Vampires and vampirism: pathological roots of a myth

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Abstract. Many cultures have developed myths and legends about vampires and hematofages with different features and behaviours. These tales have many common elements, as the dualism between "life" and "death". According to some anthropogical currents, these symbols don't come up from nothing, but follow a process of transformation drawing elements from real experience, which are intersected in the cultural tissue and are transformed depending on the message they are meant to spread. Vampires include several characteristics referable to those illnesses and diseases which have mostly marked human history, both from the psychological and the physical point of view.

Keywords: Vampire, Vampirism, pathology, myth, folklore

Riassunto. Molte culture hanno sviluppato miti e leggende che narrano di esseri ematofagi, con sembianze e comportamenti differenti tra loro. Vi sono elementi che accomunano tutti questi racconti, come il dualismo tra "vita" e "morte". Secondo alcune correnti antropologiche, tali simboli non sono generati dal nulla, ma seguono un percorso di trasformazione che attinge da esperienze reali, i cui elementi sono inglobati nel substrato culturale di una popolazione e trasformati in funzione del messaggio che devono veicolare. I vampiri riassumono diverse caratteristiche associabili a quelle patologie e stati al limite del patologico che hanno maggiormente segnato la storia dell'umanità, sia dal punto di vista fisico che psicologico.

Parole chiave. Vampiro, vampirismo, patologia, mito, folclore

The unknown is frightening. Diversity is frightening. When these two fears gather in front of real or imaginary phenomena with no apparent explication, irrationality prevails over rationality. Vampires and other hematofages are part of this process. The features of vampires change depending on the period and on the culture of reference, but they are always oscillating between a diabolic and wicked aura and one of fascination and charisma. In any case, all these aspects represent a synthesis of the attitude towards the life/death dualism in a human group culturally homogeneous.

Many cultures have developed myths and legends about hematofages with different features and behaviours (Atwater 2000). These tales have many common elements and in all of them the invisible border between the two states of life and death is part of a search for intelligibility ever coveted by all human beings, even though often with little success.

When death shows itself in anomalous ways and situations, the fear for the unknown joins the sense of disorientation and it is exorcised by the creation of myth and the related symbology. According to some anthropogical currents, these symbols don't come up from nothing, but follow a process of transformation drawing elements from real experience, which are intersected in the cultural tissue and are transformed depending on the message they are meant to spread.

The lack of knowledge about the decay of corpses and the transmission of illness have given way to the proliferation of myths about these characters and in some cases have breeded collective hysteria. As a matter of fact, the haematofage cathegory, of which the Vampire is only one of the representatives, includes several characteristics referable to those illnesses and diseases which have mostly marked human history, both from the psychological and the physical point of view. Plague, rabies (hydrophobia), pellagra, catalepsy, anaemia, tuberculosis, porphyria and schizophrenic syndrome are some of the possible rational explanations put forward in the course of time to understand such a widespread folk phenomenon, where blood is the junction between life and death, but also where the relationship between eros and thanatos shows itself.

If observed from a different perspective, the evolution of this character can nevertheless represent the conscious and unconscious desires of an age, or people's perception of their own time. The vampire as an outcast, an ill person, as the eccentric sum of shameful instincs has also become a picture of the old traditions which, since the Enlightenment Age, had to give way to the Modern Age, when the countryside was drawing back in front of the city, the peasant social organization was yielding ground to the bureaucracy of the National States, and superstition was fading in the light of science.

In short, all hypothesis about vampirism do not get to outline it entirely. They seize only some more or less impressive aspects of the myth, and this is a confirmation both of its complexity and especially of the variety of cultural and environmental elements of the whole picture, and of its deepness in a diachronic sense. On the other hand, the search for such explanations does not escape the fascination of the very myth, which is inherent in culture. The documentation, be it historical, ethnological, bioarchaelogical, or medical, put forward to support a hypothesis, has to be considered as related to the sociocultural environment which produced it, and decontextualized in a critical way. Keeping alive a dimension of the myth, or trying to destroy it, is the same as slowing down or accelerating its changement, asserting a certain will of independence which may cast its roots in the old or offer new reasonings.

The figure of vampire between reality and folklore

The description and behaviour of vampire, as it is known in the western countries, comes out especially from the literary genre, born at the beginning of the Nineteeth Century. "The Vampire" by John Polidori and "Dracula" by Bram Stoker are the finest examples, and later on the cinema, one of the Twentieth Century's inventions, has amplyfied the popularity of that literature, windening its horizons (Teti 1994, 89; Atwater 2000).

Nevertheless, folklore has always been populated by hematophage characters, in some ways better constructed and more complex than the literary ones, linked to myths and superstitions far more older, ancestral. These figures have been long and wrongly considered less interesting than the literary vampire, more "romantic" and recurring in recent fashion, especially the fashion starting from the Nineties of the XX century.

The iconic connotation of the "modern" vampire is set against the complexity of the "ancient" vampire, which is not possible to describe on the basis of a single model for all the popular beliefs. In fact there are pale and emaciated vampires, but also plump and ruddy ones; there are vampires which cannot suffer daylight and other which go around during the day, vampires which can turn into some animals while others cannot.

Generally speaking the vampire is a being who comes back from its grave, and who lead a dissolute life, even violent, who committed suicide or was buried with no religious rite. It's not by chance that people are still debating about its definition, and not all the scholars agree on what a vampire is exactly (Introvigne 1997). Among the ancient civilizations in the Mediterranean area, the hematophages were mostly associated with demonic and incorporeal figures: if in the Mesopotamian cultures there was the myth of Lilitu, later revived, even though with different characteristics by the Hebrew tradition, Greeks and Romans described Empusa and Lamia, semidivine beings with their own identity, which name was later associated with a category of wicked spirits; and also the Striges, winged beings which were later associated with demonic figures (Corradi Musi 1995, 9).

As far as it is true that at their origins these ancient figures present those vampire-like elements amplified in the folklore in the following centuries, it still has to be proved that their characteristics have been transmitted to the Slav vampire, which has mostly influenced the origin of the "modern" vampire. The classic civlizations, sensitive to the Oriental beliefs, but not as much as to modify their own well-established ones, considered the hematophages as incorporeal beings linked to a pantheon of minor deities, as opposite to the "corporeal" vampires of the Slav area (Corradi Musi 1995, 26). Neverthless, if we either deal with the most ancient hematophage figures, or the most recent, the central element in the myths linked to them is the vital energy taken from the victim, particularly its blood, ever considered a synonim of death and life at the same time

(Teti 1994, 58-60). There is plenty of ancient references. In the Deuteronomy (XII, 23) we read that "blood is life"; the dead have to drink blood to be able to talk to Ulysses, in the Odissey; the Etrurians devoted cruel fightings to the dead, to transfer their own vital energy to them (Corradi Musi 1995, 14).

Even a sort of "medical vampirism" was making its way, unwinding from the flokloric medicine: so the physicians in the ancient Rome advised weak or sick people, especially epileptics, to drink gladiators's blood in order to gain strenght (Sugg 2000); during the Renaissance, Marsilio Ficino recommended blood rather as an elixir of life than as a medicament; a monk was famous for his blood jams in the XVII century (Sugg 2008); and until some decades ago people believed that drinking blood was an effective remedy to fight anaemia.

The hereafter, or the reign of the supernatural, which makes part of a bivalent attitude towards the dead's spirits, is the other pillar on which the myth of vampires is founded and we find it in most cultures. The corpse is respected, but also feared, and it is often thought that the spirit remains close to the body for some time and it is necessary to drive it away.

Freud in Totem and Taboo (quoted in Teti 1994, 55), remarked that the dead are considered as enemies by their survivors. The dead are envious of the living, try to go back to their family to share their pleasures; the survivors feel someway guilty, not being at the dead's place, and they both cherish and fear them. Even though this attitude is diluted in the piety towards the dead, many of the rituals related to mourning and burial reveal the fear of the return of the dead. This is prooved by some customs present since the dawning of human history, such as the double burials, which take place no sooner than the decay of the body is completed. Therefore, moving the bones to a final burial is the same as driving away, symbolically, the danger represented by the dead: better, it is the same as making it a guardian spirit of the community. Other methods included the custom of burying the body prone, or of cutting the tendons of its legs to prevent it to come back (Brelich 1995, 23-24).

Recently in Trani (Bari, Italy) they discovered two graves dating back to the XI-VIII century b.C., containg four corpses, probably inhumed with no particular ritual; this seems a further evidence of these beliefs. In fact the four individuals

were interred prone and crushed by a stone slab. The lack of traces of recognizable burial rituals and the slabs on the bodies make us think of some outcasts rejected by the community, which acted in order to prevent them to go back among the living (Appliadis 2002)

among the living. (Annibaldis 2002). In short, the idea of the dead longing to go back to life is a projection of the living, which lays its own thougts on the dead. Coming back to life, the dead does not only represent a violation of the border between life and death, but brings along other meanings, which gain substance in the several oppositions between the typical figure of the vampire and that of the victim. Usually the first one is ruddy and stout, while the second one is pale and emaciated, following a strongly symbolic dichotomy typical in traditional societies, such as the dichotomies between fat and lean, handsome and ugly, strong and feeble. As a matter of fact, the hard life conditions of peasants in the past have remarkably influenced the spreading of legends, myths and supernatural dealing with vampires. The lack of food and the exhaustion may also have caused psychic decompensations and nervous deseases. To support this hypothesis it should be noted how most cases of "vampiric contagion" and its consequent repression often broke out at the same time as virulent epidemics, or strong social distress involving the whole community (Teti 1994, 67-69). Anyway, it is certain that the link between possible pathological causes, rising of myth and life conditions should be considered very carefully, without overlooking the sociocultural and historical indicators of the given period, which greatly influence the value of the vampire. For instance, even a greedy trader can be defined as a "vampire" by the critics of the capitalist system (Teti 1994, 66).

The vampire epidemics

One of the best known vampire epidemic dates back to the XVIII century (Teti 1994, 29; Gomez-Alonso 1998): as a matter of fact, the period which aknowledged the rising of the Age of Enlightenment also marks the shift from witch-hunt to vampire-hunt, starting a scientific debate taken up in that time's chronicles and salons. That epidemic was not only the ground on which flourished the vampire literature of the following century, but it also outlined the typical characteristics of western vampire all over Europe.

During the epidemic mass fear and hysteria lead to the violation of several graves and to the profanation of the buried bodies. Among the methods to get rid of the vampire menace, the beheading and the cremation were mostly used, along with the extirpation of the heart, as long as there was evidence of fluid blood in it or elsewhere in the body, undeniable proof of life beyond death. The authorities tried to relent the spreading hysteria commanding scientifical research works about what was happening. It was one of those times when superstition was giving way to the explanations of science, which won't stop crowding on the phenomenon in the following centuries.

On the other hand, even today the vampire keeps on arousing spell and fear, but also inspiring it, and it's not difficult to understand the reasons for epidemics, slaughters and repressions of the past if considered in the light of even recent events. Between 2002 and 2003 the African state of Malawi was shattered by violent episodes generated by the belief that vampires were going around amidst the population assaulting people of any age. The rumour had political repercussions, as the Government was accused to be colluding with the humanitarian agencies to get food aids in exchange for blood (Tenthani 2002). In 2004, in Romania, the family of Petre Toma disinterred his body, fearing he was a vampire. Once they extirped his heart, the family cremated the corpse and drank its ashes mixed with water, following a local apotropaic ancient rite especially aimed against vampires (Taylor 2007).

While vampirism keeps on feeding irrationalism, of course the rational explanations reject beforehand the possibility that vampirism has got supernatural causes. On the contrary they search for any possible physical interpretations of phenomenons which have got an obscure origin only at first sight. In this sense, the primary explanation of vampire beliefs resides in the poor knowledge about the corpse decay (Barber 1994). The decay varies with the composition of the soil, the climate, the temperature and the kind of burial, so it's not that uncommon to find corpses still in a good state, even after a long time (Canci & Minozzi 2005, 66-50). In particular, the absence of oxygen prevents the dissolution of tissues, while humidity, in certain conditions, changes the lipides by saponification, making them similar to wax and giving them a "still living"look. The making

and shifting of gas due to the putrefaction would be the explanation for the noises and the wheezings heard by the witnesses in the graves of the presumed vampires, and also of the flourishing and plump aspect reported in the description of certain exhumations. Ironically, the putrefaction would also explain the presence of "live" blood observed on the mouth of the presumed vampire, since the body fluids tend to get out of the cavities. More, the breaking of tissues, caused by tuberculosis and lung plague, would make it easy for the blood to emerge towards mouth and nose, while because of skin dehydration nails and hair look like they were still growing (Teti 1994, 51-52).

Moreover, the non-dead tends to move. Sometimes the reports of exhumation for vampire contagion mention strange positions of the body in the coffin, as an unquestionable sign of movement: therefore of vampirism. Actually, corpses tend to shift their position because of cadaveric spasmuses, if the rigor mortis is still taking place (Canci & Minozzi 2005, 66-50). But the shift of corpses can also be caused by the activity of animals, or by attempts to steal any objects considered as belonging to the dead and interred with it. Similarly, during epidemics and plagues the dead were interred immediately, and this prevented from properly ascertaining their clinical picture. In this context, it may even happen to bury a living in a cataleptic state, even though as long as catalepsy may last, from some minutes to several hours, it is difficult to think that one can survive in a grave without oxygen nor food until its "awakening". Besides, when plagues occurred, it was likely to happen that if a family member was infected, it would have been soon joined by its kindred. So, in "vampire" cases, which especially occurred in such periods as those ones, once they re-opened the graves they found the body in unnatural positions, or, as legends used to tell, it happened that the non-dead were ruthless especially about their own family.

The pathologies of vampirism

From this point of view, anaemia, as a condition due to very low hemoglobin or hematocrit levels, can be considered as one of the other factors involved in the origin of the vampire myth, even though this does not complete the whole picture of the genesis of the myth, as it is for the other explanations suggested. In a situa-

tion of heavy food shortage, anaemia is a common and weakening condition. On the other hand, we have to note that in most cases the clinical picture connected with the symptoms of this disease does not explain the characteristics of vampires as much as those of their victims. Moreover, this interpretation of the phenomenon is rather referred to "literary" vampirism. The same can be said about tubercolosis, which on one hand leads to a wasted aspect typical of victims, on the other hand can make people suppose that the sick person is a vampire on his way to be exhumed, as mentioned above. Also in this situation, it was very likely to have more cases of tubercolosis in the same family, and this fostered the suspicion that the dead kept on acting cruelly against their kindreds (Bell 2006).

In these situations it was necessary to officiate an apotropaic rite to appease the past. Speaking of which, the scientific literature reports the bioarchaeological analysis of a grave dating from the XIX century, found in nowaday's Connecticut (Sledzik & Bellantoni, 1994). Back then, the Walton Cemetery was used by families distributed in a rural environment. The bone finds mostly show evidence of hard labour involving both men and women. The remains of an adult male aged 50-55 show out among the others; his grave has been rearranged and his bones show clear signs of lung tubercolosis. Moreover, his thigh-bones had been crossed on one another and the skull put in the middle. On the basis of paleopathological, archaeological and historical evidence, the research workers suppose that his kindreds, thinking that he was a vampire or anyway a non-dead, had performed an apotropaic rite similar to the rite performed by Petre Toma's family. One of the most widespread explanations about vampirism - and a mistaken one aknowledges in vampires the origin of the myth of people affected by some form of porphyria (Teti 1994, 36). Porphiryas are a group of rare metabolic diseases, subdivided into acute and nonacute, mostly hereditary, due to the partial or total lack of one of the several enzymes in charge of the synthesis of heme, one of the elements making the red blood cells (Guyton 1995; Casella & Taglietti 1996). In some of these forms the symptoms follow closely some of the characteristics ascribed to vampires, such as strong sensibility to light and ulceration of skin if exposed to sunbeams. What's more, garlic contains substances

which accelerate the photolytic reaction, while the teeth take an odd fanglike shape (Malik 2003). Even though there aren't any reports about this subject, it's not unlikely that the disease was more widespread in the past, especially in remote villages where crossbreeds may have preserved the genes of this pathology. It has to be noted that, due to the existence of several forms of the disease, its symptoms were rather various and sometimes even confused. Nevertheless, the hypothesis of a connection between porphyria and vampirism, put forward since at least the 1960s, has had a strong relaunching, especially in the Eighties, although nowadays it has been discredited. It is based on a mixture of naturalism and influences of the literary and film figure of the vampire, and not on folk traditions, even though it is possible that some occasional characteristics of this pathology group have converged into the

It is more likely to assert that the origin of the myth is a disease which the ancient rural population knew well from the point of view of its symptomatology, but not from an etiological perspective. The metabolic pathologies due to food shortage have pursued the human species and are well known. Among these, pellagra presents several symptoms compatible with the figure of vampire. Described and aknowledged only in 1735 (which is to say in the period of the vampire epidemic), it is caused by the lack of niacine vitamin (or of its precursor, the tryptophan). Among its symptoms they report a severe dermatitis, which becomes more acute in sunlight, but also dementia, insomnia and dysphagia, the latter caused by the rupture of tissues in the digestive system, which in its turn causes anaemia and blood regurgitation. Blood staunching in the tongue and lips gives innatural turgor and a vermilion colour and due to the edema the toothmarks often remain on the tongue surface, giving the impression that the subject has got teeth out of proportion. These are such syptoms which might be connected to the figure of vampire, even though they are still subject to the literary meaning, and they explain how come that these figures do show themselves at the same time as periods of epidemic and death. Probably those who died from pellagra used to share their diet with the other members of the same group, especially of the same family (Hampl & Hampl 1997).

Insomnia and hypersensibility towards garlic are also the syptoms of another disease fairly widespread: rabies. From a folk point of view, a connection with this disease may explain the reasons why in certain traditions the vampire interacts with dogs and wolves both positively and negatively, and in different forms and conditions: these animals may help the vampire, which can also turn into them, but he may also be their fiercest enemy. Usually the virus of rabies is passed by the bite of an infect animal. The incubation may last several days with non specific symptoms, such as temperature, anxiety, lack of appetite and weariness (Gomez-Alonso 1998). When the disease becomes clear, in some cases there may be paralysis, while most times an encephalitis breaks out. Due to this occurrence, the sick person undergoes behaviour disorder, sexual hyperactivity, state of dread, hypersensibility to stimulus, tendency to bite and hydrophobia. In some cases the symptoms look like the characteristics of vampires: the spasms cause the contraction of the lips and the teeth become more evident, there may be an emission of blood from the mouth and anxiety turns into fear of water and light. Seeing oneself in a mirror can cause dread in a patient. As a matter of fact, one of the methods to understand if the patient was affected by rabies consisted in watching his reaction in front of his reflected image.

In past centuries several rabies epidemic have been reported among wild animals which have probably infected domestic ones. Domestic animals are very likely to have transmitted the disease to man, while they even report some cases of transmission from man to man by means of biting (Gomez-Alonso, 1998).

Clinical vampirism

Clinical vampirism is also known as the Renfield syndrome, from the name of Count Dracula's assistant in Bram Stoker's novel. By this name they especially mean those cases of pathological criminality which seem to draw straight on the vampire myth. Based on thoroughly schizoprhrenic attitudes, the syndrome shows itself by deviant and obsessive behaviours. This pathology itself is quite rare and it rather consists of behaviours belonging to pathologies associable to cannibalism, even though the press seems to prefer the "vampire" label.

The most remarkable historical example

of this pathology is represented by the case of Elizabeth Bathory (Corradi Musi 1995, 194-195), the noblewoman from Transilvania who, between the XVI and the XVII century, obsessed by a morbid cult for eternal beauty, devoted herself to the sacrifice of victims - especially young women - in whose blood she used to bathe. We can't exclude, even though it is not prooved, that she didn't only use the women's blood as a beauty balm, but she also used to drink it.

Another famous vampire, one of the XIX century's most famous ones, was Vincenzo Verzeni, guilty of strangling two women in order to suck their blood (Teti 1994, 107).

All along the XX century, there is plenty of such reports, which lead to the subdivision into four categories of clinical vampirism (Havely, Levi & Shnaker 1989). The first kind is the complete vampirism, when blood ingestion, sadism and necrophiliac activity are reported; The second one is the kind of vampirism without blood ingestion, but distinguished by sexual or erotic activity performed onto the corpses. The third one is a kind of vampirism not connected with necrophilia and can be defined as autovampirism; it is subdivided into voluntary autovampirism when there are self-driven bleeding and ingestion of one's own blood, and auto-hemofetishism. The sexual characterization of this practice is evident, and in it we can clearly see the link between eros and thanatos which runs through the forming of the vampire myth, although it is exaggerated and diverted by the literary version which focuses on certain characteristics. Therefore is is quite clear that the characteristics attached to vampires and other hematophage beings are so various that is fairly impossible to get to a so called archetype, a protopype of these figures. The possible pathological causes connected to them do not entirely explain the success of the myth in folklore, but only some more or less impressive aspects following the particular historical and social conditions. So the choice of examining the possible physical causes at the origin of the success of the myth, however desirable, cannot occur without considering the wider anthropological and cultural aspects which come along with their forming and development. Anyway a research is still needed, about

Anyway a research is still needed, about the historical conditions which all along the XX century have permitted the evolution of the hematophage figure, from the most ancient incarnation of the supernatural negative to a highly romantic figure recalling in itself the subversive drama. The extirpation of its superstitious component seems to have ended in its spontaneous return, otherwise disguised, so to reaffirm that man is not able to interpret reality without it. In fact, reality can be described in scientific terms, but in this way it really doesn't seem to suit him.

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