# Magic Tricks as Quasi-Miracles: A New Approach in the Aesthetics of Performance

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## ABSTRACT

A number of recent philosophical accounts of magic performance have argued that it has a distinctive aesthetic profile, stemming from audiences experiencing the 'illusion of the impossible'. A common theme in these accounts is that in engaging with magic performance, audiences have an experience which is discordant with beliefs to which they are (or were previously) committed. We develop a different way of understanding the aesthetics of magic, utilising the idea of a *quasi-miracle*, which trades primarily in the notion of incongruity between explanations. On this account, the experience of magic is not one of cognitive dissonance. We compare this approach with other philosophical accounts of magic performance – especially those of Jason Leddington and Mark Windsor – and argue that construing magic tricks as quasi-miracles offers an illuminating, new dimension to conceptualising the aesthetics of magic.

#### **KEYWORDS**

magic, quasi-miracle, explanation, uncanny

#### INTRODUCTION

Work in philosophical aesthetics has recently begun to pay more attention to the underexplored question of what is aesthetically appreciable in magic performance. The dominant view links the aesthetic experience of magic performances to the idea that such performances create the 'illusion of the impossible'. This idea of magic performance, as creating an illusion of something impossible happening, is a well-established one, proposed and endorsed by a number of performers and of theorists of magic performance. Darwin Ortiz's Designing Miracles (2006) says that magic is 'about creating an illusion, the illusion of impossibility' (2006, p. 15). Gabriel Medeiros, Mathew Tompkins, Steve Bagienski and Gustav Kuhn (2022) write that '[p]erformance magic is an artform that seeks to create the experience of the impossible' and that induces 'illusory experiences' in audiences (2022, p. 2). Anthropologist Graham M. Jones, in his extensive study of Paris magic scenes (2011), also describes magic as 'the art of illusion' (2011, p. 3) in which 'spectators ... experience things that they know to be impossible, in ways that are surprising and fun' (4). A number of experimental studies have sought to examine a link between experiences of magic and assessments of (im)possibility (e.g., Bagienski & Kuhn 2023; Kuhn, Pailhès, Jay & Lukian 2024), or the broader psychological impact of seeing magic performances where this is construed as a 'seemingly impossible' experience (Wiseman & Watt 2022; Wiseman & Watt 2024).

The link between magic and the impossible has also been taken up by several recent philosophical accounts, which argue that magic performance has a distinctive aesthetic profile stemming from audiences experiencing the 'illusion of the impossible'. Different accounts cash this out in slightly different ways, but they converge on a central idea: that in engaging with magic performance, we have an experience which is discordant with beliefs to which we are (or were previously) committed. For example, Mark Windsor (2019) characterises the aesthetic experience of magic performance in terms of uncertainty, wherein some previously held beliefs are somehow unseated or made less secure. Jason Leddington (2016) and Dan Cavedon-Taylor (forthcoming) posit conflicts between beliefs and other mental states, with Leddington conceptualising the experience of magic in terms of belief-discordant 'alief', Cavedon-Taylor in terms of belief-discordant perception. Pablo R. Grassi, Vincent Plikat and Hong Yu Wong (2024) appeal directly to conflict within an individual's beliefs, arguing that in experiencing magic we hold 'conflicting beliefs at different levels of our mental architecture' (2024, p. 201). Despite their differences in detail, all suggest that this distinctive, dissonant cognitive experience is part of what makes magic aesthetically compelling.

We shall suggest an alternative diagnosis of the aesthetic experience of magic; one which moves away from the idea of conflict with (or within) our beliefs. We argue that magic performance can be illuminated by the idea of a *quasimiracle*. Whilst our proposal retains some affinities with other philosophical approaches to the aesthetics of magic, such as Leddington's, there are also important points of departure. For instance, treating effective magic performance as quasi-miraculous demonstrates that there is a type of aesthetic experience of magic that can be shared by those who do, and those who do not, know how the trick is done – and, by extension, by both magicians and laypersons. Construing magic tricks as quasi-miracles thus offers a new dimension to conceptualising the aesthetics of magic.

# MAGIC AS A CASE OF UNCERTAINTY? WINDSOR ON MAGIC AND THE UNCANNY

Mark Windsor (2019) notes that the experience of magic tricks may be illuminated by comparing it with the experience of the uncanny. There is something in common between seeing a magic trick and, for example, seeing your doppelganger, or encountering the number 17 in different contexts across the course of the day, or thinking about some long-lost friend and then suddenly bumping into them, or watching a ventriloquist's dummy 'speak'. Windsor argues that the experience of the uncanny involves 'an anxious uncertainty about what is real caused by an apparent impossibility' (2019, p. 60), and he suggests that this has something in common with magic tricks.

Windsor's account of the uncanny begins with Freud's idea that 'An uncanny experience occurs ... when primitive beliefs which have been surmounted seem once more to be confirmed' (Freud 1919, p. 639). This sets the stage nicely for a connection to magic, for some of Freud's comments on the uncanny resonate quite well with talk of how magic tricks present us with an illusion of the impossible. Consider, for example, this passage from Freud:

[A]n uncanny effect is often and easily produced when the distinction between imagination and reality is effaced, as when something that we have hitherto regarded as imaginary appears before us in reality ... It is this factor which contributes not a little to the uncanny effect attaching to magical practices' (1919, p. 636).

Although what Freud means by 'magical practices' is not magicianship as a performance art, the idea of something 'appearing before us' that looks like it does not belong in reality as we ordinarily conceive it is echoed in conceptions

of magic performance as the 'illusion of impossibility'. The idea of something troubling the boundary between imagination and reality is also echoed by, for example, Teller's comment that magic tricks pose the question 'Where does make-believe leave off and reality begin?' (Teller, in Stromberg, 2012)

In adapting Freud's account of the uncanny, Windsor jettisons some of the Freudian machinery. He deliberately separates Freud's idea of the uncanny as a disruption to our sense of reality from his idea of the uncanny as connected to psychosexual development, and concentrates only on the former. He also wishes to downplay the suggestion that we must previously have had a belief that we have now surmounted. Windsor holds that what is important is simply that the uncanny induces uncertainty about the real when it is experienced – regardless of the history of our beliefs. For example, suppose I have an experience of what seems to be 'a ghost-like apparition floating down the corridor' (2019, p. 59). The experience I am having – which presents the world to me as containing ghosts – conflicts with what I take to be possible given my beliefs concerning, for example, the physical laws. This, according to Windsor, induces *uncertainty* about what is real. Thus, the uncanny is a 'psychological threat: a threat to one's grasp of reality' (62).

Windsor proposes that magic performances are an innocuous, playful counterpart of the uncanny:

'Stage magicians specialize in presenting audiences with the illusion of impossible events that take place in the here and now. Moreover, a successful magic show will engender total bafflement in the spectator as to how the illusion has been achieved. Magic shows are an illuminating comparison case to the uncanny, for it may be that the only thing that separates the one from the other is this: whereas magical performances play with the audience's grasp of what is real, uncanny phenomena pose a serious threat to it.' (2019, p. 62)

It is not fully clear what Windsor thinks the line between playing and threatening rests on. In particular, it is unclear how this connects to his appeal to uncertainty. One possibility is that Windsor thinks that in the case of magic we are *not* made uncertain, and instead retain full confidence in our ordinary beliefs about reality. He does cite, approvingly, a claim from Leddington that the audience 'remains master over the illusion' because of their 'knowledge that "it's just a trick"' (Leddington, 2016, pp. 260-261, cited by Windsor, 2019, p. 62, footnote 41). In that case, perhaps Windsor thinks that magic does not induce uncertainty, whilst the uncanny does. But there are two problems with this.

First, Windsor alludes to how certain displays, such as (apparent) telepathy, may be enjoyable as stage magic in one context, but uncanny in another context, giving as an example the uncanniness of the telepathic 'scanning' in *Scanners* (1981, dir. David Cronenberg) (Windsor 2019, p. 62, footnote 41). Yet just as much as we experience magic in the knowledge that 'it's just a trick', so we experience *Scanners* in the knowledge that 'it's just a film'. So, if Windsor takes knowledge that 'it's just a trick' to rule out uncertainty in the case of magic performance, then the comparison makes it unclear why uncertainty should be a necessary component of the uncanny in the first place. Second, Windsor's account holds that uncertainty is especially *important* to the aesthetic experience of the uncanny. This epistemic state is what is supposed to be responsible for the spectator's affective and aesthetic response. So, if the 'bafflement' of magic is not supposed to be akin to the 'uncertainty' of the uncanny, it is not clear why Windsor would think that magic and the uncanny are connected at all.

We can bring this out by seeing how Windsor thinks uncertainty arises. In the uncanny, he thinks, we have a clash between a doxastic state and an experiential state (pp. 61-62). For example, I believe that disembodied consciousness is impossible, and yet I experience the world as containing a ghostly apparition. Windsor says that these states are incongruous, and that incongruities such as these demand resolving: we can either change our doxastic states (amend my belief about the laws of nature), or decide that the experience is misleading (perhaps categorising it as a trick of the light, an hallucination, and so on). Windsor calls this 'disavowing' the experience. We experience the uncanny when neither kind of resolution is compelling, and we are stuck with an unresolved incongruity.

If we take reminding ourselves that 'it's just a trick' to amount to a disavowal of the experience that magic provides, then in magic the incongruity would be resolved. But Windsor's example of such a disavowal is telling. He chooses the case of the protagonist in Edgar Allan Poe's 'The Fall of the House of Usher', who initially finds the house uncanny, experiencing it as something which has a 'pestilent and mystic vapour' going beyond the natural order of things, but then succeeds in 'shaking off' this sense, dismissing his experience as a kind of dream (1994, p. 78). Once this resolution is achieved, Windsor says, 'we are presented with a sober account of the building's façade' (2019, p. 62). This seems disanalogous to the experience of magic: far from being a sober cataloguing of the mundane, it is a fascinated reception of the extraordinary. This is why the connection between the uncanny and magic looks plausible in the first place: both are cases of the aesthetic appreciation of the extraordinary.

extraordinary, it would be a mistake on his part to try to account for the 'playful' nature of magic by distancing magic from uncertainty; instead, it seems he must take the 'bafflement' of magic as akin to the 'uncertainty' of the uncanny.

If we were to go this way, then, we should regard the experience of magic as involving uncertainty about the nature of things, stemming from the irresolvable tension between our beliefs that certain phenomena are impossible, and an experience which presents those phenomena as taking place. (Then the distinction between the 'playful' and the 'threatening' would come not from the epistemic import of magic tricks compared to uncanny experiences, but from other features of their presentation.) The attraction of this proposal is that it does forge a robust link between the aesthetics of the uncanny and the aesthetics of magic performance, both of which do invoke a compelling sense of wonder and the extraordinary.

The disadvantage, though, is that it is rather demanding. In restricting the aesthetic experience of magic, or of the uncanny, to those who are made uncertain of something, it seems not to include everyone who is susceptible to the relevant kind of experience. In the case of the uncanny, Windsor once again follows Freud in the claim that 'anyone who has completely and finally rid himself of animistic beliefs will be insensible to ... the uncanny' (Freud 1919, p. 639). In requiring uncertainty for uncanniness, Windsor's account takes it that the committed sceptic must be insensitive to the uncanny - or, putting it another way, that an experience of the uncanny must unseat scepticism. This is certainly a well-worn theme in various narratives - it is a standard reading of the trajectory of M.R. James' sceptics, for instance – but it seems to us false in practice. Our own personal experience suggests that someone who is *certain* in their rejection of phenomena such as the supernatural can *still* experience the uncanny. And some examples of the uncanny clearly do not require uncertainty. Many people have no uncertainty over what is actually taking place when they explore a hall of mirrors, or see a lone scarecrow in a field, or watch somebody don an eerie, featureless mask. But this does not make those people incapable of experiencing the uncanny in these cases. Moving to the case of magic tricks, the demand for uncertainty seems even more restrictive. It suggests that compelling, affecting magic tricks work by weakening our resistance to paranormal or non-naturalistic phenomena. Whilst some do suggest that certain sub-genres of magic performance have this as part of their aesthetic (e.g., Corrigan (2018) on bizarre magic), it would clearly be a misrepresentation of much of the practice in general (which explains why Windsor's own account becomes conflicted at this point).

We think Windsor is right to connect the experience of magic tricks to the experience of the uncanny. However, we disagree that the general account under which the experience of these falls involves our grasp – whether playful or threatened – of reality. Our alternative proposal is that such experiences are experiences of the *quasi-miraculous*. As we shall see, this account explains how one can have such remarkable experiences whilst maintaining a firm grasp of reality.

# **QUASI-MIRACLES**

The notion of a quasi-miracle was introduced by David Lewis (1986) to solve a technical problem in metaphysics and the philosophy of language, concerning the direction of time and the semantics of counterfactuals (statements about how things would have been if something were different, such as, 'If Nixon had pressed the button, there would have been nuclear destruction'). The nature of the problem Lewis wanted to solve is not our concern here. Our proposal is that his idea of a quasi-miracle can be carried over to the quite different domain of aesthetics.

A quasi-miracle is, essentially, a particular kind of extraordinary, striking event which appears miraculous, though it is not. A miracle, for Lewis, is any event that requires the laws of nature to be other than what they are. This chimes with the everyday idea of a miracle as something that 'breaks the laws of nature'. A *quasi*-miracle, then, is something that is *as if* it were a miracle – *as if* it requires the laws to be other than what they actually are. By explicating the connection between this and the experience of the extraordinary, we shall show that magic performances can belong in the category of the quasi-miraculous.

Suppose we have a room of monkeys pressing keys on typewriters at random (Lewis 1986, pp. 60-61). There are many equally probable outcomes, including some outcomes in which the random sequences of characters happen to combine into what we recognise as words and sentences. If a typing monkey were to produce a 'dissertation', it would not be a miracle – no more so than any of the other specific random distributions of characters that may arise would be a miracle. Yet the production of a 'dissertation' would be extraordinary, in a way none of the straightforwardly meaningless sequences is.

This, says Lewis, is a quasi-miracle. And he offers the beginnings of a suggestion about what *makes* quasi-miracles remarkable. In the case of the typing monkey, he notes, 'the chance keystrokes happen to simulate the traces

which would have been left by quite a different process' (1986, p. 60). Lewis does not say much more, but we propose to expand on this diagnosis. We suggest that quasi-miraculous outcomes are those which are experienced in such a way that the observer recognises a *non-actual* process as being the sort of thing that *would* explain the outcome, *whilst also* recognising that the *actual* explanation is a different one. For example, the production of the monkey's 'dissertation' is recognisable as an outcome that *would* be explained by intentional design (on the part of the monkey), whilst we remain aware that in fact it is explained entirely by the actual mechanism which led to it (the production of characters by random tapping).

It is here, we think, that the concept of *incongruity* fits into the picture. Where Windsor appeals to incongruity between an audience's psychological states, we propose, instead, that the experience of quasi-miracles is an experience of incongruity between *explanations*: the actual explanation, and the alternative explanation which, whilst not actual (and not believed to be), comes to mind as the sort of thing that would explain the outcome. Since recognising facts about what *would* explain is not in tension with my beliefs about what in fact *does* explain, the experience of the quasi-miraculous does not amount to dissonance within our psychological states. It is not that my *experiences are incongruous* (with each other, with my beliefs, etc.); rather, I am having an *experience of incongruity*.

As another example, suppose that the lottery numbers come out in the sequence: 1, 2, 3, 4, 5, 6. This is a remarkable result, but it is no more improbable than is any particular unremarkable result, like: 5, 43, 19, 36, 28, 11. What distinguishes the two is that the latter sequence does not bring to mind a non-actual process that *would* explain it, whereas the former does. It is the sort of thing that *would* be explained by conscious (if perhaps lazy!) choice. The actual explanation, for either sequence, has to do with the actual mechanics of the machine that rolls out the lottery balls. And, crucially, we can be fully aware – and fully convinced – of that whilst still finding one outcome striking and the other not. For what makes the first outcome striking is that it is recognisable as something that *would* be explained other than how it *is* explained.

We suggest that this experience of incongruity between an actual and a nonactual explanation – the experience of the quasi-miraculous – is a better candidate than Windsor's uncertainty for explaining the aesthetic experience of the extraordinary in cases such as magic and the uncanny. When something is experienced as uncanny, and when a magic trick is experienced, what is going on is that something taken actually to have a naturalistic explanation is recognised as also being the kind of thing that *would* be supernaturally explained – were the world to work in a supernatural way (which it doesn't). Examples of such non-actual supernatural processes might include levitation, telepathy, instantaneous movement and teleportation, vanishing, spontaneous combustion, putting people under a spell, ESP, flying, telepathy, invisibility, controlling objects with thoughts, a touch that can melt and conjoin substances (such as a cut thread), the spirit surviving the body, a person being duplicated or co-located (as in doppelgangers), manipulation of events by invisible agents (friendly or demonic), and so on. A different way of describing the experience of a quasi-miracle is to say that what we notice, in experiencing something as quasi-miraculous, is a commonality between the actual world, and a world that works differently from ours. This outcome that we witness, or this sight that we see, or this series of events that unfolds, belongs in this world with us, and yet were we to be in a world which works otherwise - a world with processes that are supernatural by our standards, for example – that same outcome, sight, or series of events would belong just as well in that world, too.

The magician is somebody whose occupation involves the deliberate cultivation of quasi-miracles. Performance magic specialises in constructing spectacles that create the experience of incongruity we have described: spectacles that recognisably would be explained by processes other than those that we take it *do* explain them. In order to appreciate an incongruity between explanations, we need not have a detailed sense of what the explanations are. In the lottery case, I may have very little idea of how the numbers are actually drawn - I may know just that 'it's some random selection mechanism in the machine'. This is enough for me to appreciate that the actual explanation is unlike the alternative brought to mind – which posits deliberate agency – and thus to be struck by how the same outcome is fitting to two such different processes. Likewise, there may be little detail in my conception of what exactly it means for somebody to 'see the future'. Still, I have enough of a grasp on what this alternative explanation looks like to be able to experience it as incongruous with certain other explanations which I take to be actual. For example, in the uncanny event of receiving news of an old acquaintance about whom I had just been thinking, the incongruity is with non-causal coincidence, and in the case of a magic routine, the incongruity may be with an explanation where causal relations run in the opposite direction, such as a mentalist using techniques to influence participants' later behaviours.<sup>1</sup> Even if neither the

<sup>&</sup>lt;sup>1</sup> Note that correctness is not a prerequisite of the experience – if my sense of what the actual explanation is is *wrong*, this doesn't prevent me finding it incongruous with the non-actual explanation the event brings to mind.

actual nor the non-actual explanation is fleshed out very far, I can have enough of each to appreciate their incongruity. (Thus, appreciating something as a quasi-miracle doesn't necessitate that I will seek to discover more about the actual explanation, for example, though it is compatible with doing this.) In fact, even the vague thought that what is *naturalistically* explained is something that would also be explained in a *supernatural* world is sufficient to furnish a sense of the quasi-miraculous.

Where we agree with existing accounts, then, is that magic tricks *seem like* events involving (im)possibilities that conflict with our laws of nature; it is *as if* people and things are flying, vanishing, having psychic access to others' minds, being put under a spell, destroying and restoring things with a mere touch or a mere thought, and so on. But whereas other accounts emphasise a conflict between this 'as if' and our beliefs that such a thing is not (or could not be) happening, treating magic tricks as quasi-miracles gives it a different role. In seeming like what it is not, the trick is being experienced as something that would be explained were the world to work differently from how it in fact works, but which is also explained by the world working as it does. The two explanations are incongruous with each other, but since 'is *A*' and 'would be *B*' are not disharmonious thoughts, appreciating the incongruity is not to be in a state of psychological dissonance.

Our proposal has been that appreciating magic performance (and the uncanny) involves appreciating quasi-miracles. Let us end this section by summarising a couple of things that appreciating a quasi-miracle is *not*.

- 1. It is not a case of ignorance. The person who is amazed, amused, or otherwise aesthetically engaged by the lottery numbers hasn't failed to understand that the lottery can produce those numbers randomly. In fact, they are correct twice over: about what does explain (the outcome is the result of a chance process) and about what would (the outcome is something that would befit a world in which an agent chose a deliberately selected pattern for the lottery result).
- 2. It is not a case of disbelief, a change in our credence or confidence, or an instance of uncertainty. The case of the monkey's dissertation, or of the lottery outcome, does not give rise to uncertainty. Or if, for a particular individual, it does, that is a separate matter from whether the individual can experience it as quasi-miraculous, which is to experience it as something that brings to mind an explanation other than the one it has. Appreciating an incongruity is not the same thing as being undecided

between the two sides of it. In general, our awareness of what *would* explain makes no difference to our level of confidence in what *does* explain. In fact, what is extraordinary in a quasi-miraculous event is precisely that it looks like something *which we think it isn't*! If magic tricks are quasi-miracles, then, the aesthetic appreciation of magic performance does not characteristically involve becoming more credulous about non-naturalistic phenomena – which is the right result.

It follows that appreciating something as a quasi-miracle does not unseat one's grasp on reality. On the contrary, it *trades on* one's sensitivity to the difference between the reality one grasps and what would explain things, were reality different from how it actually is.

This suggests that the experience of the quasi-miraculous is a good candidate for being the experience of magic. We are not claiming, however, that nobody ever *does* undergo an epistemic shift in response to a magic trick. In order to have the experience of magic alongside such a shift, though, the shift would have to allow for regarding what we experience as a quasi-miracle. The person who fully believes that what they are seeing is explained supernaturally does not experience the trick *as* magic. For example, take somebody who goes to see a mentalism act in which the magician creates the appearance of communicating with the dead, but simply becomes convinced that the magician *is* communicating with the dead. The trick as they see it is a miracle, not a quasi-miracle. So, they would not be having the experience of magic that constitutes aesthetic appreciation of the performance. This is the right result, for there would be no difference between how this person experiences the performer's trick and how a charlatan would have their audience experience such a trick.

The situation may be different, though, for somebody whose epistemic state changes from secure rejection of the supernatural to agnosticism. Suppose somebody is genuinely agnostic over whether what they have witnessed has a supernatural explanation or a naturalistic one. This person might still be able to have a sense of the event as quasi-miraculous. They might attend to how, *if* we assume that the actual explanation is naturalistic, the event is something that would be explained by a supernatural explanation it does not actually have. They may *also* appreciate that, *if* they assume the supernatural explanation to be the actual one, the event is one that *would* be explained by naturalistic explanations it does not actually have (particularly if they have some reasonably detailed conception of what kinds of naturalistic mechanisms might be capable of doing the job). Insofar as the agnostic is not committed to

which explanation is actual, their overall experience will amount to a recognition that *whichever way things actually are*, this is something that would be explained otherwise than how it is explained.

A subtly different way in which there may be a shift in which explanation is taken by the audience to be the actual explanation is found in some mentalism routines, which makes them a particularly interesting kind of performance, and is something our account is well-suited to bring out. At one level, the experience of a mentalism performance as quasi-miraculous may be straightforward. For example, in Derren Brown's 'dexterous vision' performance (as seen in his Channel 4 television series Trick of the Mind, Series 2, Episode 1), the magician appears to use his fingertips to 'read' what has been written on items which can't be seen with the eyes, including reading the details on cards and receipts in somebody's wallet without even taking it out of their pocket. The supernatural explanation brought to mind - that Brown can transfer the capacity of vision to his fingertips - is clearly defined, and is transparently nonactual. Likewise, in mind-reading tricks, the supernatural explanation that one person can know another's thoughts directly (rather than by use of external cues) is quite easily identified as something that would, but does not, explain. However, the aesthetic of mentalist performances often also makes use of the mystery surrounding the actual nature of the mental. Thoughts are metaphysically odd things; there is genuine, ongoing dispute over the nature of mind and consciousness, how best to understand the medium in which thoughts exist, how psychological states relate to bodily, neural and wider environmental states, and so on. Lacking a comprehensive view of how the mind works makes us conscious of how anybody could be in a position of struggling to distinguish explanations that are naturalistically cogent from those that are not.<sup>2</sup> Mentalist performances can use this to modulate an audience's experience of the quasi-miraculous by revealing, or making as if to reveal, the psychological mechanisms that underlie the success of a trick. For example, suppose Sally is watching a routine in which the magician tells us what number somebody was thinking of. The non-actual explanation brought to mind is direct access to thoughts, whilst the actual explanation Sally thinks of is likely to be that the magician uses naturalistically respectable techniques involving interpreting the person's behaviour and/or influencing their thinking (or their reports of their thoughts). Sally experiences the performance as a quasi-miracle; one in which the magician performs what it would be like if they could directly access another's thoughts. Suppose the magician then 'reveals'

<sup>&</sup>lt;sup>2</sup> See also Lan, Mohr, Hu & Kuhn (2018) for a related discussion of how audiences navigate the presentation of pseudo-psychological explanations in magic performances.

that they were able to detect what number the person was thinking of by observing how the person's eyes move during the conversation. Sally might initially use this information to fill out her sense of what the actual explanation is. However, she might then also consider whether the magician is dissembling - for example, could it be that in this case they are not reading cues, but influencing what the person reports? - and so start to think that perhaps the 'reveal' is better interpreted as a further element of the performance, supplying an additional alternative explanation. Then what the magician is doing is performing what it would look like if they could read information off eye movements. The experience of a mentalism routine is typically be one of a *glut* of competing explanations, and there may be shifts in what is taken to be quasimiraculous from one point to another, as the spectator questions their sense of what belongs on the 'actual' and what on the 'non-actual' side of the explanatory incongruity (though the more audacious explanations, such as direct access to thoughts, may remain stably on the side of the non-actual throughout).

#### COMPARISON WITH LEDDINGTON'S ACCOUNT

Among the philosophical accounts of the aesthetics of magic that have recently appeared, Leddington (2016) is the most developed and influential, and accounts that reject elements of Leddington's picture (Grassi et al., 2024, Cavedon-Taylor, forthcoming) are nevertheless sympathetic to some of its main ideas. Leddington's view is that 'the distinctive aim of theatrical magic is to produce an experience as of an impossible event' (2016, p. 254). There are some important points of agreement between Leddington's approach and ours. Leddington maintains, as we have held in the previous section, that, in experiencing magic, the audience doesn't come to believe - not even temporarily or partially – that the actual world is more magical than they did before. In David Copperfield's flying illusion, for example, we would have an experience 'as of' Copperfield flying, but '[t]he audience never really believes that Copperfield is flying - that magic is real' (257). We also agree with Leddington's point that the aesthetic experience of a magic trick is linked to how it manages to 'suggest the operation of something outside of normal cause and effect' (2016, p. 259; here Leddington is quoting Paul LePaul, 1987, p. 129).

Leddington develops these ideas quite differently from us, however, by emphasising the role of *bafflement* in the experience of magic. This is not just the bafflement of not being able to figure out how a trick is done. Leddington proposes that, as audiences of magic, we experience a deeper, more conflicted kind of bafflement, comparable to *aporia* (2016, pp. 256-261). According to Leddington, it involves being unable to account for what we are seeing in a way

that renders it possible, yet experiencing it as something that is actually happening. Leddington writes: '*This* is why ... the magician does *not* want you to believe that magic is real; rather, you should believe that it is impossible, yet – as far as you can tell – it is happening anyway. *This* is the cognitive bind the magician wants you in.' (Leddington 2016, p. 256)

Leddington suggests that this 'cognitive bind' amounts to a dissonance between a belief and another kind of cognitive state. On Leddington's account, the audience believes that no impossible event is happening, yet they also have an 'alief' that an impossible event is happening. The term 'alief' is coined by Tamar Szabó Gendler (2008). On Gendler's characterisation, aliefs are psychological states which represent the world as being a certain way, and which have affective and behavioural impact – manifesting themselves in how the subject feels and what they do - but whose representational content is not taken by the subject to be true (unlike a belief). Her famous example is of the experience of walking on the Grand Canyon Skywalk: according to what the walker believes, they are safe, supported by the bridge, but the visual experience created by the transparent Skywalk induces aliefs according to which they are in mid-air without support, with an associated behavioural imperative to get off. Leddington suggests that a similar tension between beliefs and aliefs obtains for audiences having the experience of magic. They alieve that an impossible event is happening, something which is discordant with their beliefs (Leddington 2016, p. 258).

Recent responses to Leddington's account have challenged his appeal to alief. Cavedon-Taylor (forthcoming) argues that aliefs are a contentious theoretical commitment Leddington does not need to take on, and that important aspects of Gendler's concept of alief seem inappropriate to the case of magic. Cavedon-Taylor proposes that a better approach is to appeal to belief-discordant perceptions, rather than to belief-discordant aliefs. Grassi, Plikat & Wong (2024) aim to rehabilitate the idea that the cognitive content is simply between beliefs, rather than beliefs and some other kind of state. Like Cavedon-Taylor, they think alief has features that are not suited to the case of magic (2024, p. 196). They propose that once we are sufficiently subtle about the different bases for different beliefs, and the different places that these beliefs occupy in our mental architecture, we can identify two conflicting beliefs in viewers of magic: that an event (such as Copperfield's flying) is actually happening, and that it is an illusion that it is happening.

Whilst these criticisms target whether Leddington has conceptualised the cognitive dissonance correctly, they continue to endorse Leddington's bigger

picture, that the experience of magic *is* a case of cognitive dissonance. Our departure from Leddington's view is more radical: regarding something as a quasi-miracle is not a case of cognitive dissonance at all. The contrast is brought out by Grassi, Plikat & Wong's summary statement that '[audiences of magic] have a cognitive incongruity when experiencing something seemingly impossible' (2024, p. 192). To appreciate a quasi-miracle, on the other hand, is not to suffer a cognitive incongruity, but simply *to cognize incongruity* (between actual and non-actual explanations). This can be developed further by considering the connection that Leddington makes between the 'illusion of the impossible' and *not knowing how the trick is done*.

It is a popular thought that knowing how a trick is done might destroy the experience for audiences. Leddington's account substantiates this thought. He argues that 'only ... when they lose their grip on how the illusion *could* be produced by natural means, do [audiences] actually have the experience of magic' (2016, p. 259). If one knows how the illusion *is* produced by natural means, one will have a grasp on how it *could* be so produced. So, according to Leddington, how the magician actually brings about the effect must be hidden, secret from audiences, if they are to arrive at the experience of bafflement that Leddington thinks constitutes the aesthetic experience of magic.

Returning to the example of flying illusions, he claims that: 'If you see the wires, you cannot have an experience of magic. But concealing the wires is not enough, either, for if you so much as suspect that there are wires, you cannot have an experience of magic (no matter how good the illusion). In general, suspecting that you know how a magic performance is accomplished is enough to ruin it.' (2016, p. 258) On his account, then, a little knowledge really is a dangerous thing. And we can see that this also has consequences for magicians' experience of magic. Leddington embraces these consequences, saying that 'learning to perform magic makes the experience of magic hard to come by' (264). Despite their differences, then, there is an important link here between Leddington's approach and Windsor's. Windsor would, presumably, take learning the ins-and-outs of how an experience of the uncanny is actually produced as something that diminishes, or rules out, the experience of it as uncanny - since this learning would undermine uncertainty as to the causes of the events. Thus, both think, albeit for different reasons, that having a certain kind of aesthetic experience of the extraordinary – of magic in one case, and the uncanny in the other – requires some curtailing of our understanding of actual processes.

Yet the idea that knowing how a trick is done ruins the experience of a magic performance is not an uncontroversial one. This quote from Teller, for example, articulates a different take on the aesthetics of magic:

'I do think that with magic, if you explain a trick in an oversimplified way, it can dull the glamor for the casual viewer. On the other hand, to the serious connoisseur, understanding magical methods enhances the beauty.' (Teller, in Stromberg, 2012)

Our account of magic tricks as quasi-miracles makes space for this alternative, substantiating how understanding of methods can be accommodated within an experience of magic performance *as* magic performance. Understanding an actual explanation is not disruptive to appreciating the incongruity between it and the alternative explanation that the trick brings to mind. As we said above, experiencing a trick as quasi-miraculous does not *require* that we know the specifics of the actual explanation – so long as we think that it differs from the alternative explanation, we can appreciate an incongruity. However, experiencing the quasi-miraculous is *compatible* with knowing the specific actual explanation. That experience is equally available to someone who knows how the performer pulled the trick off (just as experiencing the lottery result as quasi-miraculous is compatible with knowing precisely what the machine did).

Could knowing the details actually 'enhance' the aesthetic experience of a quasi-miracle, in keeping with what Teller's quote suggests about magic? We think this is plausible. Though we have said that it is not necessary to have a detailed conception of actual methods in order to appreciate incongruities, our appreciation of the incongruity between the two may be sustained and made fuller by knowing details of the actual explanation. The person with that understanding is, after all, in a position to appreciate the fact that this naturalistic process produces the thing that would belong in a world with those non-naturalistic processes. Compare: evolutionary processes are quasimiraculous insofar as their products are things that bring to mind intelligent design. Learning the intricacies of evolutionary processes gives us a fuller appreciation of how it is that creatures whose existence we recognise as something that would be explained in a world with an intelligent creator can come about in the absence of any such thing. So, knowing more about one of an incongruous pair can be a way of further appreciating its incongruity with the other.3

<sup>&</sup>lt;sup>3</sup> Of course, there might also be further ways in which knowing how a trick is done 'enhances the beauty' – for instance, by enabling further aesthetic evaluations of the performance by

Insofar as the experience of magic is the experience of the quasi-miraculous, it is not true that 'learning to perform magic makes the experience of magic hard to come by' (Leddington 2016, p. 264). Our account provides an alternative to positing a sharp divide between magicians' experiences and the experience of laypersons who are not in the know. This is not to say there are no differences. As with any performance art, practitioners may be aware of and interested in (or bored by) aspects of a performance that the typical non-practitioner is not. But whereas, for Leddington, the knowing audience member (such as a practitioner) does not count as having the aesthetic experience of magic, on our account that experience – qua the experience of the quasi-miraculous – is available to those in the know. Indeed, there is nothing (aside from being preoccupied by the efforts involved in performance!) to stop someone aesthetically appreciating *their own* trick in this way.

## SEEING THE WIRES

Yet, we might think, there must be *something* in the thought that sometimes it is best, aesthetically, not to know how it's done. Otherwise, what would be the point – from an aesthetic point of view, that is – in magicians concealing their methods at all?

Let us begin with a couple of more straightforward reasons why ignorance may still, on our account, be aesthetically significant, and then move on to a couple of less straightforward ones. First, it may be a contingent psychological fact about some people that knowing details about how something is explained *distracts* from seeing how it would be explained by another process. Perhaps, once they have learned the actual explanation for the trick, it presents itself to them so forcefully as something explained *that* way that it is no longer effective in bringing to mind the alternative, non-naturalistic explanation. (Note that this claim is much stronger than the claim that the trick is cognitively penetrable. The person we are thinking of would be like somebody who says 'Now I know the evolutionary explanation, the biology of the eye no longer strikes me as the kind of thing a designer would create.') For such people, the experience of the quasi-miraculous would be hindered by 'knowing how it's done'.

Second, in some cases we might appreciate ingenuity and creativity more when we cannot figure out how someone has achieved a particular effect. The fact

making us grasp the performer's dexterity, creativity, imagination, and so on. For what it is worth, we think this also connects to the appreciation of quasi-miracles; we argue elsewhere that the aesthetic experience of performers' virtuosity is an experience of the quasimiraculous. But exploring that further in this paper would take us too far away from the main points we want to make here. that we cannot work out how to do that, and yet the magician did work out how to do that, is impressive, and so not knowing much about the actual explanation might enhance our appreciation of skill. Sometimes, though, the opposite is true (see footnote 2). Skill can be appreciated by understanding what exactly someone has accomplished; nevertheless, it can also sometimes be appreciated by not being able to reconstruct how someone accomplished such things. So, it is possible that, sometimes, a person loses out on *one* way of appreciating skill by learning the details of an actual explanation.

So much for the more straightforward reasons. Now for those that are (slightly) more philosophically elaborate.

First, there might be an additional type of experience that combines our appeal to quasi-miracles with Leddington's idea that it is important to fail to envisage the actual explanation. We have said that in experiencing magic as quasimiraculous, one appreciates that something which is subject to the explanations available in the actual world would also be explained in a supernatural world. But what about regarding it as something that would be *better* explained by supernatural processes than by whatever explanation it actually has? After all, there has to be *something* appealing about the non-actual explanations brought to mind in experiences of the quasi-miraculous, else they wouldn't be brought to mind; perhaps in some cases, the appeal of the non-actual explanation is so strong that this explanation strikes us as one that would – if only it were true! – be a better explanation than the actual explanation actually is. This would be a further experience of incongruity (and perhaps of irony). Supposing an additional enjoyable incongruity lies in recognising that something which is actually explained by X would be *better* explained by Y, it may be that it is easier to have *this* aesthetically valuable experience the less we grasp how well X explains the thing.

We might dispute this idea by saying that the supernatural explanation would not – *could* not – have been *better* than the actual one. The best explanation is the true one, we might say! Or we might claim that whilst we can adjudicate between two explanations when they both assume broadly the same physical laws, it is meaningless to say that a supernatural explanation for the event in a world containing ghosts, or teleportation, or whatever, is better than a naturalistic explanation for the event in the actual world. Yet, in another sense, there does seem to be some pull to the idea that, say, something disappearing and reappearing constitutes a *better* explanation than whatever actual process creates the effect that brings to mind such a supernatural explanation. Similarly, there is a sense in which supernatural activity constitutes a *'better*' explanation of the lights abruptly going out at exactly midnight on October 31st than an electrical fault. Perhaps the (non-actual) supernatural explanation feels simpler, or perhaps it is more familiar given the subject's cultural background. And these things could be destabilised by making the actual explanation more familiar to us, or giving us a more secure sense of how it leads to that outcome rather than another one. So, knowing more about how a trick is done could potentially interfere with a further experience of incongruity which involves appreciating that it would be *better* explained if things were otherwise than they actually are. But it would not undermine the core experience of the quasimiraculous, which is to appreciate that it *would* be explained if things were otherwise than they actually are.

Second, we think there is an important difference between *knowing* the actual explanation and seeing the actual explanation. As we have seen, Leddington thinks that this distinction does not matter much to the experience of magic: 'Concealing the wires is not enough ... for if you so much as *suspect* that there are wires, you cannot have an experience of magic' (2016, p. 258). We disagree - the aesthetic impact of seeing the wires is, we suggest, significantly different from that of simply knowing or believing that the trick uses wires. This is because the extraordinariness of the performance qua quasi-miracle lies in its presenting us with something that we recognise would be explained by a process that does not actually explain it. The problem with seeing wires on stage is not, on this view, that this makes us realise that the trick is done with wires. That in itself would not destabilise the quasi-miracle. But something else does. In appreciating what we see as quasi-miraculous, we appreciate that what we see would be explained by something other than its actual explanation – by, for example, flying. But if part of what we see is the wires, then the presence of the wires becomes part of what is to be explained – and somebody's being able to fly would not explain why they have wires attached to them!

It is in this sense that an actual explanation can intrude into the experience of the quasi-miracle – when it intrudes into what is to be explained (in this case, what we see of the magician and their surroundings). 'Seeing the wires' would make the trick less compelling, by making it less successful as a quasi-miracle. 'Compelling' here is not, of course, to do with what we believe is happening. What needs to be compelling is not 'that person is flying'. What needs to be compelling is that we could 'port' the thing to be explained – the magician's movements in the air, for example – between a world where there are naturalistic laws and a world where there are magical powers. Wires do not port between the two explanations, because they are part of one of those explanations, not part of the thing to be explained. So, where the actual

explanation is learned, understood, or suspected *based on something seen in the trick* which does not lend itself to being explained by magic, *that* is a problem – but not because knowledge, understanding, or suspicion are *themselves* antagonistic to experiencing magic.

What a magic trick should avoid doing, then, is *displaying evidence of its actual* explanation where that evidence would constitute something that magical processes would not explain. And many perceptual features of actual explanations are such that, unless they are concealed, there will be features of our experience which are not recognisable as the kinds of things magic would explain. For example, suppose a technique uses the ordinary continuous motion of one or more objects to create the illusion of a person disappearing from one place and instantaneously appearing in another. They need to create a visual experience that we recognise *would* be explained by witnessing the discrete motion of a single object across a huge space. This magical process would offer no explanation of why, a little before that, somebody is clambering down from a box; to see this would give us data that does not port across the two explanations. Actual processes are just so unlike magical processes that it will be very hard to make any details of the actual process perceptually available to the audience without turning the data into a set that does not successfully bring to mind the explanation 'magic'.

Leddington argues that his account explains the role played in magic routines by eliminating or 'cancelling' various putative actual explanations. Considering the David Copperfield flying illusion, he notes that Copperfield first cancels the explanation of a rising board (by moving from horizontal to vertical), then makes it increasingly hard to sustain the idea that he is suspended by wires (first by somersaulting, then by proceeding to 'fly through' hoops, then by being enclosed in a transparent box whilst still 'flying' inside it).

This narrative does seem an important part of what makes this trick effective. But that can also be accommodated by the proposals we have made. The apparent 'cancelling' could function to *reinforce* the fact that the alternative explanation (flying) *would* explain what we see, rather than functioning to leave us baffled about what the actual explanation is. The things which 'eliminate' a particular actual explanation are examples of events and properties that would be explained by somebody flying – for example, freedom of movement in the air, being able to get in and out of things without touching the ground, remaining airborne just as long as there is space to do so. In this way, they all help to sustain our experience of the quasi-miraculous, by giving us more and more sightings of positions and movements that identifiably would be explained by the elegance and dexterity belonging to a flying creature. What is a putative 'cancellation' of one actual explanation (wires) can equally be understood as the provision of more data bringing to mind the alternative explanation (flying). So, it does not establish that the experience of magic rests on an *absence* of explanation (as in Leddington's account) rather than a *glut* of explanation (as in our appeal to the quasi-miraculous).

Leddington links his argument about cancelling to this apparently similar claim from Darwin Ortiz:

'Magic can only be established by a process of elimination. There is no way that you can directly apprehend that you're witnessing magic. You conclude that it's magic because there is no alternative. Therefore, the primary task in giving someone the experience of witnessing magic is to eliminate every other possible cause.' (Ortiz, 2006, p. 37)

If Ortiz is right, then magic, as an explanation for events, is characterised as what's left over when other explanations are eliminated. Ortiz's point seems correct if by 'conclude' we mean what it takes for somebody to infer that, as a matter of fact, what they're witnessing is indeed explained by magic. Given that we do not believe it physically possible for David Copperfield to fly, we would conclude that he is flying only if we were forced to accept that there is no naturalistic explanation of what is happening on stage. But it is not clear that the same goes for our apprehension that what we're witnessing is something that would be explained by magic. David Copperfield looks like he is flying because of how he moves, not just because it doesn't look like he's doing anything other than flying. So, perhaps Ortiz's quote overstates the extent to which magic is conceived of negatively rather than positively, given that sometimes we think of the explanatory process 'magic' under specific descriptions – such as 'ability of a human to take flight unaided' – the content of which can be constructed otherwise than by elimination. However, this may vary from case to case, and there is certainly some pull to the idea that the bare idea 'it's magic' or 'it's supernatural' means partly 'it doesn't have a naturalistic explanation'. But insofar as Ortiz is correct that magic is conceived of negatively rather than positively, this is compatible with saying, as we do, that magic tricks are experienced in terms of an incongruity of explanations: we recognise that magic would explain, whilst holding that something non-magical does explain. If magic, as an explanation, is characterised negatively (in terms of the absence of other explanations), rather than by some positive feature of the scene, this will indeed impact on what the trick needs to look like in order to bring to mind magic as something that would explain. Making an event look like something magic *would* explain will be a matter of making it look like something other explanations *wouldn't* explain. This certainly explains the role of 'cancelling' explanations in magic performance; but in a way, we think, that can be accommodated by our approach to magic performance as quasi-miraculous. The significance of 'cancelling' would be, on our account, not directly to make us feel that we are unable actually to account for what we are seeing, but rather, to help us construct the alternative world – in which magic explains what we are seeing – with which our actual world is incongruous.

# **CONCLUDING REMARKS**

We have shown that appealing to quasi-miracles offers a more promising approach to the aesthetics of magic than appealing to uncertainty, as Windsor's suggested route does (Section 2). We have also argued (in Section 4) that the quasi-miracles account works just as well as Leddington's account of magic in explaining the cases he focuses on, without the resources of cognitive dissonance and alief. This is an interesting result in itself, but there is, we think, also reason to *prefer* the quasi-miracles account over Leddington's.

One possible advantage is that the quasi-miracles account may have greater potential to apply to a wider variety of tricks. There are many ways of making somebody aware of an alternative explanation as something that would explain, from perceptual cues to doing a lot of narrative work in constructing the story that would explain. Tricks will vary in which of these methods they make more use of. Not all of them are obviously captured by the concept of alief – for example, the identification of telepathy as something that would explain, in a mentalism routine, seems to rely more on the mysteriousness of the mind (as discussed in Section 3) and on attuning the audience to culturally salient supernatural stories than on the pre-reflective perceptual responses we would expect to be more characteristic of alief. Further, our account does not rely on a dynamic of cancelling explanations, but it can accommodate that dynamic, as well as having the resources to capture those cases that are more naturally characterised as providing a glut of explanations (as in some mentalist routines).

We also take it as an advantage of our view that it makes the aesthetic experience of magic *as* magic available to those who are in the know about the actual explanation, as well as to those who are not. But, of course, it is open to somebody like Leddington, who thinks that there has to be something distinctive of the experience of magic concerning not understanding how it's actually done, to say that this is not an advantage. But that person's stricter

conditions on what qualifies as an experience of magic can be accommodated within our framework, by saying that we have the experience of magic when the trick is experienced as something that would be explained other than how it is explained *and which also* perplexes us as to what the actual explanation is. Our account could even be combined with some elements of Leddington's *aporia* proposal in order to characterise that experience. Thus, the quasimiracles account can still play a part in the account of somebody who wants a more restrictive conception of the experience of magic, though we ourselves prefer the broader conception which allows the experience of someone who is confident in their understanding of the actual explanation also to count as the experience of magic.

# REFERENCES

Bagienski, S. E., & Kuhn, G., (2023). A balanced view of impossible aesthetics: An empirical investigation of how impossibility relates to our enjoyment of magic tricks. *i-Perception*, 14(1). doi: <u>https://doi.org/10.1177/20416695221142537</u>

Cavedon-Taylor, D., (forthcoming). Magic, alief and make-believe. *Journal of Aesthetics and Art Criticism*.

Corrigan, B. J., (2018). 'This rough magic I here abjure': Performativity, practice and purpose of the bizarre. *Journal of Performance Magic*, *5*(1). doi: <u>https://doi.org/10.5920/jpm.2018.05</u>

Freud, S., (1919). The 'uncanny'. Originally in *Imago*, *5*, autumn 1919. Translated and edited in: Strachey, J. (ed.) *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, 1955, London: The Hogarth Press 219-252. Reprinted in *New Literary History*, *7*(3), 1976, 619-45 (quotations and page numbers are taken from this reprint).

Grassi, P. R., Plikat, V., Wong, H. Y., (2024). How can we be moved by magic? *British Journal of Aesthetics*, 64(2), 187-204. doi: https://doi.org/10.1093/aesthj/ayad026

Jones, G. M., (2011). *Trade of the Tricks: Inside the Magician's Craft*. Berkeley, CA: University of California Press.

Kuhn, G., Pailhès, A., Jay, J., & Lukian, M., (2024). Experiencing the improbable: How does the objective probability of a magic trick occurring influence a spectator's experience? *Decision*, 11(3), 420-434. doi: <u>https://doi.org/10.1037/dec0000220</u>

Lan, Y., Mohr, C., Hu, X., & Kuhn, G., (2018). Fake science: The impact of pseudo-psychological demonstrations on people's beliefs in psychological principles. *PLoS ONE*, *13*(11), e0207629. doi: <u>https://doi.org/10.1371/journal.pone.0207629</u>

Leddington, J., (2016). The experience of magic. *Journal of Aesthetics and Art Criticism*, 74(3), 253-264. doi: <u>https://doi.org/10.1111/jaac.12290</u>

Le Paul, P., (1987). The Card Magic of LePaul. Brooklyn, NY: D. Robbins & Co.

Lewis, D., (1986). Postscripts to 'Counterfactual dependence and time's arrow'. In: Lewis, D., *Philosophical Papers Volume II*, Oxford: Oxford University Press, 52-66

Medeiros, G., Tompkins, M., Bagienski, S., & Kuhn, G. (2022). Not just a trick: A survey study exploring how 'exposing' exhibition visitors to science of magic concepts impacts their appreciation of magic. *Journal of Performance Magic*, 7(1). doi: <u>https://doi.org/10.5920/jpm.1260</u>

Ortiz, D., (2006). Designing Miracles. El Dorado Hills: A-1 Magical Media.

Poe, E. A., (1994). The Fall of the House of Usher. In Poe, E. A., *Selected Tales*, London:

Penguin, 76-95.

Stromberg, J., (2012). Teller speaks on the enduring appeal of magic. *Smithsonian Magazine*. URL: <u>https://www.smithsonianmag.com/arts-culture/teller-speaks-on-the-enduring-appeal-of-magic-97842264/</u> (accessed 24/06/2024).

Windsor, M., (2019). What is the uncanny? *British Journal of Aesthetics*, 59(1), 51-65. doi: <u>https://doi.org/10.1093/aesthj/avy028</u>

Wiseman, R., & Watt, C., (2022). Experiencing the impossible and creativity: atargetedliteraturereview.PeerJ,10:e13755.doi:https://doi.org/1.7717/peerj.13755

Wiseman, R., & Watt, C., (2024). Seeing the impossible: the impact of watching magic on positive emotions, optimism, and wellbeing. *PeerJ* 12:e17308. doi: <u>https://doi.org/10.7717/peerj.17308</u>