

Glimpses into the Great Beyond? On the Evidential Value of Near-Death Experiences

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Abstract: Near-Death Experiences (NDEs) have gripped the public imagination ever since Raymond Moody's watershed book *Life After Life* brought them to widespread attention in 1975. These experiences are commonly reported to involve the sensation of leaving one's body and watching efforts by medical personnel at resuscitation or even events further afield, as well as experiences of passing through a tunnel towards a being of light and love and meeting deceased friends and relatives. Such experiences are sometimes alleged to constitute evidence for an afterlife, but exactly how they do so is seldom spelled out precisely. The aim of this paper, then, is to carefully consider three different inferential pathways from data about NDEs to the conclusion that there is an afterlife. I shall argue that at least two of them provide moderately strong support to this conclusion.

Introduction

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Two of the pathways I shall consider (the first and third) involve trying to show (in different ways) that NDEs support Strong Substance Dualism (henceforth, SSD): the view that the mind is a separate substance from the body and that it can exist apart from the body. A further inference is then made from SSD to the claim that there is an afterlife of some sort – a continuation of personal, conscious existence after physical death. What sort of afterlife might be in the offing is an issue I won't address in this paper. The other pathway I shall consider (the second) begins by looking at the considerable range of cases in which a person's NDE included apparent perceptual awareness of earthly events that were able to be independently corroborated. It argues that these cases support the claim that (some) NDEs involve veridical paranormal perception (VPP): a genuine perceptual mechanism that is independent of any of the ordinary senses. Having thus purported to establish VPP, the next move is an inductive inference to the conclusion that not only were some earthly events veridically perceived by the NDEr, the heavenly scenes that are such a common part of NDEs were also veridically perceived – in other words, the heavenly realm is real. Whilst not exactly an argument for an afterlife, this pathway aims to establish the reality of the

¹ Rivas, Dirven, and Smit (2023) and Holden, Greyson, and James (2009) are recent examples.

putative afterlife *destination*. With the terrain thus mapped in broad outline, we can proceed to examine each of these inferential pathways in some detail.

Pathway I – Conscious despite a non-functioning brain?

A book that will be referred to a number of times in this article is *The Self Does Not Die: Verified Paranormal Phenomena from Near-Death Experiences* (Rivas, Dirven, and Smit, 2023), or *SDND* for short. Put together by three Dutch NDE researchers, *SDND* is a compendium of cases that have been included because they meet the criterion that “a patient’s report of a paranormal phenomenon during an NDE be directly confirmed by at least one other person” (2023, p. xxix). By “directly confirmed” they mean that firsthand testimony from the person(s) providing the corroboration is on the public record. The second edition of *SDND* contains descriptions of 42 cases in which a patient purportedly had an NDE that took place during a prolonged period of cardiac arrest from which they were eventually successfully resuscitated. Given that the lack of blood circulation for more than around 30 seconds has generally been taken to result in a cessation of cortical brain activity (Parnia, 2014, pp. 85-86; Pana et al., 2016), the contention of Pathway I is that such cases constitute strong evidence for SSD, and that SSD in turn makes it probable that there is an afterlife. Pathway I thus involves a sequence of two non-deductive inferences. We shall consider each of them in turn.

Step 1: from Near-Death Experiences during prolonged cardiac arrest to Strong Substance Dualism

One example of the sort of cases that are relevant to Pathway I is that of Pam Reynolds, who underwent a rare and risky surgery to remove a deep-brain aneurysm. The procedure involved inducing extreme hypothermia and bringing about a temporary standstill of her vital systems, including her heart and brain. Her brain was continuously monitored by three different methods, all of which indicated a total absence of the neurological markers of consciousness. When she awoke after the successful completion of the operation she described having had an especially vivid and deep NDE, which included an out-of-body experience during which she seemed to view the procedures being carried out on her from above and was able to describe them with considerable detail, most of which detail was corroborated by the surgeons operating on her (Rivas, Dirven, and Smit, 2023, pp. 114-23). Taken at face value, cases such as these provide rather compelling support for the claim that conscious awareness can persist in the absence of cortical brain activity – that is, for SSD.² There are two significant worries, however, that deserve to be considered. The first is whether we can really be confident that the brain was truly non-functional during the relevant timeframe. And even if we can, the second worry is whether we can really be sure that the NDE occurred *at the time the brain was non-functional*, as opposed to shortly before or shortly afterwards.

Because of the nature of NDEs, namely, that they typically occur in the context of cardiac arrest and thus a stressful resuscitation procedure, it is rare that brain activity was being monitored during the relevant timeframe. The usual proxy for the cessation of cortical brain activity that is used by NDE researchers is a cardiac arrest lasting for more than about 30 seconds. This is because there is something of a scientific consensus around the idea that a period of circulatory arrest longer

² To be sure, conscious awareness in the absence of cortical brain activity doesn’t strictly entail SSD, but SSD is a highly plausible inference from the former.

than about 30 seconds prohibits the sort of brain activity that current neuroscientific models predict should be present when a person is having lucid conscious awareness (van Lommel, 2013, p. 129; Parnia, 2014, pp. 85-87; Pana et al., 2016). The upshot is that if current neuroscientific models are broadly correct about the sort of brain activity that should accompany lucid conscious experience, then cases like that of Pam Reynolds do seem to be ones in which the presence of lucid conscious experience during the relevant timeframe would rather strongly support SSD.

One response could be to suggest that current neuroscientific models of the neural correlates of consciousness may turn out to be radically mistaken such that we might eventually discover that lucid conscious awareness can be supported even by a brain whose functionality is dramatically diminished. Indeed, it would seem like hubris to suppose that current neuroscience is close to being the last word on the neural correlates of consciousness. Even so, what is so striking about many NDE cases is the dramatic *disproportionality* between on the one hand a brain whose functioning has become severely impaired (even if not totally shutdown) and on the other hand a first-person perspective that not only persists but becomes even more lucid than in ordinary waking life (see Williams Cook, Greyson, and Stevenson, 1998, p. 379; Williams Kelly, Greyson, and Stevenson, 2000, p. 514). Even if not conclusive, this dramatic disproportionality is quite strongly suggestive of SSD.³

But what about the question of whether NDEs ever really occur during the time when the brain is effectively non-functional? How can we be sure that an NDE didn't occur shortly before or shortly after the crucial timeframe? One consideration here is that, as Sam Parnia and Peter Fenwick (2002, p. 9) point out, any conscious states that might occur shortly either side of cardiac arrest would be expected from a neurophysiological point of view to be confusional and not at all like the highly lucid experiences typically reported by NDErs. Another consideration is that many of the reported cases of NDEs during cardiac arrest involved apparent perceptual awareness of events that were independently corroborated. In practice the easiest way to "timestamp" the occurrence of an NDE is for there to be independent corroboration of events in the objective world that the NDEr seemed to perceive during her state of prolonged cardiac arrest.⁴ All of the 42 cases reported in *SDND* of NDEs during prolonged cardiac arrest involve such independent corroboration. Later on we shall consider how much support such independent corroboration gives to the idea that genuine veridical perception is occurring, but for now I would just note that the more evidence there is for the existence of a genuine mechanism for veridical paranormal perception during NDEs, the more that it appears legitimate to timestamp the occurrence of an NDE by appealing to a timeline of events in the objective world that the NDEr seemed to perceive.

All in all, the argument for SSD from cases of NDEs purportedly during prolonged cardiac arrest looks to be significant, albeit not wholly immune from doubts arising from the possibility that future advances in neuroscience might dramatically upend our current understanding of how much and what sort of brain activity is capable of generating conscious awareness. It is worth emphasising that all Pathway I really needs is for there to be at least *one* case in which conscious awareness persisted in the absence of the relevant sort of brain activity. And as Roy Sorensen (1983) has pointed out in response to David Hume's claim that we can never rationally accept a miracle report, the more independent reports there are of events of type X occurring, the more probable it becomes that there has been at least *one* genuine instance of X.

Step 2: from Strong Substance Dualism to an afterlife

³ Thanks to Philip Goff for highlighting this possibility regarding the neural correlates of consciousness, and to Sharon Dirckx for raising the point about disproportionality.

⁴ Augustine (2007b, p. 276) repeatedly emphasises the need to locate a timestamp.

Interestingly, even such a strong proponent of Cartesian dualism as Richard Swinburne maintains that his view (which is clearly a form of SSD) doesn't by itself entail an afterlife. As he puts it, "I have not argued that the soul continues to exist after death. I believe that we need the Christian or some other religious revelation to show this" (2018, p. 150). Despite this note of epistemological caution, I want to suggest that SSD does substantially raise the probability of an afterlife. According to Bayes' theorem, a fact E is evidence for a hypothesis H to the degree that E is more likely given H than given $\neg H$ (the negation of H). To make this concrete with an example, the fact that John's fingerprints are all over the murder weapon (call this fact "E") is evidence for the hypothesis that John is Alan's murderer (call this hypothesis "H") to the degree that E is more probable on H than it is on $\neg H$. Plausibly, E is a lot more likely if H is true than if H is false; hence, E strongly confirms H over $\neg H$. Where "Prob(H|E)" means "the probability of H conditional on E" and "Prob(H)" means "the probability of H," Bayes' Theorem states that:

$$\text{Pr}(H|E) > \text{Pr}(H) \text{ if and only if } \text{Pr}(E|H) > \text{Pr}(E|\neg H)$$

In other words, the probability of H is raised by E if and only if the probability of E given H is greater than the probability of E given $\neg H$.

My suggestion, then, is that if SSD is true then it strongly confirms the hypothesis that there is an afterlife over the hypothesis that there is no afterlife. For convenience, let "A" be the hypothesis that there is an afterlife and " $\neg A$ " be the hypothesis that there is not. What needs to be shown is that SSD is a lot more probable on A than on $\neg A$. Here's why we should think that it is. Consider the various afterlife scenarios that have been on the table over the millennia: reincarnation; lingering on earth as a ghost; departing to a disembodied heaven or hell or purgatory; having one's consciousness be absorbed into an all-encompassing super-consciousness; being resurrected to everlasting bodily life. It looks as though every one of these possibilities except for resurrection necessitates that humans have minds that can exist apart from brains, or in other words, SSD. Even with resurrection, given well-known problems regarding the way that a corpse's atoms eventually get dispersed and sometimes end up as parts of other people's bodies, it is very debatable whether even God could ensure that the resurrected individual would really be the same person as the previously dead person,⁵ *unless* the locus of personal identity is an immaterial mind, in which case there is no issue with personal identity pre- and post-resurrection. In short, the great majority of conceptually possible ways in which humans could have an afterlife involve SSD being true. Hence, SSD is very probable given A. By contrast, as far as I can see the hypothesis of $\neg A$ generates no significant expectation that SSD would be true. In short, it looks as though the likelihood of SSD on A is much greater than the likelihood of SSD on $\neg A$. Bayes' Theorem tells us that SSD raises the probability of A to the degree that the likelihood of SSD on A is greater than the likelihood of SSD on $\neg A$. Hence, an afterlife is made much more probable by SSD.

Pathway II – Veridical visions of heaven?

We now turn to consider the quite different strategy of attempting to establish that a veridical paranormal perceptual (VPP) mechanism is operative in (at least some) cases in which an NDEr seems to witness earthly events that can be independently corroborated. For convenience we can

⁵ For contrasting perspectives on this issue, see Zimmerman (1999) and Hasker (2011).

use the label “C-NDE” for any case of an NDE for which there is independent corroboration of the apparently-witnessed events. After attempting to establish VPP, Pathway II then proceeds to draw an inductive inference to the conclusion that not only were some earthly events veridically perceived by the NDEr, the heavenly scenes that are such a common part of NDEs were *also* veridically perceived – in other words, the heavenly realm is real. So whilst not exactly an argument for an afterlife, Pathway II aims to establish the reality of the putative afterlife *destination*. It should be noted that unlike Pathway I, Pathway II *doesn't* rely on the claim that the brain was non-functional during any NDEs, although it is of course compatible with the brain being non-functional during NDEs.

Step 1: From Corroborated NDEs to Veridical Paranormal Perception

We have already encountered the Bayesian framework, and it will be useful once again to employ it in thinking about how much support (if any) C-NDEs lend to the hypothesis of VPP. What we need to try to ascertain is whether C-NDEs are more to be expected on the hypothesis that a veridical paranormal perceptual mechanism is operative during (some) NDEs than on the hypothesis that no such paranormal perceptual mechanism is ever operative. We can call these hypotheses VPP and \neg VPP, respectively. The hypothesis of \neg VPP is of course comprised of various sub-hypotheses, including the possibility that the striking match between the NDEr's experience and the events in the objective world is just a lucky coincidence, as well as the possibility that the match is actually due to sensory leakage: for example, the possibility that the NDEr had enough residual touch sensation to feel what was being done to her, or enough residual hearing to pick up information from conversations among the medics, and unwittingly incorporated these ordinary sensations into a hallucination.⁶

Sensory leakage might be likened to a situation in which a fire alarm goes off near to where you are sleeping and prompts you to dream that your house is on fire. Sensory leakage may well make the occurrence of some C-NDEs moderately probable. The C-NDEs that are the most interesting for our discussion, however, are those in which the events the NDEr seemed to witness occurred outside of the range of all the NDEr's ordinary senses and outside of the range of all the ordinary senses of the medical staff who were working on the person. The following are three such cases, but there are dozens more published cases that exhibit these features (see Rivas, Dirven, and Smit, 2023). It is of note that in the following three cases the NDE was reported immediately by the patient upon regaining consciousness and the checking of the details of the NDEr's experience by the medical staff also took place very soon afterwards.

Below is the firsthand description (translated from French) given by anaesthetist Jean-Jacques Charbonnier at the Capiro Clinique Saint-Jean Languedoc in Toulouse, France:

I operated on a woman under general anaesthetic. And when she woke up, she described her operation as if she had been on the ceiling. Not only that, she also described the operation that took place in the next theater, the amputation of a leg. She saw the leg; she saw them put the leg in a yellow bag. She couldn't possibly have invented that and she described it as soon as she woke up. I checked afterwards and the operation had indeed taken place in the next theater. A leg had been amputated at the very same time that she was under anaesthetic, and thus totally disconnected from the world. (Quoted in Rivas, Dirven, and Smit, 2023, p. 77)

⁶ Positing sensory leakage to try to explain C-NDEs is the consistent approach taken by Keith Augustine (2007a, 2007b) and John Martin Fischer and Benjamin Mitchell-Yellin (2016).

A second example is a case involving a woman who had a cardiac arrest at Hartford Hospital in Connecticut, and very shortly afterwards told a nurse about the NDE she had had. The nurse, Kathy Milne, provides this account:

She told me how she floated up over her body, viewed the resuscitation effort for a short time and then felt herself being pulled up through several floors of the hospital. She then found herself above the roof and realized she was looking at the skyline of Hartford. She marvelled at how interesting this view was and out of the corner of her eye she saw a red object. It turned out to be a shoe.... [S]he thought about the shoe ... and suddenly, she felt “sucked up” a blackened hole. The rest of her NDE was fairly typical, as I remember. I was relating this to a resident who in a mocking manner left. Apparently, he got a janitor to get him onto the roof. When I saw him later that day, he had a red shoe and became a believer, too. (Quoted in Ring and Lawrence, 1993, pp. 226-27)

A third example is an account given by an ICU director who was involved in the resuscitation of a patient named Howard:

Howard was not only telling me what he heard but also what he had seen with incredible accuracy. ... [He said,] “I felt myself rising up through the ceiling and it was like I was going through the structure of the ceiling.... There were individual rooms all around the edge and on some of the beds were these people, except they were not people, exactly. They looked like mannequins and they had IVs hooked up to them but they didn’t look real. In the center was an open area that looked like a collection of work stations with computers.” That’s when my jaw really dropped... Right above the ICU is a nurse-training center where new hires spend a few days rotating through different scenarios. There are simulated hospital rooms around the perimeter with medical mannequins on some of the beds. In the center there is indeed a collection of workspaces with computers. I was amazed. (Quoted in Allison, 2022, p. 138)

I suggest that the occurrence of cases such as these is very surprising on the hypothesis of \neg VPP, but unsurprising on the hypothesis of VPP. Because the corroborated details pertain to events outside the range of the patient’s ordinary senses and of the ordinary senses of the medical staff, the sub-hypothesis of sensory leakage contributes very little to the predictive power of \neg VPP with respect to these cases.⁷ Another sub-hypothesis of \neg VPP, namely, unwitting embellishment, contributes very little to the predictive power of \neg VPP in view of the near-immediate reporting of the NDE and the checking of the details by the medical staff in the cases cited above. Deliberate deception, another sub-hypothesis of \neg VPP, contributes even less to the predictive power of \neg VPP. In the great majority of cases, including the three just described, the third-party corroborator is a medical professional who is placing their reputation on the line by going on the public record.

⁷ The overall likelihood of a given C-NDE case conditional on \neg VPP is calculated by adding up the likelihoods of that case occurring given each of the individual sub-hypotheses of \neg VPP, where each such likelihood is *weighted* (i.e. multiplied) by the probability of that sub-hypothesis on \neg VPP & k (where k represents background knowledge). This weighting is crucial, because it may be that a particular sub-hypothesis \neg VPP_{sub} makes a given case of C-NDE overwhelmingly likely, and yet \neg VPP_{sub} is itself very unlikely on \neg VPP & k . For example, suppose \neg VPP_{sub} is the hypothesis that aliens were hovering above the hospital and were beaming images into the brain of the NDEr, thereby ensuring that her NDE corresponded to what was actually occurring in the objective world. This sub-hypothesis makes C-NDE overwhelmingly likely, and yet this sub-hypothesis is itself extremely unlikely on \neg VPP & k .

There are plenty of indications that the climate of the medical profession and indeed the natural sciences at large is such that a member of those fields who talks openly about religious experiences is liable to draw scorn from their peers. In his recent magisterial book on religious experience Dale C. Allison provides numerous anonymous testimonials from medics and scientists expressing a fear of talking to colleagues about such experiences (2022, ch. 2). It looks as though there is precious little incentive for a medical professional to go on record about a case of C-NDE other than a desire to convey what they take to be the truth.

But how about another sub-hypothesis of \neg VPP, namely, a lucky guess? The idea here would not be that the NDEr was consciously engaging in an attempt at making up details, but rather, that her subconscious mind generated the details in an NDE in a partly random (or at least chaotic) manner, akin to the way that dreams are generated. The contribution that the sub-hypothesis of lucky guess makes to \neg VPP's overall predictive power with respect to a given case is going to be proportional to the probability that the details in question were accurate just by luck. The most impressive C-NDE cases, then, have either content that is intrinsically improbable in virtue of being very detailed or content that is intrinsically improbable in virtue of the unusual combination of properties that it involves. The sub-hypothesis of lucky guess has little predictive power with respect to such cases.

Perhaps, though, the proponent of the \neg VPP hypothesis can supplement the sub-hypothesis of lucky guess with the suggestion that for each C-NDE involving intrinsically improbable content which is found to be accurate, there are many more NDEs (with content of a similar level of detail, etc) whose content is *inaccurate*, albeit that such cases get ignored, forgotten about, and not taken into account.⁸ This move is structurally analogous to postulating a multiverse in order to explain the fine-tuning of the universe.⁹ In order to account for an apparently improbable datum – a surprising “hit,” as it were – one postulates a set of unobserved “misses” that have been generated by the same mechanism as the hit, and one also postulates a filter in virtue of which we would expect only to observe the hit as opposed to any of the many misses, and thereby one purports to have shown that the datum at issue – the hit – is not improbable after all.

The vast, unseen probabilistic resources postulated by the multiverse hypothesis are, on the face of it at least, up to the task of showing how it is quite likely that a very occasional universe fine-tuned for life would crop up.¹⁰ By contrast, the analogous move with respect to detailed and accurate C-NDEs is not able with plausibility to postulate *enough* misses to account for the surprising hits. Just suppose, for a very rough and ready calculation, that the odds of the reported details in a given C-NDE all being accurate by chance are 1 in a 1,000. (That is, I would suggest, a very cautious estimate; some C-NDEs involve details whose combined accuracy is plausibly far more intrinsically improbable than that.) That implies that for every hit with this level of accurate detail, we would need to postulate at least 1,000 misses: 1,000 NDEs with at least this level of detail that are *inaccurate* but have been forgotten about, ignored, and so on. But the systematic studies on NDE incidence rates such as those conducted by Pim van Lommel and Sam Parnia simply do not support the idea that there might be so many overlooked cases of inaccurate NDEs. Van Lommel's (2001) study featured 344 cardiac arrest survivors, of whom 64 had some kind of NDE; of those, 15 had some sort of out-of-body experience; and of those, one person had vivid experiences of this-worldly events that were able to be checked by the medical staff and shown to

⁸ Beth Seacord (2021, p. 55) gestures at this thought.

⁹ Thanks to Mark Wynn for pointing out this connection in conversation.

¹⁰ See Tegmark (1998). For objections to such reasoning with regard to fine-tuning, see White (2010).

be accurate.¹¹ Parnia et al's (2014) AWARE study involved 101 cardiac arrest survivors, of whom nine had an NDE; and of those, two had out-of-body experiences involving apparent awareness of this-worldly events; of those two instances, one was able to be corroborated in detail and shown to be fully accurate. Also very relevant here is Janice Miner Holden's (2009: 193-99) review in which she collated reports of NDEs with apparent perceptual elements that could be corroborated or falsified, and she included in it only those reports that came from systematic studies or from anecdotes prior to 1975 (the point at which the wider public's attention was initially drawn to NDEs by Moody's book), so as to minimise any selection bias in favour of experiences with accurate content as opposed to inaccurate content. Out of 107 cases, she found only one case that was completely inaccurate and a further six that involved at least one mistaken element. In short, it looks as though accurate content occurs much too often (as a proportion of all NDE cases) to be able to be accounted for in a manner analogous to the attempt to explain fine-tuning by appealing to a multiverse. I suggest, then, that the most impressive C-NDE cases are very surprising on \neg VPP (considering all of its sub-hypotheses), but not surprising on VPP.

Some of the most prominent physicalist discussants of NDEs such as John Martin Fischer and Benjamin Mitchell-Yellin (2016, ch. 11) and Keith Augustine (2007b) are quite explicit that they are merely trying to propose *epistemically possible* physicalist causes for C-NDE cases: i.e. physicalist causes that *might be operative for all we know*.¹² And there's nothing wrong with that project. But to think that by going from one C-NDE case to the next, each time coming up with some epistemically possible physicalist causes and then crossing that case off the list as if its evidential import has been neutralized, is to totally ignore the following point: even a small Bayes' factor in VPP's favour (i.e., where the C-NDE case at issue is just *a bit* more likely on VPP than on \neg VPP), when this situation is repeated across *lots* of cases of C-NDEs, can accumulate into a very large overall Bayes' factor in favour of VPP in the aggregate.¹³ As Timothy McGrew and John Depoe point out, "Twenty independent pieces of evidence, each of which yields a modest multiplicative ratio of 2 to 1 in favor of H when taken by itself, will combine to create a C-inductive argument with a force of more than a million to one" (2013, p. 307). The evidence from C-NDEs needs to be looked at, then, not only in terms of the merits of individual cases – some of which are individually impressive – but crucially also in terms of their cumulative force. I suggest that when considered cumulatively C-NDEs provide very strong support for VPP.

But what about hidden visual target studies? These studies involve the placement of an unexpected object or sign in a location that is visible only from the vantage point of the ceiling in a hospital room in which resuscitation is likely to take place. To date, six such studies have been carried out (Miner Holden, 2009, pp. 206-08). None of these studies registered a "hit" – an instance of an NDEr observing one of the hidden visual targets – but across all six studies the total

¹¹ There is no suggestion in van Lommel's paper that those others who had out-of-body experiences had inaccurate content — rather, it's simply that the content was either insufficiently specific or concerned things that weren't able to be verified by the medical staff.

¹² Augustine writes that "in offering such alternative explanations, it was not my intent to definitively *establish* that such reports *were* embellished or contaminated, but simply to show that they *could have been*" (2007b, p. 269). Fischer and Mitchell-Yellin express a similar aim when they write (of a specific case they consider) that "We stress that we do not take ourselves to have provided an adequate explanation of the Leininger case. That is not our aim. What we hope to have done is to have shown how the approach we have been sketching in this book may be applied to this case. Once we sweep aside unreasonable views about explanation and take care not to leap to unjustified conclusions, we can see how the Leininger case could, in principle, be given a physical explanation" (2016, p. 131).

¹³ Suppose that A and B are two independent pieces of evidence, and that A favours H over \neg H by a Bayes' factor of 10 (i.e., A is ten times more likely given H than given \neg H), and that B favours H over \neg H by a Bayes' factor of 10. In that case, the combined force of A and B favours H over \neg H by a Bayes' factor of 100! That is, the likelihood ratios are multiplied, not added. Such is the power of aggregating evidence.

number of NDEs that occurred in the designated rooms was small (less than 30), of whom fewer than half had any kind of out-of-body experience, and most of those didn't have an experience of observing the room from a vantage point from which the visual target should have been visible. In short, much larger studies of this sort would be needed in order to draw significant conclusions. Still, I submit that this is *some* evidence against VPP and in favour of \neg VPP. As is always the case, however, the overall evidential situation is cumulative and must take account of both positive and negative items of evidence. If we had dozens of cases of NDEs in which the patient had the sensation of floating up to the ceiling in one of the relevant rooms and yet failed to see the hidden target, that would constitute powerful evidence against VPP. At present, though, that situation has yet to materialise. I suggest that the current, rather limited evidence against VPP fails to outweigh the very strong evidence for VPP that we have been considering.

Step 2: From Veridical Paranormal Perception of earthly events to Veridical Paranormal Perception of heavenly scenes

Whereas Pathway I makes no use of the apparent glimpses of celestial realms that are such a common part of NDEs, Pathway II aims to show that those heavenly experiences are just as veridical in character as the NDEr's experiences of earthly events. To emphasise again, nothing about Pathway II requires that NDEs be experiences that bypass the brain. Before going further it is worth pausing to consider a few of the descriptions of the heavenly scenes that NDErs so often relay.

I realised that all these people were there, almost in multitudes it seems... They were all people I had known in my past life, but who had passed on before... It seems that I mainly saw their faces and felt their presence. They all seemed pleased. It was a very happy occasion, and I felt that they had come to protect or to guide me... All this time, I had the feeling of everything light and beautiful. (Quoted in Moody, 2015, p. 46)

[I]t almost seemed that clouds, a pink mist really, began to gather around me, and then I floated right straight on through the screen, just as though it weren't there, and up into this pure crystal clear light, an illuminating white light. It was beautiful and so bright, so radiant, but it didn't hurt my eyes. It's not any kind of light you can describe on earth. I didn't actually see a person in this light, and yet it has a special identity, it definitely does. It is a light of perfect understanding and perfect love. (Quoted in Moody, 2015, p. 53)

I was out of my body, there's no doubt about it, because I could see my own body there on the operating table. My soul was out! All this made me feel very bad at first, but then, this really bright light came... At first, when the light came, I wasn't sure what was happening, but then, it asked, it kind of asked me if I was ready to die. It was like talking to a person, but a person wasn't there... The love which came from it is just unimaginable, indescribable. (Quoted in Moody, 2015, pp. 54-55)

The second step of Pathway II involves the following inductive inference: given that the experiences of earthly events in (some) NDEs are genuinely mediated by a mechanism that yields veridical paranormal perception, it is reasonable to suppose that the experiences of heavenly realms that

feature in so many NDEs are also mediated by the same veridical perceptual mechanism, as opposed to being mere hallucinations; that is, those heavenly realms are real.¹⁴ For the sake of ease we can call this inductive inference *veridical carryover*. In what follows I reflect on two salient considerations that support veridical carryover and one consideration that casts doubt on it.

The first consideration in support of veridical carryover is that the general epistemological principle that underlies this particular inductive inference is a very plausible one: namely, that if a portion of the contents of a purported source of information is able to be independently checked and found to be accurate, then that gives us good reason to suppose that the portion of the contents that can't be independently checked is also likely to represent reality accurately. I take it that this principle is employed (at least implicitly) by investigators in a wide variety of fields of inquiry. Just to take one example, criminal investigators are seldom in a position to corroborate the entirety of a witness's testimony, but if the parts of it that they are able to cross check against independent sources are thereby found to be accurate in detailed and striking ways, their confidence in the veracity of this witness's testimony on matters they can't check will rightly increase considerably.

The second consideration in favour of veridical carryover is that there appears to be a high degree of coherence among the many reports of glimpses of heaven that feature in NDEs (Kellahear, 2009; Zingrone and Alvarado, 2009; Moody, 2015). It is true that the phenomenon of the NDE is now quite widely known, but that was not so in the late 1960s when Raymond Moody began to notice striking commonalities between reports he was receiving from patients who had survived cardiac arrests, prompting him to write his watershed book *Life After Life*. The recurring themes pertaining to the heavenly portion of NDEs include the following: meeting deceased loved ones; experiencing feelings of overwhelming joy and bliss; finding oneself in the presence of a being of light and love; encountering some sort of boundary or border that one cannot go beyond. It might be thought that the striking commonalities between the otherworldly portions of so many NDEs do amount to a kind of independent corroboration, albeit not quite as compelling as the corroboration that is available for the earthly portions of some NDEs. There are even cases in which the loved ones encountered during the heavenly portion of an NDE had in fact recently died, albeit that the NDEr had no ordinary means of knowing that (Greyson, 2010). This too might be thought to be a form of independent corroboration that lends additional support to veridical carryover.

A consideration that might be thought to cast doubt on veridical carryover is that in spite of the aforementioned commonalities, there are also some seemingly culturally-influenced elements of the heavenly portion of NDEs. The worry is that these elements seem likely to originate from within the mind of the NDEr rather than an external reality, casting wholesale doubt on the veridicality of the heavenly aspect of NDEs. The oft-mentioned tunnel that NDErs report moving along as part of their NDE appears to be a feature that is more common for Western NDErs than it is for Asian and Pacific-Area NDErs (Kellahear, 2009, p. 138). I submit this does slightly temper the force of the inductive inference that we are presently considering. But proponents of NDE veridicality are not without responses. Dale Allison makes the point that

NDErs behold what they have not beheld before. Imagine three individuals from societies wholly ignorant of American football. If one were to put them in the stands to watch the Pittsburgh Steelers play the Baltimore Ravens for five minutes and then ask them what

¹⁴ It should be noted that not all NDEs are positive experiences. A minority of NDEs (though the exact percentage is hard to ascertain) are deeply distressing for the NDEr. These experiences seem to fall into three categories: (i) experiences that are much like classic positive NDEs except that the person reacts with fear rather than joy; (ii) experiences of emptiness or of a void; (iii) experiences of scenes that resemble traditional depictions of hell, which are by far the rarest of all three. For more discussion, see Evans (2009).

they had seen, the result would not be three identical narratives. Without prior knowledge and experience, and without words such as “quarterback,” “sideline,” “goalpost,” and “football,” our three observers would have difficulty relating their experiences. They might at best be able to draw some analogies with their own worlds: “It was like this,” or “It was a bit like that.” (2022, p. 147)

This thought goes some way to making sense of how veridical perceptions of an otherworldly realm could nevertheless be reported in ways that seem to be tinged with culturally-specific categories.

All in all, I suggest that if we have good reason to think that some NDEs involve a paranormal perceptual mechanism, as Step 1 sought to establish, we have good reason to think that that mechanism is not only in genuine contact with earthly events but also, despite the lack of categories adequate to relay what is reportedly witnessed, with a heavenly realm.

Pathway III – Perceiving the world while out of body?

Pathway III involves a chain of three non-deductive inferences. Step 1 of Pathway III is the same as Step 1 of Pathway II: namely, the inference from C-NDEs to the existence of a Veridical Paranormal Perceptual (VPP) mechanism that is operative during some NDEs. Step 2 of Pathway III is an inference we haven’t yet considered: an inference from VPP to Strong Substance Dualism (SSD). Step 3 of Pathway III is the same as Step 2 of Pathway I: namely, the inference from SSD to an afterlife. All that remains, then, is to discuss Step 2 of Pathway III.

Step 2: From Veridical Paranormal Perception to Strong Substance Dualism

Once again we can frame the probabilistic inference here in terms of Bayes’ Theorem. The claim for us to consider is that VPP strongly confirms SSD. As always, we need to try to assess how much more VPP is to be expected given SSD than given its negation, \neg SSD.

Let’s begin with the most obvious reason for thinking that VPP is likelier on SSD than on \neg SSD: namely, that it strongly *appears* to the NDEr that she is separated from her body during the NDE and is observing the objective world from a vantage point beyond her body.¹⁵ The thought is that this isn’t surprising on the hypothesis that she is an immaterial soul that can exist independently of a functioning brain, but very surprising on the hypothesis that she is either identical with her body or is at least dependent on her body for her continued existence. Things are not as straightforward as they may initially seem, however.

Some forms of SSD deny that souls are spatially located. In articulating his version of SSD, René Descartes held that it is the essence of material substances to have spatial extension and the essence of thinking substances (i.e. souls) *not* to have spatial extension (1986 [1641], pp. 6-11, 16-23, 50-62). Given any such version of SSD, the soul never leaves the body during an NDE because it was never spatially co-located with the body to begin with. Moreover, SSD by itself doesn’t entail that the soul has its own perceptual faculties via which it can observe events in the material world from a disembodied vantage point. All that to say, it is only a fairly specific version of SSD, call it SSD*, that is compatible with an immaterial soul literally drifting away from the body with which it is normally spatially co-located and observing events in the world by way of its own perceptual

¹⁵ David Lund (2009, p. 121) particularly presses this point as an argument in favour of the separation of mind from body during NDEs.

faculties. SSD* is the hypothesis that the soul can exist without a functioning brain *and* that the soul is located in space and has perceptual faculties of its own. SSD* is itself not very likely on SSD, in virtue of the fact that SSD* is just one, rather niche, version of SSD. On any version of SSD other than SSD*, the soul never does literally perceive the world by way of its own perceptual faculties from a location in space away from the body, and so it is quite surprising on any of these other versions of SSD that the NDEr would have veridical perceptual experiences of the world that overwhelmingly *feel* to the NDEr as though they are taking place whilst the NDEr is spatially located outside her body. The upshot is that VPP is not probable on SSD overall.

But, of course, with the Bayesian framework things are always comparative, and so we have to consider how likely VPP is given \neg SSD. Given that the hypothesis of \neg SSD by definition rules out the possibility of a soul functioning apart from the body, the only version of \neg SSD on which VPP is even a possibility is one on which there is some brain-based psychic ability that enables the remote viewing of events beyond the range of the body's ordinary senses. We can call this hypothesis \neg SSD*. Such a hypothesis has in fact been given some serious consideration in the field of parapsychology. As Carlos Alvarado writes, "some parapsychologists have suggested that veridical perception might equally be explained by ESP [extra-sensory perception], in which the experience of being outside the body is actually a psychological construction, and the experiencer becomes aware of circumstances occurring at a distance by means of clairvoyance" (2024). As with the foregoing discussion of SSD and SSD*, we must consider how likely VPP is given \neg SSD*, and how likely \neg SSD* is given \neg SSD.

Regarding the latter question, \neg SSD* is just one rather specific way in which \neg SSD could be true, and so \neg SSD* is not very likely on \neg SSD. This is parallel to the earlier point about SSD* being just one fairly specific way in which SSD could be true. Since there don't seem to be any obvious additional considerations that should figure in our estimation of the probabilities here, and given the inherent difficulties of assigning anything like precise numerical values anyway, I suggest that we proceed on the assumption that the probability of \neg SSD* given \neg SSD is similar to the probability of SSD* given SSD.¹⁶ Both SSD* and \neg SSD* are niche versions of SSD and \neg SSD, respectively. The upshot of this is that whether Step 2 of Pathway III is successful effectively boils down to whether VPP is more likely given \neg SSD* or given SSD*. The story SSD* tells about why VPP occurs is roughly going to be that extreme traumatic events, especially near-death situations, can disrupt the soul's normal causal link with the brain, leading the soul to become spatially dislocated from the body and to begin perceiving the world via its own perceptual faculties. The story that \neg SSD* tells about why VPP occurs is roughly going to be that extreme traumatic events, especially near-death situations, can sometimes trigger the operation of a normally-dormant brain-based psychic ability for remotely viewing events that are occurring beyond the range of the body's ordinary senses, giving rise to the feeling of observing those events from an out-of-body perspective.

On the face of it, SSD* and \neg SSD* seem to make VPP about equally likely. But there is one consideration that might be thought to give SSD* the edge in predictive power with respect to VPP: namely, that VPP appears to occur across a range of cases that vary substantially with respect to the patient's level of brain functionality.¹⁷ Given that \neg SSD* maintains that VPP is a brain-mediated ability, it is rather surprising that VPP would be able to occur and to do so with such consistency of phenomenology across wide variations in brain functionality. By contrast,

¹⁶ Michael Sudduth (2013) has argued that evidence for ESP phenomena in waking subjects favours the brain-based-psychic-abilities hypothesis (what I'm calling \neg SSD*) over the soul-departing-the-body hypothesis (SSD*). On the other hand, David Lund (2009, pp. 121-24) has pointed out that cases of ESP in waking subjects don't involve a number of key features of the phenomenology that is so characteristic of NDEs, not least, the experience of observing the world from a vantage point outside one's body.

¹⁷ The collection of cases in Rivas, Dirven, and Smit (2023) bears this out.

SSD* faces no such difficulties given that it locates the ability for VPP in the perceptual faculties of an immaterial soul that can function independently of a brain. All in all, then, I suggest that VPP is somewhat more likely on SSD* than on \neg SSD*.

Conclusion

Taking stock of the three inferential pathways from NDEs to an afterlife that we have now considered, it is my judgment that all three provide at least some reason to believe that there is an afterlife. I haven't talked at all about the prior probability of an afterlife, so to say that these pathways provide *some reason* is just to say that they should increase one's credence in an afterlife relative to where one initially started (which is of course compatible with one's credence ending up below 50%). The three pathways are summarised below:

Pathway I

NDEs occurring allegedly during prolonged cardiac arrest - - - -> SSD - - - -> an afterlife

Pathway II

Corroborated NDEs - - - -> VPP of earthly events - - - -> VPP of heavenly scenes

Pathway III

Corroborated NDEs - - - -> VPP - - - -> SSD - - - -> an afterlife

All three pathways involve non-deductive inferences, and the more non-deductive inferences a pathway involves, the less support that the eventual conclusion receives from the initial premises. Given that Pathway III involves a sequence of not two but three non-deductive inferences, and given that the middle step (the probabilistic inference from VPP to SDD) is not all that strong, Pathway III seems to me to be the weakest of the three pathways. As for Pathway I, there is ostensibly a strong case for SDD, albeit one that remains somewhat vulnerable to the possibility that our understanding of the amount and kind of brain activity required to support consciousness from a neurological perspective may dramatically change. The Bayesian inference from SDD to an afterlife looks to be compelling. Pathway II strikes me as the most promising of all, in that the cumulative case for VPP appears very powerful and nothing about this pathway relies on claims about what is or isn't occurring in the brain at the time of the experience.

Putting this latter point another way: nothing about Pathway II depends upon the truth of any version of substance dualism. If one is inclined – as I am not, though many philosophers are – to think that substance dualism is fantastically implausible or perhaps even incoherent, then Pathway II's independence of substance dualism is a particularly noteworthy feature. The fact that Pathways I and III do depend on substance dualism's being viable makes them more vulnerable. With that said, there is something of revival of interest in substance dualism that has begun taking place over the past few years, and classic objections to dualism such as the interaction problem and the pairing problem are being met with sophisticated replies as well as a number of positive conceptual arguments in favour of dualism that at the very least deserve serious consideration (see, e.g., Swinburne, 2012; Loose, Menuge, and Moreland, 2018; Rickabaugh and Moreland, 2023). It should be stressed that by no means all of the philosophical arguments for substance dualism currently under consideration lend support specifically to the view I have called *Strong Substance Dualism* (the view that the mind/soul is not only distinct from but can also continue to function apart from the body), let alone the view that the soul is spatially located and has its own perceptual

faculties (which I called SSD*). But perhaps the lesson we should draw from this is simply that a consideration of empirical data concerning NDEs – as well as of other, related phenomena – might point in the direction of specific understandings of the mind-body relation that a priori philosophical investigation by itself would leave rationally underdetermined.

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