

Thor and Loki, Sun and Moon, and Santa's Reindeer: Sex Strike Theory and Nordic mythology¹

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Introduction

The Norse were the last non-Christian invaders of Britain and the first Europeans to reach the Americas. As the Rus, they established a trading empire in Eastern Europe from which Russia takes its name; and as the Varangians, they formed the personal bodyguard of the later Byzantine Emperors. Norse myths have long held a fascination for the British, and they have left their stamp on British literature, not just in our traditional stories but in our modern tales, too: J R R Tolkien, Alan Garner, David Gemmell, Philip Pullman and many others have designed fictional societies based on Nordic mythic structure. Further afield in the Nordic World, Wagner, Sibelius, Nielsen and Grieg have all used the myths of the Northlands as inspiration for their music; Nietzsche and Heidegger built philosophical positions based on the psychology of the Nordic mythic hero; and darker forces, such as Himmler's Schutzstaffeln (SS), used Norse mythology both as inspiration and as justification for their inhumanities. Nordic myths and stories have had a significant effect on the psyche of Northern Europeans; but are these myths a limited, local phenomenon with no general human significance, or do they provide evidence of a larger – possibly global – mythic structure?

To comparatively analyse Norse myths against other mythologies, a mythic syntax is needed. This syntax needs to have proven its worth as an effective analysis tool for a range of other mythologies, and needs to offer a simple template against which Norse myths can be tested. Several such mythic syntaxes have been proposed in the past, starting with the work of the brothers Grimm in the 19th century on German folk tales. Although the brothers were more interested in recording the old stories than analysing them, they did notice that themes were regularly repeated in the stories they recorded, and commented on such things as the narrative force of two failures followed by a final success. They also speculated that folk tales are versions of much earlier stories, distorted slowly through the generations; this view was discounted by other folklorists at the time, although we now treat it as self-evident. However, the brothers were more interested in Germanic themes than general themes, and at times they seem to have introduced their own distortions, adjusting the myths to fit them into the culture of mid-19th century Germany.

Campbell (1949) was perhaps the first to explore the possibility that modern versions of myths could be the fossils of much earlier tales. He proposed that there was a single monomyth behind most myths, designed to

¹ This is an updated version of a lecture planned to be given to the Radical Anthropology Group in 2009, but not delivered.

instruct people in how to live a proper and appropriate life. He saw this originating monomyth as telling the story of a universal hero, or everyman – and, for Campbell, it was a man and not a woman. The monomyth story is divided into three sections: first, the hero leaves the society of his childhood and goes out into the World; second, the hero is initiated in some way into the knowledge and ways of being a man; third, the hero returns and takes his new place as a man in his childhood society, or finds a new society. It is a model that fits many mythic stories, but it has its problems. Campbell has been criticised for the sexism, incipient racism, and a European bias in his analysis, and his model displays a concentration on the individual over the social group. However, his was the first attempt to codify the causes and nature of common themes in different myths, and it set the scene for later writers.

Lévi-Strauss (1963, 1970) took an evidential view of mythic syntax, while steering clear of European mythology. In the four volumes of *Mythologiques* he looked at a single myth in the Americas (which he referred to as the Bird Nester myth), tracing it from northern Canada down through the tribes of North, Central and South America, finishing in Patagonia. He noticed that there were binary oppositions, like up and down, light and dark, raw and cooked, wet and dry, which were resolved in the telling of the myth. What creates mythic structure is not initiation, instead it is the binary oppositions that lay behind cultural acts like initiation that are resolved in myth.

Gimbutas (1989) took the view that European mythology had a common source in the culture of the Indo-Europeans, whom she called Kurgans. The Indo-European ur-myths produced all the modern variations of European myth, and their common source explained the modern similarities. She proposed that, during the late Neolithic, the Kurgan culture was based around a female-dominated society with a Goddess-oriented religion, and the mythic stories reflect this. The matrilineal culture eventually gave way to a Bronze Age male-dominated society which Gimbutas described as an androcracy.

Another mythic syntax model comes from the Female Kin Coalition hypothesis (FKC) proposed by Knight (1991), extended by Power (1994), Watts (1999), Sims (2006), Lewis (2009) and others, and based on the work of Lévi-Strauss and Gimbutas. Sex Strike Theory (SST) is the model behind the FKC (Knight, Power & Watts, 1995), and makes certain predictions about what we should find in world myths. The first is that the female menstrual cycle is linked to the Moon's dark-to-light-to-dark monthly cycle, and that Menstruation occurs at Dark Moon, while fertility occurs at Full Moon. Hunting (by males) is also linked to the lunar cycle in that the extra light provided by three days of Full Moon offer a chance to pursue prey through the night. This double-link to the Moon creates a natural opposition of dark and light, a biological opposition of infertility and fertility, a cultural opposition of meat famine and feast, and a role-based opposition of male and female. Knight also ties this to a reproductive opposition of brother (the woman's ally at Dark Moon) and husband (the woman's ally at Full Moon), and a symbolic opposition by the females that they were the wrong

sex and species at Dark Moon, and the right sex and species at Full Moon (Knight, 2002). All these oppositions created a dialectic of associations: light, sex and meat at Full Moon; darkness, female coalition and hunger at Dark Moon.

SST also makes predictions about the stories that would have been needed to justify the collapse of this system, and the myths they would have created. The first is that the overthrow of the matristic culture (which the SST theorists place in the late Neolithic, not the Bronze Age) would have led to two opposing images of females: the hag and the princess in European folk tales represent the two states of womanhood, as do the dragon or monster (the fearsome many-headed animal of the female coalition) and the princess (Knight, 1988); cyclical systems (the two "failures") are replaced by a single, unrepeatable victory by a male protagonist (the final success); and, because hunting was being replaced by pastoralism and agriculture, the lunar calendar would need to be replaced by a solar version, and the significant calendrical period would need to change from the lunar month to the solar year. Sims (2008) has shown that at many late Neolithic mega-monuments (Stonehenge, Avebury, Newgrange, etc.) there is evidence not just for lunar and solar alignments, but for the pairing of the two calendars. As he puts it,

Neolithic rituals would have been drawn from a time-resistant syntax of sacred power ultimately derived from Palaeolithic hunter-gatherer cultures. In embracing and adapting this ancient rule to the logic of northwest European pastoralists at least 5000 years after optimum conditions for big-game hunters, strictly lunar scheduling to ritual could be reduced and estranged into solar cycles at lunar standstills whilst preserving the phase properties associated with the synodic month. (Sims, 2006, p14).

SST is an ambitious attempt to place myths from around the world into a single syntax. It has proved explanatory for Australian aboriginal and indigenous South American tribal myths and practices, as well as European folk tales (Knight). It has also provided effective explanations for Central African hunter-gatherer myths and practices (Power) and for Baka myths and practices in South-West Africa (Lewis). The myths of Northern Europe, however, have not yet been addressed in detail.

This article reviews the SST syntax evident in Norse mythology through an analysis of the traditional myth, *The Journey of Thor and Loki to the Court of Geirrod*, and aspects of the modern myth of Christmas. The analysis shows that Nordic mythology can be seen, at least in part, to follow the worldwide mythic form generated by the proposed FKC social structure and its collapse; but it also demonstrates a specifically Norse cultural approach to that mythic form.

The Theory behind Sex Strike Theory

The ideas behind SST are based firmly in Darwinian evolutionary theory. Many aspects of modern human societies rely on a high level of co-operation and trust between individuals; but co-operation and trust are only explicable in evolutionary terms if the individual has paid a high cost “up front” to show that co-operating with them will be productive. There must be a costly signal I can give to show that you can co-operate safely with me; and it has to be an up-front costly sacrifice which proves I am trustworthy (Zahavi & Zahavi, 1997).

SST is an explanation of what this costly signal could be. The theory is based around a ritualized monthly lunar calendar that dictates and constrains the lives of individual males and females to maximize group reproductive capacity. The ritual cycle has no beginning or end, but for the purposes of this article the lunar calendar will be described as starting at dark moon. The women come together at the time of dark moon, which is also a time for ritual rejection of mundane partners and actual menstruation. The Moon himself “leaves the sky” and comes to “live among” women as their moontime husband. Mundane partners are chased away to organize a hunt, and are only allowed back among the women if they bring a large enough propitiatory gift of meat.

The hunt itself takes place around full moon, the time of maximum light in the night sky. Because the moon is full, and rises very close to sunset and sets very close to sunrise, there are about 72 hours of continuous light. This means that it is possible to pursue and harry prey, even large prey, to exhaustion. Menstruation and the withdrawal of women at dark moon therefore mean that hunting is able to coincide with the best time for hunting, and fertility occurs when the men are coming back from the hunt, hopefully laden with meat.

What makes this model successful in Darwinian terms is the fact that *Homo sapiens* is a species that reproduces much more successfully in social groups than as individuals. This, by itself, means that co-operation between individuals is a fit strategy; but how can co-operative individuals prevent exploitation by cheats, who take advantage of the co-operation of others without themselves co-operating? How, in other words, could co-operation ever have begun without a mechanism to suppress cheating?

Under the FKC, cheats cannot prosper. Females who attempt to circumvent the withdrawal of sex by females at Dark moon – the sex strike – risk expulsion from the coalition if discovered; and, outside the coalition, survival and reproduction are risky and difficult. There has to be, therefore, a willingness among females to altruistically punish cheats: women must be willing to suffer a personal cost in order to ensure a higher cost is paid by the cheats. Altruistic punishment is, however, subject to a second level of cheating: women who don't cheat in the sex strike but also don't help in the altruistic punishment would seem to get the best of

both worlds. It is therefore necessary for the females to demonstrate a solidarity with their sisters against cheats – females must be seen to be “moral” in their treatment of cheats. A system of altruistic punishment therefore needs a high level of co-operation, which makes it unusual in nature – although it is not unknown (Tibbetts & Dale, 2004, pp218-222); and we humans do seem to be particularly adapted for co-operation in our willingness to punish those who offend us (Fehr & Gächter, 2002).

It is not just women who altruistically punish in the FKC model. Males co-operate in the hunting of megafauna to ensure that the gift of meat to the women is as large as possible; so males who do not co-operate in the hunt must be prevented from enjoying the fruit of the hunt – which, for the men, is not meat but sex. Males must altruistically punish cheating males, and females must collude in this: the male who tries to get sex without providing meat is as dangerous to the female coalition as the female who provides sex without demanding meat. SST predicts a society driven by a collective economic reality of exchange, but with the exchange being treated symbolically as a morality of gift-giving.

So the costly signal in SST, the signal that says “you can co-operate with me”, is the only signal that will work in these circumstances to show that I am co-operative: it is the actual act of me co-operating with you. It becomes a recursive, reciprocal signal – we co-operate with other individuals to signal collectively that we are co-operating with the social group. The costly signal that maintains co-operation is a mutual willing surrender of personal autonomy to the collective.

The story – or basic myth – of the FKC is therefore cyclical: first, separation of the sexes at dark moon, accompanied by hunger, noise and blood; next, the waxing moon time, when the sexes remain segregated, women are ritually (and probably actually) infertile, and the men are preparing for and beginning the hunt; third, the culmination of the hunt at full moon and the return of the men; and finally the fertile time of the waning moon, with feasting and sex. Waning moon then gives way to dark moon, and a new turn of the cycle begins. It is this cyclical mythic structure of SST and the FKC that informs the analysis made here.

The Cosmology of the Northlands

Norse mythology is a strange choice for analysis in terms of the Palaeolithic mythic system of SST: it is not, for a start, Palaeolithic. Norse mythology is a product of a bardic tradition which can be traced back to the Indo-European culture which was the source of most of Europe's and South Asia's myths. This source culture is thought to have originated at the time of the Mesolithic-Neolithic boundary, about 8,500 years ago (Grey & Atkinson, 2003), and to have entered Scandinavia about 5,500 years ago (Østmo, 1996) – at most, Norse mythology can be traced to the very late Mesolithic.

This, however, is an especially interesting time in the history of myth: the ancient hunter-gatherer culture was giving way to pastoralism and early agriculture; mobile populations were beginning to become geographically fixed; and the long-term possession of land and cattle, by groups and by individuals, was becoming a source of conflict (Childe, 1951). The stories told around the campfire would have been changing to meet this new reality, and to adjust the old wisdom to meet the demands of the new culture. If Sims is correct then this adjustment would not have been easy: the collapse of the monthly big-game hunt, due to lack of megafauna, would have fatally compromised the lunar-based culture that had served humans for decamillenia (Sims, 2004). The cultural system of the FKC was collapsing, possibly simultaneously in many different places around the world (Knight, 1991). What was going to replace the matrifocal Palaeolithic culture was at the time unknown, and this uncertainty seems to have been, in part, the cause of often brutal resource and cultural negotiation within and between social groups.

Norse mythology, as part of the Indo-European mythic structure, shares a common thread with many western mythic traditions: it remained bardic for some considerable time after the introduction of writing to the culture. The myths were only written down when the culture they supported was already fading, and they were written down not by adherents of the old culture but of the new. The Norse mythology we know today is largely the record of a small number of written texts. The main writers are Snorri Sturrluson in Iceland, who is believed to have formalised or recorded what became known as the *Codex Regius*, consisting of the *Elder Edda* or *Poetic Edda* and the *Younger Edda* or *Prose Edda*²; and Saxo Grammaticus in Denmark, a cleric who wrote the *Gesta Danorum* (Acts of the Danes) (tr. Elton, 1905)³. Both of these writers were Christians writing in the early thirteenth century. What they have written is therefore a product of thirteenth century Christianity as well as of the earlier bardic tradition. Yet in Iceland, and to a lesser extent in Denmark, there was a strong local tradition of secular reading and writing which created a demand for non-religious texts. Both the *Eddas* and the *Gesta Danorum* represent a harking back to a pre-Christian age which largely respected the integrity of the pre-Christian myths (Sørensen, 2000).

The Norse did not appear in Scandinavia until about 3,500BCE, when they replaced earlier cultures of hunters and reindeer herders (Siiriäinen, 2003). The Norse were the northernmost branch of the Indo-European expansion, and brought cattle farming (pastoralism) to the area. Because of climactic and geographic conditions, the area largely resisted the advance of agriculture and retained a strong hunter-gatherer tradition of sea-fishing. The Norse, as part of the Indo-European expansion, shared a common heritage with the southern Indo-Europeans, so the two groups of myths should have identifiable similarities, despite the different emphasis on agriculture. However, although comparisons can be drawn between Norse and Southern mythic structures, there are some notable differences.

² Various translations of the Eddas have been used in preparing this article.

³ No longer available in print, it can be found at <http://omacl.org/DanishHistory/>

The early origins of Norse cosmology are uncertain; there are few clues left from early Norse settlement or from the cultures they replaced. Nordic cosmology does have a clear regional “feel”, however. The Universe is divided into nine realms, of which the first three are: the frozen North where the dead live (Niflheim); a land of fire in the South (Muspellheim) which is home to the Fire Giants; and the land of humans between them (Midgard) (Hoffman, 1913). A further six realms exist in the cosmology, making a total of three-times-three, which is a significant number for the Norse. These other realms were Alfheim, Svartalfheim and Nidavellir, homes of the Elfs, Dark Elfs and Dwarfs respectively; and Asgard, with Vanaheim to the West and Jotunheim to the East, which were the homes of the Aesir gods, the Vanir gods and the Giants⁴. Most of the legends take place in this last triad of realms. The first triad of realms figures in the creation and destruction myths, while the mythic syntactic significance of the second triad seems to be obscure. There do seem to be correspondences, however, between the Elfs and the Vanir, the Dwarfs and the Aesir, and the Dark Elfs and the Jotuns. Midgard, possibly the central world if the third triad is seen as above and the second as below, is the mundane world of humans, the “real” world. Midgard does mean middle world, which would support this hypothesis of three triads of realms on three levels⁵. The direction of the three realms in each triad is also interesting: the Asgard triad is arranged East-West to follow the movement of the heavens, while the Midgard triad is North-South. The arrangement of the Elf triad is not given.

Two aspects of Norse cosmology are particularly unusual. First, there are two tribes of gods, Aesir and Vanir. They initially fight each other, but form a truce based on exchange of kin. Frey and Freyja are named as moving from Vanir to Aesir, while Mimir (keeper of the well of wisdom) and Hoenir (god of wise counsel) are named as moving the other way. Frey and Freyja became an established part of the Aesir pantheon, but Mimir was sacrificed by the Vanir after his failure as a leader (MacDowall, 1884, p182). This dual-deity model does not have parallels in either of the other two main mythic threads in Europe, that of Classical Greece and Rome, and that of the Celts. In classical mythology the Titans are overthrown by the gods in three battles: the first against the Titans themselves, the second against the Giants, and the third against the dragon, Typhon (Trapp & Vitebsky, 2002, pp146-149). In Irish-Celtic mythology, the Tuatha de Danaan defeat the Fir Bolg and then the Fomorians in two battles, driving them from Ireland; however, they lose their third battle

⁴ There is no direct evidence for the location of Vanaheim, but there is an indication that it lays sunsetwards of Asgard (The Song of Ravens, verse 24, in The Poetic Edda). There is more indication that Jotunheim is to the East: Thor's forays against the Giants are described as war against the East (The Song of Harbard, in The Poetic Edda).

⁵ Crossley-Holland (1980, ppxx-xxv) proposes a different division of the Realms: Asgard, Vanaheim and Alfheim on the top level; Midgard, Jotunheim, Nidavellir and Svartalfheim on the middle level, and Niflheim (World of the Dead) and Hel (Realm of the Dead) on the lower level. This, however, breaks the “3 x 3” symmetry of the realms, it ignores the realm of Muspellheim, and it divides the realm of the dead somewhat arbitrarily into two. Crossley-Holland recognizes the last two issues, but dismisses them as problematic in the “tricentric structure of the universe”. Crossley-Holland's model may, however, owe more to 20th century ideology than to Norse mythology. “Hell below” is far from a universal cultural concept and, in the light of the accepted Norse creation myth placing Muspellheim to the South of Midgard and Niflheim to the North, it does not seem to be part of the Norse model. The placement of the Elfs on the top tier probably owes more to J R R Tolkien's depiction of Elves than to the traditional role of Elfs.

with the Milesians⁶ (Barber, 1999, pp12-18). The implacable nature of the Tuatha de Danaan and the Olympian gods in dealing with their foes is somewhat similar to the relationship between the Aesir and the Jotuns, but even here there is a constant negotiation in the Norse myths which is missing from the other two mythic traditions.

The two tribes of Norse gods do not represent a good versus evil dichotomy, but rather a hunter-warrior versus pastoralist-agriculturalist division. In Lévi-Strauss' syntax (1981), the Aesir clearly represent hot and dry aspects (covering such areas as fire, lightning and knowledge), while the Vanir are cold and wet (representing the sea, fertility and magic). However, the monstrous and uncooked aspects of Lévi-Strauss' model are represented by the Jotuns, to which the Aesir provide the human and cooked contrasts. Knight's more formal syntax of oppositions (1991, 494-503) is therefore present, but split between two groups of entities in opposition to the Aesir. This seems to reflect the fact that the Norse were largely a transitional culture of pastoralists, caught between the agriculturalists of the future (the Vanir) and the hunter-gatherers of the past (the Jotuns). This may also reflect the fact that the Aesir sit between the two states of women in Knight's syntax: the Vanir wives and the Jotun monsters. The Norse mythology reflects an FKC culture of the divided woman, creating a static version of the old dynamic metamorphosis between male-friendly (Aesir-friendly) waning-moon women (Vanir) and male-unfriendly waxing-moon women (Jotuns).

The other unusual aspect of Norse cosmology is that it is foreshadowed: the whole story is already known, from creation to Ragnarok and beyond (Brita-Tichenell, 1985). Unlike the Revelation of St John (International Bible Society, 2000), which is a promise for the future, Ragnarok is an event that will happen and already has happened: the pre- and post-Ragnarok worlds are both worlds of the here-and-now. There is clearly a cyclical nature to Norse cosmology, and it is a cycle which closely follows a solarisation of the SST cycle of lunar ritual (Knight, 1991, ch11). Creation corresponds to dark moon and new moon (or dark sun at Winter solstice) – as it does in most creation myths: there is usually a move from darkness to light, from unformedness to form, and from timelessness to a heroic mythic time, as exemplified in the story of Genesis (International Bible Society, 2000), and discussed in Knight (1987, ch8), Laughton (2002, 518) and Willis (1993, pp266-267). The Norse creation follows this established pattern, and leads into a heroic time when gods and monsters walk the realms. Humanity is largely suppressed in this heroic era, or merely a backdrop for the divine drama. The age of heroes therefore corresponds to the waxing moon in Knight's model, when the women withdrew from men and the men prepared for the hunt. The heroic time ends with Ragnarok, the hunt itself, and the overthrow of the gods and monsters. This is followed by the age of humanity, the waning moon or honey moon, when the new gods take a back seat to mundane human activities. Seen in this light, the timelessness of Ragnarok is explicable: it is past and future because it is cyclical; and it is cyclical because it is calendrical.

⁶ The Book of the Takings of Ireland.

Sun and Moon

A feature of note in Norse mythology is the gender status of sun and moon. In hunter-gatherer cultures there seems to be a tendency for the sun and moon to be gender-ambivalent: the moon in particular is the lover of all human women during dark moon, when the women themselves are gender-ambivalent. The celestial orbs have roles to play – and a presence – in the mundane lives of humans, and there is a constant movement of humans and deities between the mundane and the magical worlds; but, as with humans themselves, there is no need for the sun and moon to be assigned fixed genders.

For pastoralists, on the other hand, there seems to be a separation of the realm of the gods from that of humans. If the gods are to retain a role in the mundane human world then an *as-below-so-above* model of the Universe is needed. The gods have to be recognized by humans as emulating the details of their daily existence, allowing a tenuous equivalence to be drawn between humans and gods. In the mundane world, pastoralism allowed a sharp increase in possessions, the possibility of exchanging those possessions, and the commoditisation of possessions by exchange. This, in turn, brought about the innovation of bride-price: fertile females became valuable to their family as units of permanent exchange. This meant that a human woman became the property of a permanent human husband, and there was no role for supernatural husbands in her life. To retain the *as-below-so-above* equivalence, the sun and moon had to be seen as adopting the mundane model of fixed genders with property rights in each other. One of the spheres had, therefore, to be identified as male and the other female, if they were to provide a celestial counterpart to monandrous marriage, which allows a woman only one husband at a time.

For pastoralists, unlike agriculturalists, the sun seems to have less calendrical significance than the moon – the sun dictates times of cold and warmth and breeding, but not necessarily times of feast and famine; the light from the moon, on the other hand, dictates when predators are most dangerous to herds and flocks – at dark moon predators can see considerably better than humans. The significance of the moon as the dark-time lover of women is therefore likely to remain a strong theme from hunter-gatherer times, despite the official line against it. Menstruation also remains a monthly physical fact: the hunter-gatherer moon still takes over when the women are on their “moontime”, it is a feature of the Palaeolithic mythic system that cannot be suppressed by the new belief systems. In the pastoralist cosmology, therefore, the moon provides a more virile model of male sexuality than the sun and would seem to be the more obvious choice as the male. It may be significant that a male moon is a feature of both Norse and Japanese Shinto cosmologies (Cotterell, 1979, p97-99), and these cultures also share a strong remnant hunting culture of sea fishing.

With the increasing significance of agriculture, and the annual cycle of sowing, growing, reaping and fallowness, the role of the sun grows and the role of the moon diminishes. The sun is the arbiter of an agrarian

culture, while the moon becomes a mere heavenly artefact. In turn, the extensive forward planning required by an agrarian culture leads to a further growth of property rights in land, goods and other people; and this in turn leads to a hierarchy of social power, with some individuals having control of the productive capacity of others (Engels, 1891, chIV). Traditionally this hierarchy has placed the male, as the herd-owner or land-owner, above the female as the wife-owner. The increasing importance of the roles of both the sun and of males is likely to reverse the female-Sun/male-Moon model, giving us the standard European agriculturalist cosmology of a male sun and a female moon.

The gender of sun and moon is clearly related to the significance and role of women in a culture. In a hunter-gatherer culture, where the women have a privileged role at the heart of the social group, the moon, as the partner of women, is also privileged over the sun. The moon is both esoteric – part of the magic of the world – and exoteric – a mundane form within the world. In other words, it is no different to humans themselves. In contrast, the sun has the mainly mundane roles of signalling daytime and indicating time of day. In the tropics, where day length remains virtually constant through the year, the sun is a reliable but largely unremarkable chronometer. Like the moon it is cyclical, but it does not have complexity. The moon rises and sets, but not at the same time every day (it has a daily cyclicity of about 24 hours 50 minutes); and it changes its presentation almost every day, from dark to full and back again. The moon not only signals mundane and sacred times, it is implicated daily in the mundane and sacred worlds.

In a pastoral culture, the mundane and the sacred have become separated. The celestial orbs are no longer anthropomorphized objects dictating the cyclical flow of both mundane and sacred cultural life, there is now a separation of roles. The sun and moon have a continuing mundane role as calendrical devices; and they have a continuing sacred role as anthropomorphized beings who can be petitioned for favour. The roles are no longer separated in time, however, they are separated by the viewpoint taken. The anthropomorphic nature of the celestial orbs can no longer be preserved by the fact that they follow the same cyclical flow as human culture – human culture itself no longer follows this flow. Instead, the humanity of sun and moon is preserved by the fact that they follow the same social mores as their earthly followers. The celestial orbs no longer rely on regular cyclical intrusion into the mundane world for their sacredness; instead, it is their simultaneous sameness and differentness to humans that creates a paradoxical mystery. In this pastoral culture of paradox we would expect somewhat arbitrary relationships between the celestial orbs and humans to appear, such as one day in seven being Sunday and one Monday; or the attempted reconciliation of a quarterly solar year with a thirteen-month lunar year, resulting in a twelve-month soli-lunar compromise.

The increasing specialisation of roles in an agriculturalist culture meant that the definition of roles by gender alone became insufficient. Different classes of specialist artisan (potters, carpenters, priests, stone workers, etc.) had started to appear, and each new role required its own cosmology. The cyclical division between

males and females on all levels would have been affected by this and, as the old male-female cosmology broke down, it seems to have been replaced by a relatively more distant pantheon of specialist gods and goddesses. This certainly seems to be the case in agriculturalist cosmologies around the world, with the Hindu model as perhaps the most complex current example (tr. Griffith, 1896, bk2, hymns 30-43).

With the Norse, we see a culture in slow transition from hunter-gatherer status through pastoralism into agriculture. We would expect, therefore, the mythology to reflect this range of influences, but to retain a strong tradition of hunter-gatherer mythic forms. As we have seen, the overarching creation, destruction and rebirth myth does indeed seem to reflect the hunter-gatherer moon-based cyclical mythology of waxing hunter's moon and waning honey moon. Can less apocalyptic Norse myths be analysed in terms of the SST mythic system, which has been proposed by Knight (1991, ch14) as being at the heart of hunter-gatherer societies?

Thor and Loki

To examine Norse mythology in more detail, one particular myth will be considered in relation to the SST mythic system: the story of Thor, Loki and the Giant Geirrod (Geirrod means *spear-reddener*). First, though, a little must be said of the roles that Thor and Loki play in Norse mythology so that their actions in this myth can be placed into context.

Thor is the god of thunder, usually seen as having red hair and beard. He is known as *Thunor* in old English, and *Donar* in old Dutch and old German. Thor is therefore clearly the root of our modern English word *Thunder*, and the modern Dutch and German words *Donder* and *Donner*. Thor was the son of Odin and Jorth (from which we get our modern English word *Earth*), and was perhaps the most popularly worshipped of the Norse gods. He is also associated with pastoralism and agriculture. He was seen as a straightforward, no-nonsense god by the Norse, which meant that he was always liable to be hoodwinked by cleverer minds (such as the giant Skrymir, and constantly by Loki). His enormous strength, however, ensured that he normally won his battles despite being misled.

Thor's weapon is a mace, or warhammer, called Mjollnir. It is the hammering of this weapon that creates the thunder associated with the god. He also has a girdle of great strength, named Megingjord, and special iron gloves, Jarn Griep. It is a strange feature of Norse godhood that their powers are not inherent but lie in the artefacts they possess. Many commentators state that the Norse gods are not divine but exceptional humans (Rydberg, 1907, 1:2), and some of the myths seem to support this. When Ithunn is abducted by the Jotuns she is unable to keep the gods supplied with the apples of immortality, and the gods begin to age towards death. It is not their inherent divinity that makes them immortal but the artefact of the apples.

Thor is killed at Ragnarok by his long-time foe, the Midgard Serpent, or Jormundgandr, who is one of the monstrous offspring of Loki. He kills the serpent but takes only nine steps before being overcome by the serpent's poison (Anderson, 1901, Voluspa, verse 55, p7). Thor's position as the enemy of the World Snake (and so of the hunter-gatherer FKC dragon) is therefore clear. His role in the basic Indo-European myth, which can be expressed as "a hero kills a dragon with a mace"⁷, is also clear.

Loki is a much less straightforward figure than Thor. He is the offspring of the Jotuns Farbauti and Laufey, so is himself a giant and not Aesir; but he is also the adopted brother of Odin, which gives him his place in Asgard. Loki is usually viewed as the trickster god of the Norse pantheon, or the Father of Strife, and he is certainly involved in much mischief against the gods. He destroys the hair of Sif, the wife of Thor, but replaces it with spun gold; he arranges for the Jotuns to steal the goddess Ithunn, but steals her back again for the Aesir; and he arranges for the sun and moon to be given to the giant commissioned to build the wall around Asgard, but seduces his horse so that he cannot complete the task on time.

Loki's mythic role is, however, also considerably more sinister. He is the father of Jormundgandr, Fenris and Hel, the banes of the gods. He also arranges the death of Baldur, and then becomes the only creature who refuses to weep for him, thus preventing Baldur's return from death. For this the Aesir bind him to a rock until Ragnarok, at which time he breaks free and leads the armies of the Jotuns against the gods.

Loki is a shape-shifter, becoming various animals in his adventures: a horse, a salmon, and various birds, among others. He is also gender-ambivalent, becoming a giantess on more than one occasion. As the mare that seduces the giant's horse in the Walls of Asgard story, he becomes the mother of Sleipnir, Odin's eight-legged horse. Because of his association with quick-wittedness, his name (Loki means fire), and the fact he often accompanies Thor, Loki has also become associated with lightning. So Thor and Loki together form the stormy combination of thunder and lightning.

Loki is often the companion of Thor on his adventures in Jotunheim. They travel together to Skrymir's castle, where they are both deceived; they also travel together to the court of Thrym, who has stolen Thor's hammer Mjollnir and demands Freyja as his bride; and, of course, they travel together to the court of Geirrod. Some versions of this story give Thor's companion on this journey as Thialfi, his male servant. But, as we will see, this is not a significant change: the role of Loki is concerned with persuading Thor to go to Geirrod's court, and his journey companion plays only a small part in the story.

⁷ An incisive summary of the FKC replacement myth, as provided by Lionel Sims, personal correspondence.

There are at least three versions of the Geirrod legend surviving today: Skaldskaparmal in Sturluson's *Prose Edda*, a version by Saxo Grammaticus in Book VIII of the *Gesta Danorum*, and a separate work by Eilifr Godrunarson, a Skaldic poet of the late 10th century. This last version, usually referred to as Thorsdrapa (Eysteinn (tr.), 2000), has some differences from the other two (which are themselves not consistent). The base form of the tale is, however, evident in all three versions: Loki persuades Thor to visit Geirrod; they cross a river where the flow has been augmented by one of Geirrod's daughters; Thor enters the household of Geirrod and sits in a seat which is propelled upwards by Geirrod's daughters; he prevents them from crushing him against the roof, breaking their backs in the process; Geirrod throws a glowing coal at Thor, who catches it and throws it back, killing Geirrod.

The analysis of the tale set out here will start with a version of the tale picked somewhat randomly from the Internet. Several versions of the story are available, and any one could be selected as a starting point. This version has the advantages of including all the events without an extensive narrative, and of being usefully short. It is also a version of the story largely faithful to Sturrluson's Skaldskaparmal (Brodeur (tr.), 1923, pp121-128).

Thor and Loki, and Their Visit to Geirrod's Court

One day Loki was flying through the wood in the form of a falcon when he was captured by the giant, Geirrod. Geirrod confined Loki within a chest for three months, almost starving him to death. Geirrod refused to release Loki until his prisoner agreed to persuade Thor to come to his domain.

Thor unsuspectingly agreed to go to Geirrod's court without his magic hammer (Mjollnir), his girdle of might (Megingjord), or his iron gauntlets (Járngreipr). Fortunately, on the way to Geirrod, Thor and his companion spent the night in the home of a friendly giantess named Grid. Grid told Thor that Geirrod intended to kill him. Grid gave Thor her unbreakable magic staff (the Gridarvol) and her own girdle of might and iron gloves.

Thor and Loki tried to cross the river of Vimur, but the water kept rising, preventing them from crossing. Thor's companion was at this time holding on to Thor's girdle of might. Thor realised that a giantess named Gialp, daughter of Geirrod, was causing the river to rise. Thor threw a rock at Gialp to stem the river flow. Reaching the riverbank, Thor pulled himself (and Loki) out of the water using the branches of a rowan bush.

Thor and Loki arrived at Geirrod's home. They were taken to a chamber with only a single chair, which Thor sat on. Suddenly he felt the chair rising up toward the roof. Thor would have been

crushed to death between the chair and roof, but he quickly put the Gridarvol between the chair and a rafter. Thor heard a couple of loud cracks and screams of agony. Looking down under his seat, Thor saw Gialp and Greip, the two daughters of Geirrod, with their backs broken.

Geirrod arrived at the other side of the chamber. He picked a glowing lump of molten iron out of a fire with tongs. Geirrod threw the iron at Thor with all his might, but Thor easily caught the molten iron with the iron gloves that Grid had given him. Geirrod ran and hid behind an iron pillar for protection. Thor threw the molten iron back at Geirrod, and it punched through the iron pillar and through Geirrod, killing the giant.

(Sturlusson, c.1220)⁸

The Analysis

This story has many features which identify it as a version of the global lunar cycle myth. First, there is movement from one world to another. In this case it is not a movement between the mundane world (Midgard) and the magical realm, it is a movement between Thor's mundane world (Asgard) and the world of the exotic other, Jotunheim. There is also the river separating the two realms and marking the change between them. This river corresponds to many other archetypes: the Greek river Styx which the dead must cross; the biblical baptismal river of St John; the sacred rivers of Hindu death ceremonies; the Kali Bein, in which the Sikh Guru Nanak is drowned before being reborn; the river in which Siddhartha almost drowned before his Great Enlightenment ... the lesson seems clear: you cannot enter the magical world without wetness.

Second, there is the deceiving other person, represented by Loki. This corresponds to the hero's father in Lévi-Strauss' retelling of the Bororo bird-nester story (Lévi-Strauss, 1970, pp35-37), Nabonkitkit in the Australian Aboriginal bird-nester story⁹ (Robinson, 1966, pp159-161), Moon in Lévi-Strauss' retelling of the Arapaho story *The Wives of Sun and Moon* (Lévi-Strauss, 1978), and possibly the bean-seller in *Jack and the Beanstalk* (Jacobs, 1994, Fairy Tale 14). In each case the deceiver seems to have the intention of abandoning the deceived hero in the non-mundane world – but the hero always returns.

Third, there is the helpful woman, the Giantess, Grid. She provides Thor with magical items and with advice, in the same way that the old woman in *The Shoes That Were Danced to Pieces* aids the old soldier with tools and advice (Jacob & Wilhelm Grimm, 1997 [1857], Fairy Tale 133), or the frog helps the Queen in *The Helpful Frog* (Perrault, 1961 [1697], Fairy Tale 13). The role of the helpful woman is to provide the hero with the tools

⁸ Skaldskaparmal, from the *Prose Edda*, written or compiled by Snorri Sturluson. (adapted from the translation given at https://en.wikisource.org/wiki/Prose_Edda/Sk%C3%A1ldskaparm%C3%A1l)

⁹ 'The Stone Country Devil'. Related by Nalul, Djaun tribe, Southern-central Arnhem Land.

and knowledge to complete the task, despite the malevolent influence of the trickster. There certainly appears to be a dichotomy here between one type of monster, helpful to the hero, and the obstructive monster, the vanquishing of which is the heart of the story.

The phrase "causing the river to rise" is particularly interesting in terms of SST: how did Gialp do this? Different retellings of the story describe this as happening in different ways: Davidson (2002, p299) tells us that Gialp was urinating into the river to increase the flow; Crossley-Holland (1980, pp129-130), Cotterell (2001, p232) and Ross (2005), however, say that Gialp was menstruating into the river. The original Prose Edda states only: "then Thor saw Gialp, daughter of Geirrodr, standing in certain ravines, one leg in each, spanning the river, and she was causing the spate" (Brodeur (tr.), 1923, pp122-123). Ross does provide one reason to accept that Gialp was menstruating: rivers were considered to be the blood of Jorth, Earth goddess and mother of Thor, and Thor's crossing of the river therefore represents a move from Mother, whose power over men is infertile blood, to Wife.

Female power invoked through menstruation is a theme common throughout the mythologies and cultures of the world; but the movement from Mother to Wife is obscure. If Mother is Asgard and Wife is Jotunheim (the direction of movement), then Mother would appear the superior choice in this myth (and, indeed, the person/place to which Thor returns); and the flood of menstrual blood stopping the crossing should really be coming from the Mother side of the river and not the Wife side of the river. If Thor is the dragon-killer come to end the FKC, however, the metaphors are more straightforward: Thor is crossing into the dragon's land to kill the dragon, the dragon is trying to stop him with its greatest power, menstrual blood.

Thor's use of the rowan bush to pull himself out of the river is also important. Sturlusson states that it was because of this story that the rowan bush became known as Thor's Deliverance (MacCulloch, 1930, p84). In the Norse creation myth, First-woman was made from a rowan tree (First-man from an ash tree), and the rowan has significance throughout Northern Europe (Kendall, 2000). Sif, Thor's wife, is represented by a rowan bush, and it has been suggested that it was she who saved Thor in her rowan form. For the Celts, rowan berries were seen as the food of the Tuatha De Danaan, which gives rowan berries a clear correspondence with Ithunn's apples in Norse mythology. In the Irish *Tale of Fraoith*, the rowan was the Tree of Life: it bore fruit every month and every quarter; and its berries had the sustaining power of nine meals, healed the wounded and added a year to a man's life. The red berries of the rowan are clearly a metaphor for blood, and they produce a black dye which was used for clothes and, occasionally, for tattooing. The rowan may therefore represent, like the giantess Grid, the woman who is helpful at a time when she should be unhelpful. In SST mythic syntax (Knight, 1991) she would be the wicked strike-breaker who, in these myths of the overthrow of the FKC, has been subverted into a kindly supporter of the male hero.

So Thor arrives at the Hall of Geirrod and sits in a chair; but why does he sit? In Voluspa verse 30 it says: "There alone was Thor, with anger swollen. He seldom sits, when of the like he hears"; and in Thrymskvitha verse 11, Thor says to Loki, "Tell me from the air the long tidings. Oft of him who sits are the tales defective, and he who lied down utters falsehood" (Thorpe, 1866). Thor is not a sitter, nor does he value those who sit, so why does he sit in the hall of his enemy?

The answer is likely to be in what happens next. The chair, with Thor, begins rising to the ceiling. The hero is being propelled upward, as in the bird-nester stories which form a common theme throughout world mythology (Knight, 1991, pp503-506). In most of the other versions of the bird-nester story, though, the hero is abandoned in the sky to die and be reborn. In the Geirrod myth, Thor escapes his death – and therefore his rebirth. In fact, he turns the tables and defeats the ones trying to send him to the sky. This is achieved with a rod, or mace, and without any blood being spilled. So Thor's sitting on the chair seems to be a "plot device" to show the destruction of another feature of Palaeolithic mythic structure, the bird-nester way to knowledge.

The bird nester myth does seem to be part of Norse tradition. Davidson (1964, p117) describes a type of female magic called *seithr*, which was practiced by the seers of the Freyja cult. A very high platform was built, on top of which a seeress, or Volva, sat. The Volva then sang spells and entered a trance state, while those below made music and sang chorally. At the end of the ritual the Volva answered questions about the future, implying that she had visited a place where these answers were known. The Volva, like the bird-nester, rises up, dies, and comes back to Earth with new knowledge. The use of a high seat, and Thor's reaction to it, would therefore seem to have particular relevance in the Geirrod story.

So far Thor has overcome menstrual blood and projection into death; all that remains for the final victory is to destroy the dragon, and this last act forms the final part of the story. When Geirrod appears in the hall he throws hot iron at Thor, which Thor catches in Grid's cold iron gloves and throws back. Geirrod hides behind a cold iron pillar, but the hot iron pierces the cold iron and kills Geirrod. The dragon is slain and, presumably, no blood is spilled; but what is all this iron about? It clearly cannot be a feature of Neolithic or Bronze Age legends – myths about iron must be Iron Age myths. There are, though, two types of iron here. Cold iron is traditionally the enemy of witches: nailed to a door or buried at a lintel it prevents a witch from entering a house. Hot iron is, in contrast, something different: the *Malleus Maleficarum* (Kramer & Sprenger, 1486, Part 3, Questions XVI & XVII) recommends a witch test in which the unfortunate person is forced to hold hot iron; if they suffer no pain then they are a witch. From this, it seems that hot iron is the metal of witches and a source of power, while cold iron is their bane.

This formula allows a possible new interpretation of the iron-throwing. Thor, as the dragon-slayer/giant-killer/witch-hunter, controls the defence of cold iron (Grid's gloves); Geirrod, as the witch, controls the weapon of hot iron. Clearly the offensive advantage is with Geirrod – Thor does not have his hammer and holds only tools of defence (Grid's gifts). Thor has to seize the offensive weapon of hot iron from Geirrod to win this encounter. When Geirrod throws hot iron he is using the power of the FKC – ritual coercion. It is a power, though, that does not work on Thor; instead, he seizes the ritual coercion for himself, and the ancient order is changed forever. The dragon is slain using its own power – and, once again no blood is spilled. Instead of Thor being the ritual sacrifice it is the FKC that is sacrificed.

In this story, Thor defeats the giants three times: Gialp is stopped up at the river Vimur; Gialp and Greip are broken under the chair; and Geirrod is killed with his own weapon, hot iron. The triple defeat of the FKC is a common theme of dragon-slayer stories: Beowulf defeats Grendel, Grendel's mother, and a dragon; Cinderella defeats her two stepsisters and her stepmother; Christ refuses the three temptations of Satan in the desert. It may well have something to do with the three nights of dark moon, which are the time of the FKC's greatest power. To defeat the FKC, the power of the dark moon must be defeated in detail, one night at a time. Two victories against the FKC are not enough, third time pays for all.

There are several other examples of female trinities in coalition: the Norse Norns are Urd (fate), Verdandi (past) and Skuld (future); the three Fates of Greek mythology are Clotho (spinner), Lachesis (measurer) and Atropos (inevitability); the three Morrigna of Irish-Celtic mythology are Badb (battle crow), Macha (majesty) and Nemain (shadow queen). The three witches in Shakespeare's *Macbeth* are unnamed, but they represent an ancient tradition that the three-member witch coven comprises the maid, the mother and the crone. In the case of women it seems clear that two's company, but three's a crowd – and much more dangerous. As King Solomon says in Ecclesiastes 4:12: "A three-ply cord is not easily severed."

Another feature which may be part of the Geirrod myth is the theme of the useless brother-in-law (the woman's brother, who has a significant role in SST mythic syntax but is just a burden in agriculturalist cultures). This is best illustrated in the myth, *The Hunter Monmaneki and his Wives* (Lévi-Strauss, 1978, pp25-28), where the brother-in-law ruins the magical fishing. In the Geirrod myth the useless brother-in-law figure is Loki (or Thialfi in some versions), whose only role in the visit to Jotunheim appears to be acting as a weight on Thor's belt in the River Vimur. This, however, may be one analogy too far, and should not be considered too seriously: neither Thialfi nor Loki is named as the brother of Thor's wife, Sif, nor of his giantess lover, Jarnsaxa (although, of course, both Loki and Jarnsaxa are giant-kin).

The dragon-slaying hero myths of the Iron Age share a common feature which is missing from hunter-gatherer myths: they all express a clear moral separation between the dragon-slaying "good guy" and the

dragon “bad guy”. Hunter-gatherer myths are much more ambivalent about heroes and villains, a subtle ambivalence which posed a considerable problem for the simplistic moral formulae of Victorian Christian missionaries. Even today, Hunter-gatherer myths (and Western folk tales) allow a considerably more complex relationship between the mundane and the sacred than modern Christianity recognizes, and this complexity remains as an unofficial undercurrent to official monotheistic philosophies. In Paraguay, Haiti, Mexico, The Philippines, Congo, and many other parts of the world, a simple Christian black-and-white philosophy overlays an older, traditional philosophy of shifting greys, creating versions of Christianity which are morally subtle and therefore often decried as heretical.

Why, in the dragon-slaying myths, was it necessary to emphasize the heroic nature of the dragon-slayer, when for decamillenia the dragon of the FKC had been a necessary part of existence? Here is probably the greatest sadness of the collapse of the FKC. During the Upper Palaeolithic, the cyclical dragon of human existence moved from dark moon to full moon and back again, from separation to marriage and back again, from hunger to plenty, from dark to light, from the sex strike to the hunt, from raw to cooked ... This was the way humans lived. The dragon did not need to be good or bad, there was no other way of existing that could be compared as being better or worse.

Eventually, though, the system broke down. Perhaps it was the stresses of climate change, the limits of human expansion – or, possibly, human overpopulation or overhunting – that caused the system to collapse. The megafauna certainly seem to have disappeared, so the monthly hunt could no longer provided enough meat for days of continuous feasting. Hunting became more opportunistic and less calendrical, and other solutions, such as pastoralism and agriculture, had to be adopted. The old way of life no longer worked and had to be abandoned. This is what makes the dragon-slayer a hero: not that he slew the dragon, but that he created the opportunity for a new way to be human. The new way was not better than the dragon in terms of being human, but it was better in a way that really mattered: in terms of survival. The dragon of the FKC was not evil, but with its failure it had become the enemy of Humanity instead of being Humanity.

Abandoning a system that had worked for probably 100,000 years – 4,000 generations – would not have been easy. It is likely that aspects of the dragon – synchronized menstruation, moods dictated by the moon, cultural differences between the sexes – could have become encoded at the genetic level. Over the decamillenia, individuals who were good at being part of the dragon would have thrived and reproduced, those who struggled against the dragon would have done less well. This Darwinian process would have been reversed with the collapse of the dragon, but we have had less than 10,000 years to overturn the selective genetic effects – many of the effects produced by the dragon are likely to be still with us today.

In the Geirrod myth we saw Thor, the dragon-slayer, kill the dragon of Geirrod and his daughters. Yet they are killed not because they are Jotuns – Loki is a Jotun and a companion of Thor – it is because they are still within the dragon of the FKC. To see Thor as the enemy of Jotuns leaves too many questions unanswered. He is a friend of Grid, the father of Magni and Modi by the Giantess Jarnsaxa, and the son of the Giantess Jorth. It is clearly not the race of Giants, as such, that is the enemy of Thor. It is not who they are that must be challenged but what they do.

Santa's Reindeer?

Only one issue remains to be addressed in this article: what is the link between Thor and Loki and Santa's reindeer? As every Western young child knows, Santa Claus flies around sitting in a sleigh filled with presents and drawn by reindeer; fewer people know that Thor drove around standing in a bronze chariot filled with kettles and drawn by two goats. Thor never rode a horse, he either drove his chariot or, as in the tale of Geirrod, walked (Guerber, 1895, p64). This however, is very thin evidence on which to posit a relationship between Thor and Santa; and as we shall see, the relationship is far from a simple equivalence.

Santa's sleigh and its reindeer team are actually recent additions to the Christmas myth. On 23rd December 1823 the New York *Troy Sentinel* newspaper published an anonymous poem, *A Visit from St Nicholas*. This poem is now known as *The Night before Christmas* and is attributed to one of two authors, Clement Clarke Moore or Henry Livingston. This poem is the origin of the story of Santa's sleigh, and the original 1823 version named the reindeer as follows:

Now! Dasher, now! Dancer, now!
Prancer, and Vixen,
On! Comet, on! Cupid, on!
Dunder and Blixem ...¹⁰

Later versions of the poem changed the Dutch names to the German *Donner and Blitzen* – but, whichever version is used, two of Santa's reindeer are Thunder (Thor) and Lightning (Loki)¹¹.

This is perhaps the final indignity for the eponymous hero who overthrew the old order of the FKC: he is himself overthrown. His actions ensured that the moon rituals of the FKC became mere stories for children; and, in turn, his own ritual-worship legends have become children's tales. The dragon slayer and the great trickster have become bit-players in a mid-winter solar-calendar drama inspired by, but no longer representing, the annual death and rebirth of the sun; and, by the time they are added to the story, the myth has already become a children's tale itself. Instead of controlling the chariot they have become mere beasts

¹⁰ Anonymous, 2007. See <http://www.snopes.com/holidays/christmas/donner.asp>

¹¹ Rudolph did not appear in the Christmas story until 1939, in a short story by Robert L. May, published by Montgomery Ward of Chicago, IL, USA.

of burden to pull it; and instead of bringing fear they bring gifts of appeasement. It is the biter bit – but, in this case, literally with bells on.

Conclusion

The analysis undertaken in this article has had the objective of relating Norse myths to a universal world myth, which has been summarised as “a hero slays a dragon with a mace”. This myth, however, is a coda to the earlier world myth of the FKC. In this earlier myth we see a never-ending story of movement between fertile relationships and infertile withdrawal, from feasting to fasting, from light to dark. These states form a syntax of opposites when viewed as a single structure, but they form two separated groups of phenomena when viewed as a process over time. As well as the times when one or other group of phenomena dominate, there are two periods of transition; and it is these two transitions that are at the heart of the FKC myth: the change from wife to monster, and the change back again. Dark moon, the time of change from wife to monster, is when the greatest resistance is likely, so it is also the time when the greatest ritual emphasis must be made.

The later myth of the dragon slaying must also take place at this time of transition, and should follow a similar syntax; but in the dragon-slayer myth each feature of the FKC myth has to be neutralized or reversed. In the FKC myth, the dragon is an inevitable part of life, and the movement between mundane and sacred is cyclical and continuous. In the dragon-slayer myth, however, the movement into the sacred is opposed or blocked, and the movement out of the sacred is permanent, not cyclical. The sacred becomes removed from the world of humanity and is only attainable in exceptional circumstances, or at death.

There seems to be a yearning for the sacred in humans which may even have a genetic basis – being good at moving between the mundane and the sacred was a feature of being a successful human for perhaps 100,000 years, enough time for it to have become encoded in the genes; and the 10,000 years since the ending of the FKC social model is not enough time for that encoding to be completely reversed. Our socialised religions may, as a result, be a genetic relic of a different way of life.

The final question that must be asked is, would the analysis presented here be recognisable to the Norse on some level? Would the correspondences drawn here have appeared reasonable to Norse men and women, who saw these stories not just as tales but as part of a religious cosmology? We may never have the full answer to this question, what we know of the Norse remains largely a view from outside. We can, however, see that it is possible to view the Norse mythic structure as compatible with the FKC and its collapse. There is cyclicity, there are well-established themes (like the bird-nester) and there is ritual blood. There is also the highly ambivalent relationship between the gods and giants – who are both the wives and the enemies of the gods. To view this structure as representing a simplistic battle between good and evil is to distort what

the stories tell us. The Norse myths tell us about rituals, secret knowledge to be won, and negotiable relationships. The FKC story gives us some clues as to why these should have been important issues for the Norse.

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