

# Corroboration of the Dentures Anecdote Involving Veridical Perception in a Near-Death Experience

Rudolf H. Smit

*Merkawah Foundation, IANDS/The Netherlands*

**ABSTRACT:** One of the most striking examples of near-death experience stories is the account of a clinically dead patient whose dentures were removed from his mouth prior to resuscitation, and which dentures were then lost. Days later the patient saw a nurse and told him that it was he who had removed those dentures. The patient was right, but he should not have known this information, because at the time the nurse had removed his dentures, the patient was clinically dead. Since publication of this account in a prestigious mainstream medical journal, speculations have abounded. In this article I describe the investigation I undertook to put these speculations to rest and the outcome of that investigation.

**KEY WORDS:** near-death experience; out-of-body experience; veridical perception; cardiopulmonary resuscitation.

One of cardiologist and near-death researcher Pim van Lommel's favorite anecdotes about a near-death experience (NDE) is the story of the comatose patient who was brought into a Dutch hospital and whose dentures were removed from his mouth and subsequently got

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Rudolf H. Smit is an Associate Member of the Board of Directors of the Merkawah Foundation, the Dutch branch of the International Association for Near-Death Studies. He is Editor of Merkawah's quarterly magazine *Terugkeer* ("Return" or "Coming Back") and webmaster of the organization's website. He thanks Vincent Meijers, Ruud van Wees, Ap Addink, and Pim van Lommel for their help in finding nurse T.G.; Titus Rivas for his most helpful additional input, thanks to his interview with nurse T.G.; and T.G. for his willingness to testify and give extra weight to his comments from 1994. Reprint requests should be addressed to Mr. Smit at Goudplevierstraat 87, 8043 JJ Zwolle, the Netherlands; e-mail: rhs@rudolfhsmit.nl.

lost in the chaos of the resuscitation process. Here is how van Lommel and his colleagues reported this anecdote in their 2001 *Lancet* article:

During a night shift an ambulance brings in a 44-year-old cyanotic, comatose man into the coronary care unit. He had been found about an hour before in a meadow by passers-by. After admission, he receives artificial respiration without intubation, while heart massage and defibrillation are also applied. When we want to intubate the patient, he turns out to have dentures in his mouth. I remove these upper dentures and put them onto the 'crash cart'. Meanwhile, we continue extensive CPR. After about an hour and a half the patient has sufficient heart rhythm and blood pressure, but he is still ventilated and intubated, and he is still comatose. He is transferred to the intensive care unit to continue the necessary artificial respiration. Only after more than a week do I meet again with the patient, who is by now back on the cardiac ward. I distribute his medication. The moment he sees me he says: "Oh, that nurse knows where my dentures are". I am very surprised. Then he elucidates: "Yes, you were there when I was brought into hospital and you took my dentures out of my mouth and put them onto that cart, it had all these bottles on it and there was this sliding drawer underneath and there you put my teeth." I was especially amazed because I remembered this happening while the man was in deep coma and in the process of CPR. When I asked further, it appeared the man had seen himself lying in bed, that he had perceived from above how nurses and doctors had been busy with CPR. He was also able to describe correctly and in detail the small room in which he had been resuscitated as well as the appearance of those present like myself. At the time that he observed the situation he had been very much afraid that we would stop CPR and that he would die. And it is true that we had been very negative about the patient's prognosis due to his very poor medical condition when admitted. The patient tells me that he desperately and unsuccessfully tried to make it clear to us that he was still alive and that we should continue CPR. He is deeply impressed by his experience and says he is no longer afraid of death. Four weeks later he left hospital as a healthy man. (van Lommel, van Wees, Meyers, & Elfferich, 2001, p. 2041)

It was only a matter of time before someone would pick out this anecdote and criticize it. The first such critic was Christopher French (2001):

An OBE can be defined as an experience in which a person seems to perceive the world from a location outside the physical body. One such anecdote was reported to van Lommel and colleagues during the pilot phase of their study by a coronary-care-unit nurse. Unfortunately, they do not report whether any attempt was made to corroborate details with the patient. On many previous occasions such attempts at corroboration have revealed that the evidence was not as impressive as it initially seemed (Blackmore, 1993). Blackmore

(1996, p. 780) lists several alternative non-paranormal explanations as to why people may sometimes seem to accurately describe events occurring during their NDEs. These include “information available at the time, prior knowledge, fantasy or dreams, lucky guesses and information from the remaining senses. Then there is selective memory for correct details, incorporation of details learned between the NDE and giving an account of it, and the tendency to tell a good story.” (p. 2010)

Given the facts that have been unearthed about this case, described below, it seems that both French and Susan Blackmore were wrong as far as this case is concerned.

Other authors published critical responses to the anecdote, but the one that struck me most was the critique that Dutch-Australian anesthesiologist Gerald Woerlee wrote in this *Journal*. Although he had not seen the original document, he explained the denture anecdote as follows, after first telling readers why he thought that all NDEs could be explained in terms of conscious observations by the patients:

Knowledge of all these things makes it possible to explain the veridical experience cited above (van Lommel, van Wees, Meyers, and Elfferich, 2001). The patient van Lommel and colleagues described was conscious as a result of efficient cardiac resuscitation. He could see and he could hear, because when resuscitation is this efficient, the senses of hearing and sight are restored. The residual effects of extreme oxygen starvation on his brain paralyzed him, making it impossible for him to move or speak, so he was unable to tell those resuscitating him to continue. The effects of oxygen starvation meant he felt no pain, and also aroused his OBE. He felt his dentures being removed, and he heard them being placed in a metal drawer; a metal drawer opening and closing makes a very typical sound, and metal bedside cabinets are standard hospital furniture in The Netherlands. His eyes were partially open, or were opened every now and then to check pupil size as an indication of brain oxygen starvation; so he was able to see his brother [that is, the male nurse] and others in the room. This is why he was later able to recognize people, as well as to describe the room. In addition, the sounds and the movements heard and felt during resuscitation also aided him in building a composite picture of all that happened during his resuscitation. After awakening, he was able to tell a composite story of all that happened during his resuscitation. So this ostensibly supernatural experience is actually readily explained by the functioning of the body, together with conscious and unconscious observations. (2004, p. 247)

Again, as with the statement by French, quite probably Woerlee is, at least partly, wrong.

In the Summer of 2007 I received an e-mail from Ruud van Wees, one of the four authors of the *Lancet* article, and also one of the five founders of Merkawah. He told me that he still had under his care a set of folders containing documents such as NDE stories and also the original interview with the nurse who had taken care of the patient whose dentures were removed while being resuscitated. Because all these materials are part of the archives of Merkawah, they had to be returned to the Board of Directors and stored under their responsibility. So I collected all those papers from van Wees and later took the opportunity to study the denture story carefully. As a result, I was able to provide the following corroboration of the denture story.

## Two Documents

The anecdote as published in *The Lancet* was based on two documents. The first document was an article dated August, 1991, and written by Vincent Meijers, the third author of the *Lancet* article (van Lommel et al. 2001) where his name appeared as Meyers. He based the article on an interview he had conducted with another nurse who was aware of the reanimation procedure of the patient whose dentures had been lost. Meijers's focus in this paper was NDEs in general, and he made only brief reference to the denture anecdote.

The second document was an interview transcript dated February 3, 1994. Ap Addink (A.A.), at the time a staff member of Merkawah Foundation who specialized in doing in-depth interviews with NDErs and other people, conducted this interview. On February 2, 1994, he spoke at length with the nurse who had removed the patient's dentures; at the nurse's request to protect his privacy, I will refer to him as T.G. The result was a densely typed document of 12 pages that contained a highly detailed account of what exactly had happened during the resuscitation of the patient, whom I will designate as B.

What follows are the most relevant parts from this interview with T.G., who stated that the experience he related was the most extraordinary one he had ever come across, so much so that he remembered every detail of it. It was also memorable because it happened during his first opportunity to act as the lead person of the first-aid cardiac arrest team. The strength of T.G.'s memory was borne out during the interview as A.A. asked him several times to repeat his account of certain parts of the entire event. There were virtually no differences, and T.G. told the story soberly, with the relevant details

only, and without embellishment. It should also be noted that prior to the dentures incident, T.G. had had some knowledge of near-death phenomena, because he had encountered patients who had told him about their NDEs during his nightly rounds as a nurse. However, he had never experienced an NDE himself nor encountered an NDE resulting from his own treatment of a patient.

### **Woerlee's Explanations Versus the Facts**

Following is a comparison of Woerlee's explanations and the facts as T.G. stated them. I present excerpts from A.A.'s interview with the nurse T.G. as translations from the Dutch original in which A.A. conducted the interview.

#### *Was the patient conscious?*

Woerlee wrote: "The patient van Lommel and colleagues described was conscious as a result of efficient cardiac resuscitation. He could see and he could hear, because when resuscitation is this efficient, the senses of hearing and sight are restored" (2004, p. 247). Was this patient indeed conscious? Here are the facts according to T.G.:

T.G.: I was on duty during a night shift, and together with two colleagues I was waiting for a patient who had been found in a meadow late at night, and who apparently had been lying there for a very long time. When the ambulance arrived the man had no pulse, was not breathing, and seemed clinically dead. But whilst not knowing how long the man had been lying there and also looking so young, the ambulance personnel had decided to start reanimation. Within half an hour he was brought into the reanimation room of our coronary care unit where we were waiting for him. That man looked more dead than alive.

A.A.: Had he during the reanimation opened his eyes now and then, to say something?

T.G.: No, no! Truly, the man was brought in more dead than alive. He even showed post mortem lividity [pale bluish discoloration] and we all had the feeling: what for heaven's sake are we doing here? because the man was ice cold, had been outside in that meadow for no one knows how long, and he looked very bad. He also had no pupillary reflexes whatsoever, which is a clear sign that the supply of oxygen to the head had stopped. During regular checking of the pupils there was no reaction either, and beyond the moments of

checking, his eyelids were closed, so he could not see. He was in such a bad condition that he was unconscious in any case. Thus he was unable to see.

A.A.: He had not given any sign that he wanted to say something?

T.G.: No!

A.A.: Nothing, absolutely nothing?

T.G.: No. After about 15 minutes of reanimation we all were convinced that we were working on a dead man. There was no life in the body. Then one gets the feeling: what am I doing here? This patient is actually dead. But after a very long time, and we were flabbergasted, he did get a little bit of heart rhythm and also a little bit of blood pressure, and he began breathing again, a little bit, that is. But he did breathe on his own! And, at long last, we could send him to the intensive care unit.

Later in the interview, T.G. repeated this part of the story while explaining why he and his colleagues decided to continue reanimation:

T.G.: During that reanimation we often thought: this man is truly dead, so let us stop. But because it was such a young man one continues nonetheless. And then, at a given moment, when one sees just a tiny bit of heart rhythm and one sees that there is an attempt to breathe again, then of course one does continue.... Also the fact that we had a junior doctor with us who did not dare to make a decision in the sense of, "Boys, let's stop – it is done and over with!" made us continue.

A.A.: So all of you thought it was useless to go on with this, but you went on with it anyway?

T.G.: Yes, we often looked at each other, and thus communicated that this made no sense. But we did continue anyway.

Thus, in contrast to Woerlee's conjectures, the statements above clearly indicate that the patient was not "conscious" during the reanimation procedure, at least not during the first 15 minutes or so. He seemed as dead as anyone could be. When medical personnel checked for pupillary reflexes, they found none, and beyond those checks the patient's eyes were closed all the time, up to the end. He also remained unconsciousness up to the moment that he was moved to the intensive care unit (ICU). Hence Woerlee's statement that "His eyes were partially open, or were opened every now and then to check pupil size as an indication of brain oxygen starvation; so he was able to see his brother [the nurse] and others in the room" (2004, p. 247) has no basis in fact.

*Did the patient feel and hear his dentures being removed and being placed in a drawer?*

Woerlee wrote: “He felt his dentures being removed, and he heard them being placed in a metal drawer; a metal drawer opening and closing makes a very typical sound, and metal bedside cabinets are standard hospital furniture in The Netherlands” (2004, p. 247). This description actually was not the case: Medical personnel removed the dentures at the very beginning of the reanimation procedure, when the patient was truly clinically dead, so he could not have felt that action. The nurse removed them in the reanimation room, but he did not place them in a metal drawer that he subsequently closed. In describing what actually happened, T.G. reported:

T.G.: The man was in his early 40s. He was found in a meadow near the village of Ooy, where he came from, as it appeared afterwards. He was heavily suffering from hypothermia; in hindsight this could have been his salvation, because people who are heavily hypothermic do not use much oxygen, and due to that they may get through very time-consuming reanimation procedures. When the three of us took over the reanimation, he was first put onto a bed. At the time when he had to be intubated so to as to apply artificial respiration, it appeared he still had his dentures in. So I took those dentures out and put them onto the crash cart, that is, a small cart that is always in that reanimation room and onto which all sorts of infusion bottles and medicines are placed. Yes, actually all you need for a reanimation can be found on that crash cart. The reanimation required, in all, more than an hour. In the end, the heart rhythm had returned, also some blood pressure, but respiration was still tiresome, but finally it was decided to send him to the intensive care unit for further artificial respiration.

A.A.: What did the reanimation procedure consist of?

T.G.: A very time-consuming heart massage [not only manually but also using a heart massage machine] as well as five episodes of defibrillation – in all, three quarters of an hour – and, of course, artificial respiration. So finally he began to breathe on his own, but that was not good enough, since his body had been acidified so much, due to lack of oxygen, that he had to go to the intensive care unit for further artificial respiration.

Note that the nurse put the dentures *onto* the cart. He did not put them into a drawer that he first opened and then subsequently closed. Instead, as T.G. described later in the interview, he put the dentures



onto an already extended *sliding shelf* – that is, a flat wooden plate sticking out from the cart – and he left them there, forgotten:

A.A.: This sliding shelf, did you pull it out? Could he have heard that?

T.G.: No, that sliding shelf was already pulled out. We used it for preparing syringes, bottles, that sort of thing. I distinctly remember to have smacked the upper and lower dentures upon that wooden sliding plate only to get rid of them and next continue with the intubation and reanimation. Later on the patient was transferred to the ICU, and apparently during tidying up the mess after the reanimation was done, those dentures got lost somehow. I have not seen them again.

This is important because it counters Woerlee's statement that the patient could have heard the sound of a drawer sliding open and clicking in again. Later in the interview, T.G. revealed another important detail when A.A. asked whether the patient had ever been in the resuscitation room before:

T.G.: This was [his] first ever admittance to the hospital and the resuscitation room. As for that crash cart, it is unique in the entire hospital. Nowhere else in the hospital was such a crash cart available.

After the job was done, T.G.'s night shift was over and he stayed home for five days. When he returned to the hospital he did not see the patient for another few days, so in all he had lost sight of the patient for more than a week – and to his knowledge the patient had never seen *him* at all!

A.A.: So you had lost him out of sight?

T.G.: So I had lost him out of sight. He had been continuously artificially respirated in the ICU. I had left my night shift and took my free days afterwards. After those days I came back, but was stationed in another department of the nursing ward, so not in the department where the "fresh" heart infarcts are admitted. Then I went to the revalidation department of that ward and there I saw, oh wonder, B., the patient! And, in hindsight, what had happened was that B. had recovered slowly but surely, and at a certain moment he asked where his dentures had gone! In the ICU nobody knew; they [the dentures] had not come with him after the reanimation had been completed and B. was transferred.

Now, at the beginning of my night shift I came into that department to distribute medicines, and I entered the room where B. lay in his hospital bed. He saw me and then said, in the flash of a moment: "Hey, yes you, you know where my



dentures are!" I looked at B. in exasperation. I was already surprised to see that he looked so well, but was flabbergasted that he recognized me, because the last time I had seen him he was still comatose! And his eyes had not been open, except for the times when I checked his pupillary reflexes [those pupils had given no reaction whatsoever]. I said: "How do you know that?" He said: "You were there when I was brought into the hospital, and you removed my dentures from my mouth and put them upon that cart that was there." And he described the cart exactly as it was: "Yes, there were all sorts of bottles on it, and it did rattle a lot, and there was also a sliding plate upon which you put the dentures."

Apparently, T.G. had to disappoint B., because the dentures could not be found:

A.A.: Those dentures no longer occupied your mind?

T.G.: No, because the patient had been transferred elsewhere, and it happened that during that night my night shift ended. And then you no longer think about such things as dentures. They are so unimportant at the time. So I had forgotten all about them.

T.G. also told A.A. that a closer investigation in the ICU had revealed that B. had apparently had a truly massive heart infarct before he was found, more dead than alive, in the meadow. Therefore it was unthinkable to find him so well recovered. Once again he returned to the fact that B., while clinically dead, had seen the crash cart and in particular the flat sliding shelf: "It was in fact a very inauspicious, ramshackle thing, but he had seen it, and he had also seen the dentures upon it."

During T.G.'s conversation with him, B. described the resuscitation room in detail. It was a very small room. At the right side of the bed was a small niche containing a wash basin, with disinfectants and related things. Next he could also describe where a mirror was. At the left side was the cart containing various equipment. There was also a narrow metal cabinet wherein infusers and infusion pumps were stored. Apparently B. could remember everything perfectly well.

A.A.: (repeating the question): He had never before been there?

T.G.: He described everything in detail and also the persons who, at the time, were working on him.

A.A.: How did he describe them?

T.G.: Their appearance: of a [female] nurse who looked so and so, and to me: "I saw you; you were doing the heart massage on me. And I wanted to tell you all the time: 'Ouch, stop doing this because it hurts so much! I am still here; my heart does not

stand still! I am alive!' But you did not hear me." Yes, those were the things he was telling me, and truly this made my eyes roll out of my head, and my ears flap, because these were exactly the things that had happened! He himself apparently had the feeling that everything was functioning well.

A.A.: Can you tell me how he saw himself? Did he see his own body from a certain vantage point in the room?

T.G.: He described this as seeing his body lying on the bed. He found that very strange. He saw his body from the spot where that steel cabinet was, and that was in the corner of the room. He also said that he was floating above us and saw us being busy with his body. But at the same time he also saw me sitting on top of him, and he also felt that. He had truly felt the pressure on his body and the pain it caused.

A.A.: He felt you sitting upon him?

T.G.: Yes, indeed he felt me sitting upon him. I certainly did that while administering heart massage. But we also made use of a heart massage pump. And that is a machine that causes enormous pain. And that is what he told me. He felt the pain, and did try to tell me that. But I saw no reaction in his body; his eyes were shut and during checking the pupils they did not show any response, let alone any sign of fear.

This is quite remarkable: The patient described an out-of-body experience, floating above and seeing everything happening from a certain corner in the room. But at the same time, despite his being in a deep coma, he felt the physical pain of the heart massage.

A.A.: Did he express his astonishment about what had happened to him?

T.G.: Not at all. It was truly amazing that he told all this so matter-of-factly, so down-to-earth. He certainly was not a woolly thinking person, whose fantasy had run wild.

A.A.: What was his vocation?

T.G.: Steel bender, I believe.

A.A.: Certainly a down-to-earth vocation.

Four weeks after admission to the hospital, B. went home, and T.G. never talked to him again. In hindsight, he regretted very much that he had not tried to maintain contact with B. At the time, the Merkawah Foundation also tried to trace B., but to no avail. Apparently he had moved out of the area.

According to T.G., medical personnel made no mention of this NDE in B.'s medical record; but that is not surprising because in the years when the case of patient B. occurred, personnel never recorded such phenomena. However, T.G. did talk about the case to his colleagues, who were vaguely surprised but shrugged it off, with the apparent

exception of a colleague K.B., who was responsible for bringing the story to the attention of Meijers.

### Recent Follow-Up

Although A.A.'s report was highly detailed and extremely interesting, it did not satisfy me, because there remained a few problems. Although it corroborated the dentures story in *The Lancet* rather well, it also contradicted that story in small but fairly important ways. The *Lancet* article reported that the patient desperately wanted the reanimation team to go on at all cost because he was afraid to die if they stopped the procedure. But in A.A.'s account, the patient made no mention of having felt afraid to die. Rather, he *wanted* the team to stop because he felt that he was alive and physically functioning well and because he wished the physical pain caused by the heart massage machine to cease.

In an attempt to reconcile this contradiction, I consulted Meijers's 1991 article. In it, Meijers cited K.B. as having reported that the patient had been desperately afraid that the team would stop resuscitation. Alas, Meijers told me he cannot locate the original transcript of his interview of K.B., so I'm unable to scrutinize that document for information that might further reconcile the discrepancy regarding the patient's emotions and wishes during the resuscitation.

Further seeking a resolution to this discrepancy, I decided to go back to the source. That process was easier said than done, because the dentures story had appeared for the first time 17 years prior to my investigation. In that first document, the article by Meijers (1991), the author cited K.B., a colleague of T.G., as the source. In the second document, the 1994 interview transcript, T.G. himself was the source. Thus, I searched the Internet and identified many T.G.s but not the one who was B.'s nurse during the resuscitation in question. However, I was able to locate K.B., who was still a nurse at the coronary care unit in a major hospital in the Netherlands. After some difficulty making contact, K.B. told me that he had never had anything to do with the whole event, except for having acted as a messenger between T.G., who had done the resuscitation, and Meijers. However, he was pleased to give me T.G.'s current telephone number.

So at long last, in April 2008, I was able to contact the elusive T.G. for a telephone interview. He was most forthcoming but also mightily surprised that his dentures story had not been forgotten and had been disseminated all over the world. He told me that, as a matter of fact,

over all those years the incident had never slipped away from his mind because it had made such an enormous impression on him; he stated that he could remember it as if it had happened the day before! He unhesitatingly confirmed a number of facts he had already mentioned in A.A.'s interview with him, and he was most anxious to help set the record straight, so as to remove all embellishments and misunderstandings about the dentures anecdote that might have emerged over time, including the conjectures by Woerlee in this *Journal* and allegations by other skeptics that it was nothing more than an urban legend. I arranged for a follow-up interview with T.G. by my collaborator, Titus Rivas, who subsequently had a long talk with T.G. and reported back to me the following facts.

The patient, B., from Ooy near the city of Nijmegen, had indeed been brought in on a cold night, more dead than alive, and had undergone the whole procedure as reported in A.A.'s interview with T.G., who was adamant in stating that B. had not shown any sign whatsoever of being conscious at the time. He was clinically dead, period: no heartbeat, no breathing, no blood pressure, and "cold as ice." The ambulance personnel had tried to carry out some reanimation while driving to the hospital, but without result. Most important, *immediately* after B. entered the hospital, T.G. removed the dentures from B.'s mouth and intubated him before starting up the entire reanimation procedure. Therefore, as T.G. categorically stated, *any "normal" observation by the patient of his dentures being removed from his mouth was simply unthinkable* [my italics].

In addition, the normal observation process could not have been the basis of the patient's detailed description of the crash cart as well as of the entire resuscitation room. Once again, T.G. was adamant in that regard, noting that patient B. had never before been in that hospital, let alone in this resuscitation room, and that this particular crash cart was absolutely unique, being a hand-made product of ramshackle quality that had been stationed in that resuscitation room only and nowhere else. To guess the precise nature of that cart and its contents on the basis of auditory impressions, or through briefly opened eyes characterized by fixed, dilated, unresponsive pupils, was impossible by all accounts. T.G. asserted that certainly it would have been impossible for B. to know precisely where T.G. had placed the dentures.

Rivas also asked T.G. about the fact that the patient experienced *physical* pain while simultaneously looking down from a *nonphysical* location near the ceiling. T.G. stated that at that point in time the

medical team would, indeed, have induced sufficient blood circulation to enable the patient to perceive physical pain. However, T.G. found this aspect of the situation strange, because at that point in the resuscitation procedures, the patient had shown no sign whatsoever of responding to normal sensory stimuli. T.G. surmised that, in all probability, the patient was experiencing normal physical pain sensation. Thus, B. appeared to be reporting information input from two different sources at the same time: from the physical body itself, and from an extrasensory source beyond the body, that is, the out-of-body experience.

As for the discrepancy between the two original documents regarding the way the patient responded to the external heart massage, T.G. said that this discrepancy was only seemingly the case. He described two phases of the reanimation. When patient B. suffered feelings of physical pain caused by the heart massage machine, he wanted the team to stop, because he felt he was alive and well, and thus continuing the painful treatment seemed unnecessary. However, after some time, when the team had been unsuccessful in achieving a sustained resuscitation and considered stopping procedures, patient B. was aware of that development and desperately wanted them to continue. Of course, in both phases the team was not aware of B.'s desires while in his out-of-body status near the ceiling of the room.

According to T.G., B. was a very down-to-earth steel bender who most probably did not even understand that he had had an NDE, including an OBE. Certainly at the time when his medical crisis occurred, the general public in the Netherlands was mostly unaware of near-death phenomena.

T.G. told both me and Rivas that after B.'s discharge from the hospital, T.G. had seen him only once again from a distance when B. came to report to the hospital for a check-up. At that time B. did not look healthy. On the contrary, T.G. said that B. looked like a "cardiac cripple" as a result of his massive heart attack. Indeed, a few years later T.G. saw a death notice in a newspaper stating that a B. from Ooy had died.

As a final comment, with his three decades service as a nurse in the coronary care unit and as a highly experienced paramedical staff member with respectable practical and theoretical knowledge in this field, T.G. is, in my opinion, a highly credible source. I also consider it important to note that, because B. experienced the OBE while clinically dead, his experience was an NDE even though it did not include a tunnel, light, a life review, or other features that other NDErs have sometimes reported.

## Discussion

In many details, this story of veridical perception during an in-hospital NDE, as corroborated by the eyewitness testimony of nurse T.G., does not concur with the accounts given by commentators French (2001) and Woerlee (2004). However, the two authors raised an interesting point regarding the fact that the comatose patient did, at a later stage in the resuscitation process, feel intense pain from the heart massage machine. So it seems that the patient was, indeed, at least to some degree, physically consciousness during the later stages of the process. Nonetheless, the patient's eyes were closed from the time he arrived comatose at the hospital until after his transfer to the ICU except when medical personnel opened them occasionally to check for pupil response and found none, indicating that even then he could not see. Yet the patient described having had an out-of-body experience throughout the resuscitation process during which he had a clear and detailed overview of the resuscitation room. His memory of the room was so complete that, a week later, he recognized nurse T.G., a member of the resuscitation team, and described the room in detail, including the sliding wooden shelf upon which nurse T.G. had laid the patient's dentures.

As for French's (2001) remarks, let us consider them line by line. French wrote: "Unfortunately, they do not report whether any attempt was made to corroborate details with the patient" (p. 2010). Evidently some investigators did make attempts, but they could not find B., probably because he had already died.

French (2001) continued: "On many previous occasions such attempts at corroboration have revealed that the evidence was not as impressive as it initially seemed (Blackmore, 1993)" (p. 2010). That may have been the case for those previous occasions but certainly was not the case regarding this incident.

Finally, French (2001) concluded:

Blackmore (1996) lists several alternative non-paranormal explanations as to why people may sometimes seem to accurately describe events occurring during their NDEs. These include 'information available at the time, prior knowledge, fantasy or dreams, lucky guesses, and information from the remaining senses. Then there is selective memory for correct details, incorporation of details learned between the NDE and giving an account of it, and the tendency to tell a good story.' (p. 2010)

Again, those explanations may be considered in other cases but not in this one: The patient, B., had no information available at the time; he had no prior knowledge of the hospital or the reanimation room; fantasy and dreams would be ruled out by his comatose state and would not explain the accuracy of his perceptions; lucky guesses would be highly unlikely to produce such unusual statements and identifications; selective memory cannot explain the facts of this case; and “tendency to tell a good story” was contradicted by the consistency and lack of embellishment in the interview of A.A. and the follow-up interview many years later, which reflected rather down-to-earth statements of the facts.

In conclusion, the story as related in *The Lancet* corresponds well with the account corroborated here by the eyewitness testimony of nurse T.G. The patient B. appeared to have had an NDE OBE and was not sufficiently aware of the environment he was then in to have perceived by normal means the removal and storing of his dentures. But of course the event happened too long ago to permit corroboration now of all the relevant details, and although the evidence includes the first-hand testimony of an important and reliable witness, it does not include an interview with the patient himself.

The main purpose of this article was to set the record straight as to the facts of this case, while admitting that this case cannot constitute definitive proof of continuation of consciousness, let alone survival of death. But it does provide corroborating testimony that something extraordinary happened at the time, an event that should not be dismissed out of hand as a ridiculous story made up by naïve believers.

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# Response to “Corroboration of the Dentures Anecdote Involving Veridical Perception in a Near-Death Experience”

Gerald M. Woerlee, M.B.B.S, F.R.C.A.

*Leiden and Leiderdorp, The Netherlands*

**ABSTRACT:** In this article, I address some of what I consider the inaccuracies and false assumptions in a recent article in this *Journal* entitled “Corroboration of the Dentures Anecdote Involving Veridical Perception in a Near-Death Experience” (Smit, 2008). I provide a medical explanation of how it was possible for the man reporting this remarkable NDE to have survived his period of cardiac arrest and how it was possible for him to have undergone an NDE. More importantly, I discuss how it was possible for this man to have undergone the truly unusual perceptions of feeling pain in his chest due to cardiac massage at the same time as his consciousness was displaced out of his body during an out-of-body experience.

**KEY WORDS:** near-death experience, out-of-body experience, resuscitation, veridical perception, dentures

An article by Rudolf Smit (2008) in this *Journal*, entitled “Corroboration of the Dentures Anecdote Involving Veridical Perception in a Near-Death Experience,” was an extensive discussion of a well-known veridical NDE. This is an important NDE, because it is one in which an extensive interview with the head male nurse (TG) present during the resuscitation of “the man with the dentures” was recently published (Rivas, 2008), supplementing the information in the article by Smit (2008) and another by the male nurse (TG, 2008). These publications make a detailed analysis of this remarkable story possible.

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Gerald M. Woerlee, M.B.B.S. (West Australia), F.R.C.A. (London), is an anesthesiologist affiliated with the Rijnland Hospital, Leiderdorp, The Netherlands, as well as an associate professor of anesthesiology at the Leiden University Medical Centre, Leiden, The Netherlands. Reprint requests should be addressed to Dr. G. M. Woerlee, Kagerstraat 4, 2334CR Leiden, The Netherlands; e-mail: gerry@woerlee.org.

Professor Christopher French (2001) and I first learned of the dentures anecdote in the *Lancet* article published by Pim van Lommel and his co-workers in 2001 (van Lommel, van Wees, Meyers, & Elfferich, 2001). Their article contained only a very summary account with no indication of the year in which the event took place, where it took place, as well as many other details. This was the only information French (2001) and I (Woerlee, 2004) had on which to base our explanations of this report. As regards my explanation, I made it using the assumption of standard medical practice in Dutch hospitals during the period 1990 to 2000 (Woerlee, 2004), as well as from my personal experience as an anesthesiologist, resuscitating cardiac arrest patients in The Netherlands since 1980. In his *Lancet* editorial, French (2001) made a very relevant comment about the corroborating evidence for reports as superficially wondrous as that of “the man with the dentures:” “On many previous occasions such attempts at corroboration have revealed that the evidence was not as impressive as it initially seemed” (French, 2001).

Unfortunately, the superficially extensive account in the article by Smit (2008) does no more than reinforce the hopes of those desperately searching for proof of a consciousness that is somehow immaterial, separable, and independent of the human body. Titus Rivas, a Dutch parapsychologist, recently published an extensive transcript of an exhaustive interview with the head male nurse named by his initials TG, who was present at the resuscitation of the patient called Mr. B. (Rivas, 2008). Subsequently, TG himself supplemented this transcript (TG, 2008). All this material provides sufficient information to explain this patient’s story. So what are the basic medical facts supplementing the incomplete story given in Smit’s (2008) article?

On a cold day at the end of 1979, a passerby discovered Mr. B. lying apparently unconscious in a field near the village of Ooij in the region of the city of Nijmegen, The Netherlands, and called an ambulance. The ambulance personnel found an ice-cold, unconscious, 44-year-old man and began cardiopulmonary resuscitation (CPR). During the CPR, they attached electrocardiogram (EKG) electrodes and found he was in a deadly heart rhythm called ventricular fibrillation. During ventricular fibrillation, the whole heart twitches uncontrollably and does not pump any blood around the body. At normal body temperatures, failure of the pumping action of the heart due to ventricular fibrillation causes loss of consciousness within 20 seconds, brain damage starts to develop after four minutes, and death is inevitable after 12 minutes. Accordingly, the ambulance personnel administered a

powerful electrical shock (defibrillation) to try and convert the heart rhythm to a reasonably normal rhythm. They were unsuccessful, and still continuing CPR, they transported Mr. B. to the resuscitation room of the cardiology unit of the Canisius Hospital in Nijmegen.

TG noted when he first saw Mr. B. in the resuscitation room of the hospital: that Mr. B. had corpse-like blue and blotchy skin, as well as the wide open nonreactive pupils, blue nails, and lips typical of a person with severe oxygen starvation; was ice-cold to the touch; was unconscious and did not react to anything; and was still in ventricular fibrillation. The medical team rapidly placed him under a mechanical heart massage device that performed the work of cardiac massage for them—most likely the “Thumper,” a mechanical heart massage device made and sold by Michigan Instruments since the 1970s. CPR was continued with the aid of this device, during which the team administered various drugs and regularly administered electrical shocks to Mr. B.’s chest to convert his heart rhythm from ventricular fibrillation to a rhythm that pumped blood. Mr. B. had dentures, and these were removed and placed upon a wooden shelf of the “crash cart” before continuing artificial respiration as part of the CPR.

Mr. B. remained totally unresponsive, unconscious, and unmoving during the resuscitation, during which TG regularly looked in his eyes to check the sizes of his pupils—a measure of brain oxygen starvation. TG was assisted by two female student nurses. The treating physicians and TG continually communicated with each other and, at one point, debated whether to continue the resuscitation. Finally, after about 90 minutes, they succeeded in establishing a reasonably normal heart rhythm, and Mr. B. was transferred to the intensive care unit while still apparently unconscious and requiring mechanical respiration.

After several days in the intensive unit during which he regained both the ability to breathe and consciousness, Mr. B. was transferred to the cardiology ward. One day he saw and recognized TG as the nurse who had removed his dentures during his cardiac resuscitation. During his interview with Rivas (2008), TG remarked that his own voice had a unique tone and was easily recognizable, a fact that Rivas confirmed. On the cardiology ward, TG spoke with the patient who informed TG that he had an out-of-body experience (OBE) shortly after admission to the resuscitation room. During this OBE, he saw the room from a vantage point outside his body, saw TG removing his dentures and placing them on a shelf, saw two female nurses whom he could not describe, saw the medical team resuscitating him, heard

them discussing whether to cease resuscitation, and even tried telling them to continue. Most surprising of all, he told of feeling severe chest pain from the cardiac massage machine at the same time as his consciousness observed all this activity happening from a vantage point outside his body.

Mr. B. was finally discharged from the hospital without any evident neurological damage. The final diagnosis was that Mr. B. had suffered a massive myocardial infarction (heart attack), which was why he fell down while walking in the field near his home village of Ooij.

TG was adamant in all interviews that Mr. B. had all the signs of “clinical death,” which is why he was certain that Mr. B. could not have seen him to recognize him, could not have observed him removing the dentures, and was not in a position or condition to have seen the room as he described it (Rivas, 2008; Smit, 2008; TG, 2008). In my original response (Woerlee, 2004), I provided medical explanations for these events. Smit (2008) called my explanation of these observations “conjectures” (p. 52). However, a cursory perusal of the facts presented in the summary of the story of the reports of Rivas (2008), supplemented by the extra information provided by TG (2008), immediately reveal sound medical explanations for these facts based upon the functioning of the human body—explanations proven by extensive clinical experience and human research. These explanations reveal the observations made by TG to be correct, but his interpretation to be conjecture, because of failure to recognize the effects of low body temperature (hypothermia) on the clinical picture of Mr. B.

The pain of Mr. B.’s myocardial infarct, possibly followed by a short period of abnormal heart rhythm, caused Mr. B. to faint or fall in the field where he was found. Incapacitated by a malfunctioning heart, he remained where he lay, cooled down, and lost consciousness. It was in this condition that a passerby discovered him lying in the field. Readers should remember that in 1979 there were no mobile telephones (cell phones). This means that the only option for the passerby was to find and use a public telephone booth or a telephone in a nearby house. Accordingly, several minutes were needed to call the ambulance.

The distance between the village of Ooij and the ambulance posts in the hospitals in Nijmegen is 10–12 km (6–7.2 miles). At maximum speed on the roads in 1979, it would have taken about six minutes for the ambulance to drive from Nijmegen to Ooij. The ambulance personnel then had to walk from the ambulance to the man and assess the situation. Assuming all things went smoothly after being called, the ambulance personnel would not have been on the scene for at least 11

minutes. But no one saw this man fall down. The transcript tells only that the passerby saw this man lying in the field. Accordingly this man lay in the field for an uncertain period of time before discovery, after which his discoverer had to find a telephone and call the ambulance. So this man must have lain there for a time significantly longer than 11 minutes. Normal body temperature is 37 degrees Celsius. Since the 1960's, extensive medical experience has been acquired of the neurological consequences of cardiac operations performed upon people subjected to respiratory and cardiac arrest during the period of operation. This medical experience reveals that neurological damage occurs after 6–8 minutes of cardiac arrest at 28–32 degrees Celsius and after 30–60 minutes of cardiac arrest at 10–20 degrees Celsius (Sealy, 1989). Mr. B. was discharged from hospital without any neurological damage, so he could not have been in ventricular fibrillation between collapse and the arrival of the ambulance. After all, no blood is pumped around the body during ventricular fibrillation. Moreover, his body temperature would have been normal when he was walking on the field. So he collapsed in the field with a normal body temperature. This means he would have developed increasingly severe neurological damage after 3–5 minutes of ventricular fibrillation, a period far too short for any significant body cooling to have occurred. So he must have had a low normal heartbeat and circulation during the period between collapse and the arrival of the ambulance; otherwise he simply would not have survived this period without developing severe brain damage.

Clinical experience with people whose bodies cool to low temperatures, such as in the case of this man, shows they can retain consciousness and a normal heart rhythm, even at body temperatures as low as 21 degrees Celsius (Moser, Voelckel, Gardetto, Sumann, & Wenzel, 2005; Oberhammer, Beikircher, Hormann, Lorenz, Adler-Kastner, & Brugger, 2008). Paradoxically, it is the movements and ministrations of the rescuers that disturb the fragile balance of a hypothermic person's heart function to induce ventricular fibrillation (Moser et al., 2005; Oberhammer et al., 2008; Steedman, Rainer, & Campanella, 1997). So it was the efforts of the ambulance personnel to resuscitate this man that most likely induced the ventricular fibrillation subsequently observed. His hypothermic body was able to survive prolonged periods of little if any blood flow, because a hypothermic body consumes less oxygen than a normally warm body. After all, as everyone knows, cold meat stays fresh longer than warm meat. The same is true of the human body.

TG was correct when he said wide nonreactive pupils are a sign of brain oxygen starvation (Huet, Karliczek, & Coad, 1989; Steen-Hansen, Hansen, Vaagenes, & Schreiner, 1988), but hypothermia renders the value of this clinical sign uncertain (Mallet, 2002; Steedman et al., 1997). Furthermore, extensive experience with resuscitation of hypothermic persons reveals that a hypothermic person may appear dead to an observer because of reduced movements, wide open nonreactive pupils, blotchy corpse-like appearance, and ice-coldness to the touch. Thus, the signs of clinical death such as absence of breathing, absence of heartbeat, and wide open, nonreactive pupils are not accurate determinants of the actual clinical condition in hypothermic patients (Mallet, 2002; Moser et al., 2005; Oberhammer et al., 2008). Moreover, clinical practice shows that hypothermic people can survive prolonged periods of cardiac arrest without severe neurological damage (Mallet, 2002; Moser et al., 2005; Oberhammer et al., 2008). In fact, it is standard medical practice in emergency rooms to resuscitate hypothermic patients until they are warm before declaring them dead (American Heart Association [AHA], 2005b). This is the origin of the emergency room physician's adage regarding hypothermic patients: "You're not dead until you're warm and dead." So the remarks of TG about the clinical condition of Mr. B. were correct for people with a normal body temperature but were incorrect in the case of this hypothermic man.

Turning now to the subject of Mr. B.'s level of consciousness, clinical experience with hypothermic persons shows that consciousness can be maintained down to body temperatures as low as 21 degrees Celsius (Mallet, 2002; Moser et al., 2005; Oberhammer et al., 2008). Mr. B. was subjected to almost continual cardiac massage, initially by hand and later by means of a special machine in the resuscitation room of the hospital. Human research demonstrates that manual external cardiac massage is less effective in generating a flow of blood around the body than external machine cardiac massage with a "Thumper," which in turn is less effective than internal cardiac massage (AHA, 2005a). Reports of experiences with these three forms of cardiac massage applied to cardiac arrest patients show that some people do regain consciousness during cardiac massage for cardiac arrest applied by hand (Bihari & Rajajee, 2008), by means of a "Thumper" (Lewinter, Carden, Nowak, Enriquez, & Martin, 1989), as well as by internal cardiac massage (Miller, Davie, & Douglas, 1961). TG himself remarked that cardiac massage with the cardiac massage machine as used in the Canisius Hospital at that time was

sometimes so effective that some people regained consciousness, even though they had no heartbeat at the time (TG, 2008).

In other words, TG was saying that regaining conscious was possible and actually occurred during cardiac massage for cardiac arrest with this machine. External cardiac massage applied by hand or machine generates sufficient blood flow around the body (cardiac output) to sustain consciousness in about 20% of people undergoing cardiac massage for cardiac arrest (Woerlee, 2008, pp. 279–294). However such consciousness need not manifest as obvious movements or speech, because people undergoing cardiac massage for cardiac arrest are suffering from the effects of brain oxygen starvation. Brain oxygen starvation at a certain level does not cause loss of consciousness, but it does cause total paralysis of all movements during which people appear unconscious even though they are conscious (Rossen, Kabat, & Anderson, 1943). The mechanism of this apparent unconsciousness is presumably the same as that of the “locked-in” syndrome in which oxygen starvation of parts of the brainstem causes those affected to be totally paralyzed and appear unconscious even though they are conscious (Laureys et al., 2005).

Another piece of evidence for the likelihood that Mr. B. was conscious was the fact that he felt extreme pain in his chest due to the cardiac massage, even though he had no heartbeat at the time. There is even a known report of a person who regained consciousness during cardiac massage and who, in the absence of a heartbeat, required powerful painkilling medication to treat the pain of the cardiac massage (Lewinter et al., 1989). All these factors indicate that Mr. B. was conscious as a result of cardiac massage but was paralyzed due to the effects of oxygen starvation and hypothermia.

Because Mr. B. was conscious, he could hear what was being said and could feel the cardiac massage. This also means Mr. B. could feel his dentures being removed, hear them being laid upon a wooden surface, feel the shocks of the defibrillator, feel the mask and the artificial respiration, hear the voices of two female student nurses, hear the unique voice of TG, hear the medical team discussing whether to stop the resuscitation, and hear the sounds in the room including the sounds of ampoules and instruments. He also saw the face of TG who regularly looked into his eyes to check the sizes of his pupils. All these sensations enabled him to construct in his mind an image of the events of his resuscitation. Blind people do the same: They can give very good descriptions of the events in their vicinity as well as their surroundings (see extensive discussion in Woerlee, 2008,



pp. 114–117). This was how it was possible for this man to give such a good description of his surroundings and the events during his resuscitation. Moreover, after recovering normal consciousness, he was able to blend his perceptions into a coherent story.

How, though, do these factors explain his OBE? An OBE is not at all surprising in this situation, because human medical research has established that brain oxygen starvation induces abnormal sensations of body position due to its effects upon the brain (Horak, Nashner, & Diener, 1990, p. 306, in Van Liere & Stickney, 1963) and can even induce OBEs (Brugger, Regard, Landis, Oelz, 1999; Woerlee, 2009). Mr. B. felt the pain from the cardiac massage at the same time as he underwent an OBE, so it is clear that his consciousness was located inside his body. Aside from an extensive literature demonstrating that the OBE is a product of the functioning of the body, the most compelling evidence for the reality that the OBE is a product of bodily function is given by people describing their OBEs. They describe their consciousness as somehow separated from their physical bodies, reporting that this consciousness is able to pass through the human body in which it was housed, as well as through walls, windows, and roofs, without any apparent resistance. Moreover this consciousness is unseen, unheard, and cannot be sensed with any human sense or apparatus known to humankind. This common observation means that the separated consciousness has no interaction with physical matter or physical forces. This observation means that it is impossible for the separated consciousness during an OBE to hear sounds (see extensive discussion in Woerlee, 2008, pp. 264–66) or to see with light (see extensive discussion in Woerlee, 2008, pp. 120–123). These things mean the separated consciousness of a person is deaf to sound and blind to light. Yet people reporting their OBEs tell of hearing verifiable speech and/or seeing verifiable colors. So does the separated consciousness hear and see by means of paranormal abilities?

Unfortunately for many believers in paranormal abilities, the paranormal is an untenable hypothesis, because to invoke a paranormal explanation for the ability to hear with sound and to see with light would mean that the many millions of blind and deaf people now alive, and the many more that have lived in the past, would be more gifted with paranormal powers than people who are not so handicapped (see Woerlee, 2008, pp. 87–88). The only way to answer this problem is to conclude that the consciousness of people undergoing an OBE is firmly based within the physical brains of these people. Accordingly, a person undergoing an OBE perceives events in the vicinity of the

physical body with the physical senses of the body, and these perceptions are coupled to a sensation of displacement outside the body as well as an autoscopic hallucination of the body. The person subsequently remembers the totality of this experience and integrates it into the wondrous imagery of the OBE. This explains all the perceptions of the OBE of Mr. B.

In conclusion, it may be said that this report of “the man with the dentures” is similar in many ways to the veridical Pam Reynolds story as first published by Michael Sabom (1998), because careful analysis of the facts in the story strips away all fantastical and wondrous explanations to reveal the ways the human body generates the apparently wondrous sensations of the NDE and OBE (Woerlee, 2008, pp. 256–271). Consequently, Smit was more correct than he realized in the conclusion of his article:

The main purpose of this article was to set the record straight as to the facts of this case, while admitting that this case cannot constitute definitive proof of continuation of consciousness, let alone survival of death. But it does provide corroborating testimony that something extraordinary happened at the time, an event that should not be dismissed out of hand as a ridiculous story made up by naive believers. (Smit, 2008, p. 61)

Indeed, this was a remarkable story, but it is not a story providing evidence for the survival of consciousness after death, nor is it a story providing evidence for a separable and independent human consciousness. Instead, it is a report revealing much about how the functioning of the human body generates the remarkable sensations of the OBE and the NDE.

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