## Towards a Theory of Everything

Chris Knight and Jerome Lewis

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Toward the end of the nineteenth century, when popular Darwinism and evolutionism were still much in vogue, armchair anthropologists invented a rich variety of theories of origin, the assumption being that one theory would be needed to explain the emergence of religion, another the origins of law, another the origins of language and so forth.

It was not until the 1930s that the rise of functionalism put an end to all this. Fieldworkers inspired by Bronislaw Malinowski insisted that in any given community, the system of cosmological beliefs, mode of subsistence, linguistic patterns and so forth all intertwine to form a functional whole, making it impossible to imagine how one component could exist for a moment without all the others (Knight 1995: 50–70). The implication was clear: to explain the origins of, say, language, an adequate theory would have to account simultaneously for all the other things which presuppose language and underpin its use.

The point is as valid today as it ever was. Taken in isolation, there can be no such thing as a theory of the origins of language. There can be no such thing as a theory of the origins of morality, law, totemism, exogamy, kinship or indeed anything else. To explain any one feature, we need to explain the whole – a challenging prospect (Dor, Knight and Lewis 2014: 1–12). For most of the past century, social anthropologists have responded by avoiding biological and evolutionary questions altogether, resulting in a situation in which biological and social anthropologists rarely speak to each other.

When physicists today talk of a 'theory of everything' (ToE), they are wondering whether general relativity (GM) theory and quantum mechanics (QM) might one day be reconciled within a deeper body of theory underlying both (Ellis 1986; Oerter 2006; Weinberg 1993; Hawking and Mlodinow 2010). For anthropologists, the closest parallel might be the hope for an elegant theoretical means of bridging the gulf between the Darwinian paradigm currently prevailing in biological anthropology – sometimes known as 'selfish gene' theory – and the radically different, more holistic approaches adopted by social and cultural anthropologists.

One brilliant armchair anthropologist got tantalizingly close to a theory of everything in the 1890s. Emile Durkheim argued that a certain kind of action – collective ritual action – could establish simultaneously totemism, law, exogamy and kinship in addition to distinctively human language and thought. Everything began, according to Durkheim, when a flow of blood periodically ruptured relations between the sexes. 'All blood is terrible', he observed (Durkheim 1963 [1897]: 83), 'and all sorts of taboos are instituted to prevent contact with it'. During menstruation, females would exercise a 'type of repulsing action which keeps the other sex far from them' (p. 75). This was the origin of the incest taboo. As women bled, it was as if they were wounded game, and since men were related to their own mother through blood, this triggered the idea that the blood of kinship united them equally to the animals they hunted. Thus a single bloodstream ran through the veins of women and animal features – the 'totem'. Once menstrual blood had been linked in this way with the blood of the hunt, it became logically possible for a hunter to respect certain animals as if they were his kin, this being the essence of totemism. Within the group's shared blood resided its 'god' or 'totem', 'from which it follows that the blood is a divine thing. When it runs out, the god is spilling over' (Durkheim 1963 [1897]: 89).

Durkheim's case was that distinctively human conceptual thought can be explained on the basis of this one development. Once humans and kangaroos had been constructed as sharing the same clan blood, it became logical for a man of that particular clan to identify himself as a 'kangaroo'. To think in this way, continued Durkheim, might seem paradoxical, violating what he termed 'the principle of contradiction'. Humans and kangaroos are different species: you can be one or the other but not both. And yet, continued Durkheim, the distinguishing feature of human symbolic thought is precisely this:

Is not the statement that a man is a kangaroo ... equal to identifying the two with each other? But our manner of thought is not different when we say of heat that it is a movement, or of light that it is a vibration of the ether, etc. Every time that we unite heterogeneous terms by an internal bond, we forcibly identify contraries.

Durkheim (1947 [1915]: 238) is here pointing out that human conceptual thought is, above all, metaphorical – an idea which in recent years has become standard (Lakoff and Johnson 1980; Ortony 1993; Goatly 2007). Statements that are true by definition are circular and obvious; to think creatively is to discern truth on a deeper level by means of metaphors – expressions which, interpreted literally, are patent falsehoods (Davidson 1979). The ability to seek out and discern meaning in such falsehoods is the unique distinguishing feature of human conceptual thought. Whereas other species rely heavily on categorical perception – allocating objects and events to either/or categories (Harnad 1987) – humans think conceptually on an additional level by combining opposites, dissolving familiar categories and in the process imaginatively creating new ones.

Just as the Victorians hoped to invent one theory to explain the origins of language, another for religion and so forth, so – until very recently – the evolutionary emergence of language was subdivided into the quite separate challenges of explaining symbols and explaining grammar. The linguist Derek Bickerton, for example, divides language evolution into two steps, the first establishing a 'protolanguage' of grammatically unconnected words while the second conjures grammar into being (Bickerton 2003). In the same vein, evolutionary psychologist Michael Tomasello (2003: 109) suggests that '[l]anguage is a complex outcome of human cognitive and social processes taking place in evolutionary, historical and ontogenetic time. And different aspects of language – for example, symbols and grammar – may have involved different processes and different evolutionary times'.

In contrast to this approach, we endorse Smith and Hoefler (this volume) in claiming that metaphor offers a single solution to the two evolutionary sub-problems. The cognitive mechanisms underlying metaphor, according to these scholars, underpin not only symbols and grammar but all distinctively human communication, both linguistic and non-linguistic, from its prehistorical beginnings to the present. Metaphor is the underlying principle of all that is distinctive about human language and thought (Lakoff and Johnson 1980; Smith and Hoefler 2014). Even scholars such as Dan Sperber and Deidre Wilson – who insist that "metaphor" is not a theoretically important notion in the study of verbal communication' – do so because they consider the concept too broad, all verbal utterances requiring more than literal decoding: 'We claim that metaphors are not exceptional, and that the linguistic content of all utterances, even those that are literally understood, vastly underdetermines their interpretation' (Sperber and Wilson 2008: 8). Far from being exceptional, saying one thing while meaning another is the norm.

A metaphor is, taken literally, a 'false statement' (Davidson 1979). Faced with this, the hearer must try to work out the speaker's communicative intention, deciding between possibilities on the basis of assumed relevance (Sperber and Wilson 1986). The simple metaphor 'John's a real pig', for instance, might be interpreted in various ways depending on the context: it might mean that John is very messy, that he is very fat, that he is gluttonous or, more generally, that he is badly behaved. The metaphor's less relevant meaning components – for example having a curly tail – must be ignored for communicative success to be achieved (Smith and Hoefler 2014).

Durkheim understood this when faced with the Aboriginal Australian assertion that a man might really be a kangaroo. Instead of dismissing the idea as irrational, he insisted that it reveals to us the workings of man's scientific mind. Durkheim took his illustrations mainly from Australia, where a group of clan members during an initiation ceremony might enact, say, the kangaroo dance, jumping or leaping like kangaroos. With extraordinary insight, he realized that communal activities of this metaphorical kind lie at the basis of all symbolic thinking, including modern science.

In Durkheim's evolutionary narrative, totemism and exogamy emerge together as the earliest form of ritual and social organization. Communal participation in dancing, singing and other ritual performance forges bonds of solidarity while, at the same time, body and mind are seized by a metaphorical representation of their existence as a collective. That metaphor – the 'totem' – is the creature whose movements and appearance are acted out in the dance.

Published in 1897, the earliest version of Durkheim's theoretical model (Durkheim 1963 [1897]) was strongly gendered, with men and women facing each other in opposite camps. Women repulse the other sex with their symbolically potent blood, each dancer's menstrual blood being equated with that of a kangaroo or other game animal. As a result, men jointly perceive their mothers and sisters as active participants in the sacredness of the kangaroo or other emblem of the clan. As sacred beings, these women establish themselves as sexually prohibited, just as meat of the totemic species becomes prohibited flesh. In this way, a powerful communal metaphor enforces a unitary principle of exogamy which applies alike to human and nonhuman kin. There can be no doubt that Durkheim glimpsed here a theory of everything – a way of explaining the emergence of human society, morality, religion and language in one theoretical move. His ethnographic sources were conscientiously examined and accurately cited, subsequent studies amply confirming his initial insight. Durkheim rightly understood that Aboriginal Australian 'totemic' symbolic equations flow naturally and logically from an initial situation in which women's blood is equated with that of the animals men love to hunt.

Twentieth-century ethnographers have confirmed that this linkage is a constant theme in songs, myths and rock art from across the continent (Berndt 1976; Testart 1978, 1986). An example is David McKnight's (1975: 85) discussion of how meat becomes *ngaintja* – 'sacred' or 'taboo' – among the Wik-Mungkan Aborigines of Cape York Peninsula:

Any act suggestive of menstrual bleeding makes things *ngaintja*. Thus if blood from an animal falls on a woman's lap, her father and many other male relatives may not eat it. If a young man carries meat on his back or shoulders ... so that the blood runs down between his buttocks this, to the Wik-Mungkan, is too uncomfortably like menstrual blood to be ignored.

It is not surprising, then, to learn (p. 86) that when men cut up the flesh of a recently killed game animal,

they make certain that women, especially their daughters, stand well away. Men will not even take fish from a daughter if she has caught it with a fishing line and pulled the line so that it falls on her lap. If a daughter should accidentally sit on her father's possessions then they are *ngaintja* to him... I might add that blood from wounds is also considered to be *ngaintja*, though not to the same degree as menstrual blood.

Menstruation is sacred – even taboo – but as a mark of fertility it is especially tempting and difficult to resist. Men fantasize about such women, as these lines from a Western Arnhem Land erotic song-cycle (Berndt 1976: 61) clarify:

Like blood from a speared kangaroo; sacred blood flows from the uterus...

They are always there, at the wide expanse of water, the sea-eagle nests...

They are sacred, those young girls of the western tribes, with their menstrual flow...

They are always there, sitting within their huts like sea-eagle nests, with blood flowing...

Flowing down from the sacred uterus of the young girl...

Sacred blood flowing in all directions...

Like blood from a speared kangaroo, from the sacred uterus...

Far away in Central Australia, we find similar themes. Among the most important and powerful figures in Aranda mythology are the *alknarintja* women. They are characteristically depicted as menstruating together. In one song (Róheim 1974: 138–139), the awesomely powerful women cut their breasts:

On their breasts they make scars. They slap their thighs...

They are menstruating.

Their flanks are wet with blood. They talk to each other.

An alknarintja may be recognized in a myth by the fact that she is constantly decorating herself with red ochre, is associated with water and is 'frequently represented as menstruating copiously' (p. 150). Alknarintja women possess bullroarers and other symbols of power, and have solidarity – evoked in one song through the image of a clump of bushes 'so thick and so pressed against each other that they cannot move separately' (p. 144). The alknarintja are also known as 'women who refuse men'. The name 'alknarintja' means, in fact, 'eyes-turnaway'. From another song (p. 141–142) come these lines:

They say, 'I won't go with you'. 'I will remain an alknarintja.' They whirl their bullroarers.

They stay where they are.

They sit very still.

The man wants them to say, 'I will go with you'. But they remain where they are.

The strength of Durkheim's origins theory is its parsimony and simplicity: instead of multiple different theories to explain how symbolic culture emerged, we are offered just one. Yet it could have been simpler still. Despite the elegance of his theory, Durkheim offers no simple, logical explanation for its key feature – the identification of women's blood with the blood of the hunt. Durkheim marshals ethnographic details confirming that across Australia, the blood does have this symbolic significance, but he does not explain how or why huntergatherers across Australia should ever have arrived at that idea.

Durkheim's theories were unfortunately never followed up or appreciated as key to an understanding of how symbolic culture evolved. In recent years, however, huntergatherer ethnographers have been able to confirm that his insights about blood were essentially correct. On one level, human or animal blood is just a biological substance. But for traditional hunter-gatherers across the world it is much more than that – it is the primary material from which their most sacred ritual metaphors derive. Anyone familiar with Judaic, Muslim or Christian traditions – as Durkheim certainly was – will realize that things have not changed. Examples of blood-symbolism abound in virtually all cultures (Buckley and Gottlieb 1988), being especially complex and prominent among Australian hunter-gatherers (e.g. Berndt 1976; Durkheim 1947 [1915]; Knight 1988; Testart 1985, 1986). But sometimes a detailed focus on a particular society can shed light on the wider picture. With this in mind, we turn now to work conducted recently among the BaYaka Pygmy inhabitants of the forests of the Congo Basin. The value of this is that it shows how women actively construct the metaphor of their blood as that of the hunt, thereby turning it into something sacred.

Among these forest people, older women assume primary responsibility for teaching younger ones the importance of dancing and singing, valuing such activity as a primary means of influencing the behaviour of males. The fact that women and men form counterposed communities assertively responding to and thereby shaping one another's sexual strategies sheds a very different light on Durkheim's original argument, from which any hint of conflict or struggle is strangely absent.

For Durkheim, women's blood of its own accord somehow 'repulses' the opposite sex. What's missing in Durkheim's account is an understanding of women's active role in periodically defying male sexual desire. Whereas Durkheim presents menstrual blood as possessing a force which independently repulses males, his theory makes more sense when it is realized that women – like the *alknarintja* sacred beings of Aranda myth – actively refuse men at the moment when they are most desired. Only then does it become clear why metaphorical shape-changing – collectively assuming animal form – is a logical strategy of gender defiance. And only then, finally, does it become clear why and how women establish their own blood as mystically connected with that of the animals men hunt.

To grasp how women achieve this in practice, we may turn to a special word in the lexicon of the BaYaka forest people which, for them, has a host of meanings. *Ekila* can refer to menstruation, blood, taboo, a hunter's meat, good hunting luck, the power of animals to harm humans, and particular dangers to human reproduction, production, health and sanity. As an elderly male informant explained:

A woman's *ekila* is with the moon. When a woman is *ekila* [menstruating] her husband takes her smell. So he doesn't go hunting or walking in the forest with friends. Animals flee when they smell a woman's *mobeku* (ritual danger). The animals smell her on him. If strong animals, like gorillas, elephants, buffalo, or leopards, smell it they will come, even from far away, charging towards him in a rage, passing other people by just to get him. (Lewis 2008: 298)

Another informant explains:

*Ekila* is the same as *mobeku*. That's the name of the medicine God (*Komba*) sent women when women put in the moon [menstruate]. The business of

*ekila* was first with them. It is all about children. You can see women's tummies swell up at this time. It's the wind. They have to expel their wind as *ekila* [blood]; this cleans out their wombs... Women's biggest husband is the moon.

If I'm a hunter, I don't sleep around with different women. If I slept with her, then her, and then her, all the animals would know. They would smell my smell and know 'that hunter has ruined his own *ekila* [ruined his hunting]'. Some will come with great anger. Others, you shoot them, but they won't die. You are very surprised. When you shoot at an antelope from close range and it doesn't die, we call this *ekila*.... (Lewis 2008: 299)

## Or again:

If you are *mobeku*, animals attack you. In big forest full of large game, having sex is *mobeku* – a huge *ekila*. This is because we are in conflict (*bita*) with the animals. If they smell the odour of women, some are frightened and flee you. Others come from far away and follow you, only you. That's why women are frightened in the forest. The animals smell them. (Lewis 2008: 302)

While it is male informants who are speaking here, to understand the logic we must turn to the female community to find out in greater detail what *ekila* really means.

For women and men alike, collective ritual action is fundamental to the day-to-day maintenance of *ekila*. *Ngoku* is women's all-female ritual association, the counterpart of the men's *Ejengi*. After her initiation into the women's secret society, it is only with the onset of her first menstrual flow that a girl is suddenly referred to as *ekila*. This arouses in her a curiosity to delve deeper into the secrets of her sex, learning about procreation and related aspects of cosmology (Lewis 2008). *Ngoku* specifically instructs her in how to use sexual attraction to control men. Women's communal singing and dancing establishes their solidarity so they can band together to resist male violence, periodically withdrawing sex to exert leverage in achieving key goals. Central among these is the proper sharing of meat and respect for egalitarian political norms (Lewis 2008; Finnegan 2009).

While hunters penetrate with their spears and cause dangerous blood to flow, women's priority is to control not only this bloodshed but also their own, rendering it safe and life-bringing to the human group through a range of strategies which include the controlled use of fire – a technology which, as Lévi-Strauss (1970) famously clarified, transforms dangerously raw, bloody meat into desirable flesh (whether human or animal), now safely available or 'cooked'. The gendered rituals of the two sexes balance out and interact, in this way jointly establishing the core metaphorical equivalences of ekila – between men killing animals and women birthing children, between the spearing

of animals and the penetration of women's bodies in intercourse, between menstrual blood and the blood of the hunt (Lewis 2008; Finnegan 2013).

Among biologists and evolutionary ecologists, it is well understood that for primates in general, it is the females whose foraging and reproductive strategies ultimately determine the direction of evolutionary change (Dunbar 1988; Hrdy 1981; Lindenfors 2005; Lindenfors, Fröberg and Nunn 2004; Lind and Lindenfors 2010; Wrangham 1979, 1980). Regardless of whether or how much they dominate, the fact that 'primate males go where the females are' (Altmann 1990) means that female decision-making is always paramount. This basic understanding of how things work tends to get set aside by modern advocates of 'man the hunter' (e.g. Kaplan et al. 2000, 2001), but we see no justification for this. Even if dominance in our ancestors were so extreme that male control over basic resources characterized all human evolution, as some (e.g. Foley and Gamble 2009) assert, this would not make male decision-making the driver of human evolutionary change. We need to set out from theoretical fundamentals. Since we were once primates, it follows that if males in our case alone came to drive evolution, we would still need to ask at which particular stage – and through which initially female strategies – males stopped going where the females were.

In our view, the best way to avoid these difficulties is to assume theoretical continuity, applying basic primatological understandings equally to evolving humans. The biological background to the scenario we favour – not discussed here – is one in which evolving hominin females had long been mobilizing assistance and support to meet their increasingly costly childcare burdens (Hrdy 2009). They achieved this through a whole range of strategies which included the phasing out of external signs of ovulation, residing where possible with the mother, extending and maintaining female coalitions, raising male levels of commitment, and co-operatively resisting the strategies of dominant male philanderers. Finally, it meant finding new ways of dealing with menstruation which, with ovulation effectively concealed, had become salient as a cue to imminent fertility. The eventual solution involved the use of cosmetic substitutes to prevent real menstrual blood from triggering dangerous levels of inter- and intra-sexual competition and conflict (Power 2009, 2010, 2014; Power and Aiello 1997). Against this background, we attribute the metaphors and equivalences of *ekila* and its cross-cultural variants in the first instance to women's collective action in their own reproductive interests (see Finnegan, this volume).

All this allows us to complete Durkheim's 'theory of everything' in a much more powerful and parsimonious way. Metamorphosing into animal form, bleeding in sympathy with wounded game – such metaphorical equivalences are best seen as signals of defiance aimed at male sexual desire. If women are to use sex to control male behaviour, they must – at the very least – be able to say 'No'. And what better way to do this than to form into a defiant mass, resorting to explicit body language, dancing the way animals dance, bleeding the way animals bleed? Women's strategy is to set out from the fundamental male need for a sexual partner who is female, human and available and, with that in mind, systematically enact an identity that is the reverse: human  $\rightarrow$  animal female  $\rightarrow$  male available  $\rightarrow$  unavailable

By ritually denying men in this way, women demonstrate that they cannot be taken for granted. While welcoming men's capacities for shedding blood, they are able to insist that there are limits. Killing game animals with piercing weapons is not to be confused with using those same weapons against women, or against rival males. Establishing such boundaries is in everyone's long-term interest because otherwise – if males could resort to weapons at will – the consequences might be calamitous. Without powerful ritual inhibitions – without concepts on the model of *ekila* – community survival would be placed at risk.

We can now state the stunningly simple mechanism through which this entire complex is generated. When a menstruating dancer performs the steps and characteristic antics of a game animal, the very fact that she is bleeding now constructs that animal as a wounded one. Metaphorically, her blood is now that animal's blood. Paradoxically, it is this very identification of human with animal blood which keeps the two categories apart. Never laugh at the sufferings of an animal you have killed, insist the BaYaka – it might turn out to be your own unborn child. The Hadza have essentially the same idea:

The whole process of hunting big game (male productivity) is symbolically linked with the whole process of female reproduction (female productivity). Activities in one process are mystically dangerous for activities in the other. A man whose wife is menstruating cannot hunt big game because the poison of his arrows is believed to lose its efficacy. If his wife is pregnant he cannot walk on the tracks of a wounded game animal because this will cause it to recover from its wounds. Reciprocally, if a man whose wife is pregnant laughs at or mocks the dead but not yet dismembered carcass of a game animal, the unborn baby will be born with defects which resemble the characteristics of the dead animal. (Woodburn 1982: 188)

Identifying the blood of the hunt with that of menstruation forces men to keep their wits about them, using violence with care, aware at all times that recklessly spilled blood might turn out to be their own.

The blood of menstruation, then, is that of the hunt. Whereas Durkheim had to add this all-important feature to his model, in our version it is intrinsic from the outset. Women who mimic an animal at the time of menstruation are by that fact alone constructing Durkheim's Ur-metaphor, the primordial metaphor from which society emerges as a moral entity. Once this conceptual equivalence has been established, it triggers a cascade of subsidiary metaphorical equivalences, as seen above – between men killing animals and women birthing children, between the spearing of animals and the penetration of women's bodies in intercourse, between taboos on menstruation and hunting taboos. These associations are ubiquitous, and it is not easy to imagine how else they might be explained.

There is a background to all this in evolutionary biology, beyond our remit here. Suffice it to say that we routinely expect female reproductive priorities to conflict in key areas with those of males. Females cannot afford to co-operate unconditionally with the opposite sex, any more than males can afford to collude unconditionally with females (Trivers 1972). So it may seem inexplicable why the males in our origins narrative should collude with the female tactics described. We cannot assume male moral sensibilities here; in an evolutionary account, taking primate sociology and psychology as our point of departure, moral constraints must be explained, not just assumed. The mere fact that women pretend to be game animals is no reason why male onlookers should collude with or join in the make-believe – especially if it means foregoing sex.

It is true that a male could respond to women's pretence with violence, but there are good reasons why this might not work. Although fighting is always an option, it entails risks and costs. A violent male attacking his female partner and her allies might unwittingly endanger his own genetic offspring. Apart from that, he would have no reason to expect his male companions to support him. After all, if he did succeed in imposing his sexual dominance, they, too, would have good reason to feel threatened. In deciding whether to cooperate or fight, we expect the primate male to weigh up the costs and benefits. Provided the costs of violence are made sufficiently high, it may make better Darwinian sense (and so begin to feel logical and emotionally satisfying) for males to nurture their own babies – hence their own genetic future – by acknowledging female solidarity, respecting its message, co-operating in the hunt and bringing back game to camp (Knight 1999). Following this logic, under both pressure and seduction from females, our male ancestors willingly succumb to being fully human (cf Finnegan, this volume).

It is clear that wrong species/wrong sex is on one level pure nonsense. But escaping the confines of literal truth is precisely the secret of symbolism. Saying one thing in order to mean another is the essence not only of metaphor but of all symbolic language and life (Knight 2008; Knight and Lewis 2014). Taken literally, every metaphor is patently absurd, and claiming to be a game animal is no exception. The trickster who plays such a prominent role in huntergatherer narratives is endlessly switching gender and species, transforming himself into his own opposite. This trickster is sexresistant, rebellious and ludicrous – yet also a lustful clown, creator of antelopes and guardian of menstrual taboos. Because trickery is the secret of symbolic culture, the Kalahari Bushmen seem uncannily perceptive in considering a trickster figure such as //Gauwa 'the central denizen of the First Order of existence' (Guenther 1999: 96). Each trick provokes laughter because it is such evident nonsense. But behind the hilarity is an egalitarian purpose, which becomes especially apparent when the story is acted out in ritual performance to the accompaniment of laughter. Yes, it looks like nonsense. But when women band together and hilariously insist to men that they are game animals, the implication of this metaphor – 'No sex' – comes over loud and clear.

Our scenario would seem weak if the core metaphor we have described turned out to be confined to just a small range of huntergatherer cultures. It is possible that on closer examination, it will turn out to be universal – a core symbolic feature of the hunter-gatherer lifestyle as such. This can be tested.

So far, we have relied on Durkheim's survey of nineteenth-century Australian ethnography augmented with recent work among the BaYaka. But at the southern end of the African continent, among the Ju/'hoansi and other Bushmen, we have perhaps the clearest confirmation of all. Among these groups, the Eland Bull Dance (in some regions the Gemsbok Dance) was the primary initiation rite, fundamental to San cultural identity (see also Low, Watts and Power, this volume).

The dance celebrated a young woman's first menstruation. As she began to bleed, her senior female kin would ensure that she entered a special hut, where she would remain for several days. Inside that hut, she consorted with – or in some accounts metamorphosed into – the great Eland Bull, surrounded outside by female dancers thrusting out their buttocks while holding aloft forked sticks to mimic the horns of rutting eland cows (Guenther 1999; Lewis-Williams 1981; LewisWilliams and Pearce 2004). At this point, as the performance makes clear, women are consorting not with their usual sexual partner but with their fantasy lover – the Eland Bull (Power and Watts 1997). It would be hard to imagine an enactment which more strikingly confirms the predictions of our model. The women are signalling to any onlooking male their message of playful yet determined defiance: wrong species, wrong sex, wrong time. Males must not probe this signal too closely. /Xam Bushmen warn that staring at a girl during such proceedings might 'turn a man into a tree' (Lewis-Williams and Pearce 2004: 162).

Yet another example is provided by the Hadza of Tanzania, where the same logic is found. The girl's initiation ritual, known as *Maitoko*, re-enacts the story of Mambedeko, the 'Woman With the Zebra's penis' (Power 2015). At the beginning of time, this mythical heroine would metamorphose into a male zebra, using its penis to have sex with all the other women – known as the heroine's 'wives'. During *Maitoko*, women and girls to this day shed blood together in reenactment of this story, their legs adorned with zebra stripes. Echoing the 'wrong sex' theme, when a Hadza girl first menstruates, she is congratulated for having 'shot her zebra' (//akakwa dongo – Mouriki, pers. comm. 2015). Stepping into the role of Mambedeko with her zebra penis, she conveys the message to any onlooking male that she is not available for sex – she is now the one who penetrates. Once again, wrong species, wrong sex, wrong time.

As far away as Australia, we find endless variations on these themes. Testart (1978: 113) perceptively describes the relationship between the Rainbow Serpent and menstrual blood in Aboriginal mythology as 'an association of opposites linked by their very contradiction'. When women dance while menstruating together, they metamorphose into an immense rainbow which is also a snake. Recorded in north-east Arnhem Land, the best-known of all Aboriginal myths – the story of the two Wawilak Sisters – depicts this immense creature as an allswallowing, shimmering skin enveloping menstruating women whose blood is that of the game animals men hunt. When the snake is aroused by this blood, speared and bleeding animals placed on a fire defiantly jump up, come back to life and dive for protection into the pool (Warner 1957: 234–301). The message 'wrong species, wrong sex, wrong time' is here conveyed by the terrifying image of an immense creature which is gender-ambivalent, species-ambivalent, conjured up by women's blood – and hostile to both cooking and exogamous sex (Knight 1988). Here, as across much of the continent, things have got complicated over time because men have found ways of intentionally subverting women's power. Men understand full well that when shedding one another's blood during rites of initiation, they are modelling themselves on menstruating women:

But really we have been stealing what belongs to them (the women), for it is mostly all woman's business; and since it concerns them it belongs to them. Men have nothing to do really, except copulate, it belongs to the women. All that belonging to those Wauwelak, the baby, the blood, the yelling, their dancing, all that concerns the women; but every time we have to trick them. Women can't see what men are doing, although it really is their own business, but we can see their side. This is because all the Dreaming business came out of women – everything... In the beginning we had nothing, because men had been doing nothing; we took these things from women (Berndt 1951: 55).

If this indigenous analysis is accepted – and much evidence supports it – we can treat male ritual power across much of the world as modeled on a female template, with concepts reminiscent of *ekila* playing a central role. This sheds fresh light on Lévi-Strauss's extraordinary thesis that the world's most stubbornly surviving narratives are 'One Myth Only'. The stories differ gloriously, but their grammar remains everywhere intact. This long-term conservatism of structure is perhaps still more evident in ritual, whose recurrent forms reflect facts as fundamental as the need to reconcile the priorities of two polar opposite sexes, only one of which gets pregnant. As Bloch (1992: 23) explains: 'It is because the symbolism of ritual is an attempt to solve problems intrinsic to the human condition and based on a similar understanding of life that ritual systems are so similar and produce such similar political results'. Exploring sacrificial bloodshed as 'the irreducible core of the ritual process' across traditional cultures, Bloch in the same essay goes on to remind us that the central notion is reversal – as in the two-way metamorphosis (analysed above) from hunter to hunted and vice versa.

We are brought back again and again to animal metamorphosis as the world's first metaphor, endorsing Durkheim's insightful attempt at a 'theory of everything', first proposed in 1897. We can now see more clearly than ever how a certain kind of action – collective ritual action – could establish simultaneously totemism, law, exogamy and kinship in addition to distinctively human language and thought.

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Chris Knight is best known for his 1991 book, *Blood Relations: Menstruation and* the Origins of Culture. A co-founder with Jim Hurford of the Evolution of Language series of international conferences, he has published many chapters and articles on the origins of language and helped edit six volumes on such topics. Now a senior research associate at University College London, he was until his retirement in 2009 Professor of Anthropology at the University of East London. His most recent book, *Decoding Chomsky: Science and Revolutionary Politics*, analyses Noam Chomsky's impact on linguistics and political activism over the past half century.

Jerome Lewis is Reader in Social Anthropology, UCL. He studies hunter-gatherers and former hunter-gatherers across Central Africa. After researching the impact of the genocide on Rwanda's Twa Pygmies, he worked with Mbendjele Pygmies in Congo-Brazzaville on egalitarian politics, child socialization, play, religion and communication. This has led to publications on egalitarianism, language, music, taboo, property and inter-ethnic relations. Examining the impact of global forces on forest people across the Congo Basin has led to research into human rights abuses, discrimination, economic and legal marginalization, and to applied research supporting conservation efforts by forest people. He is codirector of the Extreme Citizen Science Research Group, and of CAoS, the Centre for the Anthropology of Sustainability. The Ted K Archive

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