

# Subsistence technology and the epistemology of an afterlife

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## 1 Prelude

Is there an afterlife? Pim van Lommel, a Dutch cardiologist, thinks so based on his own, empirical research. He recently received a lot of attention when he published his book (2007). This book is a popularized elaboration of an article he wrote in the scientific medical journal *The Lancet* (van Lommel et al., 2001). In this article Van Lommel and his colleagues studied 344 cardiac patients in the Netherlands who were successfully resuscitated after cardiac arrest. Of these patients, 62 (18%) reported to have experienced a near death experience (NDE). Van Lommel et al. eliminate the viability of several prevailing theories on the origin of these near death experiences, such as cerebral anoxia (absence of oxygen in the brain), religiousness, or use of medication prior to cardiac arrest. This is done by cross-tabulating these characteristics with whether or not a respondent did experience a near death experience, as well as with the nature of the near death experience. No differences between groups in occurrence or nature of the near death experiences were found.

Van Lommel does not write in his *Lancet* article (2001) about the existence of an afterlife. But, in his recently published book, he does (van Lommel, 2007). The book is titled ‘Never Ending Consciousness’ and contains many stories of people who have had a near death experience. The notion of the existence of an afterlife is all the more present in the reception of his book, and the publicity surrounding it, by the public.<sup>1</sup>

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<sup>1</sup>For instance, see: <http://weblogs.nrc.nl/weblog/media/2007/12/10/waar-is-opa-nou-precies-gesneuveld/> and

It not only the content of the work of Van Lommel that interests many, but the reception and interpretation of his work are interesting as well. Based on the fact that his Lancet article is often referred to, it apparently is his scientific background and method that give importance to his statements on the existence of an afterlife. Posing questions on the existence of an afterlife is not new, nor is the actual answer he gives. What is new, is the *scientific* method he applied to arrive at his answer. Apparently, in present-day Dutch society, this scientific method is perceived to be important for the formulation of an answer to the question whether or not an afterlife exists.

## 2 Research Questions

The interplay between empirical science and belief in the reception of the work of Van Lommel described above, will form the starting point of the present investigation. Given the great importance that is given to science in (Dutch) industrialized society, the general question can be raised how the existence of an afterlife is perceived by people in other types of societies. In other words: what is the epistemology of the existence of an afterlife in non-industrialized societies?

Although this paper is inductive and theory-forming in nature, existing theory will be applied to guide a further specification of the above-mentioned research question. In their recently published research, Moor et al. (2007; 2006) relate the means of subsistence of a people to the manner in which people explain the unknown. Gerhard Lenski (2005) argues that the main developments within and differences between societies can be related to their means of subsistence. He put forward a taxonomy of technology of subsistence, consisting of the main categories ‘hunters and gatherers’, ‘horticulturists’, and ‘agriculturists’.

The above helps to further specify the main research question, by suggesting that the means subsistence is related to the manner in which the unknown is explained (Moor et al., 2007, 2006) and what types of subsistence technology are important (Lenski, 2005). This leads to the following questions:

**Research Question 1** On what grounds do people in societies with different kinds of subsistence technology (hunting and gathering, horticulture, and agriculture) describe the existence of an afterlife?

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<http://scholieren.nrc.nl/weekkrant/2001/51/7.shtml>

**Research Question 2** Are there indications to be found of a relationship between subsistence technology of a society and the manner in which the existence of an afterlife is described?

### 3 Method

In order to put the work of Van Lommel into context, the research questions described above will be answered based on ethnographic reports of three non-industrialized societies. Since the findings will only be based on this very small number of societies, the selection of these societies needs to take into account as many disturbing influence as possible. That is, as many (general) characteristics of those selected societies should be the same, except those that we are interested in here. Since Lenski (2005) argued that societies with a specific type of subsistence technology change in the presence of societies of another type, the context of societies should be taken into account during the selection procedure as well. This will be done by selecting recent descriptions of societies, where possible. Preferably, all societies described in this paper would be located in the same part of the world, so they would have a context with maximized comparability. However, using the selection procedure described below, not a single part of the world came up where societies of all three types of subsistence technology were present.

Societies were selected from the electronic version of the Human Relations Area Files (eHRAF), accessed by means of the internet. Using the provided search engine, societies were selected based on two general terms derived from the ‘Outline of Cultural Materials’ (OCM-terms). These were Eschatology (775) and Animism (774) <sup>2</sup>. Eschatology contains subjects regarding the ‘afterlife’ or ‘afterworld’ and is described as containing information on the conception of the survival of the soul and ideas of transmigration and reincarnation. Since it contains several topics to which no attention will be paid here, such as the behavior of spirits, the second term ‘animism’ was used as well. Animism was described as the conception of the soul, relation of the soul to the body and to life and death. Paragraphs were searched in which both OCM-terms were present by using the boolean ‘AND’ operator. This in order to

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<sup>2</sup>A third OCM-term was tried, namely ‘Life and Death’ (776). However, this did not result in markedly different results of the search-procedure.

receive passages that were as closely as possible to the subject at hand only. This worked very well with the selected OCM-terms: many of the found paragraphs contained relevant information for the raised questions. Obviously, sometimes it was necessary to read the full chapters from which the paragraphs originated to be able to grasp the full meaning and context of what was written.

This resulted in many found societies. It was not possible to select only societies with specific means of subsistence technology. Although OCM-terms on ‘hunting and gathering’ (220), ‘horticulture’ (244), and ‘agriculture’ (240) are available, these do not refer specifically (or uniquely) to the means of subsistence. Therefore, as an example using the OCM-term ‘hunting and gathering’ (220) can result in finding a agrarian society in which hunting and gathering only plays a minor role. To select societies of the required types, I based myself on the short descriptions of the societies given by the eHRAF.

As said above, it appeared not to be possible to select the three desired types of societies a single part of the world. Therefore, in order to avoid Galton’s problem (Naroll, 1965) as much as possible, it was decided to select societies from different regions of the world. This finally resulted in the selection of the Tlinglit (NA12), the Yanomamö (SQ18), and the Dogon (FA16).

The research questions posed here all contain a concept of ‘afterlife’. In order to be able to compare this in three very different societies, a very broad definition of this concept is used. Here, it is argued that people believe in the existence of an afterlife, if they expect that some part of them remains in existence after the death of the physical body, while retaining some kind of sensory experience.

## 4 Results

### 4.1 Tlingit

#### 4.1.1 Short introduction to the Tlingit

Traditionally located in southeastern Alaska, the Tlingit are native Americans (Tollefson, 1991). In 1867 the United States acquired control over the (resources of) Alaska, undermining local Tlingit autonomy. Contact was forced with outside settlers and gold diggers. In 1971 the ‘Native Claims Settlement Act’ resulted in the transfer of 100 million acres of land back to Alaskan Natives, including the Tlingit.

Estimates of their population size before contact with non-native American are approximately 10.000 people, while nowadays their population size is around 25.000 people. Before approximately 1880, the onset of decline of traditional culture due to contact with non-native settlers, the Tlingit were a nomadic people (Kan, 1989). They hunted for deer, bear, seals, and goats. Roots, shellfish, and berries were gathered. Additionally, they fished for salmon, halibut, and herring. Hunting and fishing was done by men, while the women gathered food and cleaned fish. According to the main taxonomy of Lenski (2005), the Tlingit can be seen as hunters and gatherers, although they make use of the fish available in their surroundings.

#### 4.1.2 Findings

The Tlingit believe that every person has both a mortal and an immortal spirit (Tollefson, 1991). This is reflected in the distinction that the Tlingit make between the spirit of a living person (called ‘ka yu-ha-yee’) and that of a dead person (called ‘ka yu-ha-yee wha-goo’) (Emmons, 1991). The spirit of a living person is described as ‘what feels’ “*because when a person’s feeling is gone he is dead*” (Swanton (1905), p.460). The spirit of a dead person is described as ‘shadow’ and perceived to travel to a place elevated above the plane of the world. Rathburn (1976) describes this as the difference between the belief of a human soul, in addition to “*concepts of a spirit world where these souls would dwell after the death*” (p.196).

The level of heaven a spirit of a person will travel to corresponds to the moral conduct of that person during his or her life (Tollefson, 1991). Distinction was made between the highest Heaven (a realm of happiness), a second level where the moral delinquents went, and a place of torment (Dog Heaven). After a certain amount of time, individuals (or rather, their spirits) returned from this afterworld as a reincarnation in a (usually) matrilineal descendant of the deceased (Kan, 1989; Tollefson, 1991).

The Tlingit state that these conceptions of the nature of the afterlife are told by people who came back from life after they had died (Swanton, 1905). Swanton described the story of a person who is dying. Shortly before death, that person said that the house was filling up with spirits. Another story is told by the Tlingit about a spirit that left the body of a man for a period of two days, before returning. He started his story about the spirit world as follows:

The path to the river led over a steep hill choked with briars and devil's club. Without thick shoes and stockings I could not have made my way at all. Beasts of the forest attacked me on every side, but my war paint and brave knife soon frightened them away. I reached the river and shouted with all my might. A boatman responded to my call, and in a few minutes appeared and conveyed me across the stream to spirit-land. (Knapp (1896), p.158)

Swanton states that stories of spirits returning to the physical body, such as this one, are told everywhere in the Tlingit country. "*This is why people know there are spirits*" (Swanton (1905), p.462).

Later work (Kan, 1989) described that the living experience the presence of the deceased's spirit as itching feeling, or hears to spirits' attempt to communicate in the crackling of the fire. In this, people gain more confidence in the survival of the spirit after the physical body died off.

## **4.2 Yanomamö**

### **4.2.1 Short introduction to the Yanomamö**

The Yanomamö, living in the southeastern of Venezuela and upper northwestern Brazil, are generally horticulturists applying slash and burn cultivation of land (Hames, 1991). Their staples consist of plantains

and bananas. Additionally, their source of proteins relies on hunting and gathering. Currently, estimates indicate approximately 30.000 Yanomamö.

Although not much is known about the history of the Yanomamö, contact with Westerners probably first occurred around 1750, although it was not until the 1950's that intensive contact was made. Since then, some light commercial trade and wage labor became part of some of the Yanomamö's way of life. Trade within the Yanomamö people is well developed, however.

The Yanomamö believe that the cosmos is comprised of four planes. The first plane is empty, the second plane is the home to the spirits of dead men and women, the third layer is the earth and below that resides the fourth, the underworld. Shamans have control over the spirits, which they use to cure the diseased. Although the Yanomamö have been in contact with protestant missionaries since the 1950s, no conversion has taken place.

#### 4.2.2 Findings

To the Yanomamö, a person is composed of body, soul, and spirit (Barker, 1953). The soul retains the form of the body after the physical body has died, while the spirit is formless. The soul can leave the body without the person to die. This happens for instance when a diseased person loses consciousness. The spirit leaves the body only at the time of death.

A slightly different, but far more detailed description is given by Chagnon (1968). The true or real portion of a living person<sup>3</sup> is his 'will' of his 'self'. This is referred to as *buhii*. After the death of that person, this becomes a *no borebö* which travels from the layer of the earth to the layer above to remain in existence in an ethereal state. Upon reaching this upper layer, the son of Thunder (Wadawadariwä) asks the *no borebö* whether it has been generous during life. If so, the soul gains access to a path that leads to the part of the plane in which life is approximately life as on earth, only better (Chagnon, 1968; Hames, 1991). If the soul has not been generous, it is lead down another path to a place it will burn eternally.

Another part of the soul goes to a special place after death of the physical body, rather than going to

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<sup>3</sup>In the source text, the word 'man' is used, but from the context this is interpreted as referring 'to a person'

heaven. After a certain amount of time, this part of the soul of a man turns into a ‘butterfly jaguar’. In this form, it can still recognize the people the man knew when physically alive. Sometimes people come across a butterfly jaguar in the forest. The part of the soul of the deceased man is then recognized and the jaguar is allowed to by unharmed (Wilbert, 1963).

The descriptions above are not found in every ethnography. For instance, Bechter (1960) describes that the soul of the deceased goes to the moon after it has left the body. He furthermore describes that the soul is located in the bones and that bodies of the deceased must be cremated in order for the soul to be able to leave the body (because the flesh functions as a barrier).

The question remains, how the Yanomamö know about the existence of an afterlife. Above, it was described how they sometimes recognize a part of the soul of a deceased man in the form of a butterfly jaguar. In the same manner, the Yanomamö sometimes see that the ‘*no borebö*’ (a deceased person’s true self) reaches the plane above the earth. They recognize this in some of the clouds in the sky (Chagnon, 1968). No descriptions of people who returned from the dead, or whose souls had experience when the physical body was unconscious, were encountered in the literature.

## 4.3 Dogon

### 4.3.1 Short introduction to the Dogon

The Dogon live in the eastern African nation of Mali (Beierle, 1995). Their population size has increased rapidly in the last century. Population censuses show that their population was approximately 80,000 in 1921, 250,000 in 1960 and 600,000 in 1995. European contact was first made in 1857. Although many Dogon opposed and resisted French armies in the 1890s, the Dogon as a people have not been immune to change. Nowadays, the Dogon are not dependent on agriculture as before and many youngsters leave to the cities in search of employment.

Not all Dogon make use of, or have accessibility to, a plow. Nevertheless, mentions of the existence of plows in Dogon society are found in literature (Paulme and Schütze, 1940). Their crops vary in sort greatly, their primary crops being for example sorghum, rice, onions, and tobacco. Additionally, some



food is obtained by gathering and some animals are held. Goods, both food and craft products, are traded with neighboring groups and within Dogon society.

The Dogon believe in a hierarchy of supernatural beings. Amma, the supreme creator God, is the highest in this hierarchy. Three other supernatural being were created by Amma: Nommo (son of Amma, waterspirit), Lebe (incarnation of earth), and Yurugu (mythical representation of the fallen man). However, the core of the beliefs and practices focus on the worship of ancestors.

Mention is made that both Islam and Christianity have influenced some of the Dogon beliefs. Nowadays, approximately 10% of the Dogon are Christians.

### 4.3.2 Findings

The Dogon make a distinction between the soul ('*kikinu*') and the vital nature ('*nyama*') of people. The individual soul attempts to separate itself from the world of man in order to integrate with the world of the ancestors. The impersonal *nyama* however, is reincarnated, as will be described below (de Ganay, 1941). The soul of a Dogon person leaves his or her body approximately three years before the death of the physical body (Dieterlen, 1941). The exact moment is decided upon by Amma, based on the merits (or lack of it) of the person. After leaving the physical body, the soul wanders in the bush, "*occasionally resting under the gobu trees, the first ones created by Amma, and which also served as a shelter to the Dogon before there were any dwellings*" (p.108). The person whose soul has left his or her body does not know this.

During the period that a person's souls dwells in the bush, some people are able to see it. These people are call 'kumogo', a quality some people are endowed with, amongst whom are ammayana women, the priests of the Binou,(4) hunters, and certain aged elder (Dieterlen, 1941). Some of the 'kumogo' have the ability to see that a spirit of a person already left his or her body.

At the very moment the physical body dies, the '*nyama*' passes through the body on a determined path: from the blood, it passes into the liver, heart, head, and it leaves the body with the last breath. Then, it seeks refuge in the hair where it recombines temporarily with the soul that temporarily resided

in the bush.<sup>4</sup>

After the hair of the deceased has been shaved, the soul starts his journey. During the shaving, a prayer is said, from which comes the following: “*If the copper ladder is the best, may Amma cause you to take it. If the iron ladder is the best, may Amma cause you to take it. If the silver ladder is the best, may Amma cause you to take it. May Amma give you a cool bed.*” (Dieterlen (1941), p. 113). Paradise is perceived by the Dogon as a place where a soul resided eternally in the cool shade of trees. Within this paradise, a specific locality is reserved to those, who did what was right during their lives. This is in my interpretation where the three ladders refer to: they serve to distinct between those who did right and those who did not.

As said, while the soul strives toward separation from the world of man, the *nyama* is reincarnated (de Ganay, 1941). It is designated by the soul to one or more descendants of the deceased, in which it reincarnates. (Dieterlen, 1941). These descendants are bestowed with the responsibility to make offers to the deceased, in order to help his or her spirit on its’ journey.

## 5 Summary and Conclusion

To summarize the results of this study, the main findings are summarized in table 1. Additionally, some general information on the three societies is added to this table.

People in all three selected societies have a belief in the existence of an afterlife. The first research question was on what grounds people from different types of societies describe the existence of an afterlife. Different means were found in which people of different societies have knowledge on the existence of an afterlife. These differences are summarized in table.

The second research question was whether or not indications were to be found for a relationship between the mode of subsistence technology of a society and the grounds on which the existence of an afterlife is described. Based on only these three societies, an interesting pattern can be discerned in the

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<sup>4</sup>Not all sources agree with this description though. For example, Griaule (1986, p.56) writes: “*upon death, the constituent elements of personality separate. The nyama escapes from the body [...] The souls too leave the body.*”

Table 1: Similarities and Differences of three societies

	Tlingit	Yanomamö	Dogon
<u>General information</u>			
Mode of subsistence	Hunters & Gatherers	Horticulture	Agriculture
Size	10k - 25k	30k	250k - 600k
Location	Southeastern Alaska	Venezuela and Brazil	Eastern Mali
<u>Afterlife</u>			
Perception of afterlife?	yes	yes	yes
Variety in beliefs?	–	–	–
Knowledge on afterlife	Souls came back Direct experience	Everybody sees souls	Some see souls

way the existence of an afterlife is argued. Everybody knows the stories of those who returned from physical death in Tlingit society and the souls of the deceased can be seen by everybody in this society. Additionally, anybody can see the passing of souls to the afterlife in the clouds. Souls can be seen by everybody in Yanomamö society as well. In the Dogon society however, only some people can see souls. These differences can be interpreted as that the possibilities of a person to gain direct knowledge about the existence of an afterlife decrease with an increasing level of subsistence technology.

These findings place the interpretation of the work of Van Lommel (2001; 2007) in a new context. It appears that that the epistemology<sup>5</sup> of Van Lommel is not universal at all: different societies have a different epistemology regarding the existence of an afterlife. Furthermore, these differences in epistemology and their relationship with the level of subsistence technology can be interpreted with the theoretical framework provided by Lenski 2005 as follows. According to Lenski, great changes in societies occur when

<sup>5</sup>the theory of knowledge, especially with regard to its methods, validity, and scope. Epistemology is the investigation of what distinguishes justified belief from opinion.

developments are made in the subsistence technology. One of the most important changes, according to him, is the increased size of the population that can be maintained. We recognize this in table 1. Based on this increased population, an increased division of labour originates, which parallels a higher degree of specialization of tasks. The above findings can be interpreted as that the gaining of knowledge about the existence of the afterlife becomes increasingly specialized in societies with a higher level of subsistence technology. Although the viability of this hypothesis cannot be assessed here, it would be interesting to test it stringently, focussing mainly on the division of labour as mediating characteristic between mode of subsistence and the epistemology of an afterlife in that society.

## 6 Reflection on the method

The main research question (*On what grounds do people in societies with different kinds of subsistence technology (hunting and gathering, horticulture, and agriculture) describe the existence of an afterlife?*) regards a detailed subject. Nevertheless, an answer was found. It was impossible however, to investigate whether or not distinction exists between the people within a specific society that believe in the existence of an afterlife, and those who do not. The data used in this study did not provide this kind of detail about the selected societies. While in all the described societies a belief in a form of afterlife was found, not once a person, group or profession was mentioned that doubted or even denied the existence of an afterlife. Neither it was mentioned that the belief in an afterlife was uniform. Therefore, no conclusive answer on this question can be formulated. This needs to be kept in mind when interpreting the findings, for it would be all too easy to conclude that the beliefs indeed were uniform in these three societies, for nothing was written about differences in beliefs. However, to do so would be a misinterpretation of the nature of the data: the sole reason that nothing was written about differences in beliefs can be totally due to the fact that the ethnographers who wrote the material I based myself on, were simply not interested in these kind of differences *within* societies.

A large amount of data was available to answer my questions. I only selected three societies, but many more could be added to this study. Preferably, I would have compared different types of societies

on European soil, since the starting point of this study (present-day Dutch society) is as well. However, it was not possible. It was neither possible to select societies from all three modes of subsistence within one continent. The fact that this appeared to be impossible, reflects the difficulty to investigate societies that are no longer present: many types of societies have disappeared or changed into a higher level of subsistence technology.

As described earlier, Lenski 2005 argued that societies change in the presence of societies of a higher level of subsistence technology. In order to take account of this, an attempt was made to select only relatively recent descriptions of societies. This was problematic in this sense, that no descriptions based on recent fieldwork (say: after 1950) were available in a number to base this research upon. However, all the fieldwork this paper is based on was performed after contact between industrialized societies and the studied societies. Therefore, the changes described by Lenski have already taken place in all described societies. This means, that the studies this paper is based on represent a historical reconstruction of the three societies in question.

Nevertheless, it was not possible to describe the changes that occurred after this contact took place with respect to the belief in the existence of an afterlife. No mention in literature was found altogether on changes in beliefs, therefore no dynamic perspective was possible. This relates to the problem described above, that the only material is available regarding the questions the original investigator was interested in.

Similarly, the procedure used to find material regarding the research question depends on the coding of the texts by others. This dependency was somewhat relaxed by evaluating the results of other OCM-terms and by reading the passages or chapters before and after the found paragraphs. This did not lead to other conclusions.

The material of a great number of authors was used. This is an asset of this paper in the sense that although differences between the background of the authors exists, they generally agreed. Some contradictory interpretations or description were found in literature. I presented the descriptions that were corroborated by descriptions of other authors, but mentioned the contradictions as well. The disputes were generally on minor aspects of this study, therefore I do not think that the findings are skewed by

the contradictions.

Finally it needs to be stressed that the definition of a belief in an afterlife was chosen before data was collected. Thereby, the possibility exists that in some societies beliefs would not interpreted as a belief in an afterlife, while people from those societies do adhere to belief in an afterlife. The opposite is possible as well. For instance, what is not exactly made clear in all societies is whether or not the soul or spirit remains in existence. Therefore, additional research could focus on the relationship between the person before his or her physical deceased and the soul or spirit that remains in existence afterwards. To what extent are they the same? However, no indications of this problem were found in this study regarding the Tlingit, the Yanomamö and the Dogon.

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