

- 1946 Indians of the Gran Chaco. In: J. H. Steward (ed.), *Handbook of South American Indians*. Vol. 1: The Marginal Tribes; pp. 197–370. Washington: United States Government Printing. (Smithsonian Institution, Bureau of American Ethnology, Bulletin, 143)
- 1949 Religion and Shamanism. In: J. H. Steward (ed.), *Handbook of South American Indians*. Vol. 5: The Comparative Ethnology of South American Indians; pp. 559–599. Washington: United States Government Printing. (Smithsonian Institution, Bureau of American Ethnology, Bulletin, 143)

Montell, Gösta

- 1929 Dress and Ornaments in Ancient Peru. *Archaeological and Historical Studies*. Göteborg: Elander.

Murr, Christoph Gottlieb von

- 1785 Reisen einiger Missionarien der Gesellschaft Jesu in Amerika. Nürnberg: Zeh.

Nordenskiöld, Erland

- 1908 Våra museer och folkbildningsarbetet. *Social Tidskrift* 1: 15–21.
- 1910 Indianlif i El Gran Chaco. Stockholm: Bonnier.
- 1911a Ett föregångsmuseum. Riksmuseets afdelning för utdöda djur. *Populär Naturvetenskaplig Revy*. Stockholm: Nordstedt.
- 1911b Indianer och hvita i nordöstra Bolivia. Stockholm: Bonnier.
- 1918 Eine geographische und ethnographische Analyse der materiellen Kultur zweier Indianerstämme in El Gran Chaco (Südamerika). Göteborg: Elander. (Vergleichende ethnographische Forschungen, 1)
- 1919 An Ethno-Geographical Analysis of the Material Culture of Two Indian Tribes in the Gran Chaco. Göteborg: Kländers. (Comparative Ethnological Studies, 1)
- 1919–38 Comparative Ethnographical Studies. 10 Vols. Göteborg: Elanders Boktryckeri Aktiebolag.
- 1921 The Copper and Bronze Ages in South America. Göteborg: Elander. (Comparative Ethnological Studies, 4)
- 1925 An Historical and Ethnological Survey of the Cuna Indians. Göteborg: Elander. (Comparative Ethnological Studies, 10)
- 1929 The American Indian as an Inventor. *Journal of the Royal Anthropological Institute* 59: 273–309.
- 1930a L'archéologie du bassin de l'Amazone. Paris: Van Oest. (Ars Americana, 1)
- 1930b Modifications in Indian Culture through Inventions and Loans. Göteborg: Elander. (Comparative Ethnological Studies, 8)
- 1931 Origin of the Indian Civilizations in South America. Göteborg: Elander. (Comparative Ethnological Studies, 9)

Nya Dagligt Allehanda

- 1933 Métraux interviewed in *Nya Dagligt Allehanda* (24.05.).

Pohl, Johann Emmanuel

- 1832–37 Reise im Innern von Brasilien ... in den Jahren 1817–21. Wien.

Steward, Julian H. (ed.)

- 1948 Handbook of South American Indians. Vol. 3: The Tropical Forest Tribes. Washington: United States Government Printing. (Smithsonian Institution, Bureau of American Ethnology, Bulletin, 143)
- 1963 Handbook of South American Indians. Vol. 1–7. New York: Cooper Square Publishers. (Smithsonian Institution, Bureau of American Ethnology, Bulletin, 143) [1st Vol. 1944]

Wassén, Henry

- 1932 Le Musée Ethnographique de Göteborg et l'oeuvre d'Erland Nordenskiöld. *Revista del Instituto de Etnología* 2: 233–262.
- 1966–67 Four Swedish Anthropologists in Argentina in the First Decades of the 20th Century. *Bio-Bibliographical Notes*. *Folk* 8–9: 343–350.

Magical Causation of Death in Archaic Societies

Cultural Anthropology in the Light of the Cognitive-Developmental Approach, Exemplified by the Scrutiny of Causes and Consequences of the Mystical Interpretation of the Death

Georg W. Oesterdiekhoff

1 Introduction

Numerous ethnologists and experts have reported that adult humans of many traditional, archaic, primitive, or premodern societies, at least those of the lesser developed societies among this type or range, do not understand the inevitability of the physical death. Huge percentages of the premodern or illiterate humankind did really believe that humans would never die due to aging, accidents, or biological processes. This does not imply that those peoples believed in the biological eternity of the physical appearance or individual life in this world, next to their belief in the immortality of soul. They rather took the belief in the possible indestructibility of a human's personality and physical appearance for granted without thinking about it or without expressing this implicit assumption. They saw themselves and others living – without having any idea that really everybody of those has to pass away and vanish from earth physically. Hence, they took every death as a singularity but not as an occurrence that everybody has to face in any case earlier or later in life. Henceforth, they took every death as resulting from violence in form of magic and sorcery. Without mystical interventions humans would not die because nobody dies for natural, biological, or physical reasons. Gods, ghosts, and sorcerers are said to be the single origins and makers of every single death happening in the world. Thus, a certain

link between the non-understanding of the inevitability of physical death and the belief in the magical causes of death build and shape the primitive understanding of death in many traditional or archaic societies around the world.¹

It is necessary to embed the analysis of the causes of this phenomenon into an analysis of the general worldview and physics of these societies. Obviously, premodern people tend to interpret cosmos, world, and life more in terms of mystical than in terms of empirical relations. Thus, they do not only understand birth and death but more or less all empirical phenomena such as weather and seasons, harvests and droughts, sickness and health, mishap and happiness as mystical phenomena. Additionally, just as they did not interpret death in terms of physical laws, they did not conceive any physical phenomenon such as stars and oceans, epidemics and volcanic eruptions, winter and summer as material, empirical phenomena exposed to physical regularities. Thus, the analysis of the belief into the magical causes of death inevitably provides a systematic theory of the premodern reason and worldview. Numerous ethnologists and social scientists emphasised the mystical and magical character of the premodern worldview, physics, and reason. Many of them referred this mystical worldview to laws and tendencies of primitive thinking typical for illiterate premodern peoples around the world.²

Some of them asked for the reasons for the existence of those forms of primitive thinking and for the duality of a more primitive and mystical thinking and a more rational and empirical thinking, the latter one bound to modern societies. Some ethnologists and social scientists applied the knowledge developmental psychology had provided to the research of the archaic worldview and the evolution of the more empirical-rational worldview of the modern world. Children too tend to magical and animistic views and share core beliefs that are also prevalent in premodern societies. Furthermore, they initially believe not in the inevitability of the physical death, too. This opens the way to explain both this complex of death interpretation and premodern worldview by referring them to the knowledge developmental psychology has accumulated regarding the analysis of primitive, childlike thinking and of the evolution of higher stages of psyche and cognition in modern adults and modern societies. This

reference basis is the breakthrough in finding the theoretical foundation to this phenomenon, as numerous experts have already mentioned.³

The analysis of this phenomenon of death interpretation is by no means of ancillary relevance. Frequently, the belief in the magical causes of death has led to a prosecution and liquidation of a human being who was said to have killed the person by magic. Natural deaths, interpreted as magical murder, actually led to real homicides of completely innocent persons being accused of having killed the dead by magic. These irrational homicides were often revenged by the victim's relations and provoked wars and conflicts, thus causing many casualties. Some observers maintained that this absurd form of homicide and its revenge be one of the main causes to the slow or even missing population growth and density of bigger parts of the premodern humankind. Henceforth, this phenomenon is crucial to the analysis of the social, cultural, demographic, and economical development of humankind in world history.⁴

2 Developmental Psychology and Ethnology resp. Cultural Anthropology

For over 100 years, authors of several social sciences have been describing the relevance developmental psychology plays or should play regarding the research of history and cultures, psychology and worldview of premodern peoples, and evolution of civilization and modern society. This idea was born in the era of Enlightenment and supported by many founders of several social sciences such as Comte, Carus, Bastian, Tylor, Haeckel, Lubbock, etc. Nearly every (!) classical author of child psychology, such as Preyer, Sully, Wallon, Baldwin, Hall, Stern, Werner, Janet, Claparède, Piaget, Blondel, Jaensch, etc., described similarities between children's cognitions and views and those of adult humans of premodern societies. Werner dedicated one most influential book to these similarities, covering all central aspects of psyche and cognition. Piaget described them in nearly all of his books but dispersed and not in one central monograph as Werner had done. Both authors described the parallels regarding perception, reasoning, categories of time, space, causality, chance, arithmetic, fantasy, magical beliefs,

1 Lévy-Bruhl (1966: 20–25); Fortune (1963: 178); Frazer (1932: 300–305); Evans-Pritchard (1978: 113); von den Steinen (1894: 348); Mair (1969: 30); Elkin (1986: 338).

2 Lévy-Bruhl (1983, 1921, 1931, 1938, 1966); Evans-Pritchard (1978); Frazer (1994); Schultze (1900); Spencer and Gillen (1904); Fortune (1963); Hallpike (1979).

3 Hallpike (1979); Werner (1948); Piaget (1974); Schultze (1900); Radding (1978); Oesterdiekhoff (2013a, b; 2009; 2011; 2012a, c); Rockmore (1989).

4 Frazer (1932: 300, 350) Lévy-Bruhl (1966: 57–60); Keysser (1911: 62f., 101); Tylor (2005/I: 138); Oesterdiekhoff (2011: 27–132; 2013a: 183–194).

social and moral ideas, etc. Many experts, among them Allier, Murphy, Schultze, Vierkandt, Cassirer, Werner, Kaplan, and Blondel, especially in the time span 1900–1940 interpreted the knowledge about premodern worldview, customs, and religion which social sciences had accumulated, in the frame of developmental psychology. Many leading authors prognosticated that developmental psychology would be the theoretical foundation to all humanities and social sciences with reference to the explanation of history and culture, worldview, religion, and mentality. These voices belonged to the elite of its time.⁵

Postcolonial era, damaged self-esteem of the West due to the wars, oblivion of the own past, and diminishing exposure to primitive phenomena belonged to the causes of the decline of this approach after 1945 and especially after 1980. However, the decline of the developmental approach in favour of “cultural relativism” and “universalism of mind” was not backed by empirical data. The cross-cultural empirical research in mentality, worldview, and psyche of premodern peoples has been continuing in evidencing the above-mentioned developmental theory. Piagetian “Cross-Cultural Psychology,” blooming especially between 1960 and 1990, supported the developmental assumptions mentioned, and falsified the two leading ideologies of today. More than 1,000 empirical surveys found a far-reaching lack of the adolescent stage of formal operations among premodern populations, that is, among illiterate, traditional, or backward social milieus within the developing countries. This psychological stage is predominantly bound to the educated and modern milieus within the developing and developed nations. Premodern peoples usually stay on preoperational or concrete-operational stages, those stages which modern humans surmount during adolescence. Many single and strange phenomena ethnology has described have to be referred to the structures developmental psychology had researched and documented. There is hardly any crucial ethnological phenomenon regarding mental issues which does not find its coherent explanation against the background of developmental psychology.⁶

The second branch of cross-cultural psychology,

psychometric intelligence research, has come to the same conclusion. Every premodern population, no matter of which race, continent, and culture it may stem, scores below the IQ of 75 when compared to modern standards. The North Americans, the Europeans, and the Japanese scored below 75 before 1930, too. They raised their scores from generation to generation, especially due to the rise of school education, job enrichment, and further cultural improvements. This fact, named Flynn effect, is now observable worldwide. Formal operations and rising IQ scores conquer the world for more than 100 years, whereas premodern peoples stood on lower stages of psychological development and intelligence as well. The lower scores correspond to preoperational and concrete operational stages, while the higher scores match formal operations. Both research industries evidence the lower mental or developmental age of premodern humans and the rise of psychological summits in dependence of modernisation.⁷

Obviously, cross-cultural research has evidenced leading approaches of former decades and falsified the today’s leading assumptions. Even the recent cross-cultural surveys of the past decades prove the validity of the early findings of Werner, Piaget, Lurija, Elias, and many other classical representatives of cultural anthropology, psychology, and sociology.

Hallpike (1979) defined that premodern humans share children’s qualitative development (stage position) but differ from them in their quantitative development (experiences and knowledge). Obviously, this is the right definition. Though, while Hallpike estimated the relevance of the quantitative aspect in shaping reason and action higher than the qualitative aspect, I regard it the opposite way. To my opinion, the overall commonalities of the two groups considerably override the differences between them, that is, the qualitative commonalities weigh more than the quantitative differences (Oesterdiekhoff 2013a: 49–78; 2011: 40–60; 2009: 112–129). I identify this equation be the most important discovery across humanities and social sciences, delivering the key to formulate the general theory of humanities and social sciences. Only the developmental theory of history and culture, basing on these insights and foundations, corresponds to the role of Darwin’s evolutionary theory to biology and Newton’s contribution to physics. Thus, it basically lifts the social sciences and humanities to higher stages of theory building and scientific hori-

5 Stern (1924); Schultze (1900); Lurija and Vygotskij (1992); Bühler (1930); Werner (1948); Zeininger (1929); Piaget (1969, 1974, 1975).

6 Berry and Dasen (1974); Dasen (1977); Eckensberger et al. (1979); Hallpike (1979); Rockmore (1989); Lurija (1982); Mogdil and Mogdil (1976); Oesterdiekhoff (2009; 2011; 2012a, b, c; 2013a, b); Oesterdiekhoff and Rindermann (2008).

7 Flynn (2007); Maistriaux (1955); Oesterdiekhoff (2009: 82–98; 2011: 40–76; 2012b, c); Oesterdiekhoff and Rindermann (2008).

zons previously unreached and mostly unexpected (Oesterdiekhoff 2013b; 2013a: 581–602; 2012a, c; 2011: 206–220; 2009: 410–420).

Bastian, Baldwin, Piaget, Werner, and Lurija had been the essential cornerstones of the developmental research regarding the relationship ontogeny/history. After World War II, Hallpike (1979), Habermas (Rockmore 1989), and Radding (1978) wrote influential studies regarding this relationship. I have written 11 books and numerous essays on this subject. I have shown that the ethnology of worldview and reason is completely dependent on the knowledge developmental psychology has accumulated. I have presented data that demonstrate the prevalence of preoperational and concrete operational structures among every premodern civilisation, world region, and continent, and the rise of stages during modernisation. I have broadly evidenced that the developmental approach explains or illuminates the history of economy, population, society, culture, politics, sciences, philosophy, religion, customs, law, etc.

3 The Mystical Worldview of Premodern Societies

Uncountable ethnographers have described the mystical worldview and reason of premodern cultures around the globe. Many experts have emphasised that the extent of mysticism and magic in premodern societies is tremendously larger than that of modern societies. Premodern societies tend to regard every birth and death, rain and sunshine, season changes and the movement of the heavenly bodies, epidemics and catastrophes, health and sickness as mainly mystical phenomena, made by the will of gods, ancestors, sorcerers, and witches. Instead of empirical causes they rather focus on mystical beings as makers even of the everyday phenomena such as rain and sunshine, happiness and mishap, successes and accidents.

Les primitifs (au sens conventionnel que l'on donne à ce mot) tout en distinguant fort bien du cours ordinaire des choses ce qui leur paraît surnaturel, ne l'en séparent presque jamais dans leurs représentations. Le "sens de l'impossible" leur manque. Ce que nous appellerions miracle est banal à leurs yeux, et peut souvent les émouvoir, mais difficilement les étonner. Les événements qui les frappent ne procèdent pas réellement des "causes secondes", mais sont dus à l'action de puissances invisibles. Le succès ou l'échec des entreprises, le bien-être ou le malheur de la communauté, la vie et la mort de ses membres dépendant à chaque instant de ces puissances, des "esprits", des influences, des forces, en nombre incalculable, qui entourent le primitif de toutes parts, et sont

les vraies maîtresses de son sort. Bref, à en juger par ce qu'il se représente et ce qu'il craint continuellement, il semblerait que le surnaturel même fit partie pour lui de la nature (Lévy-Bruhl 1931: vii).

Evans-Pritchard (1978: 60–76) in his influential book on the Azande of Sudan described at length that these people tend to interpret every common phenomenon, such as a heavy rainfall, a human's fall over a tree root, a hurt in a body part, an unpleasant behaviour of a neighbour, a dispute with a family member, a conflict with somebody's wife, an unsuccessful fish, or game hunting, or whatever, as something that happened due to mystical and magical influences. Expected and wishful phenomena appear due to magical protection, prayers, and sacrifices dedicated to gods and ancestors. Unexpected and unpleasant phenomena reveal the activities of punishing gods, or malevolent witches, or sorcerers. As well as these people regard even the break of a jar into single parts or a fall from a stool as mystical phenomena caused by magic, they *tend* to regard the chain of all occurrences, the whole reality, the whole life of people down to the smallest details as mystical phenomena.

More developed and more disenchanted people such as most modern people *tend* to reserve mystical influences to really unexpected occurrences or extremely improbable incidents such as flood catastrophes or extraordinary rescues from aircraft accidents. People such as the Azande, however, *tend* to interpret every breakdown of a house or any uncommon behaviour of cattle as proof of magical effects. Lévy-Bruhl is one of the many ethnologists who have demonstrated that these *tendencies* are to find among all tribal societies and agrarian civilisations around the world. They are by no means limited to tribal societies but are common in ancient China, India, pre-Columbian America, and medieval Europe. Of course, the mystical interpretation penetrates stronger in illiterate tribal societies, but it is prevalent across all premodern societies, with somewhat diluting degrees only in more sophisticated milieus. Uncountable ethnographers and historians have detailed that premodern peoples see the empirical factors only as a medium or as a hull that conceal the mystical factors as the true incident makers. Behind the attacking predators, ambushing enemies, raping soldiers, flood or thunderstorm devastations, epidemics, etc. are sorcerers, witches, gods, ancestors, or ghosts working as the true origins of these occurrences. Mystical influences make every lucky incident or every mishap happening to every single individual in the world. Benevolent divinities or own successful magic procure every common or lucky

occurrence. Punishing divinities or beings practising magic cause every misfortune in the world, from a rainfall too strong over toothache to scanty harvest or divorce.⁸

Au contraire, le primitif se représente fort bien l'intervention des puissances invisibles dans le cours des phénomènes naturels. Mais il la croit très fréquente, ou, pour ainsi dire, continuelle. Il essaie constamment, selon les cas, de la provoquer ou de la combattre (Lévy-Bruhl 1931: xxxvi).

According to Evans-Pritchard, Lévy-Bruhl and numerous authors more, premodern peoples do not know “chance,” “causality,” and “probability.”⁹ Modern people regard the occurrences happening in the world in the light of these “Kantian” categories, premodern peoples rather in the light of mystical forces. Developmental psychologists have evidenced that modern children by their seventh year of life do not grasp these Kantian categories, too. The development of the categories unfolds stepwise, dependant on the succeeding cognitive stages (Piaget 1969, 1975). Instead of these categories children use magical terms.

When a child is struck by a door which a gust of wind has closed, the child will find it difficult to believe that neither the wind nor the door had the intent of hurting him; he will certainly see the interaction of causes which brought him near the door, and also what caused the door to move, but he will not admit their independence. It is this fact which will not let him see the event as fortuitous. On the other hand, he does not recognize that chance characterizes daily happenings (social, meteorological, etc.) because he fails to notice the interactions of phenomena (e.g., the relationship between night frosts and the flowering of a fruit tree). In brief, the alternatives which have kept the child (as well as the primitive mind) from constructing the idea of chance are his recognition of either an interaction of causes with no recognition of their independence, or their independence without realizing their interaction (Piaget and Inhelder 1975: 1 f.).

The Kantian categories such as “causality,” “chance,” and “probability” unfold due to the rise

of the concrete operations. With the formal operations later they attain a much more sophisticated usage. Accordingly, magical and mystical terms start to disappear with the concrete operations and finally vanish with the formal operations. Modern children tend to interpret occurrences in magical terms strongly by their seventh year of life, to an increasingly smaller degree by their tenth year of life. They have the same mystical worldview as the premodern peoples have, basing on the same animism, magic, mystical participations, and conceptual realism.¹⁰ People on the adolescent stage of formal operations interpret the world then in terms of empirical-causal categories and surmount the mystical view (Piaget 1969; Piaget and Inhelder 1975).

Last but not least: who are the mystical beings steering all occurrences? Every object and every being has the power to submit mystical and magical influences. God of the heaven, gods, ancestors, and magical kings are the most powerful magicians. Next to them are humans, animals, plants, stones, rivers, and any other object such as leaves, roots, weapons, chairs, or whatever can emanate magical influences.¹¹

4 Birth and Death as Mystical Phenomena

Sickness and health, birth and death are believed to be mystical phenomena in every premodern society. Mystical beings create sicknesses and magicians cure them by removal of the malevolent magical influence. Hence, health originates in successful magical protection. This belief in the magical causation of health and sickness is documented for all premodern societies and has existed up to the era of Enlightenment.¹²

Dans un grand nombre de sociétés primitives, en présence d'une maladie grave ou d'une mort, la mauvaise influence à laquelle on pense tout de suite, si ce n'est pas la colère d'un ancêtre, est à coup sûr l'action d'un sorcier. ... Mais pour la mentalité primitive, qui ignore tout de ce processus, être gravement malade (ne pouvoir plus marcher, ni se tenir debout, ni manger, etc.), c'est là précisément être ensorcelé. La maladie n'est pas seulement suscitée par le

8 As implying cultures worldwide, see Lévy-Bruhl (1966: 22, 179, 251; 1938: 37; 1931: 31); Oesterdiekhoff and Rindermann (2007); regarding South Pacific, see Malinowski (1981: 137); regarding Africa, see Mair (1969: 30, 102, 127, 212); Signer (2004: 183, 360 f.); Mbiti (1974: 55); Schoormann (2005: 289, 393); Middleton (1999: 45, 47, 79); regarding European antiquity and Middle Ages, see Luck (1990: 64); Angenendt (2009: 102, 115, 149); Thomas (1980: 81–90); and regarding native tribes in South America, see von den Steinen (1894); Lizot (1982: 164).

9 Lévy-Bruhl (1966: 179; 1938: 43); Fortune (1963: 150); Müller (2004: 24); Thomas (1980: 81); Evans-Pritchard (1978: 60–76); Oesterdiekhoff (2002; 2006; 2009: 203–260, 344–368; 2011: 87–132; 2013a: 115–194).

10 Piaget (1969, 1975); Bühler (1930); Ellwanger (1980); Gesell (1954); Stern (1924); Werner (1948); Schultze (1900); Zeininger (1929); Oesterdiekhoff (2009: 203–260, 344–368; 2011: 87–132; 2013a: 115–194).

11 Lévy-Bruhl (1931: 100); Fortune (1963); Frazer (1994); Schultze (1900: 209–246).

12 Signer (2004: 232); Lévy-Bruhl (1966: 22, 273; 1921: 232–239; 1931: 169–190); Luck (1990: 64); Middleton (1999: 45, 47); Mair (1969: 121); Evans-Pritchard (1978: 55, 172, 270 ff.); Oesterdiekhoff and Rindermann (2007).

sorcier: elle consiste en l'ensorcellement même (Lévy-Bruhl 1931: 168, 169).

Mystical beings cause the birth and death of every single individual. There are tribal societies who believe that human sorcerers make the children. Usually, gods and ancestors create the neonates by magic, especially by metamorphosis via reincarnation or by other magical procedures.¹³ In more developed societies, such as ancient and medieval Europe, the belief into the role of magicians and ancestor gods as makers of babies diminishes to a certain degree in favour of the role of the higher gods. I would strongly emphasise that the Christian contention "God gives and takes the life" was no phraseology but a concrete and literal idea in former times. God was believed to make every individual baby by himself.¹⁴

The belief in the magical causation of every single death is to be seen against this background. As premodern people regard every "incidental" phenomenon as a mystical one, as they regard every death as a mystical and magical phenomenon. They do not accept accidents, assassinations, predator attacks, diseases, heart stroke, or loss of bodily functions due to aging as causes to death. Either they do not see the for us obvious factors at all (aging, disease, etc.) or they regard them (accidents, etc.) but value them not as factors but only as the hull or the medium the mystical forces use to accomplish their deadly intentions. In this case, the for us natural factor is only a tool for the mystical factor which is the real cause. Without reference to magic the true factor or causation of death is not discernible in their view.

Tribal societies seem to emphasise the role of human's magic higher than the role of ancestors or divinities or at least to the same rate. A survey on 194 severe incidents, mostly deaths, in Africa (Zimbabwe) ascertained that the people involved named sorcerers as causers to the incidents by 55% of the 194 cases, divinities by 25%, and the rest to other causers (Mair 1969: 212). Another survey among the African Tonga found out that they usually emphasise more the role of ancestors than that of sorcerers (Schoormann 2005: 393). The study of Evans-Pritchard (1978: 72, 99, 101) on the Azande only seems to know the impact of human magicians as causers to death, widely but not fully ignoring the role of divinities. Fortune (1963) with regard to

the Dobu Melanesians, Spencer and Gillen (1904) with regard to Black Australians, Keysser (1911) and Lehner (1911) with regard to the Papua mediate the same impression. However, the overall picture seems to be that even these peoples attribute death either to divinities and ancestors or to human magicians as well.¹⁵ The more developed a society is the more probable is it that gods will overtake the role of causing deaths at least to some rate. Medieval Europe knows better god's impact with this regard than the role of sorcerers and witches.¹⁶ Henceforth, it is not only probable but obvious that illiterate tribal societies emphasise more the role of humans than that of gods in causing deaths magically, at least in comparison to more developed cultures. In any case, it is widespread in premodern societies that people discuss in death cases whether god, ancestors, ghosts, witches, or sorcerers were the respective death makers or assassins (Schoormann 2005; Evans-Pritchard 1978: 300–306).

Developmental psychology can help to illuminate these relations. Children of modern societies by their seventh year (or ninth year at the latest) make no difference between divinities and humans as magical makers of incidents. After their ninth year of life modern children completely deny the magical capacity of humans but see only God as the single magician.¹⁷ The indifference of illiterate societies, especially tribal societies, with reference to humans, ghosts, or divinities as possible makers of incidents generally and deaths specially matches to the same indifference of the younger children. The probable overweight of God related to sorcerers and witches with this regard in ancient and medieval Europe (and China, too) corresponds to psychological stages beyond the preoperational stage, respectively, beyond the seventh developmental year (Oesterdiekhoff 2013a: 183–194).

I maintain that not social structures or demographic problems are the causes to this belief of magical assassinations but only the developmental stage of these premodern peoples. Premodern peoples assume that humans and divinities control everything happening in the world by magic. Developmental psychology has found out that humans on preoperational or concrete-operational stages regard all occurrences as made by personal beings. Modern children surmount magical beliefs after their ninth

13 Frazer (1994: 151, 197, 327); von den Steinen (1894: 362–364); Mbiti (1974); Elkin (1986); Spencer and Gillen (1904); Lienhardt (1987: 39).

14 Waardenburg (1980: 40f.); Meinhold (1980: 145); Oesterdiekhoff (2013a: 183–185).

15 Lévy-Bruhl (1931; 1938; 1966: 44, 165–226); Middleton (1999: 79, 253); Frazer (1994: 151, 197); Oyibo (2004: 135); Müller (2004: 24); Mair (1969: 63).

16 Waardenburg (1980: 40f.); Meinhold (1980: 145); Delumeau (1985 I/II).

17 Piaget (1975); Ellwanger (1980); Zeininger (1929); Thun (1959).

year of life.¹⁸ Though, premodern people surpass magical ideas and practices never in their lifetime. Numerous authors worked out that children's magic is the single root of the premodern magic.¹⁹ Thus, premodern people cannot avoid looking for magical agents that produce all incidents including deaths. *They identify every death with murder, because they see all incidents in terms of actions and intentions.* Henceforth, death cases automatically lead to questions about motives and causers behind. Children of modern societies by their sixth year of life are said to identify likewise every death with violence and murder (Gesell 1954: 167; Bettelheim 1997: 54).

Moreover, the fact of the universality of the equation of death with assassination exerted by divinities and humans in premodern societies is connected to the universality of the lower psychological stages premodern humankind occupies. I add that only the cognitive-developmental approach explains this most impressive phenomenon. The more the peoples stay on the preoperational stage the more they emphasise the role of humans as magical killers. The more they move somewhat higher to the concrete operational stage the more they earmark the role of divinities, too. Modern peoples staying on formal operational stages continuously and finally surpass the mystical interpretation of death at all (Oesterdiekhoff 2013a: 183–194).

5 How Magicians Kill Humans

I present now some typical forms of interpreting death incidents as magical assassinations, widespread in premodern societies around the globe. Even the real assassinations in form of wars, homicides, or predator attacks are seen as a hull that conceals the true – the magical – assassination. For example, predator attacks leading to death of the victim are widely seen as magical attacks. Either people believe that the magician ordered or influenced the beast to kill the person or they assume that the magician transformed himself to the animal. Premodern people believe worldwide that magicians can transform to all kinds of rocks, plants, animals, and humans. We know that this kind of belief in metamorphosis has been a worldwide belief basing on magic and religion, too.²⁰ The preopera-

tional stage of psyche and reason is the origin of the belief in metamorphosis. Modern children believe in the metamorphosis of cats into dogs or humans into ghosts, etc. by their sixth year of life. The non-understanding of the invariance of the kind is part of the non-understanding of the invariance of many ideas of physics and reality such as volume, mass, weight, number, etc.²¹ Weak reasoning abilities and scanty sense for reality are the causes to these ideas. Belief in magic generally and in metamorphosis specifically are manifestations of the lower psychological stages.

Lévy-Bruhl is one of those who collected data from all over the world regarding the idea that killing predators are transformed magicians who intend to kill the attacked persons for bad reasons only. Especially peoples of tribal societies maintain that attacks of lions, crocodiles, snakes, etc. really are attacks of humans having transformed to these animals or use them. They use to add that common crocodiles or lions do not kill humans, only the enchanted or transformed ones (Lévy-Bruhl 1983: 199, 224–228, 235–240).

The natives will not even stop at declaring, as we would, that these rats, the crocodile or the lion, have acted as the sorcerers' servants, agents or instruments to carry out the orders they had given. In the pattern of their thoughts the matter goes deeper. They think of these animals (whether "created" or "made") as extensions of the sorcerers' own personal identity. They are appurtenances of it; that is, integral parts of their personalities (Lévy-Bruhl 1983: 231).

For example, a crocodile kills a woman standing by the river in the middle of the two other women. The watching people accuse the two others of having caused magically the crocodile's attack. Five people standing high on a hill observe a human's death in a river caused by a crocodile. Bystanders accuse them to be the magicians who have caused the attack, respectively to be the crocodile. It is up to magicians to be able to press themselves, respectively five men, into the skin of one crocodile and to overtake the control of its behaviour (Lévy-Bruhl 1949: 63 f.; 1966: 32).

Of course, magicians have numerous possibilities to execute the death of humans apart from transformations into animals. Witches and sorcerers are said to go directly into the body of their victims and start to devour their internal organs. Short meals lead to sickness only. When the witches eat for longer times or when they come night after night to visit the same victim, the sickness will endure and the person will

18 Piaget (1975, 1969); Ellwanger (1980); Stern (1924); Zeininger (1929); Bühler (1930).

19 Schultze (1900); Zeininger (1929); Rockmore (1989); Hallpike (1979); Oesterdiekhoff (2002; 2006; 2007; 2009; 2011; 2013a, b); Werner (1948).

20 Eliade (1975); Elkin (1986); Fortune (1963); Frazer (1910); Lévy-Bruhl (1930, 1938, 1983).

21 DeVries (1969); Piaget (1975); Oesterdiekhoff (2013a: 151–156; 2011: 110f.).

die. This idea of organ-eating witches is to find in Black Australia, Black Africa, South Pacific, pre-Columbian America, Greek-Roman Antiquity, and Medieval Europe. This belief is somewhat stronger in the first regions of this list but persists also in the additional regions. These similarities are striking, especially with regard to the many details, all observable right across the premodern world. The whole premodern world has believed that witches have a high impact on deaths occurring on Earth. Of course, eating is only one method witches use in order to kill persons.²²

Witches and sorcerers can also kill their victims by curses, by destroying images or models of their victims, by sending symbolic arrows, or whatever. Not only experts of magic are the murderers but every single individual can be capable to execute death magic. Reo Fortune (1963: 137) describes that the villages of the island Dobu are full of people that maintain to have killed other people by magic. They take every, in our view natural death as proof of the efficacy of their magical procedures they have executed beforehand. There is hardly death without a contention of any person that surmises to have caused it. The people think it might be sufficient to imitate the death struggle of any person to cause his death. It happens sometimes that the missing death of a bewitched person motivates the sorcerer to commit suicide for reasons of disappointment or shame. Thus, the villages are full of people who believe to be great magicians and successful murderers. Evans-Pritchard (1978: 68–72) describes similarly that every death among the Azande immediately leads to accusations of any person, pronounced by the dead person's relatives. There is no death without accusations of persons who are said to be responsible for the alleged assassination.

Fortune (1963: 149) contends regarding the Melanesians: "For sickness, disease, and death are common enough. No other explanation of them, than the sorcery and witchcraft used by living persons nearby ... exists." Uncountable ethnographers have emphasised the high impact of magicians with this regard, too. Although we have to consider the influence of other agents, it is surprising how many ethnographic sources earmark the decisive role of humans as magical killers, too. Ethnographers and observers have found similar words as those expressed by Fortune with regard to seemingly all tribal societies and archaic societies around the world.²³

6 Why Divinities and Sorcerers Kill Humans

The archaic equation of death and magical assassination gives birth to considerations about the motives encouraging agents to kill persons. Premodern people attribute uncountable motives to the magical killers and not only a short list of them. Hunger, envy, hate, malevolence, evilness, revenge, punishment, or arbitrariness are some of the motives. For example, hunger is one of the main motives why gods and humans kill other persons magically. Both groups are said to be cannibals who like to eat humans. They kill humans in form of accidents, heart strokes, or other sicknesses to eat their internal organs or their souls, thus satisfying their hunger. Henceforth, humans provide the gods with human sacrifices freely. The more they deliver other persons the higher is the chance that the gods spare them, the adorers, who sacrifice captives and other victims.

Frequently, divinities and humans kill persons for lower reasons such as envy and revenge, punishment or whichever reasons. Divinities such as gods and ancestors submit sickness and death when the humans on Earth did not deliver just in time or not abundantly sacrifices or prayers, behaved badly, or committed crimes. Often enough arbitrariness is sufficient for the divinities to kill. "It pleases God to take a human's life" is a well-known and widespread phraseology. Or, gods kill humans to have them nearby in their paradise. Magicians kill humans for the common reasons that originate in ordinary social intercourse such as jealousy, envy, hate, or whichever reasons.²⁴

7 Who Is the Murderer?

Sometimes people assert knowing immediately who the killer was, sometimes they discuss or ascertain who the alleged killer was. Evans-Pritchard (1978: 181–245) described at length that the Azande unavoidably ask the ordeals whenever any person dies for whatever reasons. They ask the ordeals of poison, termites, or wooden plat, which designate the murderer. The Azande addresses then the thus determined murderer who has to obey the holy de-

22 Oesterdiekhoff (2013a: 86); Evans-Pritchard (1978); Mair (1969); Soldan und Heppe (1986); Tucay (2003: 281).

23 Frazer (2010: 170, 213; 1994: 143; 1932: 300, 350); Lévy-Bruhl (1966: 20–25, 55–60; 1921: 245; 1930: 125); Keysser

(1911: 134–140); Lizot (1982: 36); Evans-Pritchard (1978: 113); Elkin (1986: 338); Luck (1990: 64); Spencer and Gillen (1904); Malinowski (1981: 137); Barloewen (2000b: 26); Oesterdiekhoff (2013a: 183–194).

24 Oyibo (2004: 77, 133, 135); Schoormann (2005: 352); Middleton (1999: 79, 140, 253); Frazer (1994: 151, 197); Mair (1969: 215); Waardenburg (1980: 41, 43, 45); Lévy-Bruhl (1966: 44, 227).

cision. In fact, usually he is not the murderer because the death originates from natural reasons or from homicide by another person. Moreover, the accused person usually cannot have a consciousness of his magical attack against the dead because he simply did not kill him or her, neither magically nor in another manner. Basically, the ordeal is just a “hazard game,” as already Tylor (2005/I: 74–86) rightly defined. However, even the defendant believes that the ordeal commonly cannot fail. Thus, he often confesses that it must have been *his soul* that killed the person without *his knowledge*. In any case, the person who is determined by the ordeal has to face the expectable punishment, although he usually cannot have the slightest knowledge of any guilt. Sometimes he has luck and has to pay only a smaller or higher sum. More often, he encounters death sentence as the usual punishment for magical homicide. Frequently, this was the common practice right across the ancient world, as I am going to show below.

Premodern societies around the world have applied ordeals to ascertain the magical killer. Basically, high percentages of deaths, actual homicides, or natural deaths have led to ordeal applications, which have designated the murderer. Against a rational view, this all is only a lottery that implies punishment and death for actually innocent persons. Against the premodern view it is a secure and holy procedure, superior to any other procedures. Black Australians, Africans, Native Americans, Asians from all cultures, peoples from Oceania, ancient and medieval Europeans used ordeals to discover the murderer for any deaths. Medieval Europeans often used the same ordeals as the Black Australians or the Africans, for example, the “Bahrprobe” or fire ordeals to find the person responsible for any death. Of course, premodern peoples did not only use ordeals to ascertain the *magical murderer* in case of *actually natural deaths* but also to find *actual murderers* in case of *real homicides*. They often used ordeals even when they knew about the accident or the murderer who killed the person because only the ordeal can discover the true and invisible murderer who stood behind the accident or the visible murderer (the medium only). Of course, against a rational view the chance to find the real murderer this way is illusionary and at random in both cases.²⁵

The practice to use ordeals to find the truth

about past, present, or future occurrences is rooted in preoperational and lower stages of psyche and reason. Younger children of modern societies use hazard games such as drawing matchboxes, looking for specific cars passing by, or fights, too, in order to find the truth about quarrels. Children’s belief in *immanent justice* carries the premodern ordeal practices. Children from all over the world believe, as premodern adults did, that fleeing children who have stolen apples and run over a bridge which collapses below them, crashed because it wanted to punish them. Surveys from all over the world document that initially all children from all cultures think so and that adults of premodern societies persist in maintaining this childlike belief. Immanent justice is a manifestation of children’s psyche, that is, lack of categories such as causality and chance, animism and magic and weak reasoning abilities account to this phenomenon. Several authors showed that children’s immanent justice is the psychological root of the premodern ordeals. Lower psychological stages originate the magical procedures to discover the truth of past, present, and future occurrences. The discovery of a magical murderer is only one of the many tasks of the ordeals to accomplish. Thus, one of the main judicial procedures of premodern societies originates in lower psychological stages. Moreover, some considerable percentage of the whole, premodern humankind died due to these hazard games that designated the magical murderer who was believed to stay behind the death of a person who actually died from the commonly natural causes.²⁶

However, the ordeal was only one of the procedures to find the magical murderer. It is probable that it was even the main proof. Furthermore, people often accused any bystanders of having caused the deaths, providing that their proximity sufficiently evidences their involvement and guilt. Lévy-Bruhl has collected numerous examples of this type and documented that this praxis was widespread around the world. The above-mentioned cases of the three women nearby the river and the five men on the hill mediate a first impression of this type of accusation. The accompaniment of a dying person, for example during a walk, runs a high risk of getting accused of having used killing witchcraft (Lévy-Bruhl 1931: 165–226; 1938: 37–97). It can be sufficient that a dying man professes that his wives or any per-

25 Lévy-Bruhl (1966: 58–60, 141–241); Lehner (1911: 471); Fortune (1963: 154–166); Hallpike (1979); Le Roy (1911: 206, 368); Mair (1969); Oesterdiekhoff (2002; 2006; 2009: 344–368; 2011: 118–132; 2013a: 169–194); Oesterdiekhoff and Rindermann (2007); Radding (1978); Soldan und Heppe (1986); Tylor (2005/I).

26 Ellwanger (1980); Piaget (1932); Radding (1978); Werner (1948); Zeining (1929); Oesterdiekhoff (2002; 2006; 2009: 344–368; 2011: 118–127; 2013a: 169–182; 2013b); Oesterdiekhoff and Rindermann (2007); Frazer (1932: 300 ff.); Le Roy (1911: 381); Tylor (2005/I: 138).

sons have killed him by magic in order to motivate bystanders to kill these persons accused/concerned (Lévy-Bruhl 1921: 245).

The relatives of a dead may be also exposed to corresponding accusations. Wives may be accused of having killed their husband, mothers of having killed their children, etc. Motives of envy and conflict are omnipresent and drive persons to accuse any relatives, neighbours, or village dwellers of having killed the dead by magic. Any natural death from accident or disease frequently leads to accusations against mother, father, brother, and children of the dead, accusations which often bring death sentence to the defendant.

Quelqu'un dans la force de l'âge, ou tout jeune, tombe gravement malade, et meurt. Les siens, très émus, pensent tout de suite à un ensorcellement. Peut-être, cependant, est-ce l'effet du mécontentement d'un ancêtre? Un devin, consulté, confirme que l'on a affaire à un sorcier. Qui est-ce? Souvent (en particulier chez les Bantou), c'est sur un parent proche de la victime, sur un fils, une mère, un frère, que se porteront d'abord les soupçons. ... Peut-être dirait-on que de tels faits sont exceptionnels. Il serait facile, au contraire, d'en montrer la grande fréquence. Et jamais on ne nous dit qu'ils aient soulevé chez les indigènes une indignation et une surprise particulières (Lévy-Bruhl 1931: 199, 202).

Very often people accuse residents of a close village or a foreign tribe of having killed a person. Ordeals and oracles especially designate distant persons as responsible for the death. Witchcraft may have impact over huge distances. Feuds and wars may arouse in cases of such accusations. However, even the accusation of foreigners and enemies can endanger the dead person's relatives, too. The close tribesmen accuse then the relatives of having neglected to defend the dead against the magical attacks of the hostile village or tribe. They kill the wife of the dead, saying that she was a bad wife because she did not procure a magical protection against the hostile magic (Elkin 1986: 338).

8 What Happens to the Magical Murderer?

Homicide by real arms or by magic usually leads to death sentences. Mostly, only divinities are exempted from revenge attacks. The high gods and ancestors can do what they want. It may sometimes happen that the descendants refuse to bring sacrifices to them due to their disappointment upon having lost a family member for the divine decisions. The consequences diverge with human murderers, though. Evans-Pritchard (1978: 77, 91, 113, 300–305) determined that convictions, spoken by the

ordeals, usually led to death punishments in former times. The same is true regarding most archaic tribes and premodern societies. The usual punishment for homicide has been death sentence right across the premodern world. Sometimes it was possible to be spared by paying compensations, often cattle or specific sums. The higher the status of a person the more difficult was it to pay compensations in order to avoid death penalty. Killed women, children, and low status persons sometimes did not provoke blood revenge and death penalty. Their relatives were occasionally content to hurt the killer or to receive some goods from him. In case a man in his best age, a warrior or a man of higher status was killed, the probability of blood revenge and death penalty considerably grew.

If the killer lived in the same community or was a relative, then the village chief or the victim's family ordered the death penalty. In such cases a natural death of a person costs only one other death, the death of the alleged murderer. Nonetheless, even in such cases it could happen that the defendant and his or her relatives started a fight against the accuser and his or her supporters. Feuds and combats could arise with many casualties following. The severity of consequences grew with the accusations across borderlines of villages or tribes. Foreign people would not willingly subdue to convictions from people they are not acquainted with or even stay with them in hostile or indifferent relations. Nonetheless, sometimes the convicted magicians faced their death penalty without defence or revenge.

Many ethnographers emphasise, however, that accusations of either own tribesmen or foreign people frequently led to feuds and wars with many casualties. Some observers even maintain that a huge percentages of wars in tribal societies originate from these accusations of magical assassination. These feuds and wars sometimes can devastate whole villages and tribes and can last for years and generations. According to some authors, these wars originating in magical interpretation of deaths used to devastate whole regions and nations, for example the land of the Wasuto in Eastern Africa, territories in West Africa, and whole regions of Papua New Guinea. Moreover, the fatal consequences of the magical death interpretation is said to have caused as many casualties as wars did for other reasons, at least in tribal societies.²⁷

The people who accuse others of having killed a

²⁷ Keysser (1911: 62f., 101, 134, 140); Neuhauss (1911/I: 132f.); Le Roy (1911: 381); Tylor (2005/I: 138); Frazer (1932: 300, 350); Oesterdiekhoff (2011: 127–132; 2013a: 544–546, 183–194).

specific person run a high risk of arousing feuds and wars. However, they have usually no chance from escaping to go this way according to their customs and belief systems. They have the duty to revenge a comrade or relative, otherwise they would lose the respect of their family and tribesmen. Moreover, the allegedly killed persons are believed to demand revenge from their descendants. After their death, they are ancestral divinities observing the deeds of their descendants, punishing them when they are faulty, awarding them when they bring sacrifices or behave well. Basically, archaic humans around the world believed in the world-controlling functions of their ancestors. Especially, new ancestors are keen on waiting for blood revenge for their assassination. In case their descendants want to spare their revenge, wait too long, or accept compensations, the deceased persons can become angry and punish them badly. Missing revenge motivates the new ancestor gods, respectively, the magically killed persons, to punish their relatives or their tribe by epidemics, flood catastrophes, spoiled harvests, sicknesses, and deaths. Thus, people around the world really believed that missing blood revenge for their relatives could bring them secure mishap and death. Experts say that archaic people often fear the magical revenge of the dead relatives much more than the fight with the hostile and mighty clan, tribe, or village. Thus, they feel compelled to execute blood revenge although knowing about the severe and fatal consequences.²⁸

Additionally, natural deaths leading to poison ordeals exposed to every village resident in order to discover the murderer can kill dozens or hundreds of people and devastate whole communities. Occurrences like this happened in Africa even in past decades and in earlier times more frequent, of course (Oesterdiekhoff and Rindermann 2007). It is quite clear that belief in magic generally and specifically in death magic has tremendously influenced the population history of the whole humankind. What experts have said about the relationship between death magic, blood revenge, casualties, and low population density in Africa, Australia, Papua New Guinea, and South America at least can partly be transferred to some other regions and times. Magic has very negatively affected human's population history on Earth or Magic has heavily impacted human's population history on Earth in a negative manner. There is a strong relationship between death magic, psychological development, and population history,

respectively, between developmental psychology on the one side and demography, economics, and sociology on the other side (Oesterdiekhoff 2011: 127–132; 2013a: 544 ff.; Frazer 1932: 300).

9 Conclusions

Archaic societies tend to identify *natural death* and *homicide*. Beyond the actual homicides by arms, they regard even the natural deaths stemming from accidents, diseases, and organic malfunctions due to age as homicides, too, namely as magical assassinations. The root of this strange phenomenon is the mystical interpretation of the world, that is, the belief in magic as the decisive power that controls the whole world. These peoples cannot understand the running of the world in empirical-causal relations but only in terms of magical relations. They presume that gods, ghosts, humans, and objects make all occurrences, that is, they identify incidents with actions. It is beyond their mind to understand that important incidents such as deaths should not be under the control of divinities or other beings. Children's preoperational thinking – magic, animism, precausality, etc. – is the source of this phenomenon. Young children (Guthrie 2007: 294; Gesell 1954: 430) and many societies (Barloewen 2000b: 26; Lévy-Bruhl 1966: 20, 303) are said not to understand the inevitability of the end of physical life. But even when higher societies understand "*nemo mortem effugere potest*" they do not surpass the belief in the magical causation of death. Even then, they believe that magicians and divinities alone cause deaths, seeing the natural death only as medium and hull. Though, it may be that the strength of the magical belief might have been stronger in the former type of societies. In most premodern societies, divinities (including ancestors) on the one side and magicians (including animals, plants, and objects) on the other side are the death makers more or less to the same rate. Since Antiquity in the more complex societies such as ancient or medieval Europe, the role of humans as magical assassins weakens in favour of God as the decisive killer. However, the idea of a magical death caused by sorcerers continues in Europe by the 18th century.

I emphasise that the idea of God as killer goes through several stages, too. There is a difference between the concrete idea of God as killer and cannibal in a literal meaning and the more abstract idea that God may decide the death of humans, an idea which is still prevalent in certain percentages of population even of the today's most advanced societies. The former one certainly is more lively and

28 Lévy-Bruhl (1966: 57 f.); Frazer (2010/I); Oesterdiekhoff (2013a: 186–189); Bamlér (1911: 519); Keysser (1911: 62 f.).

concrete in the less developed societies. The percentage of people that do not believe anymore in the immortality of the soul and, therefore, in God's decisions about the end of life amounts in Europe and Japan roughly 50% of people (Oesterdiekhoff 2011: 159–161; 2013a: 236–240). This percentage manifests the next step of cognitive maturation. These people have abandoned any belief in the role of magic regarding the death. Only these people have developed an understanding of death as a merely natural phenomenon. Altogether, the understanding of death obviously runs through several stages. The world's population today or people of the modern world stay on divergent stages with this regard. Only few percentages right across the world today adhere to the role of magicians and sorcerers, once the main idea in history. However, the idea of the complete absence of magic, made by God, in causing the death, has by no means the overweight in the thinking of the peoples of the contemporary world.

The consequences of the magical interpretation of death make the crucial point of this phenomenon. The discovery and punishment of the alleged magician and assassin very often arouses dramatic consequences. The ethnographic literature is full of contentions according to which many deaths lead to assassinations of the alleged magician. A very large number, and often enough most deaths caused by natural factors lead to real assassinations. People identify the natural death with murder and the following death sentence with a justified punishment. However, according to a rational understanding, these peoples react to a natural death with a mindless assassination. The opposites could not be greater and stranger.

Far too often not only one person has to die in consequence of a natural death. Especially in case of the accusation of people of other clans, villages, or tribes the chance grows that wars and feuds start with many casualties. Then, one death originating from suicide, aging, or accident can cause dozens or hundreds of deaths. Further, the application of poison ordeals among dozens or hundreds of suspects can kill many a people who are said to have caused the death under scrutiny.

Many authors have described that these forms of irrationality had a tremendous impact on human's population history on Earth. Of course, death magic is only one manifestation of the fatal consequences of magic regarding the population history. Further, magic is only one form of the fatal consequences of the lower stages of psyche and cognition with this regard.

Especially between 1850 and 1950, social sciences and humanities tended to emphasise the

greater irrationality prevalent in premodern societies. Since 1950 and especially since 1980 a trend reversal took place in these disciplines. "Cultural relativism" and "universalism of mind" used to belittle the obviously greater irrationalities in premodern societies and to dwarf the huge differences between premodern and modern societies. The result is an enormous loss of scientific standards and knowledge. For more than one generation now, a far-reaching regression of these sciences has been taken place, regarding not only a few aspects. It will be necessary not only to resume the knowledge and traditions of the past of these disciplines but also to support these recently developed approaches that go beyond both the past traditions on the one side and the contemporary "relativism" and "universalism" on the other side.

References Cited

Angenendt, Arnold

2009 *Geschichte der Religiosität im Mittelalter* [History of Religiosity]. Darmstadt: Wissenschaftliche Buchgesellschaft. [4. Aufl.]

Bamler, Georg

1911 Tami. In: R. Neuhauss (Hrsg.), Bd. 3: Beiträge der Missionäre Keysser, Stolz, Zahn, Lehner, Bamler; pp. 487–566.

Bettelheim, Bruno

1997 *Kinder brauchen Märchen*. München: Deutscher Taschenbuch Verlag. [Orig.: *The Uses of Enchantment*. New York 1975]

Barloewen, Constantin von

2000 *Der lange Schlaf* [The Long Sleep]. Der Tod als universelles Phänomen der Weltkulturen und Weltreligionen. In: C. v. Barloewen (Hrsg.), *Der Tod in den Weltkulturen und Weltreligionen*; pp. 12–119. Frankfurt: Insel-Verlag. (Insel-Taschenbuch, 2612)

Berry, John W., and Pierre R. Dasen (eds.)

1974 *Culture and Cognition. Readings in Cross-Cultural Psychology*. London: Methuen.

Bühler, Karl

1930 *The Mental Development of the Child. A Summary of Modern Psychological Theory*. London: K. Paul, Trench, Trubner; New York: Harcourt, Brace.

Dasen, Pierre R. (ed.)

1977 *Piagetian Psychology. Cross-cultural Contributions*. (Preface by J. Piaget.) New York: Gardner Press.

Delumeau, Jean

1985 *Angst im Abendland* [Fear in the Occident]. Die Geschichte kollektiver Ängste im Europa des 14. bis 18. Jahrhunderts. 2 Bde. Reinbek: Rowohlt Taschenbuch Verlag.

De Vries, Rheta

1969 *Constancy of Generic Identity in the Years Three to Six. Monographs of the Society for Research in Child Development* 34/3: iii–iv, 1–67.

Eckensberger, Lutz H., Walter J. Lonner, and Ype H. Poortinga (eds.)

- 1979 Cross-Cultural Contributions to Psychology. (Selected Papers from the Fourth International Congress of the International Association for Cross-Cultural Psychology; Munich, July 28–August 05, 1978.) Lisse: Swets und Zeitlinger. (International Congress of the International Association for Cross-Cultural Psychology, 4)

Eliade, Mircea

- 1975 Schamanismus und archaische Ekstasetechnik. Frankfurt: Suhrkamp. (Suhrkamp-Taschenbuch Wissenschaft, 126)

Elkin, Adolphus P.

- 1986 The Australian Aborigines. North Ride: Angus & Robertson.

Ellwanger, Wolfram

- 1980 Die Zauberwelt unserer Kinder. [The Magic of Our Children]. Vom rechten Umgang mit den magischen Gestalten und Vorstellungen. Freiburg: Herder. (Herderbücherei, 786)

Evans-Pritchard, Edward E.

- 1978 Hexerei, Orakel und Magie bei den Zande. Frankfurt: Suhrkamp Verlag. [Orig.: Witchcraft, Oracles, and Magic among the Azande. Oxford 1937]

Flynn, James R.

- 2007 What Is Intelligence? Beyond the Flynn Effect. Cambridge: Cambridge University Press.

Fortune, Reo F.

- 1963 Sorcerers of Dobu. The Social Anthropology of the Dobu Islanders of the Western Pacific. (With an Intro. by B. Malinowski.) London: Routledge & Kegan Paul.

Frazer, James George

- 1910 Totemism and Exogamy. A Treatise on Certain Early Forms of Superstition and Society. 4 Vols. London Mac-Millan.
- 1932 Mensch, Gott und Unsterblichkeit. Gedanken über den menschlichen Fortschritt. Leipzig: C. L. Hirschfeld Verlag. [Orig.: Man, God, and Immortality. London 1927]
- 1994 The Collected Works of J. G. Frazer. (With a New Intro. by R. Ackerman.) Vol. 16: The Worship of Nature. Richmond: Curzon Press.
- 2010 The Belief in Immortality and the Worship of the Dead. 3 Vols. A Project Gutenberg EBook. <<http://www.gutenberg.org/files/33524/33524-h/33524-h.htm>> [20.07.2015] [Orig. 1922]

Gesell, Arnold

- 1954 Das Kind von Fünf bis Zehn. Bad Nauheim: Christian-Verlag. [Orig.: The Child from Five to Ten. New York 1946]

Guthrie, Stewart E.

- 2007 Anthropological Theories of Religion. In: M. Martin (ed.), The Cambridge Companion to Atheism; pp. 283–299. Cambridge: Cambridge University Press.

Hallpike, Christopher R.

- 1979 The Foundations of Primitive Thought. Oxford: Clarendon Press.

Keysser, Christian

- 1911 Aus dem Leben der Kaileute [The Way of Life among the Kai]. In: R. Neuhauss (Hrsg.), Bd. 3: Beiträge der Missionare Keysser, Stolz, Zahn, Lehner, Bamler; pp. 1–242.

Le Roy, Alexandre

- 1911 Die Religion der Naturvölker [The Religion of the Primitives]. Rixheim: Sutter Verlag.

Lehner, Stefan

- 1911 Bukaua. In: R. Neuhauss (Hrsg.), Bd. 3: Beiträge der Missionare Keysser, Stolz, Zahn, Lehner, Bamler; pp. 395–485.

Lévy-Bruhl, Lucien

- 1921 Das Denken der Naturvölker [How Natives Think]. Wien: Wilhelm Braumüller. [Orig.: Les fonctions mentales dans les sociétés inférieures. Paris 1910]
- 1930 Die Seele der Primitiven [The "Soul" of the Primitive]. Wien: Wilhelm Braumüller. [Orig.: L'âme primitive. Paris 1927]
- 1931 Le surnaturel et la nature dans la mentalité primitive [Primitives and the Supernatural]. Paris: Librairie Félix Alcan.
- 1938 L'expérience mystique et les symboles chez les primitives [Mystic Experience and Primitive Symbolism]. Paris: Librairie Félix Alcan.
- 1949 Les carnets [Notebooks on Primitive Mentality]. (Préface de M. Leenhardt.) Paris: Presses Universitaires de France.
- 1966 Die geistige Welt der Primitiven [Primitive Mentality]. Darmstadt: Wissenschaftliche Buchgesellschaft. [Orig.: La mentalité primitive. Paris 1922]
- 1983 Primitive Mythology. The Mythic World of the Australian and Papuan Natives. St. Lucia: University of Queensland Press.

Lienhardt, Godfrey

- 1987 Divinity and Experience. The Religion of the Dinka. Oxford: Clarendon Press.

Lizot, Jacques

- 1982 Im Kreis der Feuer. Aus dem Leben der Yanomami-Indianer [In the Fire]. (Aus dem Franz. von E. Moldenhauer.) Frankfurt: Syndikat. [Orig.: Le cercle des feux. Paris 1976]

Luck, Georg

- 1990 Magie und andere Geheimlehren in der Antike [Magic and Secret Knowledge in Antiquity]. Stuttgart: Alfred Kröner Verlag. (Kröners Taschenausgabe, 489)

Lurijs, Aleksandr R.

- 1982 Cognitive Development. Its Cultural and Social Foundations. Cambridge: Harvard University Press. [1974]

Lurijs, Aleksandr R., and Lev S. Vygotskij

- 1992 Ape, Primitive Man, and Child. Essays in the History of Behavior. Orlando: Paul M. Deutsch Press.

Mair, Lucy P.

- 1969 Magie im schwarzen Erdteil. München: Kindler Verlag. [Orig.: Witchcraft. London 1969]

Maistriaux, Robert

- 1955 La sous-évolution des noirs d'Afrique. Sa nature, ses causes, ses remèdes. *Revue de Psychologie des Peuples* 10: 167–189, 397–456.

Malinowski, Bronislaw

- 1981 Korallengärten und ihre Magie. Frankfurt: Syndikat. [Orig.: Coral Gardens and Their Magic. New York 1935]

Mbiti, John S.

- 1974 Afrikanische Religion und Weltanschauung. Berlin: Walter de Gruyter. [Orig.: African Religions and Philosophy. London 1969].

Meinhold, Peter

- 1980 Leben und Tod im Urteil des Christentums [Life and Death in Christianity]. In: G. Stephenson (Hrsg.), *Leben und Tod in den Religionen. Symbol und Wirklichkeit*; pp. 144–164. Darmstadt: Wissenschaftliche Buchgesellschaft.

Middleton, John

- 1999 *Lugbara Religion. Ritual and Authority among an East African People.* (New Introd. by T. Beidelman.) Hamburg: Lit-Verlag.

Mogdil, Sohan, and Celia Mogdil

- 1976 *Piagetian Research.* Vols. 1–8. London: NFER.

Müller, Klaus E.

- 2004 *Der sechste Sinn [The Sixth Sense].* Ethnologische Studien zu Phänomenen der außersinnlichen Wahrnehmung. Bielefeld: Transcript.

Neuhauss, Richard (Hrsg.)

- 1911 *Deutsch Neu-Guinea.* 3 Bde. Berlin: Verlag Dietrich Reimer (Ernst Vohsen).

Oesterdiekhoff, Georg W.

- 2002 Das archaische Prozess- und Beweisrecht und die “immanente Gerechtigkeit”. Erklärung von Struktur, Entwicklung und Untergang ordalförmiger Konfliktregelungen [The Archaic Forms of Trial and the Immanent Justice]. *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte – Germanistische Abteilung* 1: 175–192.
- 2006 Irrationale Denk- und Verhaltensweisen am Beispiel von Hexerei und Magie und ihr Stellenwert in der Kulturgeschichte der Menschheit [Irrational Modes of Thinking Regarding Witchcraft and Magic and Its Importance for History]. *Sozialwissenschaftliches Journal* 1/2: 79–104.
- 2007 Ancient Sun Cults. Understanding Religious Rites in Terms of Developmental Psychology. *The Mankind Quarterly* 48/1: 99–116.
- 2009 Mental Growth of Humankind in History. Norderstedt: Books on Demand.
- 2011 The Steps of Man towards Civilization. The Key to Disclose the Riddle of History. Norderstedt: Books on Demand.
- 2012a Ontogeny and History. The Leading Theories Reconsidered. *Cultural-Historical Psychology* 3: 60–69.
- 2012b The Rise of Formal Operations and Intelligence in History. *Psychological Science and Education* 3: 1–13.
- 2012c Was Pre-Modern Man a Child? The Quintessence of the Psychometric and Developmental Approaches. *Intelligence* 40/5: 470–478.
- 2013a Die Entwicklung der Menschheit von der Kindheitsphase zur Erwachsenenreife [The Development of Humankind from Childhood to Adulthood]. Wiesbaden: Springer VS.
- 2013b The Relevance of Piagetian Cross-Cultural Psychology to Humanities and Social Sciences. *American Journal of Psychology* 126/4: 477–492.

Oesterdiekhoff, Georg W., and Heiner Rindermann

- 2007 The Spread of AIDS in Developing Countries. A Psycho-Cultural Approach. *Journal of Social, Political, and Economic Studies* 32/2: 201–222.

Oesterdiekhoff, Georg W., und Heiner Rindermann (Hrsg.)

- 2008 *Kultur und Kognition [Culture and Cognition].* Die Beiträge von Psychometrie und Piaget-Psychologie zum Verständnis kulturelle Unterschiede. Berlin: Lit-Verlag. (Strukturgene und sozialer Wandel, 5)

Oyibo, Innocent

- 2004 Aspekte afrikanischer Eschatologie aufgezeigt am Beispiel des Ahnenkults bei den Igala von Nigeria [Aspects of the African Eschatology]. Ein Kernelement afrikanischer Religiosität als Anfrage an den christlichen Glauben. Münster: Lit-Verlag.

Piaget, Jean

- 1932 *The Moral Judgment of the Child.* London: Kegan Paul, Trench, Trubner.
- 1969 The Child's Conception of Physical Causality. (Transl. by M. Gabain.) Totowa: Littlefield, Adams. [1927]
- 1974 Need and Significance of Cross-Cultural Studies in Genetic Psychology. In: J. W. Berry and P. R. Dasen (eds.); pp. 299–309. [International Journal of Psychology 1966.1: 3–13]
- 1975 *The Child's Conception of the World.* (Transl. by J. and A. Tomlinson.) New York: Littlefield, Adams.

Piaget, Jean, and Barbara Inhelder

- 1975 *The Origin of the Idea of Chance in Children.* (Transl. by L. Leake.) New York: Norton. [1951]

Radding, Charles

- 1978 Evolution of Medieval Mentalities. A Cognitive Structural Approach. *American Historical Review* 83/3: 577–597.

Rockmore, Tom

- 1989 *Habermas on Historical Materialism.* Bloomington: Indiana University Press.

Schoormann, Matthias

- 2005 Sozialer und religiöser Wandel in Afrika [Social and Religious Change in Africa]. Die Tonga in Zimbabwe. Münster: Lit-Verlag. (Kulturelle Identität und politische Selbstbestimmung in der Weltgesellschaft, 11)

Schultze, Fritz

- 1900 *Psychologie der Naturvölker [Psychology of the Natives].* Leipzig: Verlag von Veit.

Signer, David

- 2004 Die Ökonomie der Hexerei oder Warum es in Afrika keine Wolkenkratzer gibt [The Economy of Witchcraft]. Wuppertal: Edition Trickster im Peter Hammer Verlag.

Soldan, Wilhelm G., und Heinrich Heppe

- 1986 *Geschichte der Hexenprozesse [History of Trials against Witches].* Kettwig: Magnus Verlag.

Spencer, Baldwin, and F. J. Gillen

- 1904 *The Northern Tribes of Central Australia.* London: Macmillan.

Steinen, Karl von den

- 1894 Unter den Naturvölkern Zentral-Brasiliens [Among the Natives of Central Brazil]. Reiseschilderung und Ergebnisse der Zweiten Schingú-Expedition; 1887–1888. Berlin: Reimer.

Stern, William

- 1924 *Psychology of Early Childhood up to the Sixth Year of Age.* New York: H. Holt.

Thomas, Keith

- 1980 *Religion and the Decline of Magic. Studies in Popular Beliefs in Sixteenth- and Seventeenth-Century England.* London: Weidenfeld & Nicolson.

Thun, Theophil

- 1959 *Die Religion des Kindes [Children's Religion].* Eine Untersuchung nach Klassengesprächen mit katholischen und evangelischen Kindern der Grundschule. Stuttgart: Klett Verlag.

Tuczay, Christa

- 2003 Magie und Magier im Mittelalter [Magic and Magicians in the Middle Ages]. München: Deutscher Taschenbuch Verlag. (dtv, 34017)

Tylor, Edward B.

- 2005 Die Anfänge der Cultur. Untersuchungen über die Entwicklung der Mythologie, Philosophie, Religion, Kunst und Sitte. 2 Bde. Hildesheim: Olms. [Orig.: Primitive Culture. London 1871]

Waardenburg, Jacques

- 1980 "Leben verlieren" oder "Leben gewinnen" als Alternative in prophetischen Religionen [To Win and to Lose Life ...

in the Religions of Prophecy]. In: G. Stephenson (Hrsg.), Leben und Tod in den Religionen. Symbol und Wirklichkeit; pp. 36–60. Darmstadt: Wissenschaftliche Buchgesellschaft.

Werner, Heinz

- 1948 Comparative Psychology of Mental Development. New York: Follett.

Zeininger, Karl

- 1929 Magische Geisteshaltung im Kindesalter und ihre Bedeutung für die religiöse Entwicklung [Children's Magic and Its Importance to Religion]. Leipzig: Joh. Ambr. Barth.