

# Music Before Language

Observations from a hunter-gatherer's point of view

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# Contents

Description . . . . . 3

**Lecture** . . . . . **4**

    Contemporary rituals of reverse dominance . . . . . 11

    Wild Voices . . . . . 14

**Q&A** . . . . . **18**

<https://youtube.com/watch?v=HhKBdASysjk>

## Description

Lecture given at the University of Edinburgh, 30 November 2018. An exploration of the many connections between music and language. Jerome is a leading figure in the field of language evolution, and one of the very few to base his thinking on his experiences living with a contemporary hunter-gatherer population. Drawing on many years of fieldwork with the Bayaka people of the Congo Basin, he shows how women's polyphonic singing, designed to keep dangerous predators at bay, forms one part of the explanation for human vocal skills, while another is the Bayaka hunter's skill in imitating animal cries.

# Lecture

OK. Well, good evening, everyone and thank you for turning out on a rough and windy night.

I'd like to thank Robert Shilcock and Amy Gainsford for organising this and it's a really great pleasure to be here to talk to you all.

It's very rare I think, that social anthropologists venture out of their normal. Areas and this is certainly a stretch for me, but I'm very happy to be here indeed. I guess I should first start with a little sort of clarification. When I talk about music, I'm not trying to isolate it as some very unique and easily definable cross-culturally, at least phenomenon. It's part of a sort of human communicative spectrum, and music is at one point on that and languages as another point, and I consider these to be things that mix and interchange depending on the particular communicative moments and styles that different people around the world have used. So bear that in mind. But I do think there's something very distinctive that we recognise as music when we hear it. And that's what I'm referring to here. So what this talk really is about is that we know that language evolved when humanity lived in Africa as hunter gatherers. But what might African hunter-gatherers have to tell us as researchers trying to understand the evolution of language and music about the relationship between music and language? And about their evolution. So while these music and language evolved among African hunter gatherers, such youth such groups, use of language and music have been strangely absent. In theorising about the origins of music and language and their points of view are rarely taken into account by researchers working on this. So this paper and the OR the paper of this lecture comes from seeks to remedy this omission and proposes that taking their views and practices into account. Suggests that singing, which respects costly signalling evolutionary theory must have evolved first, once practised by a social group, singing has clear survival advantages when used to ward off dangerous animals that women and children still use and refer to today. This insight is taken to suggest that chorus in groups of early homonyms established a unique social context in work in which certain key prerequisites for language could evolve, most notably vocal dexterity, vocal learning, imitation. We intentionality the sense of ourselves as a group rather than just individuals, group wide trust and eventually a normative space of shared values. It's in such a context that increasing iconicity could involve evolve without resistance from conspecifics into symbolism and no longer no longer. Respects costly signalling constraints. Contemporary African hunter-gatherers offer more insight into the conditions facing evolving humans than any other group for the following four reasons.

Firstly, the environmental context *Homo sapiens* originated in Africa and have lived in Africa for about 3 times longer than anywhere else in the world. The African environment is therefore more relevant for understanding key factors affecting human evolution. Contemporary hunter-gatherers are still closely dependent on this environment. Of particular significance in the context of my argument here is the role played by large predators and other dangerous animals in human evolution. Consider feline predators with superb night vision, such as lions using night vision technology, Dereck and Beverly Joubert realised that over 80% of Botswana and Lion kills occurred during the darkest hours of now. Lions are extremely conscious of the moon simply giving up hunting once the moon begins to rise, realising that without cover they're quickly spotted by their prey. Similarly, examining reports of lion attacks on over 100 sorry 1000 Tanzanians between 1988 and 2009, in which 2/3 of the victims were killed. And Eaton, Craig Packer and colleagues note that the success varied rates varied strikingly, with moon phase because lions prefer to attack at night in the complete darkness. Are African hominid ancestors coevolved with nocturnal feline predators during 6,000,000 years? The ecological niche of early placein hominins included the formidable community. Of at least 12 species of Saber toothed cats, 8 species of other felines and 9 hyena species. Packer and colleagues remind us that we have always been exposed to the risks of predation that have cycled with the waxing and waning of the moon being relatively small and vulnerable, with poor night vision, early hominins must have faced severe risks of predation when moving around on open ground. For millions of years, whether along shorelines or deep inlands, the nocturnal threat posed by big cats at Dark Moon must surely have influenced the human need for group living and the mastery of fire and our innate fear of darkness. The very fact that Homonyms began living in increasingly large groups can be attributed. To predation pressure.

The second feature I'd like to point out is the social context, James Woodburn elucidated the core structural features of assertively egalitarian immediate hunter gatherers. Immediate return. Sorry, hunter gatherer political and economic organization, and he showed that these are globally consistent members of such. Groups consume most of their food on the day that they produce it. Reject private property, move to avoid conflict rather than fight, and do not depend on specific others for access to land, key resources, weapons, or. Tools a range of mechanisms. Centrally demand sharing but also gambling, ritual or gifting. Ensure that valued gifts are goods. Sorry, circulate without making people dependent on one another. People who brag try to claim status or assert authority on others are mercilessly teased, mocked. And avoided. Although such societies are rare today, they include some pygmy groups in central Africa. Hadza in Tanzania, some San groups in Namibia and Botswana, several groups in India such as the Jarawa or the Sentinelese of the Andaman Islands. Recently in the news and in South East Asia, the Agta Batek Manik Penang and others, the global distribution of these cultural traits. Suggests that such social systems are highly stable and successful adaptations whose key elements predate human migrations out of Africa. Theorising about early modern humans should take these core traits into account.

The third aspect is the genetic context. Shared ancient genetic markers connect the four major groups of immediate return African hunter gatherers, Khoisan in southern Africa, Western and Eastern, Pygmies in the forests of Central Africa and in East Africa. The small population of Hadza recent research into their genetics allows us to track the time depth of their separation into distinct lineages. It's probable that they all descended from an original proto African San Pygmy population living somewhere in sub-Saharan Africa, well before the major dispersal of modern humans outside the continent. Based on the ethnography from the contemporary descendants of these African lineages. Camilla Power has elucidated the likely Middle Stone Age agricultural features relating to cosmology and patterns of gendered ritual common to Khoisan Pygmies and Hadza, the logic of seeking safety in numbers at night predicts that our ancestors would form the largest assemblies precisely during the monthly period of greatest darkness around Dark moon. Power finds that lunar cosmology appears to be an ancient common feature shared by African hunter-gatherers with important ritual gatherings still occurring at no moon. And symbolic interaction between the spheres of production, hunting and reproduction, menstruation and pregnancy infused with lunar symbolism. These symbolic oppositions have resulted in distinctive gender division of labour and a system of prohibitions based on keeping the blood of hunting separate from the that of human fertility and a suite of rituals in which gendered norms reverse, with reverse dominance being periodically, ritually reenacted by women. In relation to men.

Given these continuities and our African origins, I'll focus particularly on the Biaka Pygmies with whom I've been conducting ethnographic research since 1994. They are a highly resilient, egalitarian group whose contemporary adaptation to hunting and gathering in central Africa is suggestive of principles relevant for understanding. The evolutionary relationship between music and language. The greatest number of contemporary hunter-gatherers in the world live in the forests of the Congo basin. Estimates of their overall numbers vary between 300 and 900,000 people. The Biaka groups I'll be focusing on here, Occupy Forest West of the Ubangi River. In this area. Here and although they have different names, they're all part of the Biaka group and their their names are actually contractions of Biaka. They some call themselves Baka, others biaka, Baka and Biaka. But they're all essentially recognising themselves as the same group in DRC. You have these groups in the center here. There are very mixed groups, a set of very mixed groups we don't know so much about, and then these are the famous and booty pygmies that Colin Turnbull studied in the 1950s and 1960s and are well known in the ethnographic literature. Many of these groups still largely depend on hunting and gathering, and an immediate return society, though others such as the Bongo, the Koolau, the Ghilli and many Bacca are engaged in increasingly diversified livelihoods.

The term Biaka is contracted in different ways by each of these different groups. I'll use the word Biaka unless I'm referring to a specific group and use their individual ethnonym. Uh in that case. So despite the great diversity of situations that

many pygmy groups find themselves in today, they share remarkable similarities and most notable here ethnomusicologists working among pygmy groups across the Congo basin. Remark on similarities in their unusual, highly integrated coral yodel. So yeah, alternating between chest and head voice and polyphonic where multiple melodies will overlap in order to create a song. Singing style across the region, yodel and vocal polyphony together are consistently associated with gendered rituals that call forest spirits into camp. A cosmology and gender division of labour based on the opposition between men's bloodletting in hunting and women's blood, letting in reproduction. Forest mobility camps composed of these round leaf huts. Excuse me? Similar hunting, collecting tools, honey. Collecting tools. Very intimate parent child relations and egalitarian political and economic social order. These elements are too specific to emerge from convergent evolution, and with genetic evidence proving a shared past appear to be key components of a highly resilient and effective adaptation to forest hunting and gathering. These cultural continuities appear to have ancient roots. Given that genetic dating suggests the ancestors of these groups entered the forested region around 54,000 years ago, and the western biaka groups separated from the eastern and booty groups some 27,000 years ago. Claiming a degree of cultural continuity over such great time spans is not to deny change, but rather emphasises the remarkable resilience of the core structures. Organising these egalitarian societies. From this point of view, assertively egalitarian societies are not primitive, which is a social evolutionary idea originating in justifications for late European colonialism, but highly successful adaptations for human living that have survived into the present because they've achieved a sweet spot based on fulfilling human needs without. Inequality. Such societies persistence, overtime without directive, institutions or status positions is testimony to the pleasure and efficacy of such forms of sociality. For those living by them based on personal autonomy, free access to key resources, on leveling, off wealth inequalities or actively resisting and rejecting. Claims to status, privilege or authority and by structuring key cultural concepts with humour and shared pleasures at their core. Although anyone can address non non conformity using mockery and avoidance, women have the main responsibility for this by performing humorous reenactments, imitating offenders behaviour to the whole community. Women are experts at eliciting moral commentaries from onlookers that educate and remind all. Of social norms. Biaka communication, like Biaka society is open, encompassing and inclusive. It's a skillful, multimodal deployment of a range of capacities inherent to human bodies that serve to establish relationships with as many creatures as possible. At the musical end. By Biaka vocal polyphony as predominantly composed of vowel sounds. Rally. Lyrics. At the other, in private speech, speakers routinely contract words by removing consonants and use sign language, or imitate animals to disguise their communications from human and non human others by Biaka interchange, vocal and visual signs and symbols ranging from full iconicity to total arbitrariness. These indices, icons and symbols are copied or mimicked from fellow backer by AKA plants, animals and other land and other people's languages, or from the forest soundscape itself. And they recombined according

to what they think will most effectively achieve their goals. So just so that you can get a sense of how people mix these different modes in their communication, I'll quickly show you Monginba, my friend, explaining something and see if you can work it out.

[Video clip shown on screen]

We can talk about that later if you want. Biaka sign and whistle to communicate secretly in the presence of game, they mimic animal vocalizations to call prey to them. They mark plants and inform others coming behind mimic environmental sounds when recounting events freely borrow words from other sorry, I meant to point to Monginba. From other people's languages seem to accompany daily activities or beat drums, sing and dance in dense polyphonic rich singing rituals that engage the. Forest, by mimicking mimicking its own sound back to it, to establish a dialogue between the camp and their environment. Telling sung fables called Ganor combines all these communicative forms to produce a massive reenactments of mythical times, and I'm going to play you a short example clip from 1:00 called Simbu a wee, which means chimpanzee will die. Chimpanzees insisting on wanting to get initiated into one of the male cults. And it's going to be a disaster for him and people are the women are singing the songs and chimpanzees coming along and insisting on getting initiated. And you can hear you'll hear chimpanzee. You'll hear the women, you'll hear the storyteller occasionally throwing in a few words to guide the narrative. But it really these ganal make the whole community become the myth, in fact, and it really is an immersive experience where you are your mythical ancestors.

[Audio clip played for audience]

So their communicative strategies serve to maintain multi species, intercultural and multicultural relationships that reinforce the Biaka view of themselves, not as subjects in a society outside of nature, but rather as a Society of nature. Just as a Society of people implies. Communication and transaction between its members by Act of communication. Sorry. Between them. So Society of nature implies communication and transaction between its members. Biaka communication strategies are designed to achieve this. The forest is always is always talking to them. Elephant is over there. Monkeys have seen pigs. Bees are going home. I you should go home too. Frogs. If you hear them are inviting you to drink. And so on. Other species engage similarly. For instance, Dicos drawn to fruiting trees by Columbus calls safely eat what the monkeys let fall from their mouths as they greedily stuff in the fruit, knowing that they will be warned of an approaching leopard by the monkey's alarm calls. Biaka, participate in these interspecies exchanges. Like other animist people, but engendered ways the ideology of sacredness and taboo focused on blood, organises the gender division of labour and it leads men and women to behave in different ways. Men walk in small groups or alone, treading. Carefully to avoid making noise and seek to sneak up on animals. To facilitate this, men mimic dykers, come and play court. Or they call crocodiles by using their their mating calls. Oh, oh, oh, and it works. Or pigs found good food foot. A wild boar make these noises monkeys. Infants fell out of a tree. And all the big males start coming down within reach of your crossbow. When spear



hunting, large game men use sign languages and bird calls to signal to one another while preparing the ambush. In contrast, women fear attack by dangerous animals when they walk in the forest because they smell of human fertility exemplified by menstruation. As a result, women prefer to walk in large, boisterous groups with noisy children in tow, while yodeling loudly like this.

[Audio clip played for audience]

Women are explicit, but they sing like this to keep dangerous animals such as leopard, elephant, Buffalo and gorilla away. When predators such as leopards are trailing the camp or dangerous animals nearby, women will insist on singing through the night. The ever present forest soundscape is composed of multiple overlapping animal, bird and insect calls. Every creature makes its distinctive contribution and some coordinate with each other, such as cicadas do before the rain, whereas others overlap or intertwine at their own pace and rhythm when creatures. Contribute. They do so with their whole bodies, with all their vitality and their might by ECHA say that the forest likes this, and if the forest is to keep their camp open to food, they it has to, it must hear good sounds coming from people too. Song storytelling, laughter, happy conversations, and the cause of children playing. Just as the Biaka listened to the forest to know about it, they say the forest is listening to them to know about them. When people want to charm the forest, they turn their part of the conversation into a lively song, a song which involves their whole bodies and mimics the forest back to itself using percussion, polyphonic singing and dancing. The Biaka's ancestors have established particular ways of doing this. They call spirit play. Each has its characteristic repertoire of melodies, songs, and percussive Poly rhythms that summon particular forest spirits. When the singing group achieves the synergistic harmony and synchrony familiar to good choirs or musicians, the forest shows its pleasure by allowing the mysterious forest spirits, sometimes embodied as leafy dancers, sometimes simply experienced as an ambiance, an atmosphere to enchant the participants and further deepen the joy. And the profound bonding that they experience. Such singing is explicitly said to soften or charm those that hear it so that they give what is requested of them.

So Spirit plays such as Maobi Mullah or yearly demand specific game animals, animals such as elephants or pigs from the forest jengi. When you see in the corner. Says thank you for abundance and so on.

Shima Aaron, characterized by Biaka polyphonic singing in spirit play as pure music because the melody is not subjected to words. Indeed, Biaka, songs are not to be understood because of the words they used from human language, but through the acoustic form they have adopted based on the forest soundscape. In a poetic sense, their melodies are the forests work. The intended recipients of these melodic utterances is the forest as an organic whole, of which people, spirits, animals and plants. Are all parts. By respecting cost, costly signalling constraints in their vivacious ritual, dancing and singing, they're able to commune and communicate with all the components of the forest. Themselves included. In these egalitarian societies, without status, positions such as judge or teacher, musical participation is the major social arena for learning key

forest skills, cooperation and group coordination. Musical performances involve a wide range of potential meanings and functions, from the sound and structure. Of the music itself, to the social and the political relationships established between performers in order to produce it. Or the way it signifies cultural specific concepts or identity and can organise time. Following Richard widows in other work, I analyzed this style of singing as a foundational cultural schema through the performance of Spirit plays, non linguistic cultural models that cross cut cultural realms such as economics, politics, history and cosmology are re experienced practiced in a safe environment. And learnt by each generation.

During spirit play performances, the whole camp assembles engendered groups in the central space, sitting tightly touching and resting limbs on each other as their bodies intertwine. So too do their voices singing different melodic lines. It's easy to lose oneself in this physical and acoustic mass and experience profound. And Unitas, CEOs seek to coordinate excellently, just because it is beautiful. And the more beautiful it becomes, the more easily they enter their collective joy. They call it the single. To achieve this by Accra explicitly worked to achieve a certain quality of relationships between participants. No arguing, no shouting or chatting, and all should share what they have by contributing as best they can. In conjunction with the musical education, there is a social and a political one. There's no hierarchy during musical performances, although one may begin a song. Anyone else can stop it and start a new one. Everyone is free to join, whichever part of the polyphony they wish to contribute appropriately. One must not drown out one's neighbours or sing the same melody as they do. Listening is as important as singing. If too many sing in unison, participants instinctively diverge by choosing alternative melodic lines to maintain the polyphony. Regularly singing like this instills certain ways of coordinating and structuring groups and group activities that are applied outside spirit play performances. For instance, the instinctive way that singers avoid unison has economic implications in an egalitarian society, daily hunting and gathering activities. Or intuitively coordinated without anyone to order other people's active. Being musically primed to do something different but complementary to others improves the chances that the camp will find food. Similarly, knowing a sufficient range range of melodic modules and when to assert, insert them into the song structure resembles structurally the way that environmental knowledge is employed to identify and efficiently extract resources from the forest. Musical participation in Spirit plays is the main Ave. through which Biaka learned these unspoken grammars of daily interaction. In such ways, learning to sing Polyphonically and participating appropriately during performances inculcate particular cultural dispositions and patterns of behaviour central to reproducing. Mayaca hunter gatherer, culture and society. Confirming this one, but when Bianca seek to know the extent to which other groups are pygmies like themselves, they begin by discussing their ritual performances rather than their language. Judging their accomplishments at singing and dancing at telling sung fables or public speaking rather than non grammatical form or vocabulary. It's not what repertoire people are singing, but the polyphonic yodeling style that they use,

not which steps they dance or which spirits they call, but the ritual structures they follow when doing so, not the language they speak, but how it is spoken. The perception of what it means to be Bianca is based on an aesthetic quality in which structure or style matter more than content. Here language in a formal sense is manifestly not synonymous, synonymous with culture. Rather, it is the predatory encompassment of any meaningful and efficacious means for communicating that characterises these hunter gatherers. Many Bianca groups have adopted grammatical structures and extensive vocabulary from even a new language. In the Baker case from non Bianca Village and neighbours without losing their distinctive cultural identity, AKA and Baka for instance, 2 key groups in the Biaka grouping see each other as sharing the same. Origins and culture, despite AKA speaking a Bantu language, and Baka, Speaking of Bangin one they contrast their Bianca lifestyles and values with those of their hierarchical villager neighbours, even when they speak the same language as those villages. From their perspective, their distinctive sociocultural aesthetic includes particular speech and singing, and performance styles are rejection of authority and inequality, evaluation of, sharing, and autonomy, expertise in big game hunting, and a taste for forest foods above all other, and a love for the. Cool shady forest over hot open spaces of rivers and clear. Strings. But just hearing their musical style is sufficient for them to identify other pygmies. When I played them, Booty music, recorded in 1958 by Colin Turnbull to Bianca in Congo in 2010, about 1500 kilometres away, they immediately recognized them as Bianca, despite genetic studies demonstrating that they've been separated for over 25,000. Is. This implies that this musical style is of considerable antiquity, and therefore that the cultural dispositions it primes participants towards are probably refractions of a much more ancient egalitarian culture as white and another argue the role of egalitarianism is tightly bound to the evolutionary origins of the human socio cognitive niche. And deep social minds, whose principal components include forms of cooperation, egalitarianism, theory of mind, language and cultural transmission. And based on this hunter gatherer perspective, I'd say on musical ritual too.

## Contemporary rituals of reverse dominance

Camilla Power has identified further shared features of ritual performance among the remaining egalitarian African hunter gatherers. One of the most significant shared areas of ritual performance are highly gendered rituals of reverse dominance, in which women temporarily take over the camp. Across all these groups, it is women, not men, that take the lead and dominate the singing during community rituals. More specifically, beginning in the Kalahari, the widespread and likely very ancient Khoisan ritual, the eland bull dance. Takes place with the girl's first menstruation conceived of as Kneeland Bull. She is secluded while other women dance around her playfully, mimicking the behaviour of an eland cow, soliciting sex with her supernatural bull.

The Tanzania had said girls initiation ritual Mike ducal involve similar sexual reversal and defiance, while bleeding initiates reenact a myth about an ancestral matriarch who Dons a zebra's. Venus, much like the eland bull, this male animal, enjoys intercourse with its numerous wives, dressed dressed as hunters, the Michael core initiates, armed with long sticks, going to camp to chase young men. In the Congo Basin, both eastern and Western Pygmies have prominent rituals of reverse dominance that play an important role in maintaining gender egalitarianism. The Alima girls initiation among the eastern and booty involves girls becoming hunters and chasing young men with sticks in a very similar way to the Hatter. Among the western Biaka women LED reverse dominance rituals are a regular part of life known as Angol. During these lively ritual performances, all the women present joined together, mixing beautiful song. And dance with raunchy, mocking imitations of male misbehavior in sexual interactions, conceptualised as women's communal spirit and Gokul acts out the mythic theme of the primordial time when women lived without. Men. The outcome of these body displays of women's potential to accomplish reverse dominance is the achievement of gender egalitarianism, persisting between ritual performances supported by lower intensity counter dominant behaviours such as mockery and demand sharing. Contrary to academic popular academic stereotypes of the egalitarian hunter gatherer bands that conceive of male hunters often serving as the collective alpha. The ethnography of egalitarian African hunter-gatherers suggests that the reverse is true, that it is women that play the collective alpha role. The ethnography is more closely respected by Camilla Power's female cosmetic coalition model and Sarah Hurdy's work, since it is females who bear the significant burdens of rearing. Highly dependent, increasingly juvenile. Infants. It's not surprising that still today among these egalitarian groups, women's coalitions are central to ensuring egalitarianism persists, so that males continue to provision their wives and offspring rather than Rove around seeking other fertile females to impregnate. As most other primate males do. By singing and dancing together as one, women speak as one. If one spoke for them as a leader, men might attack her. Or if all spoke at once, it would be difficult to understand. But when all sing, the message is reinforced and repetition strengthens the points rather than tiring listeners. The centrality of these reverse dominance rituals among all the remaining groups of African hunter-gatherers suggests that they're of considerable antiquity and have their likely origins in the coalitionary solidarity created when women sing together all night long. This provides a more ethnographically plausible account of the origins of we intentionality than primitive warfare models, egalitarian hunter gatherers, or avoid or flee contact conflict rather than engage. They're not aggressively territorial, and without leaders with authority they have great difficulty in organising resistance to outside aggression. The notion that warfare or territorial conflict drove the evolution of we intentionality is simply ethnocentric. In our recent article, Wild Voices Chris Knight and I argue that coalitionary displays of resistance aimed at large predators are sufficient to build the sense of us as opposed to them. A display of resistance against some external threat, while sounding aggressive to outsiders, may be heard as comforting and

supportive by members of the signallers own group. Singing as Camilla Power argues, is what Dunbar's vocal grooming had to be if it was to produce the opiate stimulation associated with the pleasure of physical grooming. The production of oxytocin and those singing together establishes trust between participants within the coalition. Once the coalition is realized. Boundaries can shift the singing. Women can redraw it between themselves and the men, or between themselves and the troublemaker, and Biaka women still do this to.

So you get a sense of what a display of reverse dominance looks like. I just want you to watch a a brief few snippets from something that normally lasts for several days.

[Video clip shown on screen]

[Biaka woman: you understand? you've listened!]

So Biaka communicative practices illustrate the importance of playful minensis in driving their creative spoken and sung engagement with humans and non humans. What begins as an index of an animal's state, like the found good food, hoot of a pig once imitated by a person in order to kill the pig. Becomes an iconic for nations, though still heard by the in animal as an index. But when returning with his pig on his back and dropping the carcass in the camp, the hunter. Uh, sorry. the hunter makes the same sound. Redirecting it into the human coalition, the sound has become a symbol. These icons, indices and symbols are copied or mimicked from fellow Bianca plants, animals and other people's languages or the forest landscape and are recombined according to what will most effectively achieve particular goals. Sometimes they're intended to provide selective or secretive communication, as when men use sign language or whistle to one another. Preparing an ambush. Other times, they intend all to hear and rejoice, as when the whole Community sings together. Just as each sex employs different reproductive and productive strategies, so too do they differ in their use of similar propensities for mimicry aimed at outsiders. Men's mimicry focuses on enabling them to approach animals more easily, whereas women's mimicry keeps animals away when women redeploy their mimicry. Within the group, they use it to shame individuals who don't respect the moral order, potentially keeping them away too. Women's mimicry depends on their solidarity for its effectiveness. Their collective action bonds. Singing participants establishes trust between them, and a normative order governing their relations. Such mocking mimicry offers an ethnographically plausible accounts of what has been called the platform of trust. And the normative order, both central to the evolution of language, because they allow redirected icons to be transformed into symbols without resistance from conspecifics. By analogy, the gendered use of mimicry by early homonyms could first have developed. A means to deceive animals. And only later became a means to communicate between people. The problem of. Dealing with predators once mostly living on the ground, was successfully overcome by *Homo erectus*, suggesting that voluntary vocalizations were a key component of early homo survival strategies. The successive development of the auditory tract among *erectus*, leading to the modern vocal tract among *heidelbergensis*, may have been driven by the survival advantages vocalizations provided in first warding off predators and then later

in becoming more effective predators ourselves. This ethnographically derived scenario predicts that iconicity should still be significant in languages today. Brent Berlin hints at how this can happen by demonstrating the role of onomatopoeia and Furness thesia in determining suitable names for things. He suggests that non arbitrary sound symbolic photo mimetic reference must have had enormous adaptive significance for our hominid ancestors that the intuitively plausible. And metaphorically motivated principles of philosophy Asia serve to drive lexicon in general. Ramachandran and Hubbard show that Phenethyl SIA generates lexicon when herds sounds are processed into movements of the tongue on the palette.

Multimodal mimicry seems to pervade human communicative practices. More recently, Blasian colleagues showed that thousands of modern languages continue to demonstrate certain sound, meaning association biases that may be artifacts of these older processes. The recent work of Edmonston and his colleagues. And Perlman and Lupien show that such processes remain salient even in modern high performed languages. In their experiments, people were able to imitate sounds, to invent iconic vocalizations that represented actions, objects, and animals that unfamiliar individuals accurately recognised and interpret. Perlman and Lupien argue that this demonstrates how iconic vocalizations can enable him to lock tutors to establish understanding in the absence of conventions. They suggest that prior to the advent of full blown spoken languages, people would have used iconic vocalizations to ground the spoken vocabulary. With significant, sorry with considerable semantic depth. The hunter gatherer ethnography, in conjunction with this growing work on the role of iconicity and generating lexicon, suggests that early language like behaviours were likely to be both vocal and gestural.

## Wild Voices

So the work I'm presenting here is part is put into the context of language evolution. In this paper. A relevance here we want to point out that the great patrilocal pattern of dispersal, that sexual maturity, what's called male philopatry had to be reversed for evolving homo mothers to get the parents in support they needed. For human brains to exceed the Gray ceiling. Of 6 to 700 centiliters by moving away from her Natal group on reaching maturity, grape 8 females are without female relatives who can be trusted to look after their offspring. Without such support hominin mothers one and a half million years ago, like great hopes today, would risk excessively high levels of. Of stress and infant mortality, making further encephalization very unlikely. Cooperative breeding allowed erectus to increase population sizes even when greatly exceeding this grey ceiling, producing brains twice as large as those of chimpanzees. When an evolving hominin mother lets others hold her baby. Then selection pressures for two way mind reading and triadic structures of joint attention are set up in the initial stages, as suggested by Hawkes and colleagues, grandmother hypothesis, a mother's

close kin were key to this develop. Elements driving the evolution of extended female reproductive lifespans, but for a mother to assist with her daughter's children, she must live close by. This is incompatible with popular popular patrilocal assumptions for hunter gathering bands. Patra locality is rare among egalitarian African hunter-gatherers rather. Joyce, Sam and Central African Pygmies exhibited deep time bias to mature locality today, exhibited by the ubiquitous practice of bride service where male sexual access depends on success in provisioning his wife's family. Based on this, it's clear that these early female dominated dominated groups caring for numerous dependent infants bore the greatest risk of predation.

As suggested by Biaka's own by Accra women's own reasons for singing when our ancestors were vulnerable, hominins living in the open with limited weaponry, increasing the range and diversity of their vocal cords are calls would have been one way to keep nocturnal predators at Bay, Fitch and Zabihullah. Showed that the distinctively human ability to produce pitch variations evolved after we split from our closest primate relative. Large felines prowling in the dark may have been wary of approaching a noisy group of hominin females and infants, if unexpected pitch variations made it difficult to estimate groups group size and the consequent risk of injury. Interestingly, coalitions of lionesses used synchronized roaring to warn rivals of their numerical strength. And so Ward off other prides, they sense approaching their territory. Some human groups cohabitating with feline predators continue to apply this principle, just as by acre, women love to regularly sing night long during the spirit play neiti that requires all fires to be extinguished in the pitch darkness of no moon, so had to women also extinguished all fires and sing vocal polyphonies through moonless nights each month. During their most significant ritual, the Epimer dance, an Indian forest people, the nearly Nilgiri Lulas explained that one reason they make music is because the rhythmic clapping, drumming, chanting and choral singing keep dangerous animals such as tigers away. Night long chosen trance dancing depends on a female dominated polyphonic chorus to support the mostly male dancers and to trance states. Elizabeth Marshall Thomas suggests that this ritual, whose sound can travel for miles around once, also served to keep animals away. Among these African hunter gatherer women. Women take the lead in singing, with men playing a secondary role.

The ethnography fits the women and children versus predator hypothesis to account for the evolution of music better than the sexual selection by male vocalizers that's been proposed by Bjorn Merker and similarly by Miller. One of the mythological universals unearthed by Levi Strauss and his nephew Logique. Appears to be an ancient refraction of this, an association between darkness, the absence of cooking fire, and the production of loud noises. Evolving hominins experience of being predator at one moment and pray the next was such an emotionally charged recurring event that its echoes continue to shape much human ritual, action and cosmology today, as has been demonstrated in different parts of the world by Morris Block, Philippe Descola and Viveros de Castros.

This suggests that small groups singing for their lives on dark, moonless nights is an evolutionary stable strategy for dealing with predation pressure. When group living.

Perhaps such practices are part of what enabled *Directus* to spread into new habitats and further enhance control of breathing and formation. The articulatory capacities of their vocal system and their ability to listen these developments are suggested by the presence of an ear canal of modern proportions, implying, in the words of Cross and Morley, that vocal sounds were increasingly significant for this species, however, is by 700 to 500,000 years ago with the appearance. Of the ancestor often identified as *homo-heidelbergensis*, that the full model, a modern vocal tract and an auditory system sensitive to speech frequencies, was fully evolved. North, Ian Cross, near Morley, conclude that this Co adaptation suggests that vocal sounds were crucially significant for this species, more so than other environmental sounds. Based on this development, it is possible that *heidelbergensis* had begun to mimic out of context to use animal causes as hunting lures and to facilitate coordinating big game hunting and that defiantly singing females had developed emergent we intentionality joint commitments in emerging. Strategies of sexual and political counter dominance. This is supported by Marin and Perry's work on cognitive evolution, proposing that the close correspondence between the networks of regions involved in singing and speaking suggests that speech may have evolved from an already complex system for the voluntary control of vocalization. Their divergences suggest that the later evolving aspects of these two. Uniquely, human abilities are essentially hemispheric specializations. Furthermore, as Curtis and Sybil conclude, it appears that the human brain, at least at an early age, does not treat language and music as strictly separate domains, but rather treats language as a special case of music. Sick. Group causing to deter predators provides a model in which costly signalling constraints are respected and vocal control is selected for as increasingly complex forms of vocalizations, often inspired by synthetically or memetically improve the deceptiveness of vocalizations they provided increased gendered. Survival benefits to the individuals composed of composing the chorusing group.

If music still so powerfully wrenches our emotions and can keep us dancing all night, it may be because we retain a naive, costly signal of faith in the honesty of those picture alterations representing genuine changes in arousal states to alternate between fast and slow rhythms when singing or dancing, the singer or dancer has to put in. Effort to work themselves up experiencing real changes in bodily and emotional state. Over generations, regularly chorusing at night would have encouraged greater vocal dexterity and improved ability to entrain to pulsar rhythm. And potentially the beginnings of vocal learning, as participants imitated novel techniques or pleasing styles.

As Ian Cross and Ian Morley points out, by providing a forum for the practice of integrated, complex coordinated group activities, resulting in a powerful sense of membership and trust. That provides a coherent explanation as to why these musical behaviours persisted at a group level. In the context of musical participation, rhythm serves to synchronise actions across large groups of people.

Indeed, this could be a modern way of reformulating sociologist Emile Durkheim's original hypothesis that people in training together while singing in community wide



ritual is what established the first collectively. Shared conceptual repertoires upon which the normative conditions for human culture and language evolved.

While there's no way of knowing to what extent early hominin chorusing resembled contemporary musics, it is likely to have involved rhythmic entrainment and therefore sounded musical to modern ears. A few other species entrained to periodic pulse. Certain parrots, fireflies, crickets, or frogs, for instance, and these examples have been used to suggest that rhythmic entrainment. Can emerge easily in biological systems, but as can Sir Fitch remarks, this is the paradox. Rhythm, periodicity and entrainment seem to be among the most basic features of living things. Yet the human ability and proclivity to entrain our motor output to auditory stimuli seems to be very rare.

While rhythm is widespread in biological systems, humans ability to entrain their actions to rhythms far exceed stats observed in other animals and is evidence of an advanced multimodal ability to synchronise action or voice with the perception of rhythm, something that any would partel argues is key to the neurobiology of complex vocal learning on which language depends a million years of singing for one's life may offer an explanation for this human proclivity.

Although we may never know what early hominin chorusing sounded like, there are some remarkable similarities in the overlapping polyphonic vocal style of the four hunter-gatherers groups I've discussed here. Somewhat extending the Biaka view, Victor Grauer in his ambitious review of the diffusion of musical styles across the world, uses these similarities and genetic connections to suggest that what we now hear is a refraction of the musical style practiced by the ancient proto Koyasan pygmy population from which these groups originally descended. Maybe vocal polyphony is the closest we can get to hearing the echoes of our forgotten ancestors.

[Video clip shown on screen]

OK. Thank you.

## Q&A

**Staff:** Thank you. So what I plan to do is to leave Jerome. To field. Question before I'm going to go downstairs briefly. You're all invited at 5:30 to the ritual with beer and cheese down in the compost and so.

**Jerome:** OK. Well, thank you. I don't. Does anyone have any questions that they'd like to ask. I certainly welcome them. This isn't yet published this work, so I really do welcome critical reflections on it because I'm in the process of writing it up for publication. Yes.

**Audience Member #1:** The argument is that they're singing in order to. Like. Scare away predators or whatever in the in the forces or walking. But like, what's the difference between that and just advertising that they're there like they have to be already formidable so that the predators understands? Like I really shouldn't buck with these people, otherwise they're going to come and, like, kill me with a stick. Vulnerable in your in your presence. I'm saying it's like. If you're yeah.

**Jerome:** Yeah. Well, fire is has a has a similar reason, but no the reason is that predators are actually extremely risk averse. If you're a lion and you just have a small bit of damage to your front paw or you break a tooth, it really does affect your your opportunities for successful hunting and. Is that risk aversion, which is what I think this business of singing plays on so. In when? When you're singing in this way, it's very difficult to guess how many people are present because you've got all these alternating voices changing between the chest and the and the head voice, and so although it may just be 5 or 6 people, it sounds like it's 20 and once the rewarding lion for instance, here's that it becomes. Three ohh should I go for it or shouldn't I go for it? Am I gonna get hers or aren't I gonna get or I'll go for something easier, and of course, the natural reaction of people when they you may have heard this advice perhaps. But if you encounter a grizzly bear. You're supposed to make yourself big and noisy and problematic. Again that plays on this risk. Diversity of predators and that's what I think the singing does and why it works so efficiently. Yes.

**Audience Member #2:** It all strikes me as devotional communication. Well, the animal sounds the lions roaring and so forth. You talk about rhythm. I mean, that's what it's certainly one aspect of localising, but another very important aspect is the actual how you make the sound, which expresses intention on your part or the animals part, I mean you could have an angry roar, for example. Or you could have a little roar for an animal. I think that one needs to look at the properties of the sounds as the being produced this communicating intention of the... it's communication of the emotional states between animals and people.

**Jerome:** Yeah, well, that's certainly how the Biaka read it. When they hear the little bird chirping away happily on, the thing they say the forest likes that, that makes the forest happy. And that's what they model their own sung engagement with the forest. It's because the forest wants to hear those, those happy sounds effectively. I mean there are different ways of presenting all those different rituals and one way which is actually closer to the way that Biaka understand it is that each is a particular technology of joy. That each of those different rituals summons to the human group a particular quality of joy.

Joy is a very poor word to describe a wide range of emotions that that we all go through. And so there are certain joys, which are very masculine, where as men we all bind together and as we sing we stamp on the ground as we move up and down the camp and it's scary, but it's also comforting because those men who are making this big bassy sound are also the men who are protecting you from these dangerous animals, so I could go on, but they have a whole range of these different qualities of joy and each of those spirit plays is about bringing that quality reliably into the community. And they're the most cherished things, the most valued things in their society. Those spirit plays.

**Audience Member #3:** Thank you for a super interesting talk. I want to ask a little bit more about the way you sit set up your position as kind of a foil to the view that warfare was one of the main generators or one of the main motivations for we intentionality. So I'm guessing you had in mind people like Thomas Zellar & Frances Devalle.

**Jerome:** Yeah. Exactly.

**Audience Member #3:** Frances Devalle says empathy came about because of our proclivity for warfare. Some Irony. And I mean, I really like that and I think that's a very fruitful line to pursue. I was wondering whether those people might say actually these views aren't intention because perhaps someone like Tom Zeller, the ball would say it is they complement each other. It's really oxytocin released by singing. It's really the intentionality that we get from these practices that bind us together as a community. And therefore make it stronger against the outside. So, I was wondering whether people who oppose, or people who might kind of sit on that side of the view might be more conciliatory in their ironically conciliating their approach and try to say that this this is more complementary than before.

**Jerome:** Yeah, I mean the fundamental problem with that model of the emergence of we intentionality. Well, I understand the point you're making is that there's no ethnographic evidence to support that hunter gatherers behave like. That there are in certain parts of the extreme N where you have very key resources that people depend upon, like salmon rivers, where hunter gatherers will unite to fight. But those aren't egalitarian hunter gatherers. Those are very hierarchical hunter gatherers. And that's why throughout my talk I've been very specific. About referring to egalitarian hunter gatherers and not these hierarchically organised ones, and indeed among the hierarchically 1 organised ones, and maybe as you quite rightly say, it's from doing

ritual activities together, you bond the group of warriors and war songs and so on are all part of that psychology. If you like of of going to war. But, but the evidence from the egalitarian groups is quite the opposite is that if we take erdel and white and others seriously and that we we understand egalitarianism, which is something I think is true, is key to establishing group wide. Trusting the 1st place. So all the males stop competing with one another because. Each male has got his own female and suddenly you can cooperate in ways that weren't possible in primate societies, for instance. So the focus on. We intentionality through predators. You've got an obvious enemy there that isn't another group of people, and so it's not about warfare. It's just about us existing here in this space and. And that's why I think that I still wouldn't be able to accept that it is related to warfare. Any clear way that just doesn't seem to happen? These groups welcome outsiders. They're they're encompassing, even people who are really mean, lazy and good for nothing are always incorporated. And there's no chance to refuse anybody. I've often been amazed people have been behaving terribly. You know, this whole idea of free riding is a a non issue for these hunter gatherers. There are loads of free riders and nobody bats an eyelid. It's just part, and actually if you spend time you realise that while someone might be lazy at a particular point in their lives, things happen, they change and then they actually stop being lazy and it's just a phase they were going through and. And these people are much more tolerant of that kind of thing than we are. So we got a question here and then we had one in the front and we'll come back to you.

**Audience Member #4:** Your focus on Africa makes me wonder if you've got any kind of any idea about how this general idea of the function of music and so forth plays out in the Amazon, in Australia and New Guinea. I mean, I'm not expecting you to be an expert on all of these. Places where there are other gatherers, but it would seem an obvious an obvious question that if if in moving. Land they have lost their stuff that maybe it's not quite so quite so essential.

**Jerome:** Well, I mean that's a very good question. and I'm not adequately, I'm not qualified to answer it. I yeah, must be very clear. That's a huge areas that you're you're touching upon there. But I think that there are perhaps ecological features. Which would lead to these sorts of behaviors persisting once people moved out of Africa. Obviously over huge time scales that we're we're discussing here. So I mean, I do think that probably for a place to scene hunter gatherers, it was really important, it still mattered greatly. Because you still had lots of large predators around, but of course in over the past, whatever 10,000 years or so, the numbers of large predators and very large animals has diminished significantly. and so when you enter into areas where you don't have those kinds of environmental stimuli, maybe these sorts of things get diluted. Changed and there are quite big differences in these political social organization of hunter gatherers in in, say, Amazonia, where they're mostly actually horticulturalists who've been suffered warfare or or other forms of depredation that have led to them losing their land similarly new. Any it? It does seem that the there's one particular case which could be real genuine hunter gatherers, but the rest do seem to be farmer horse

Culturalists who've lost their land for various reasons. So I think that the situation is much more complex once we move out of Africa and the variations I think will have different reasons and different explanations. Yes.

**Audience Member #5:** What degree of? Accuracy. Can you gauge age of these traditions and to what degree of certainty can you say they apply and we have evolutionary scale?

**Jerome:** Well, the only, I mean I'm not a geneticist. I rely on the geneticists to feed me these numbers, but they it's only very recently that they've done these studies of the interrelationships between these different groups of hunter gatherers in Africa. And indeed, they're currently there's a lot more work being done on the. The genetic relationships between African people and, and I think that will be very revealing. But so far what the information seems to suggest is that these groups of people, the Western groups and these eastern groups are last shared a mother 27,000 years ago, and of course, it's not a precise figure, I'm sure it's plus or minus a few thousand years, but it's still striking when you think of a musical style or. And indeed, the cultural tradition that is associated with that musical style over those great periods. Victor Grauer, who's the ethnomusicologist who looks at the diffusion of music around the world. Based on genetic relationships, he talks about 100,000 years ago being the key point where this musical tradition. Was was really very central to probably most human beings alive. The Koi sands still have polyphonic singing rituals. There's a slightly differently organ or structured polyphonic music, but it's remarkably similar when you listen to it, and then all these pygmy groups have. Essentially the same style of music. So based on the genetics, that's the only way that we can date these things. And how precise that is is not something I can comment on very accurately. Thank you, yes.

**Audience Member #6:** I know you've worked on this, but I was just curious because because. This methodology that is with people who take description, it's hypothesis generating, it's something that's continual, reevaluating the process and how do you hope others in your feel will people in other fields will take for example this extra work and it's your kind of what you think? The take away for that?

**Jerome:** Well, it depends very much who you're talking about. But I mean, for instance, with my own PhD students, I've just encouraged quite a number of ethnomusicologists to get out to other hunter gatherer groups around the world. Egalitarian hunter gather. Groups to find out if we can find more consistency in these practices across different groups and in Southeast Asia. I had a very good ethnomusicologists working there and because of the pressure of the missionaries on these groups and the. The secrecy or that they have very complex taboo structures around musical performances where they summon spirits so they have actually almost completely hidden to the point of disappearance. Their musical tradition, and they hardly ever perform. So it's we're at a stage unfortunately where because of these the power of outside pressures, the ability of roads to Criss cross what were previously rather protected environments, the picture is very unclear and I do hope that more and more people will

start looking at music in terms of. Understanding how musical participation produces particular ways of being in the world, and why music is so central to culture. But I mean, you can look at it across all sorts of different domains. So for instance, fashion in Britain, youth fashion in particular, it's not just a particular style of music that they're listening to, it's also a way of dressing. It's a way of talking. It's a whole value system. And I think that the link between music and culture is, is extremely interesting and one which, which I hope will start to unpick and explain in much. More detail as time goes by. Thanks.

**Audience Member #7:** Earlier on, we talked about a video of the man, a performance and I was just wondering what he was talking about?

**Jerome:** OK. Does anyone have any ideas what he was talking about? Hunting. Yes. Killing an animal. Yes. Yes. Any ideas? What animal? No, not a gorilla. It was an elephant. Yeah, and. But but it's it's what it is is an illustration of the way that people mix this environmental mimicry in their storytelling. And it's it's so pronounced that points people if they start telling the story of them going into a, say, a farmer's village where they speak a different language, they'll say, oh, I met so and so a farmer and when they're. Reporting his speech instead of translating it, they just report in the language of the farmer. and even when they get to the point of the limit of their own knowledge of that language, instead of going back into banjo, they just continue making aping the sounds of that language. It's almost like the acoustic integrity of the moment is more significant than what we would anticipate in terms of meaning, and it's very frustrating when you're trying to learn the language because they're teaching you loads of words for everything and you start wondering, do women have different language to men? The children speak differently to adults. And anyway, slowly I understood that. So they're teaching me all the languages of all their neighbours too.

**Audience Member #8:** I was struck that you mentioned that they recognize the song from another group. Now a little bit of more funds conjectured that the need to distinguish your in group from the out group is the driving force of change, right? You speak your as you mentioned, the youth culture is like their own code, something given sense of whether the language or culture is more stable than egalitarian societies and hierarchical societies where they might be kind of the prestige and distinguishing yourself from the ones that.

**Jerome:** Well, it's a very good question. What I think is that when you're a hunter gatherer in a world of hierarchically organised people who are status seeking and so on, your way of life, your political orientation is so radically different to those other groups that there's no need to worry about. Language as an indicator, I mean you. You actually, I think it's to do with similarity that we get hooked on language. So French and British people, basically the same. People and so language then becomes and cuisine and stuff. You know, these become the focus of our differences or establishing our difference. But when you're a hunter gatherer, your way of life is just so different and your value system is so opposed. I mean, these groups really reject private property. They find it absolutely abhorrent. It's. Morally repulsive to them, and so the word they

used to describe all their neighbours is grim. Because gorillas are also obsessed with private property and get really furious when you walk across a bit of forest that they've claimed. And so where your value system is so different, then you don't need to worry about language. The group that sing like that 1500 kilometers away, they actually speak as Sudanic. Language whereas this group speak Bantu language, so I think actually it's music which is more stable than language. Language is much more open to change and perhaps that's to do. Of language always being subject to recomposition every time I say a sentence, I'm recomposing the language. But if I was to sing a song, I would always sing it in roughly the same way. And so there's actually a greater duration of form in song or music than there is in. In language which is much more subject to change and transformation, I think the other thing as well to say is that when you're in a hierarchical structure. There are individuals who get given responsibility over different elements of your culture, say the priest or the shaman or whatever, and they can decide. To change things and there's nobody there to say, oh, you can't change that because they're the ones in charge. And so in these egalitarian structures where you don't have anybody in charge where you, you learn your ways of being in that society through participation in, say, the song and dance that I've been showing you examples of. Then it's much more difficult for those things to change, and part of the resilience of these societies is precisely because. There's no individual that can manipulate these processes. They're collective processes through taboo or through ritual performances and that gives them much greater stability than we have in hierarchical societies, where specific individuals can turn everything on its head at a whim if they wish.

**Audience Member #9:** [Inaudable] More specifically, sign language, my reference as well, so my only question about the first video. Where? For what happened and stuff like that, that really. Reminds me of that. All storytelling. Or like death, just decided, like speech. Just like. I wonder whether there are any features in the performing experience.

**Jerome:** So the question is whether or not in the source of the first film I showed you of the man giving you a description of his elephant hunt, whether there are grammatical structures within the signing that he uses, and that's a wonderful question. And I can't answer it I'm afraid, but I would be delighted if you'd be interested. And I can supply you with some other examples of this kind of interaction and then you can see whether or not it's obvious that there are grammatical phrases. I don't think there are, but I'm really not qualified to be able to judge. But thank you. That's a very interesting angle.

**Audience Member #10:** Within the guys going to go off another. Node of state. Isn't there a single that seems best incorporation? A singer that sings best. In corporation, so he like, they're good at singing. Within a group. Cooperate. With everyone else. So you say that like you can have the thing you have to show up, but the thing you guys to be like within your group does not give them status and you have a woman not really gonna see any room. And a man that's really going to singing group, would they be more likely to like pair together and therefore that breaks. I just say it. And

although although like to eat the food. That comes into the like the town. Could it be that those who sing best within the group, the bigger share of the food?

**Jerome:** Well, I mean, all those things might be possible. I've never witnessed them. Of course, there are some people who are better at doing things than others, but in these sorts of contexts, it's rude and considered impolite to refer to that. So a friend let me take the example of hunting, which is a classic one, especially in the sort of socio biological. Examinations of hunter gatherers, one of my friends, is an exceptional hunter. He is so exceptional. I've never met anybody like him. He's so exceptional that at one point he shot an elephant which had tusks that were digging in the ground. As the elephant walked along, there were so huge took three men to carry, 1 Tusk. I mean, they must have been close to 90 kilos or something like that. When he when he brought these tusks out of the forest, the person who'd given him this gun to go shooting the elephant farmer was so amazed he took him down to Brazzaville, the capital. Pretty, which is a two week journey and displayed this this hunter with his tusks. The result was that this man just started to boast and he he doesn't do it in a conscious way. It's that that's the real tragedy actually of his life is that he he just can't help himself but he loves hunting and he loves going hunting and he's always going hunting or at least he was in the past. But then from their perspective, like your example of the good singer:

'ohh you're hunting so much, why are you hunting so much? Oh, I just love hunting. Well stop hunting for a bit because we want to do some hunting too.'

And anyone who starts to stand out is immediately pulled down again and told to stop hunting. And he was told to stop hunting. But because he loved hunting so much, he continued hunting. and people started to get suspicious. Why are you hunting so much? You think you're better than us, do you? Why do we always have to eat your meat? What about other people's meat? We can eat their meat too. And he got a lot of criticism. In the end, he actually got cursed to meat gorillas. When he goes hunting. And I've never come across anybody who meets as many gorillas as he does. And gorillas. Aren't good to meet, they are frighteningly dangerous. You know, you get a silver back, roaring beating its chest, come tearing across at you and so he'd waste a bullet shooting these silver backs to protect himself. And because he thought that the silver backs were actually his jealous. Were jealous friends who were upset by him hunting too much. He would leave them in the forest. He wouldn't dare to cut them up and bring them back and hunt the hunter gatherers don't actually eat gorilla, they say it's too much like a person, but the farmers like eating gorillas, so the farmers would get really crossed that he wasn't. He was wasting these bullets and not bringing the meat back, but as far. As he was concerned, this was terrible. In the end, it was the women who said right, look enough, we're not cooking your meat anymore. and he'd just shot an elephant, and he'd just spent 7 or 8 hours butchering this. The meat of the



elephant and the women said, no, we're not cooking anymore. And he was outraged all this work, all the risk I've just taken. And it actually caused him to have to leave the women effectively exiled him. And he was then rejected completely by everybody. He went he the only place he could go was a neighbouring group of pygmies. To the paluma. Where they were very poor, not well experienced hunters in the way that he was, and he became very popular in 2012. This was in 1996. I met him again in 2012 in a in another pygmy group called the Mikaya, who I was visiting for a different purpose and I just saw him at the back and he saw me and we recognized each other. So he'd actually been rejected. By not just one group of pygmies, but by two and each time devastating for him personally, because it was his whole family and all his connections. You want to come back. On that, yeah.

**Audience Member #10:** You said you shouldn't write about these things, but if it's so about your achievements being rewarded.

**Jerome:** Ohh, they'll tease you and give you hell. There's no subtlety in posting, yeah.

**Audience Member #10:** I feel like I could choose something, but actually slide about it. And they're like, oh, it's very modest.

**Jerome:** No, no, no, no, no. If you come back after you've hunted, what you do is you just sit down quietly without saying a word.

**Staff:** This could clearly gone for a long time, so I'm going to draw this discussion to a halt.

**Jerome:** Thank you very much.

The Ted K Archive

Jerome Lewis  
Music Before Language  
Observations from a hunter-gatherer's point of view  
30 November 2018

Radical Anthropology. <[youtube.com/watch?v=HhKBdASYsjk](https://www.youtube.com/watch?v=HhKBdASYsjk)>

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