Understanding *Near-Death Experiences*: A Rejoinder to Mitchell-Yellin's Response

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We wish to thank the Editor of this *Journal*, Janice Miner Holden, and Benjamin Mitchell-Yellin for the opportunity to reply to his response (Mitchell-Yellin, 2017) to our critique of *Near-Death Experiences: Understanding Visions of the Afterlife*, which he coauthored with John Martin Fischer in 2016. Mitchell-Yellin stated that our critique missed its mark in a number of ways, and we are grateful to clarify our points for him and for readers of this *Journal* and to correct where we have misunderstood the book, misrepresented it, or taken portions of it out of context.

First, we agree with Mitchell-Yellin (2017) regarding the thesis of their book: that near-death experiences (NDEs) do not show that physicalism should be abandoned in favor of “supernaturalism.” Although we hold that evidence from NDEs strongly suggests the reality of a nonmaterial mind and, therefore, the existence of nonphysical aspects of reality, we agree that the question as to which view is correct is not yet settled. Whichever theory of NDEs—physicalist or nonphysical—prevails will ultimately be decided through the normal process of scientific inquiry. We also agree with Mitchell-Yellin that in their book he and Fischer showed genuine concern for near-death experiencers (NDErs), especially in taking NDErs at their word that they really had the experiences they reported.

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Ad Hoc Explanations

Our main criticism of Fischer and Mitchell-Yellin's book (2016) is that it explains NDEs in terms of *ad hoc* hypotheses. "*Ad hoc* hypothesis" is a term of art in scientific circles describing a hypothesis that is added to a theory to save it from being falsified. Normally, an *ad hoc* hypothesis is invoked to explain an anomaly that the existing theory does not cover. Ordinarily the *ad hoc* hypothesis—or some other hypothesis—prevails through empirical investigation and becomes an extension of the overall theory.

The problem comes when *ad hoc* hypotheses about various physical, physiological, or psychological factors must be added to explain the specific facts of an NDE. The authors chose four well-known NDE cases—Pam Reynolds, the man with the dentures, Eben Alexander, and Colton Burpo. For these four cases, the authors proposed three *ad hoc* hypotheses to explain the anomalous aspects of the NDE: (a) during anesthesia or during cardiac arrest, ambient sounds or other nonvisual sensations can still be "recorded" in the brain and later brought back to consciousness; (b) the fear of dying causes the NDEr to imagine meeting deceased loved ones in order to receive comfort; and (c) NDErs can unconsciously piece together imaginations and confabulations *after* their NDEs and later embellish the account with further information inadvertently provided by listeners during the retelling. These hypotheses appear to fit all four NDE cases, although we felt the first hypothesis is speculative relative to the current understanding of neuroscience, and the third hypothesis may not hold up to scrutiny when the specific facts of each NDE are thoroughly examined.

The more serious problem comes when even a few additional NDE cases are examined. In our critique, we selected four additional NDEs taken from *The Self Does Not Die* by Titus Rivas, Anny Dirven, and Rudolf Smit (2016). These cases involve purely visual veridical perceptions, verified as accurate by a credible third party, such that none of the previous *ad hoc* hypotheses could be used to explain them. We found, however, that *nine additional* hypotheses—many of which we considered highly speculative—would likely be needed to explain the facts of these additional NDEs in physicalist terms.

Considering that there are over 100 cases of paranormal phenomena from NDEs documented in *The Self Does Not Die*, our contention is that there would be an explosion of *ad hoc* hypotheses to cover even a small portion of these cases. For example, we expect the authors would need to add a further hypothesis to the fear of dying hypothesis

to cover cases of NDErs seeing deceased loved ones in a *subsequent* NDE, although the NDEr reported having lost the fear of death; in these cases, the NDEr would still be presumed to *subconsciously* fear death. When new, often speculative hypotheses must be repeatedly devised and added to save a theory, the theory—even one as robust as physicalism—must be called into question.

We applaud Fischer and Mitchell-Yellin (2016) for selecting four of the more challenging NDE cases. We acknowledge that the explanations they developed for these four cases *by themselves* support the physicalist interpretation reasonably well. However, we contend that in their argument, Fischer and Mitchell-Yellin fell prey to a common error in research: theorizing on the basis of an insufficiently small sample. For when we considered even a few additional NDE cases, we believe we showed that the multi-factor physicalist explanation becomes untenable and improbable, because it must rely on so many additional *ad hoc* hypotheses.

Single Explanatory Theory

Mitchell-Yellin (2017) stated that “there is no good reason to insist that all aspects of all NDEs be explained by a single factor, nor is there good reason to insist that simpler explanations are more likely true than complex ones” (p. 102). We suggest that the requirement for a “single explanation” for NDEs is not a preference but is, rather, a *requirement of the empirical data*. In our analysis of NDEs in our critique and in this rejoinder, it is clear that NDEs occur in widely various and complex circumstances, yet the *experience itself* is quite consistent, with highly consistent elements and intensity of each element. In an earlier paper (Mays & Mays, 2015), we argued that this evidence from NDEs shows that a “single explanation” of NDEs is actually supported by the data. The elements and intensity of NDEs occur with high consistency regardless of the specific antecedent circumstances—whether the NDEr was in a coma, was asleep, or was meditating. So, the physicalist explanation of NDEs really needs to account for the *consistency of NDEs*, in the elements of the NDEs and their intensity across the broad spectrum of antecedent circumstances and events. In our critique, we suggested that the consistency of NDEs across many different circumstances calls for some unifying principle—a “common proximate cause.”

In their book, Fischer and Mitchell-Yellin (2016) gave the example of house fires to argue for complex explanations. House fires can come

about by any number of specific circumstances. However, all house fires have a “common proximate cause”—a sufficiently high temperature, a supply of oxygen, and a source of combustible material. This unifying principle is, in fact, the “single explanation” of *all* fires.

In our critique and in our earlier paper, we stated that “the proximate cause could be a physiological condition that occurs in both near-death and not-near-death circumstances, or it could be some nonphysical process. In either case, the explanation based on it would need to account for NDEs occurring in a variety of conditions, including ordinary conditions, [such as] sleep, meditation, or glancing at a sunrise, and would thus satisfy the requirement that it explain all NDEs” (Mays & Mays, 2015, p.131).

In our critique, we cited a possible proximate cause with a physiological origin that was proposed by Enrico Facco and Christian Agrillo (2012). Although we think Facco and Agrillo’s proposed proximate cause—a yet-to-be-identified physiological agent that triggers a common brain circuit in a particular brain region—is highly speculative, we acknowledge that a single-factor physicalist explanation of all NDEs is quite possible.

The Authors Did Not Call NDEs Hallucinations

Mitchell-Yellin (2017) pointed out—correctly—that we misinterpreted his and Fischer’s (2016) original statements about NDEs, both (a) that they stated that NDEs are hallucinations, and (b) that they stated that all aspects of NDEs are inaccurate and “not corresponding to reality.”

Indeed, Fischer and Mitchell-Yellin (2016) did not make these statements directly, and we apologize for misrepresenting their statements in our critique. Instead, the authors used an interesting construction—an apophasis—to *imply*, not to state directly but *nevertheless to indicate*, that elements of NDEs are inaccurate and therefore are no different from, for example, hallucinations, illusions, dreams, or delusions. Here, again, is their statement from the book:

We shall use the term “accurate” throughout the remainder of the book to mean “truthful” or “corresponding to external reality.” An accurate experience depicts reality as it really is. Not all real experiences are accurate. Hallucinations, illusions, dreams, delusions—these may all be real experiences. People really do have them. But they are not accurate experiences. They do not correspond to reality. (Fischer & Mitchell-Yellin, 2016, p. 35)

Therefore, according to the authors, some elements of NDEs—such as heavenly realms and spiritual beings—may be considered inaccurate because, even though they are vivid and coherent perceptions and are expressed by the NDEr with sincerity and conviction, they do not correspond to external reality. Hallucinations, illusions, dreams, and delusions are examples of experiences that are not accurate. Fischer and Mitchell-Yellin (2016) did *not* say explicitly that these elements of NDEs are hallucinations, illusions, dreams, or delusions; they just *implied*—*apophatically*—that they are.

With a closer examination of the authors' statement, we realize that we incorrectly inferred that they were saying that NDEs or elements of NDEs are inaccurate, do not correspond to external reality, *and are therefore* hallucinations. We apologize for our misstatement. Mitchell-Yellin (2017) was understandably upset that we misinterpreted his and Fischer's (2016) actual, literal statements. We mistook the apophatic implication to be their actual statement, and we regret the error.

Using Physicalist Explanations Still Tends to Pathologize

Unfortunately, we believe many other people will make this same incorrect inference, including many NDErs. Employing an apophasis still brings the pathologizing, dismissive concepts—hallucinations, illusions, dreams, delusions—into the conversation, with the same pejorative effect. We wish they had realized that their statement could easily be misinterpreted and had made their intention *not* to label NDEs as hallucinations clearer.

Even so, the explanations Fischer and Mitchell-Yellin (2016) *did* use to account for the elements of NDEs—terror management, implicit memories, confabulation, embellishment, false memories, confirmation bias—have the same effect as using the terms hallucinations, illusions, dreams, and delusions. We believe NDErs will feel that their experiences have been dismissed and pathologized.

Take, for example, the following *hypothetical* statements to NDErs from their physician, psychiatrist, or psychotherapist:

- I understand you *believe* you met and talked with your father's grandfather, but that doesn't correspond with external reality. I'm not saying you are delusional, just that, actually, you *imagined* meeting and speaking with your great-grandfather because you

are like most people and you are afraid—really terrified—of dying. You think your great-grandfather told you things that you didn't know before the operation, but you probably picked things up from your father about him, or your father mentioned things after the operation when you told him about meeting him. You sort of mixed these things up and confabulated the memories to fill in the gaps. You're not delusional but you really didn't meet your great-grandfather: That would be impossible.

- You are saying that when you fell and hit your head, you felt like you were out of your body and went to a beautiful place—beautiful flowers and trees, a meadow with a stream—and you met lots of people who had died earlier. I'm not saying you were hallucinating, but when a person has a head injury and loses consciousness, all kinds of things can pass through your mind as you are losing consciousness or when you are waking up. Usually these are things that conform with your expectations. We all want to believe that we will go to a heavenly place when we die. When you hit your head, you had a vivid vision of what you *expect* or *hope for* when you die. It wasn't exactly a hallucination, just a very vivid *imagination*. Of course, that place really doesn't exist: It's not really real. It just reflects what you *believe* will happen.
- I must admit, you had a very interesting experience during your operation. There was a point where we thought there was a slight problem with your heart rate, but we caught it and got you back in a few seconds. You say that you felt you were up at the ceiling and we were rushing around, that the nurse working near your head dropped an instrument that rolled under the gurney and said an unusual swear word. And then you heard me say, "Oh please, get it together, Jackie!" Of course, all these things are accurate, but there are explanations for everything you experienced. Your awareness really wasn't at the ceiling. I'm not saying it was an illusion—it was just a projection of your right temporoparietal junction, after we brought you back, that gave you a sense of being out of your body. Your eyes were taped shut, so you *couldn't* have seen Jackie drop the item and see it roll under the gurney, nor hear what she said. Your brain was under anesthesia but could still record the sound of something dropping and rolling and her outburst. When you regained consciousness, you selectively recalled those brain sensations and put them together in a coherent narrative—a kind of confabulation with some lucky guesses. You think you *remember* seeing and hearing those things, but that's just your mind trying to make sense of sensory fragments. Also, I didn't actually *say* "please get it together," I just *thought* it, but you probably heard my big sigh and made a good guess what that was about. And even though you never met Jackie, you probably overheard me mention her name in the recovery room. So,

we wouldn't call your experience actually an *illusion*, but it could not have happened the way you experienced it. That would be impossible. After you came to, you stitched together several sensory inputs with some lucky guesses and some information from after your operation to make sense of what happened.

We believe that the NDEr in each case would feel that their NDE was being minimized, dismissed, and explained away by the medical professional. Although the professional explicitly denied pathologizing the NDE, the professional ended up doing just that.

Just to be clear, we are *not* saying that Fischer and Mitchell-Yellin (2016) wrote any of these things in their book. We are merely producing hypothetical narratives that reflect their explanations of NDEs.

Scientific Progress Does Not Imply Physicalism Will Prevail

Throughout their book, Fischer and Mitchell-Yellin (2016) appealed to the ultimate success of scientific progress to provide physical explanations that, in the future, will fully explain NDEs. In our critique, we quoted three places where they had made this appeal (Fischer & Mitchell-Yellin, 2016, pp. 28, 66 & 101). In his response, (2017) Mitchell-Yellin (2017) clarified that

we were trying to show that there is no good argument in favor of supernaturalism on the basis of NDEs. Part of this involved trying to show—and this gets at the appeals to the progress of science—that there are good reasons to think that there may, in the future, be good physical explanations of the relevant phenomena. But again . . . this point is not to claim that supernaturalism is false. It is to claim that NDEs do not prove, or even provide good evidence for the claim, that supernaturalism is true. (p. 106).

In their book, Fischer and Mitchell-Yellin seem to have made an implicit assumption, namely that scientific inquiry will result solely in physicalist explanations of reality. Even though Mitchell-Yellin stated in the above quote from his response that their point was not to claim that “supernaturalism” is false, they did, in fact, hold that “supernaturalism” *is* inherently false, in that it posits aspects of reality that do not exist. Thus, they contend, scientific progress can manifest only through physical explanations of phenomena.

We think this viewpoint is fundamentally incorrect. Scientific inquiry—at least inquiry that is unimpeded by physicalist bias and dogma—

can yield a conclusion regarding which theory of NDEs is most valid, whether that theory is purely physical or is nonphysical. Such a theory would account for data including consistency of content across NDEs independent of antecedent circumstances and cases of purely visual veridical perceptions of physical phenomena that the NDEr could not have perceived physically and could not have inferred from available information.

Therefore, we believe what is likely to happen is that the normal process of scientific inquiry—most likely in neuroscience—will sort out which theory is correct, based on each theory’s explanatory power. If the nonphysical NDE theory has validity, it will result in an *expansion* of physicalist theory to include aspects of reality that are now considered supernatural, becoming an *extended naturalist theory*, one acknowledging of transmaterial realities.

We believe that NDEs *do* provide good evidence for transmaterial aspects of reality that are considered by many people to be supernatural—that NDErs’ experiences are, for the most part, accurate descriptions of these aspects of reality. However, we affirm that the case is far from settled and that everyone should keep an open mind about the question.

In their book, Fischer and Mitchell-Yellin (2016) were concerned primarily in showing that NDEs do not provide proof of, or even credible evidence for, the reality of an afterlife. Their argument was primarily that there are perfectly adequate physical explanations for NDEs and that, therefore, one should not abandon physicalism as the commonsense starting point in one’s explanations of things. Our criticism is that the authors have failed to provide adequate physical explanations of a wider selection of NDEs—and appeals to promissory materialism are unconvincing—so it is appropriate to explore the phenomenon of NDEs more deeply.

Confirmation Bias and Apophasis Redux

In our critique, we pointed out that Fischer and Mitchell-Yellin (2016) relied on an article in *Esquire* magazine by Luke Dittrich (2013) to make a final point in their book: that it is important to inquire critically about NDEs, especially in the context when extraordinary claims are being made. To us, this selection appeared to be the result of the authors’ own confirmation bias.

In our critique, we tried to show that Dittrich’s article seriously distorted the facts about the circumstances of Eben Alexander’s NDE

and, in fact, was grossly misleading in every respect. Thus, it seemed to us that the authors' selection of and focus on the Dittrich article was a prime example of uncritically seeking out information that accords with one's existing beliefs—confirmation bias—and that their selection represented a *triple irony*.

First, the primary target of the authors' chapter 12 on confirmation bias was Eben Alexander and his book *The Map of Heaven*, which they characterized as “one long exercise in confirmation bias” (Fischer & Mitchell-Yellin, 2016, p. 152). Second, the authors' aim in bringing up the Dittrich article was to encourage readers to “inquire critically,” which it seemed to us that the authors themselves failed to do by their very selection of the article. And finally, the authors focused on the phrase “when extraordinary claims are being made,” which, in our opinion, is the most damnable of Dittrich's distortions, because of the clever way Dittrich manipulated the quotation to indicate the *exact opposite* of the Dalai Lama's actual meaning. The Dalai Lama did not say “when a man makes extraordinary claims,” but because the authors *uncritically* accepted Dittrich's account, they repeated the distortion.

In the following statement and accompanying footnote, Fischer and Mitchell-Yellin (2016) also employed another apophasis to infer—but not state directly—their apparent assessment of Eben Alexander's character and the account of this NDE:

Our aim is not to call Alexander's character into question and thereby discredit his account of his near-death experience. (Footnote) There do, however, appear to be legitimate questions about Alexander's credibility due to the facts about his past, as uncovered in the reporting of Dittrich (2014). (Fischer & Mitchell-Yellin, 2016, p. 178)

Mitchell-Yellin (2017, p. 107) reiterated that his and Fischer's (2016) aim was not to discredit Alexander. Given that we pointed out in our critique that they had relied on Dittrich's (2014) distorted and misleading account of Alexander, we would have hoped for some expression of regret that, in effect, they had done just that.

Conclusion

In retrospect, we realize that Fischer and Mitchell-Yellin (2016) used a carefully worded statement—in effect an apophasis—saying essentially “NDE perceptions do not correspond to reality, *not to mention that* hallucinations are perceptions that do not correspond to real-

ity.” To us their inference is inescapable—that NDEs are *no different from* hallucinations. Unfortunately, we took their inference as a direct statement, that NDEs *are* hallucinations. We completely understand Mitchell-Yellin’s (2017) upset and frustration at our error. We sincerely regret having stated that the authors called NDEs hallucinations in their book. Just to be clear about this, they did not.

On the other hand, we believe the explanations the authors *did* use to account for the elements of NDEs—terror management, implicit memories, confabulation, embellishment, false memories, confirmation bias—have the same dismissive and pathologizing effect on NDErs as using the terms hallucinations, illusions, dreams, and delusions.

We believe we showed that the authors’ multi-factor physicalist explanations of NDEs are untenable and improbable, because they must rely on so many *additional, speculative ad hoc* hypotheses, to explain even a few additional NDE cases beyond the four that the authors originally selected, particularly cases of veridical perceptions outside the NDEr’s physical line of sight or capacity for inference.

We suggested that the requirement for a “single explanation” for all NDEs is a *requirement of the empirical data*, to account for the consistency of NDEs across the broad spectrum of antecedent circumstances. We proposed that *both* physical and nonphysical “single factor” theories of NDEs are possible. We asserted that the normal process of scientific inquiry—most likely in neuroscience—will sort out which theory is correct, based on each theory’s explanatory power. If the nonphysical NDE theory proves valid, it will result in an *expansion* of physicalist theory to include aspects of reality that are now considered supernatural, becoming *an extended naturalist theory*, one acknowledging of transmaterial realities.

Finally, we pointed out that Fischer and Mitchell-Yellin’s (2016) selection of the critical article on Eben Alexander by Luke Dittrich (2013)—which was grossly misleading and distorted—was an unfortunate, regrettable choice with which to conclude their book, given that their aim was not to discredit Alexander or any other NDEr.

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