

## **Ikke-lokal bevidsthed**

### **Et begreb baseret på videnskabelige studier af nærdødsoplevelser**

**Pim van Lommel, kardiolog**

”At studere det unormale er den bedste måde, vi kan forstå det normale”. William James

Ifølge vores nuværende medicinske begreber er det ikke muligt at opleve bevidsthed under et hjertestop [eng. cardiac arrest], når blodomløb og vejrtrækning er stoppet. Men under en periode uden bevidsthed, som følge af en livstruende krise såsom hjertestop, kan patienter fortælle om en paradoksal tilstand med udvidet bevidsthed i en dimension udenfor vores normale begreb om tid og rum, med kognitive funktioner, med følelser, med selv-identitet, med erindringer fra tidlig barndom og nogle gange (uden brug af fysiske sanser) med oplevelser ud af og over deres døde krop. I mit foredrag vil jeg diskutere resultaterne af vores hollandske studie af nærdødsoplevelser (eng. near-death experience, forkortet NDE) hos 344 personer, der overlevede hjertestop. Studiet blev udgivet i *The Lancet* i 2001. Jeg vil se nærmere på de mange fælles elementer, der kan opleves under en nærdødsoplevelse, og deres konsekvenser for vores forståelse af, hvordan bevidsthed og hukommelse kan opleves udenfor kroppen i forbindelse med, at hjernen er midlertidigt ude af funktion. I fire af studierne med samlet 562 overlevende af hjertestop berettede mellem 11% og 18% af patienterne om en nærdødsoplevelse, og i disse studier kunne det ikke påvises, at fysiologiske, psykologiske, farmakologiske eller demografiske faktorer kunne forklare årsagen til og indholdet i disse oplevelser. Via mange studier med induceret hjertestop hos både mennesker og dyr er det blevet påvist, at hjernefunktionen er alvorligt svækket under hjertestop, med et fuldstændigt ophør af hjerneaktivitet, og det er påvist, at efter en meget kort periode (10-20 sekunder) ophører elektrisk aktivitet i både hjernebarken og i de dybere strukturer i hjernen. Så vi er nødt til at konkludere, at nærdødsoplevelser finder sted under hjertestop med et midlertidigt tab af alle funktioner i hjernebarken og i hjernestammen. Hvordan kan en klar bevidsthed udenfor ens krop opleves, når ens hjerne ikke længere fungerer i forbindelse med en periode med klinisk død, med en flad EEG? Hvordan er bevidstheden relateret til hjernefunktionen? Og er der en begyndelse og en slutning på vores bevidsthed? Videnskabelige studier af nærdødsoplevelser skubber til grænserne for vores medicinske og neurofysiologiske idéer om den menneskelige bevidstheds rækkevidde og sind-hjerne relationen, fordi vi er nødt til at indrømme, at det ikke er muligt at reducere bevidsthed til fysiske processer i hjernen, således som neurovidenskaben i dag gør det.

Siden udgivelsen af disse studier af nærdødsoplevelser hos overlevende af hjertestop, med påfaldende lignende resultater og konklusioner, kan fænomenet nærdødsoplevelser (NDE) ikke længere ignoreres videnskabeligt. Det er en autentisk oplevelse, som ikke blot kan reduceres til fantasi, frygt for døden, hallucination, psykose, brug af stoffer, eller iltmangel, og mennesker ser ud til at blive permanent forandret af en nærdødsoplevelse under et hjertestop af kun nogle få minutters varighed. Ifølge disse studier er det nuværende materialistiske billede af forholdet mellem hjernen og bevidstheden, som forsvares af de fleste læger, filosoffer og psykologer, for indskrænket til at forstå NDE. Der er gode grunde til at antage, at vores bevidsthed ikke altid falder sammen med hjernens funktion: udvidet bevidsthed kan nogle gange opleves adskilt fra kroppen. Jeg er kommet til den uundgåelige konklusion, at hjernen højst sandsynligt må have en facilliterende og ikke en producerende funktion hvad angår bevidsthed. Ved videnskabeligt at underbygge, at bevidsthed er et ikke-lokalt og således allestedsnærværende fænomen, bliver vi nødt til at stille spørgsmålstegn ved et rent materialistisk paradigme i videnskaben. Ydermere, er

ny forskning i nærdødsoplevelser en kilde til nye indsigter hvad angår en mulig forlængelse af vores bevidsthed efter den fysiske død.

### **Kort biografi:**

Pim van Lommel, M.D, født i 1943, kandiderede i 1971 fra universitetet i Utrecht, og færdiggjorde hans specialisering i kardiologi i 1976. Han arbejdede fra 1977-2003 som kardiolog ved Hospital Rijnstate, et 800 sengs universitetshospital i Arnhem, Holland, og forsker nu på fuldtid i bevidsthed-hjerne relationen. Han har udgivet adskillige artikler om kardiologi, men siden han startede sin forskning i nærdødsoplevelser (NDE) hos overlevende af hjertestop i 1986, har han udgivet mere end 20 artikler (de fleste på hollandsk), en bog og adskillige kapitler om nærdødsoplevelser. I 2005 blev han tildelt *Dr. Bruce Greyson Research Award* af den internationale organisation for nærdødsoplevelser (eng. International Association of Near-Death Studies, IANDS). I 2006 tildelte Indiens præsident ham *Life Time Achievement Award* ved verdenskongressen for klinisk og præventiv kardiologi i New Delhi. For nyligt modtog han *2010 Book Award* fra Scientific and Medical Network.

In november 2007 udkom hans bog 'Uendelig bevidsthed' (*Eindeloos Bewustzijn*) i Holland. Den er en bestseller med mere end 140.000 eksemplarer solgt (22. udgave). Den blev nomineret som 'Book of the Year 2008' (da. årets bog) i Holland. Hans bog udkom i Tyskland i 2009 hos Patmos Verlag: 'Endloses Bewusstsein. Neue Medizinische Fakten zur Nahtoderfahrung' (nu den 10. udgave), og den udkom på engelsk hos Harper Collins i 2010, med titel: *Consciousness beyond Life. The science of the near-death Experience*. I 2011 udkom den polske udgave [Artvitae: 'Wieczna Swiadomosc. Naukowa wizja 'Zycia po zyciu'], den spanske udgave [Atalanta: 'Consciencia más allá de la Vida'] udkom i marts 2012, og i maj 2012 udkom hans bog i Frankrig hos Dunod, med titel 'Mort ou Pas?. Les dernières découvertes médicales sur les Experiences de Mort Imminente'. I december 2015 udkom bogen også i Letland, og i januar 2017 udkommer den i Italien, med titel: 'Coscienza oltre la Vita'. I 2017 vil bogen også udkomme i Kina og Ungarn.

**På nuværende tidspunkt er der solgt over 250.000 eksemplarer i Europa og USA.**

### **Artikler:**

- Van Lommel P, Van Wees R, Meyers V, Elfferich I. Near-death experience in survivors of cardiac arrest: a prospective study in the Netherlands. *The Lancet* 2001; **358**: 2039-2045.
- Van Lommel, P. About the Continuity of our Consciousness, *Adv Exp Med Biol.* 2004; **550**: 115-132. [*Brain Death and Disorders of Consciousness*. Machado, C. og Shewmon, D.A., Eds. New York, Boston, Dordrecht, London, Moscow: Kluwer Academic/ Plenum Publishers]
- Van Lommel, P. Near-Death Experience, Consciousness and the Brain: A new concept about the continuity of our consciousness based on recent scientific research on near-death experience in survivors of cardiac arrest. *World Futures, The Journal of General Evolution*, 2006; **62**: 134-151.
- Van Lommel, P. Near-death experiences: the experience of the self as real and not as an illusion. 2011; *Ann. N.Y. Acad. Sci.* **1234**: 19-28.
- Van Lommel, P. Nonlocal Consciousness. A concept based on scientific research on near-death experiences during cardiac arrest. 2013; *Journal of Consciousness Studies*, **20**, No. 1-2 : 7-48.

Se også [www.pimvanlommel.nl/home\\_eng](http://www.pimvanlommel.nl/home_eng) og [www.consciousnessbeyondlife.com](http://www.consciousnessbeyondlife.com)

## **Nonlocal Consciousness**

### **A concept based on scientific studies on Near-Death Experience**

**Pim van Lommel, cardiologist**

*'To study the abnormal is the best way of understanding the normal'*. William James

According to our current medical concepts, it is not possible to experience consciousness during a cardiac arrest, when circulation and breathing have ceased. But during the period of unconsciousness due to a life-threatening crisis like cardiac arrest patients may report the paradoxical occurrence of enhanced consciousness experienced in a dimension without our conventional concept of time and space, with cognitive functions, with emotions, with self-identity, with memories from early childhood and sometimes with (non-sensory) perception out and above their lifeless body. In my lecture I will discuss the prospective design and the results of our prospective and longitudinal Dutch study on near-death experience (NDE) in 344 survivors of cardiac arrest, as was published in *The Lancet* in 2001. I will discuss into detail several universal elements that can be experienced during NDE, and their implication for our concept, how consciousness and memories could be experienced outside the body during a temporarily non-functioning brain. In four prospective studies with a total of 562 survivors of cardiac arrest between 11% and 18% of the patients reported a near-death experience (NDE), and in these studies it could not be shown that physiological, psychological, pharmacological or demographic factors could explain the cause and content of these experiences. Through many studies with induced cardiac arrest in both human and animal models cerebral function has been shown to be severely compromised during cardiac arrest, with complete cessation of cerebral flow, and electrical activity in both cerebral cortex and the deeper structures of the brain has been shown to be absent after a very short period of time (10-20 seconds). So we have to conclude that in cardiac arrest NDE is experienced during a transient loss of all functions of the cortex and of the brainstem. How could a clear consciousness outside one's body be experienced at the moment that the brain no longer functions during a period of clinical death, with a flat EEG? How is consciousness related to the integrity of brain function? And is there a start or an end to consciousness? Scientific study of NDE pushes us to the limits of our medical and neurophysiologic ideas about the range of human consciousness and mind-brain relation, because we have to admit that it is not possible to reduce consciousness to neural processes as conceived by contemporary neuroscience.

Since the publication of these prospective studies on NDE in survivors of cardiac arrest, with strikingly similar results and conclusions, the phenomenon of the NDE can no longer be scientifically ignored. It is an authentic experience which cannot be simply reduced to imagination, fear of death, hallucination, psychosis, the use of drugs, or oxygen deficiency, and people appear to be permanently changed by an NDE during a cardiac arrest of only some minutes duration. According to these studies, the current materialistic view of the relationship between the brain and consciousness held by most physicians, philosophers and psychologists is too restricted for a proper understanding of this phenomenon. There are good reasons to assume that our consciousness does not always coincide with the functioning of our brain: enhanced consciousness can sometimes be experienced separately from the body. I have come to the inevitable conclusion that most likely the brain must have a facilitating and not a producing function to experience consciousness. By making a scientific case for consciousness as a nonlocal and thus ubiquitous

phenomenon we must question a purely materialist paradigm in science. Moreover, recent research on NDE seems to be a source of new insights into the possibility of a continuity of our consciousness after physical death.

### Short biography:

Pim van Lommel, M.D., born in 1943, graduated in 1971 at the University of Utrecht, and finished his specialization in cardiology in 1976. He worked from 1977-2003 as a cardiologist in Hospital Rijnstate, a 800 beds Teaching Hospital in Arnhem, the Netherlands, and is now doing full-time research on the mind-brain relation. He published several articles on cardiology, but since he started his research on near-death experiences (NDE) in survivors of cardiac arrest in 1986 he is the author of over 20 articles (most of them in Dutch), one book and several chapters about NDE. In 2005 he was granted with the *Dr. Bruce Greyson Research Award* van de International Association of Near-Death Studies (IANDS). In 2006, the president of India rewarded him the *Life Time Achievement Award* at the World Congress on Clinical and Preventive Cardiology in New Dehli. Recently he received the *2010 Book Award* van de Scientific and Medical Network.

In November 2007 his book '**Endless Consciousness**' (*Eindeloos Bewustzijn*) was published in The Netherlands, which is a bestseller with more than 140.000 copies sold (22<sup>th</sup> edition). It was nominated for the '*Book of the Year 2008*' in the Netherlands. His book was published in Germany in 2009 by Patmos Verlag: '*Endloses Bewusstsein. Neue Medizinische Fakten zur Nahtoderfahrung*' (already the 10<sup>th</sup> edition), and it has been published in the English language by Harper Collins in 2010, entitled: *Consciousness beyond Life. The science of the near-death Experience*. In 2011 the Polish edition was published [Artvitae: '*Wieczna Swiadosc. Naukowa wizja 'Zycia po zyciu'*'], the Spanish translation [Atalanta: '*Consciencia más allá de la Vida*'] was published in March 2012, and in May 2012 his book was published in France by Dunod, entitled '*Mort ou Pas?. Les dernières découvertes médicales sur les Experiences de Mort Imminente*'. In December 2015 the book was also published in Latvia, and in January 2017 the book was published in Italy, entitled: '*Coscienza oltre la Vita*'. In 2017 the book will be published in China and Hungary as well.

**By now about 250.000 copies have been sold in Europa en the USA.**

### Articles:

- Van Lommel P, Van Wees R, Meyers V, Elfferich I. Near-death experience in survivors of cardiac arrest: a prospective study in the Netherlands. *The Lancet* 2001; **358**: 2039-2045.
- Van Lommel, P. About the Continuity of our Consciousness, *Adv Exp Med Biol.* 2004; **550**: 115-132. [*Brain Death and Disorders of Consciousness*. Machado, C. and Shewmon, D.A., Eds. New York, Boston, Dordrecht, London, Moscow: Kluwer Academic/ Plenum Publishers]
- Van Lommel, P. Near-Death Experience, Consciousness and the Brain: A new concept about the continuity of our consciousness based on recent scientific research on near-death experience in survivors of cardiac arrest. *World Futures, The Journal of General Evolution*, 2006; **62**: 134-151.
- Van Lommel, P. Near-death experiences: the experience of the self as real and not as an illusion. 2011; *Ann. N.Y. Acad. Sci.* **1234**: 19-28.
- Van Lommel, P. Nonlocal Consciousness. A concept based on scientific research on near-death experiences during cardiac arrest. 2013; *Journal of Consciousness Studies*, **20**, No. 1-2 : 7-48.

See also [www.pimvanlommel.nl](http://www.pimvanlommel.nl) , and [www.consciousnessbeyondlife.com](http://www.consciousnessbeyondlife.com) .

