# Rejoinder to "Response to 'Corroboration of the Dentures Anecdote Involving Veridical Perception in a Near-Death Experience"

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ABSTRACT: In this article we rejoin Gerald Woerlee's response in this issue to Smit's (2008) article, "Corroboration of the Dentures Anecdote Involving Veridical Perception in a Near-Death Experience." We show the untenability of his claim that the man whose dentures were lost before his resuscitation in the hospital was initiated had been conscious virtually all the way from the moment he was found in the meadow up to his transport to the hospital's cardiac care unit. Also, we question Woerlee's claim that the patient constructed an accurate mental picture of objects and persons in the resuscitation room simply by listening to the sounds caused by the actions around his body. In all, we question Woerlee's materialistic explanations of the out-of-body experience that occurred in this patient's near-death experience. Our conclusion is straightforward: We consider Woerlee's claims to be wrong.

KEY WORDS: hypothermia, cardiac arrest, resuscitation, near-death experience, veridical perception

We thank Gerald Woerlee for responding to the abovementioned article that was published by one of us in this *Journal* (Smit, 2008),

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because his response forced us to clarify various aspects that are essential in this case. However, after a careful study of Woerlee's statements and a search through the original reports in this *Journal* and the Dutch journal *Terugkeer* (Rivas, 2008), we concluded that Woerlee either ignored, overlooked, or misinterpreted various aspects of the case. For various medical facts we consulted two cardiologists—one of them, Pim van Lommel, being another major player in this case—who, based on their many years of experience and in-depth knowledge of cardiology, were happy to provide us with substantial comments.

Woerlee's article is very detailed. If we were to respond to all of these details, it would be for us somewhat overdone and for readers probably a boring exercise. Therefore, we will focus on what we deem to be the most relevant aspects:

- 1. The circumstances surrounding how the patient was found in the meadow;
- 2. Arrival at the hospital and the first moments in the coronary care unit (CCU), including the exact moment of removal of the dentures to insert the ventilation tube;
- 3. Woerlee's assertion that the patient constructed a highly accurate mental picture of the resuscitation scene from conscious auditory and visual perceptions during resuscitation; and
- 4. The pain in the patient's chest caused by the Thumper.

But before treating these four items, we offer this caveat: This case happened 30 years ago, so the actual details cannot be corroborated by official reports because, as is customary after some passage of time, all medical records of the case were destroyed. The only data on which we can rely is the testimony of the prime witness, male head nurse TG—initials only, because TG wishes to remain anonymous whom we interviewed extensively in 2008. We are confident in stating that TG appears to be a highly trustworthy and knowledgeable person, as his witness account comes across as very factual, consistent, and chronologically correct. The one somewhat corroborating document we do have is a 12-page report that a staff member of Merkawah Foundation/International Association for Near-Death Studies (IANDS) The Netherlands, Ap Addink, wrote in 1994 based on his extensive interview with TG. Although it was never published, it is stored in Merkawah's files. Following our 2008 interview with TG, we retrieved and reviewed the 1994 report and found the details of the two interviews matched almost exactly. Nevertheless, we are

aware of the fact that this sole eyewitness account, however reliable, is no guarantee that the case is stone solid. Be this as it may, we believe the case remains interesting and important enough to be considered seriously.

## Circumstances Surrounding How the Patient Was Found

From now on we designate the patient as Mr. B or patient B because, as far as we know, that was the first letter of his surname.

In due course we will consider Woerlee's statements regarding the circumstances that surrounded how Mr. B was found. But first we wish to establish that whatever he has said cannot be more than an educated guess, simply because he was never in any way involved in the case. Indeed, we might quite literally say "far from it," because at the time of Mr. B's health crisis in the Netherlands, Woerlee lived and worked in the U.K. By contrast, male nurse TG was directly, even physically involved: He was the one who actually resuscitated patient B.

Of course, we are all too aware that nurse TG was not involved with the finding of Mr. B in the meadows near Ooy, a village in the vicinity of the ancient City of Nijmegen. Because we have no way of locating those who were directly involved, nobody knows the exact circumstances surrounding Mr. B's cardiac arrest. What is certain is that when he was found he had been lying in a cold, damp meadow—but for how long exactly is anyone's guess. In any case, he was cold—hypothermic, and when he was found he had no heart rhythm, only ventricular fibrillation, which Woerlee, of course, described accurately as an uncontrollably twitching heart that is unable to pump blood.

As we understand it, Woerlee was trying to discredit any elements within TG's story that seem irreconcilable with his materialistic theory. Concerning the circumstances under which the patient was found in the meadow, Woerlee seemed to claim that the patient could not possibly have had the medical condition TG described, because the ambulance could not have arrived in time. According to Woerlee, if TG is right about the events prior to arrival of the ambulance at the meadow, the patient should have died or at least have suffered considerable brain damage that presumably would have been beyond repair. In other words, TG would be wrong about the events prior to patient B's admission to the emergency room, and, therefore, readers

really ought to dismiss the very core of TG's account regarding Mr. B's consciousness during a flat EEG. This issue is what makes Woerlee's claims on this point more important than one might think.

We have consulted two cardiologists, Pim van Lommel and Willem Jan Louridtz, to check whether they consider Woerlee's version of the events leading to Mr. B's admission to be correct. We won't cite their replies literally, as that would be a bit too technical for this rejoinder. What is important here is that blood circulation in the patient's brain and other organs may well have come to a total standstill at a relatively late point in time, shortly before he arrived in hospital. In other words, from a cardiological perspective, Woerlee's version is certainly not the only medical possibility and poses no serious threat to TG's witness account as a whole.

Also, hypothermia may have been more significant in this case than Woerlee seemed to think. In cases of hypothermia, brain damage may be delayed substantially. As van Lommel told us, even people rescued from under the ice of frozen waters, after having been there for half an hour or longer, may show no brain damage after resuscitation. In this regard, one of TG's statements during his interview with Rivas is noteworthy: "The man was brought in cold as ice. It was night anyway, therefore he was hypothermic, and had been lying in moist grass, hence . . . "The medical literature contains many reports of people who recovered surprisingly well from traumas believed to have resulted in irreversible brain damage. A good example is the case of David Verdegaal reported by both Fenwick and Fenwick (1997) and Verdegaal (n.d.) himself. While on a business trip in Austria, he suffered a massive heart attack resulting in cardiac arrest for which he began receiving treatment after about 30 minutes. He was resuscitated, and, indeed, he had brain damage resulting in two weeks coma and, upon returning to consciousness, blindness and paralysis. Yet, when he could speak again he reported a wonderfully detailed and coherent NDE that had occurred during that agonizing period of cardiac arrest. More important, though, is his long-term progress: Extensive rehabilitation over a period of three years has resulted in a body that functions fairly well, although his blindness has not fully abated. Yet he can read and is a happy man, as his own testimony indicates. Numerous additional cases exist of people who recovered partially or fully from brain damage after a highly traumatic event, also under normal temperature conditions such as with Verdegaal. We contend that this also could be the case with patient B.

More importantly yet, as Woerlee himself stated, after arrival in

the hospital it was concluded that Mr. B had suffered an acute massive heart attack. As we pointed out previously, there are no known witnesses of the patient's condition before the medics found him in the meadow, but—taking TG's testimony about this crucial point seriously—we actually do know the patient's condition upon admission to the emergency room. Whatever the precursors, the patient certainly did not have sufficient blood circulation when he was admitted to the emergency room that would explain the occurrence of any type of conscious perception. There is no good, specific reason to reject this central claim within TG's account other than the a priori argument that it clashes with mainstream theories about the relationship between brain and consciousness. According to the cardiologists we consulted, Woerlee's speculative version of the events that occurred prior to admission does not present any convincing case for rejecting out of hand TG's main claim.

## Arrival at the Hospital and First Moments in CCU

With regard to the patient's arrival at the hospital and first moments in the CCU, Woerlee shows that he either did not read the crucial details of the story or just ignored them—perhaps because they did not fit his theory. Woerlee claimed that shortly after the patient had been brought in, the Thumper was placed on the patient's chest and activated, which resulted in sufficient blood flow and a restoration of consciousness to the extent that patient B "felt" how his dentures were taken out, "heard" how they were put on a wooden shelf of the crash cart, and soon afterwards "saw" his surroundings, the face of nurse TG, etc. However, this claim does not hold at all—and Woerlee could have known it if he had carefully read TG's additional comments in *Terugkeer*. We quote TG at length in translation from the original publication in Dutch:

The most important fact, namely the removal of the dentures after arrival in the hospital, before the continuation of the resuscitation that had been started by the ambulance personnel, most certainly did not take place at a time that there could have been any form of consciousness.

At arrival [at CCU], Mr. B was transferred from the ambulance and taken over by us, placed upon the resuscitation bed, turned on his side so as to position the heart massage pump [Thumper], and turned on his back again. Next, while standing at the head of the bed, I prepared to install the ventilation mask at which point I saw the dentures *and* 

immediately removed them from the mouth of the patient. Only after the mask had been put in place, only then the Thumper was switched on, so only at that moment the resuscitation process was resumed.

At arrival in the [CCU] department [the patient had] wide lightstiff pupils, signs of serious oxygen deprivation in the brain, no heart rhythm capable of maintaining the pump function, but instead ventricular fibrillation. The transport of the patient from the moment of his arrival at the hospital up to the moment of [his] arrival at the [CCU] took more than five minutes. During that period the ambulance nurse could only run beside the gurney; hence resuscitation was hardly possible. It was only tried to maintain some ventilation. In the old Canisius Hospital the distance between First Aid, where patients arrived, and the CCU was considerable. One even had to take an elevator to the third floor as it was there where the CCU was located. So, much precious time was lost to reach the CCU and next resume the resuscitation procedure. Between the lifting of the patient from the gurney onto the bed, the installation of the heart massage pump, and the factual resumption of the resuscitation, much time was lost, certainly more than a minute.

In that period no resuscitation took place and there was definitely no blood circulation. The dentures—and I say this with strong emphasis—were removed from the mouth before the heart massage machine was switched on. So it was impossible that Mr. B would have been conscious and could physically have done the observations of his surroundings as Woerlee alleges he [Mr. B.] had done. Besides, as far as I know nobody has ever been conscious when his pupils did not react to light. In addition, to me it seems farfetched that during the resuscitation Mr. B would have done observations of his surroundings in the very brief moments that I opened his eyes to check his light-stiff pupils. (TG, 2008, p. 8; italics and bracketed material added)

So, once again, it is quite clear that Woerlee's assertion has no ground in fact. His assertion was that shortly after the patient had been brought in, the Thumper was placed on the breast of the patient and switched on, which resulted in sufficient blood flow and a restoration of consciousness to the extent that patient B "felt" how his dentures were taken out, "heard" how they were put on a wooden shelf of the crash cart, and soon afterwards "saw" his surroundings, the face of nurse TG, etc. This assertion, then, does not square with TG's testimony. Truly, we find it somewhat strange that Woerlee either overlooked or simply ignored TG's statements in this regard.

# Woerlee's Assertion Regarding the Patient's Highly Accurate Reconstruction of Events Entirely from Conscious Sensory Perceptions

The assertion that Mr. B could have constructed a highly accurate mental image of his resuscitation procedures on the basis of conscious auditory and visual perceptions is the part of Woerlee's argument that surprises us most. To reveal the error in it, we return to the translated account of TG:

That during resuscitation Mr. B could have made observations when I opened his eyelids seems very farfetched to me. Every time when I checked the pupil reflex and size it appeared that the pupils remained wide while not responding to the light.

The description of the room which Mr. B gave was from a point of view located in the upper left corner in the resuscitation room and, therefore, could not possibly have been due to my opening of his eyelids to check the pupil reflexes. The details he described could only be given if indeed he actually had had an OBE and thus saw himself and the reanimation team from a totally different perspective than from the bed onto which he had been laid. (TG, 2008, p. 8)

To this testimony we would like to add the following. Woerlee said that Mr. B could see during the very brief moments when his pupil reflexes were checked. First of all, there were no reflexes. Hence, Mr. B's eyes did not respond to the *intense* light that was shone into the eyes, so in actual fact, they—and he—did not see. But secondly, if indeed there could have been a response to the beam of intense light, then this would have resulted in a purple stain blocking the view; readers who are unable to imagine this effect are invited to reenact it. Once again, with such a retinal afterimage, Mr. B would have had no chance of seeing anything and certainly not in detail. But thirdly, the range of view would have been so limited that it would have been impossible to get the overall view of the resuscitation room as patient B later described it. We conclude that these four points alone make Woerlee's assertions untenable.

Another of Woerlee's assertions is that blind people can construct an accurate mental picture of their surroundings simply by listening to ambient sounds. We do not question this possibility when it concerns people who have been blind all their lives or at least for a very long time—time enough to develop the considerable skill involved in such an ability. So perhaps *some* of these people are able to

build the aforementioned accurate mental picture, but certainly not all of them—and most certainly not someone who had no experience with such a sophisticated process! Besides, one of us (Smit) has an acquaintance, an academic, who became totally blind 30 years ago and who, despite three decades of experience, is still not capable of orienting himself on the basis of sounds, let alone capable of describing the properties of objects if no one has given him a hint. It is reasonable to assume that most people who are not blind—let alone a person lying on a resuscitation bed not even on the verge of consciousness—would hardly be capable of accomplishing such a remarkable feat as to accurately describe a detailed scene of something as unfamiliar as a resuscitation procedure.

One of us, Smit, has challenged Woerlee a few times via e-mail to set up a simple experiment. Just ask 10 people to sit in a room, blindfold them, and let someone else carry out a few actions. Let that person make some noises with objects, and so on. Then ask those 10 people to make a mental picture of what had happened there and describe it. Every experimental psychologist will tell you that you will get 10 different descriptions and none of them accurate. Woerlee never responded to this challenge.

Yet Woerlee has apparently retained the sincere belief that Mr. B, despite having been in a very dire situation—on the verge of real death and hardly if at all conscious—did accomplish a feat of which any fully conscious professional mentalist would be proud. But, whatever Woerlee may think and assert, given the fact that patient B was most certainly not conscious—in the usual sense, that is, from a materialistic point of view—at the time when his dentures were removed from his mouth, this one central observation remains inexplicable, namely: the crash cart and its wooden shelf upon which the dentures were laid. We do not need any experiment to establish that patient B saw this cart in detail which, given the situation he was in, would have been physically impossible. For the sake of completeness, let us translate in full the relevant parts of the interview one of us, Rivas, had with nurse TG:

T(itus) R(ivas): Was it not general knowledge in those times, like "well, when you are in the Coronary Care Unit you will find such a crash cart"?

TG: No, no, certainly not. They weren't there in those days.
Instead, we carried a defibrillator and a monitor in our hands. We did not run off with that cart, through the ward or wherever.

- TR: So usually patients never saw such a cart, unless they were in that specific room of the CCU?
- TG: Yes, but we never ever conducted any guided tour in that room.
- TR: Neither was it mentioned in the general brochure of the hospital, like this: "If you happen to be in the CCU, you will see this and that."?
- TG (laughing): No!
- TR: With a beautiful picture of the crash cart?
- TG: No no! I can say that with certainty. He (patient B) could never ever have seen it anywhere else, also not in the ICU. The thing was built by [the technical staff of] the hospital, for that function alone, in that particular room.
- TR: To what extent is the next possibility conceivable? Patient B has seen nothing, but purely based on auditory stimuli, i.e. the noises produced by that crash cart, he has formed a visual image of that cart. What would you think?
- TG: Seems very unlikely to me, because on the basis what he said it came across as: "You have seen that cart, period." And how he described the wooden shelf upon which I laid the dentures. Due to the noise he could have heard that there was something upon which bottles had been clattering. That could have been the case. But that he was capable of describing a pulled-out flat wooden shelf, upon which I laid the dentures. . . . That really was something!
- TR: That shelf had not been pulled out at that very moment?
- TG: No, it was already there because I had laid there the syringes, ready for use. You know, we were informed that a resuscitation was coming along. So we were preparing things. The wooden shelf was pulled out, and I placed the syringes upon it. Hence the description by the anaesthesiologist [Woerlee]: "It was a crash cart with a metal drawer, and one can hear its opening and closing" was wrong. It was not a metal drawer; it was a flat wooden shelf, nothing else. A very simple, flat wooden shelf located underneath the tabletop.
- TR: So that anaesthesiologist may have had a modern crash cart in mind?
- TG: Yes, as they are nowadays. But this was a very simple, converted metal kitchen cart, made of chromium tubes with two shelves on them, and the upper shelf was divided in square compartments, wherein bottles and ampoules were clattering.
- TR: Thus the detail of his [patient B's] description of this "proto crash cart" cannot be explained simply by having heard the sounds?
- TG: Certainly not by hearing. He said: "There are all bottles on [that cart] and you are laying the dentures upon the shelf."

Yes, and he describes this from a position above the metal cupboard—which already indicates that he was able to see, from above, what was on that cart. From the bed it would have been impossible, because there he was in a much lower position and thus could not have seen what was on the cart.

TR: That clatter [of the bottles] he could have heard physically, but that was not sufficient for reconstructing an image of the cart?

TG: Not to reconstruct [an image of] the crash cart. Of course, one could have inferred: "there are bottles," because that one will hear. But you cannot infer from the clatter: "There is a wooden shelf upon which one has laid my dentures." Because I could have deposited it elsewhere. But that shelf was the only spot where I could have deposited it with some ease. Otherwise it would have been between the bottles and the ampoules, but of course one would not do such a thing.

In our view, this part of the detailed interview makes abundantly clear that Woerlee's reconstruction hypothesis falls short of reality.

# The Pain in the Patient's Chest Caused by the Thumper

The fact that patient B reported remembering the pain of the Thumper during his resuscitation is perhaps the only occasion where Woerlee may have a point, in the sense that we do not have a ready explanation for this phenomenon that, to our knowledge, is unique.

Indeed, at a certain moment in time during the resuscitation procedure, the patient was in such a state that apparently he could *physically feel the pain* caused by the Thumper. Nevertheless, at the same time he was viewing the entire resuscitation scene from the upper left corner, hence near the ceiling, in the resuscitation room during his OBE. We already acknowledged having no ready explanation for this double experience—but let us offer some thoughts.

According to TG the pain occurred at a moment when, from a conventional neurological point of view, the patient still could not have experienced anything. The reason for the patient's incapacitation is that—whatever Woerlee may say in this regard—the laboring Thumper could not, at this moment in time, have provided sufficient blood circulation to support physical conscious experience. Hence, for the nurse the pain was truly inexplicable.

In our view, a possible explanation of this perception could be that

the pain was not normal physical pain but was a purely psychogenic pain experience triggered by the patient's extrasensory perception of the activity of the Thumper. This hypothetical phenomenon may be compared to psychogenic sensations that people have in response to hypnotic suggestion (Whalley & Oakley, 2003) or the reliving of painful events during other altered states of consciousness such as dreaming. In other words, patient B probably did not experience actual physical pain but a (presumably rare type of) psychogenic pain that was based on his idea of the kind of pain the Thumper would cause on his chest. Thus, the pain was not processed by the physical brain but was instead part of the "extra-cerebral" consciousness that the patient experienced during the absence of cortical activity. In other words, it was just an illusion, albeit a very unpleasant one.

If we assume that TG was mistaken about the extent to which cortical activity had not been restored while the patient was feeling the pain linked to the Thumper, the experience might be seen as a mixture of both an actual OBE and normal sensory sensations. In that case, the patient would have simultaneously experienced two different kinds of informational input—both extrasensory input as well as from the body—which gave him the impression of being outside and inside his body at the same time. Another NDEr, a then-medical student and now physician, reported this dual form of consciousness under different near-death circumstances that did not involve cardiac arrest or her physical body being unconscious: After an emergency airplane landing on an ice floe in a Canadian lake, while swimming to shore in the frigid water, she reportedly perceived simultaneously from both the physical and the out-of-body perspectives (Kason, 2008). Her case adds to the evidence that the relationship of consciousness to the physical body is not necessarily a matter of "either in or out;" it may sometimes be both.

Thus it may be that patient B's chest pain was extrasensory psychogenic pain that was part of the OBE or was physiological pain simultaneous with a coexisting OBE. We consider these two explanations plausible enough to account for patient B's pain.

#### Conclusion

To summarize: As for points 1, 2 and 3, Woerlee was and is clearly wrong. As for point 4, Woerlee's explanation seems plausible but does not fit the data, although he makes much of this matter on Skeptiko .com. And on this latter subject we offer the following note. Woerlee

is active on various Internet fora where NDEs and OBEs are discussed. For example, on Skeptiko.com he discussed at length the case of the dentures man but, unfortunately, in a way not taking into account our views, let alone the views of TG. Also we consider it a great pity that he downgrades the quality of his opinions about NDE by making disdainful remarks such as, "This book [Jeffrey Long and Paul Perry's (2010) Evidence of the Afterlife] is not science. It is simply fodder for the uncritical followers of the NDE sect" (Woerlee, 2010; bracketed material and italics added). From this remark, we conclude that he also considers us, as well as the entire IANDS, to be followers of some kind of religious sect—which of course we consider to be total nonsense. We truly wonder how an approach we consider to be so negative and contemptuous would be reconcilable with a fruitful debate based on mutual respect.

We could have said much more about Woerlee's opinions regarding the dentures anecdote, and we particularly invite inquiries from any readers interested in a more detailed discussion of the matter of Mr. B's condition while he lay in the field. But the crux of the whole matter is the question of whether patient B could have been conscious in the usual sense when his dentures were removed from his mouth. TG's detailed statements reveal extensively that Mr. B was *not* conscious at the time, so Woerlee's explanations do not hold.

For us this is the end of the matter. We consider it fruitless to delve further into this debate, simply because by now everything that could be said about the case seems to have been said. Gerald Woerlee clearly has gone to great lengths to neutralize the main aspects of the case, but even after several of his attempts, the real anomalous core of the case stands perhaps more clearly than ever before. Our analysis of the case demonstrates that it really is impossible to explain all aspects of the case in a way that is compatible with mainstream, materialistic neuroscience.

Only one escape route remains for the hardnosed skeptic, namely to dismiss the case out of hand as nothing more than an outlandish and literally incredible anecdote. However, we hope that Woerlee won't choose this way out, because it would invalidate all of his efforts to show that the case can be completely accounted for in normal neurological and psycho-biological terms.

Given the facts of the case and the reliability of TG, we can only take his testimony seriously and draw one conclusion: that both patient B and he witnessed something truly extraordinary.

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#### References

- Fenwick, P., & Fenwick, E. (1997). The truth in the light. New York, NY: Berkley Books
- Kason, Y. (2008). Farther shores: Exploring how near-death, kundalini and mystical experiences can transform ordinary lives. Bloomington, IN: iUniverse.
- Long, J., & Perry, P. (2010). Evidence of the afterlife: The science of near-death experiences. New York, NY: HarperCollins.
- Rivas, T. (2008). Een gesprek met TG over de man met het Gebit [A conversation with TG about the man with the dentures]. *Terugkeer*, 19(3), 12–20.
- Smit, R. H. (2008). Corroboration of the dentures anecdote involving veridical perception in a near-death experience. *Journal of Near-Death Studies*, 27, 47–61.
- TG. (2008). Commentaar op Woerlee door A-verpleegkundige TG [Commentary on Woerlee by registered nurse TG]. *Terugkeer*, 19(4), 8.
- Verdegaal, D. (n.d.). The final frontier: The story of David Verdegaal, UK. Retrieved from http://www.finalfrontier.org.uk/index.php?main=13&sub=2&page=17
- Whalley, M. G., & Oakley, D. A. (2003). Psychogenic pain: A study using multidimensional scaling. *Contemporary Hypnosis*, 20(1), 16–24.
- Woerlee, G. (2010). Comment. Retrieved from http://www.skeptiko.com/94-jeffrey-long-near-death-experience-research/