not see loss as a disaster, disappointment, injustice, or conspiracy. The good gambler is neither optimistic nor pessimistic but simply assumes the facticity of life. This is only possible because he does not believe in absolute truths or absolute necessities: such things do not exist in games. The good gambler does not entertain a "best world" utopia in which he will always win, and he is always aware that contingency can change the situation at any moment.

Conclusion

This article has shown that contingency is not a liquid mass but rather a solid chain of events imbedded in a realm that has rules and necessities. By adopting this view, the coincidence can be handled and used in activities such as art; and the “art of life” can be seen as such a chain, too. The artist has no divine insights but must constantly skeptically evaluate their beliefs about what is necessary in the light of possible contingencies: in art as much as in life.

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