The Emperor's new suit in the Garden of Eden, and other wild guesses

Why can't Napoleon Chagnon prove anything?

By Stephen Corry

Napoleon Chagnon's latest book, 'Noble Savages', is a synopsis of his work with the Yanomami Indians of Amazonia, and is intended for non-specialists. This anthropologist is key to the recent revival of what Corry calls the 'Brutal Savage' myth. Chagnon contends that he holds the scientific truth, saying that his critics, especially those who have worked with the same Indians, downplay their violence. Corry shows how Chagnon makes unsupported claims, quotes from dubious sources, misrepresents his own data, and contradicts himself. Corry points out how close Chagnon was to United States officials, and how his promulgation of the 'Brutal Savage' underscores that of fundamentalist missionaries. Corry argues that Chagnon's characterizations are unscientific and dangerous.

Jared Diamond and Steven Pinker's sermon - that 'warfare' is 'chronic' in most tribal societies, as well as prehistoric ones, and that it diminished with the arrival of the state – relies in good part on Napoleon Chagnon and his ideas about the Yanomami. He is the most controversial anthropologist in America, and had he spent his life doing something other than promoting his studies of this Amazon tribe (which he calls 'Yanomamö'),¹ it's difficult to imagine that Diamond or Pinker would have nearly as much traction with their 'Brutal Savage' myth.

In that sense, Chagnon's new popular book, sarcastically entitled 'Noble Savages: My Life Among Two Dangerous Tribes – the Yanomamö and the Anthropologists',² can be taken as one part of a trilogy together with Diamond and Pinker. Although it hit the bookstores last – and is clearly intended as a retrospective score-settling with his many critics – Chagnon's revelations are primal to the renaissance of the

Brutal Savage, and so should be looked at in detail.

Before doing so, let's get some minor points out of the way. The least important is that he confuses the two organizations, Survival International and Cultural Survival, though it certainly shows sloppy fact-checking.

The more surprising aspect about Chagnon is his lifestyle. He requires prodigious quantities of stuff. including 'trade goods' far in excess of what most anthropologists would consider necessary, or could afford.4 These are primarily large numbers of steel axes, machetes and cooking pots, used to pay Yanomami to give him the information he seeks. He hardly treads lightly; for example, when traveling in his motorized dugout, he also loads his metal boat, rather like a large motorhome carrying a small car. He needs Yanomami 'bearers' (my word, not his), partly to transport all these things, but also to build his houses, and carry out his bidding. He orders them around with no hint that he is a guest in their territory. On the contrary, he constantly presses them to his will.⁵

He doesn't make it easy for them, or himself. He has to carry, or have carried, his preserved foods,⁶ even to remote areas. As well as a camera, he needs a Polaroid with its bulky and expensive film; as well as one shotgun, he needs two. Even if they wanted to emulate him, few anthropologists would have the resources.

Another surprise is that for someone who has long promoted himself as an Indiana Jones figure, he often appears out of his depth, even floundering. He's candid about this: he fails to keep insects out of his peanut butter and fungus out of his loin cloth, gets mad when the Indians play tricks on him, and upsets just about everyone.7 The Yanomami have reason enough to be dismayed, not least by his data gathering which plays on their enmities.8 To cap it all, Chagnon nearly shoots a young Indian boy. blames his gun, and reacts by being 'badly rattled' - he isn't referring to the child!9

His book won't lead many to empathize with the Indians' humanity, or with Chagnon's: neither are much in evidence. All this is relevant because Chagnon has long cast himself as the lead actor in his fieldwork, supposedly unfairly maligned, misunderstood, unwanted. In his latest book, the reader learns much about the anthropologist's endless problems, but less about the Indians – apart from just how nasty many of them are.

Of course, none of this affects whether or not his theories might be right. Though even if you think they are, no one can deny that Chagnon makes extrapolations into transparently unsupported surmises.

For example, he doesn't explain how he could come up with two sweeping generalizations on his first day of fieldwork in 1964. Arriving after a fight has ended, he asks his evangelical missionary friend to teach him his very first – perhaps prophetic - Yanomami words, 'Don't do that. Your hands are dirty.'10 He then immediately decides that 'native warfare... was a chronic threat' (his emphasis) and that 'most Yanomamö arguments and fights started over women.' He spends the rest of his book - and life, for that matter – trying to substantiate this blitzkrieg insight, drawing it out much further, and concluding it 'seems' that is how all tribal societies were, until they lost their 'pristine' status. Apart from his kinship studies of some Yanomami communities, how does he support such a weighty pronouncement about humankind's history?

Let's start by going back to 1968, when Chagnon claimed unequivocally (in his first book) that the Yanomami practiced female infanticide,11 and so had to fight for women because there just weren't enough to go around. He provided no evidence for it, which isn't surprising, because it wasn't true: like most societies, the Yanomami do, very occasionally, kill babies, 12 but they don't especially single out girls. Although Chagnon repeated his claim about female infanticide in the second edition of *Yanomamö* (1977), he dropped it completely six years

later.¹³ Students relying on Chagnon up to 1983 would wrongly believe the Yanomami practiced female infanticide. Those studying the same book in later editions wouldn't encounter 'female infanticide' at all.¹⁴

His more generalized claim nowadays is also slippery sometimes it's a probability; other times it's more definite - but it seems to be twofold. The first part is supposed to be unarguable: 'the archeological record reveals abundant evidence that fighting and warfare were common prior to the origin of the political state and, in much of the Americas, prior to the coming of Europeans.' As far as 'fighting' is concerned, so far, so good: 'common' is vague enough, so it's impossible to argue with that, even though 'the archeological record' cannot possibly reveal its frequency.

Whether or not there was 'warfare' as such, is another question. Some think that didn't start until after the invention of the state, but that hangs on what you mean by 'war'. 15 In any event, everyone knows that fighting and war were certainly extremely common after the Europeans turned up.

Chagnon then goes on to his evolutionary key, 'Females appear to have been prized booty in those cases where large numbers of skeletons – victims of massacres – have been found together.' In a nutshell, the killer gets the girl.

He gives just one example: Crow Creek in the Great Plains, where nearly five hundred such victims were buried in about 1325. Chagnon says there are gaps in the body count: many children and teenage girls are missing. He decides it's 'most likely' they'd been captured, and 'presumably' the girls had become 'extra mates for their captors'. He doesn't explain why he labors such qualifiers – 'appear to', 'most likely', 'presumably' – when his thesis hinges on this being the preponderant case throughout history. Indeed, it's the only reason he mentions it at all in his chapter entitled, 'Conflicts over Women'.

He then, curiously, recites three confessions: 'we don't know directly how common fighting over women... was in the past' (his emphasis); sites like Crow Creek are 'rare' (in fact, it's unique); ¹⁶ and 'ethnographic accounts are often silent about fights over women even if they take place while the anthropologist is there.' His omniscience about what other anthropologists conceal is, to say the least, surprising, or perhaps he simply means, 'most don't mention fights, but don't let that spoil the theory.'

Moving on from what he claims is direct evidence, he turns to indirect accounts about fighting over women, and advances just two examples: writings of Spanish conquistadors; and convict William Buckley, who escaped to the Australian interior in 1803, and subsequently recounted his stories about the Aboriginals. The resulting 1852 book (also cited by Pinker)¹⁷ was an effort to make some money at the end of Buckley's life. It includes claims which are clearly fabricated, or at least mistaken.¹⁸

That's not very convincing, so let's return briefly to the 'direct' evidence, the apparent absence of dead children and teenage girls at

Crow Creek. Firstly, it's by no means certain: both age and gender are difficult to determine from the remains, as archaeologists have stressed. Secondly, if there is any imbalance it might have been reflected in the living population as well: they were not in great shape, perhaps resulting from a lack of food due to climate change. Anyway, even if we give Chagnon the benefit of the doubt and do assume a lack of girls amongst the skeletal remains, that might still be explained in different ways. They may have fled or been sent away when attack was feared: perhaps they were spared and allowed to leave, or maybe captured and kept as slaves, or integrated into the attacking group, but not as 'extra mates'. Perhaps they were killed after all, but their bodies not buried, or just not yet found. Who knows? Not me, not Chagnon, not anyone. 19

Chagnon's assertion that 'females were prize booty' is just his guess. He might be right, but if there's any evidence that this was common, he doesn't tell us what it is. In fact, if there's a single shred of 'archeological evidence that earlier people fought over women' (the chapter subheading), Chagnon doesn't reveal it: there's none at Crow Creek.

There is a – literal – world of difference between saying that people kill each other and one of the things men fight about is women – both banal and obvious – and advancing a 'scientific' claim that men fought 'chronically', that the 'primary source' of conflicts was women, and that this was a key in the evolution of the state, and so the world into which we're now born.

According to Chagnon, killers have more women, and more children – and grandchildren, and so on – than non-killers, and so have a genetic advantage. Genetic selection favors killers because (at least, Yanomami) society rewards them with enhanced prestige. That's supposedly where we all came from.

Chagnon has never seen a raid: he's going on what he's told (sometimes, by missionaries).²⁰ His conclusions are based on his studies of 380 Yanomami men, of whom 137 say they've killed someone (according to Chagnon).²¹ That's a summary of 'twenty-five years of findings on Yanomamö warfare', and seems to be a total amassed over decades. The data was originally published in 1988 in the journal *Science*,²² where he cites 282 violent deaths 'during the past 50 to 60 years'. In brief, Chagnon spends a quarter century looking for 'warfare' and going to where he thinks it most common, and comes up with a total of 137 Yanomami supposed 'killers'.

To what degree are they the norm? Chagnon writes, 'Approximately 45 percent of all the living adult males in my study were unokais, 23 that is, had participated in the killing of at least one person. That is an extraordinarily high percentage'. (It's clear from the Science article, by the way, that several must have 'killed' the same victim.)

What Chagnon doesn't mention in his book, incidentally, is that many Yanomami, including some respected leaders, avoid raiding or fighting, and that this is a position accepted by their kin.

Before going on, it's relevant to understand typical raids because

they're rather different to the impression conveyed in the book, where 'war' is chronic, obsessive, frequent and bloody. Twenty-five years ago, Chagnon described Yanomami attacks to specialist academic readers, 'The number of victims per raid is usually small – one or two individuals... they usually kill the first man they encounter... as many raiders as possible... shoot the victim... and hastily retreat.'24 It's obviously nasty stuff, and no one wants to be on the receiving end, but it's not a matter of massacres.

Let's take another look at the percentage given in the quotation above. The study comprises 380 men, fifty-four of whom apparently say they've killed two or more people, with another eighty-three having 'participated in' the killing of one person. As I've said, Chagnon concludes that 'killers' number 'approximately 45 percent of all the living adult males'. He's wrong: the actual number according to his own data is thirty-six percent. He's inflated that by one-quarter.²⁵

You can arrive at a figure of fortyfour percent (not forty-five) only by excluding those aged twenty to twenty-four, though these men are included in the book's tables (their ages, incidentally, are just guesses. as Chagnon says). Cutting out those in their younger twenties bolsters the conclusion Chagnon seeks, but it's a clear massaging of the numbers. The total exclusion of all those *under* twenty is also a relevant failure. Some younger men would undoubtedly join in Yanomami raiding, just as teenagers and preteens fight in industrialized wars.²⁶ Had Chagnon included them, it could only further weaken his conclusions.

Let's accept his numbers at face value anyway, but just rephrase his analysis: most Yanomami don't kill;²⁷ and most of those who *do* claim to have 'killed', had only ever done so once.

The total sample which led Chagnon to his theory about violence – the paean for those promulgating the Brutal Savage myth worldwide – wouldn't fill a couple of subway cars. Moreover, nearly all Yanomami 'serial killers', those who say they've killed ten or more times, were from a single village which had a reputation for unusually excessive violence. Eight of the eleven major 'killers' were from there,²⁸ though these facts are not mentioned in Chagnon's latest book.

Extracting this one exceptional settlement from the data would presumably move the averages significantly, but we're not given enough information to do this.

So what do his total numbers really show? The Science article (but not the book) says there were 282 violent deaths over a fifty to sixty year period, in villages with a (1987) population of 1,394, and some others nearby.²⁹ That's a maximum of 5.1 violent deaths per year, less than 0.4% of the population. It's a large figure, though less than in recent European wars. In WWII, for example, Soviets had proportionally six times more deaths³⁰ than Yanomami, who are, remember, supposed to live with chronic war all the time.

It's nearly twenty-five years since Brian Ferguson pointed out that Chagnon's data does not demonstrate his thesis for another reason: it omits counting any children of men who are dead.31 For example, if Indians who had killed someone then died having had, say, only one child (or none), then that would change Chagnon's averages too, and still further dilute his conclusions. This is so glaring an omission that anthropologist Daniel Lende couldn't understand how Chagnon's *Science* paper passed peer review.32 The fact that it has been criticized by scientists for its bad science, however, is conveniently ignored by those who recite it in support of their beliefs. Chagnon pretends that it's his critics who are 'anti-science' – it's simply not true.33

Chagnon retorted to Ferguson that he *had* collected all the information about the children of dead killers too, and would publish it, but as far as I know he hasn't.³⁴

There's an even deeper concern: have all Chagnon's supposed 'killers' really killed anyone at all? Marta Miklikowska and Douglas Fry have pointed out a problem with his defining the Yanomami word 'unokais' as 'warriors who had killed someone'. In fact, the term includes raiders who shoot arrows without necessarily even hitting a live target (for example, into a corpse), as well as those who put fatal 'spells' on enemies, 'killing' them from a distance, shamanically rather than physically.³⁵ In other words, in Western eyes not all 'unokais' are killers.

Miklikowska and Fry don't stop there: they cite studies of other tribal peoples, both those with a propensity for violence and others with none, which come up with entirely different results to Chagnon's, sometimes the opposite. Killers in other societies have fewer children because their lives are likely to be cut short by revenge attacks.³⁶ In a stroke, this *proves* that Chagnon's data *cannot* be extrapolated to social evolution in general. Miklikowska and Fry also point out that, unusually in the Yanomami case, Chagnon's supposed 'killers' are on average about ten years older than the non-killers: so are likely to have had more children anyway.

Gabriele Herzog-Schröder has highlighted another big problem with Chagnon's definition: exactly the same word, 'unokai', is also used for a man who accompanies his future bride during the ritual which embraces her passage from childhood to adult.³⁷

When scrutinized, Chagnon's vision looks less like meticulous Darwinian observation, and rather more like a Biblical fall from grace, with women as the source of all strife. Perhaps we shouldn't be surprised that Chagnon thinks, 'most Yanomamö men are trying to copulate with available women most of the time'!³⁸

Chagnon claims unequivocally without explaining how his data supports it – that 'most [Yanomamö] disputes, fights, and wars can be ultimately traced back to conflicts... over alleged or actual infidelity by wives'. It's worth noting his insertion of 'ultimately' and 'alleged', and then looking at his other statements. which don't say exactly the same thing. He writes: 'if I had to specify the single most frequent cause of lethal [Yanomamö] conflicts, it would be revenge for a previous killing'; 'the Yanomamö have frequent fights over women but it would be inaccurate and misleading to say that they "go to war" over women', (contradicted, by

the way, in his 1977 edition, where he unequivocally states, 'A few wars... are started with the intention of abducting women');39 and, 'the wars are generally the result of cumulative grievances of many kinds.' Also, consider: 'The motive the Yanomamö give for lethal raids almost always has to do with revenge for the death of some person. As emphasized elsewhere, the previous killing is often a result of some fight over women' (my emphasis). (In his 1977 book, he also gives another reason: 'the possession of the gun caused wars where none previously existed.'\40

Although it's key in his theory, he doesn't seem to have made up his mind about the extent women actually play in these disputes. Do 'most' originate with women, or is it just 'often'? Are any wars fought over women, or not? If an Indian claims 'women' are the cause of fights, could he in fact mean 'kin relations' in a wider sense than sex or marriage partners? Could it be that occasionally men voice this, when pressed to give a reason for belligerence? After all, hooligans desperate to start a brawl often blame a victim for ogling a girlfriend. This raises a key point about whether you can justifiably examine societies in the same way you can other species: comparing what people *say* they do, to the direct observation of what animals do do.41

This is hardly semantics: Chagnon is advancing a theory about the evolution of social life; he's disagreeing with most other anthropologists; he's trying to shake our view of ourselves, to persuade us that society is a result of men's chronic belligerence – we succeed because we kill people. He might

believe it's so, but if this is science then the onus is on him to present (at least some!) convincing evidence.

You don't have to spend years in Amazonia to realize that some men squabble over woman (and viceversa), and in spite of Chagnon's view of his critics – that we supposedly romanticize tribes – I don't know anyone who would claim otherwise. The disagreement is not that such violence exists, it's about the degree to which it's 'chronic', whether there's *any* evidence that *most* raids originate with women, and whether the tendency to be a killer is really naturally selected for or not

Chagnon doesn't bring many other authors to his defense, but when he does, it's worth noting who they are. For example, he cites the evangelical, Gordon Larson, who studied the Dani in West Papua. Larson collected the 'stated causes' of 179 disputes recorded over thirty years. Chagnon presents his conclusion like this: 'The most frequent cause of these disputes was women, some 73 of the 179 cases (41 percent).' That's certainly a large proportion, but as always we can express the same data in a quite different way: the majority of stated causes of disputes (nearly sixty percent) were *not* about women. The preface of Larson's dissertation says, 'fighting breaks out primarily as the result of population build-up'; it doesn't mention women at all.42

Returning to the Yanomami, Chagnon admits that other anthropologists who have worked there accuse him, 'of inventing or exaggerating Yanomamö violence'. He cites in his defense unspecified missionaries, and state employees, but quotes from just one source, which he thinks 'fascinating'. It describes a horrible beating of a teenage girl, and a ghastly attack by a man on his wife. Both originate (or do they?) with Mark Ritchie, a commodities trader and evangelical, who 'befriended a group of... missionaries' and visited their base in the 1980s.

Chagnon doesn't tell us this, but there is no indication that Ritchie witnessed any of the incidents recounted in his 1996 book.⁴³ All the stories really come from evangelical missionary Gary Dawson. Ritchie doesn't make this clear. On the contrary, he writes, 'To represent [the Indians'] story authentically [sic!], *I have told it through the eves* of Jungleman, one of their most charismatic leaders. Readers may be troubled... by this shaman's ability to get inside everyone's head... I found myself... asking, "How did you know that, if you weren't there and [the evewitnesses] didn't tell vou?" He always answered the same, "I just knew," an answer that presents no confusion to rainforest peoples.'44

It certainly confuses me. These stories, repeated by Chagnon, were told to Ritchie, who got them from Dawson. So was missionary Dawson a first-hand witness for what's recounted in the book? He's spent most of his life with the Indians and will have seen much, but it seems that originally most stories were told to him by his Indian converts (who are often, incidentally, the most zealous at denouncing their former beliefs). They are 'represented' (presumably for literary purposes) by someone called 'Jungleman' who 'just knew' about them! It's clear from reading Ritchie's book that Jungleman knew an uncanny

amount, extending to what people experienced at the moment of their deaths. Such omniscience rivals Chagnon's on first meeting the Yanomami. (Like Jungleman, Dawson and Ritchie, Chagnon also gives graphic and precisely detailed accounts of raids and killings he never saw.) 46

An additional point, not in trader Ritchie's book but from an account of a visit missionary Dawson made to American churches, might not clarify anything, but does give a clue about his attitudes. Dawson seems to endorse his Yanomami convert's assertion that Nintendo 'Pokemon' cards are in fact pictures of real evil spirits which Yanomami shamans can recognize.⁴⁷ Belief in the spirit world is as strong amongst evangelical missionaries as it is for tribespeople, but some might think ascribing satanic forces to children's cartoons is a step too far.

Ritchie's pro-missionary book, which Chagnon cites and quotes from several times, claims to be a first-hand account, which it isn't.⁴⁸ It's so embedded in the evangelical 'Brutal Savage' genre that it's astonishing that any anthropologist would dream of mentioning it at all, leave alone to support a theory of human development, or to defend the stereotyping of an entire people.⁴⁹

It's even stranger that Chagnon references it. Although Ritchie commends him for his views on the Indians' violence, he also accuses Chagnon of 'the spiritual killing of a child', which he sardonically calls 'arguably one of Chagnon's crowning achievements in the Yanomamö culture.'50

So, to support his portrayal of the 'Brutal Savage', Chagnon *only* turns either to evangelicals or to old sources, like the Australian convict's, 'as told to' others. Such accounts were written with the conviction that tribal people *must* be backward savages. They prove nothing; why cite them?⁵¹ The answer of course is that they all agree on the fundamentals.

The New Tribes Mission, active with the Yanomami for years before Chagnon turned up, remains one of the most fundamentalist evangelical organizations in the world. Until criticism in the 1970s forced it to tone things down, it routinely portrayed many tribes with characterizations so extreme they could be mistaken for parody.

Its magazine 'Brown Gold' published cartoons of tribal mothers throwing their babies into crocodile-infested rivers and generally behaving as one would in Satan's grip. (Its critics, like me, are also in league with the Evil One, needless to say.) New Tribes propaganda held that its missionaries flew to these hapless folk, fought and eventually defeated the Antichrist, and saved (a few, but often not many) tribespeople for eternity.

The fight was sometimes literal. In Paraguay, the missionaries sent Indians to 'catch' their relatives who were trying to avoid contact, and 'bring them in' to the missions. The encounters were usually violent, with Indians on both sides killed (one such expedition was tape recorded).⁵² The newly contacted souls, shorn of any ability to hunt or feed themselves, and reduced to utter dependence on mission handouts, would often then fall ill

and die. That was not New Tribes' primary concern: in its view, the dead were destined to eternal hell anyway – unless they first accepted Christ as Savior.

None of this could have escaped Chagnon's attention. While repeatedly quoting evangelical missionaries and their friends in his own support, he makes no mention of the controversy surrounding them. In fact, New Tribes missionaries and United States government officials are about the *only* groups who escape his criticism.⁵³

Although Chagnon is open about trying to take a State Department officer to the Yanomami, 'so he could see unacculturated Amazon Basin *Indians first hand'* (the trip was thwarted by the Catholics), he makes no mention (at least in this book) of a much more important visit, which did take place. On March 7, 2013, Michael Skol, a 'free trade' consultant, wrote to the New York Times claiming that when he was United States ambassador to Venezuela in the early 1990s he accompanied Chagnon to the Yanomami, because his 'presence on that trip was necessary to assure [Chagnon's] access, because certain well-connected individuals opposed his activities.'

He doesn't say why this fell to the duty of the American ambassador, particularly at a time when presidential impeachment, deadly riots, and failed coups (which eventually brought the fiercely anti-American Hugo Chavez to power), must have kept him busy in Caracas. Unsurprisingly for someone in his position, he makes no secret of his political bias, though it is pretty

extreme: for example, he thinks that the United States has done more than any other country to defend 'democracy' in Latin America.⁵⁴

Anyway, Skol is clearly impressed by Chagnon, perhaps excessively so. In spite of glowingly reviewing the recent book,⁵⁵ and accompanying Chagnon to the field, Skol labors under an absurd fantasy which Chagnon rightly never claims for himself: that the anthropologist was the 'discoverer' of the Yanomami.⁵⁶

As well as his reliance on American officials, and notwithstanding his status as a former-Catholic and an atheist, there is no doubt that Chagnon was very close to and dependent on the evangelicals. He builds his house as an annex to theirs, they come to his rescue when he doesn't show up, he uses their bases, landing strips, and radios. Even his first arrival in an Indian community is facilitated through them. ⁵⁷

His book, and the whole 'Brutal Savage' portrayal for that matter, are an implicit endorsement of evangelical thinking. Could this explain why the New Tribes Mission, an organization usually extremely wary of anthropologists, gave this one so much assistance?

Although Chagnon eventually did fall out with some evangelicals, as he did with practically everyone else, his allegiance at the beginning is clear. In 1966 for example, two years after starting fieldwork, he sent the New Tribes Mission a donation, adding, 'I wish to express my satisfaction with the way in which your field workers have approached their tasks of evangelizing the Yanomamö and wish them every success.'58

The evangelicals are not the only missionaries active in Yanomami country: Roman Catholics are there too. Throughout Amazonia, the two religions are mutually hostile: neither even accept the other as 'Christian' (some evangelicals think the Pope represents not 'Vicar of Christ', but Antichrist).59 Chagnon claims to be neutral, but he isn't. Both Catholics and New Tribes have policies of attracting Indians to their missions. Chagnon attacks the Catholics for it, but not the evangelicals (at least, not in this book).60 He repeatedly accuses the Catholics of monstrous crimes, such as 'effectively... purchasing the children and taking them away from their parents,' being 'quilty of complicity in Yanomamö deaths from *measles'* (even though the epidemic was brought in by the evangelicals, as they admit), being responsible for numerous killings by giving Indians shotguns (a fact repeated many times, but only with reference to the Catholics - Chagnon formerly blamed the evangelicals for this as well,61 but doesn't in his latest book), encouraging the Yanomami to steal from the anthropologist, and so on.

We are even told that a priest suggested Chagnon murder a fellow Catholic for having a liaison with an Indian woman! All might be true; I'm not casting doubts. The last is obviously a serious and considered accusation: one wonders why Chagnon didn't take it further (and, for that matter, what the priest believed Chagnon capable of). Just as bizarre, given his views of the Catholics, is why Chagnon feels shocked and hurt when they stop feeding and housing him.

Just as the evangelicals do, Chagnon repeatedly emphasizes that the

Indians are 'Paleolithic', 'Neolithic', 'Stone Age', 'wild', 'really primitive', 'avaricious', 'selfish', 'begging', as well as 'pure' and 'pristine'. Nonmissionized Indians, we are seriously informed, have a 'wild glint' which others have lost. The anthropologist tells us they are 'different from beasts' because they have fire. ⁶² Frankly, it all sounds a lot more Satanic than scientific.

The key Yanomami spokesman in Brazil, Davi Kopenawa, gave perhaps the pithiest summary about Chagnon: 'He said... the Yanomami are savages – he teaches false things to young students.' (Kopenawa has a book coming out in English which devotes a chapter to refuting Chagnon's ideas.)⁶³

Chagnon, however, is convinced that other scholars - particularly those who've worked with the Yanomami - have been denied his unique experience. Although he wasn't the first anthropologist to work with the tribe,64 he often tells us that he is 'the first' or 'last' person – often both - to have witnessed what he saw. He rubbishes his critics, claiming (as do Pinker and Diamond) that he has the scientific data and that others are hiding the truth - from ignorance or through political motives, an accusation which can of course easily be turned back on him.

The Yanomami cope with mourning in a totally different way to us. They are so afflicted by their loss that they actively try and put their dead out of mind, not even mentioning them by name during their long funerary rituals. In retirement in his seventies, Chagnon is now trying to go in the other direction, and erect a

memorial to himself that will endure.

I think he's succeeded, but luckily – like his French imperial namesake – probably not for the reasons he seeks. ⁶⁵ He appears to believe he's uncovered a new, groundbreaking truth about humankind; I am not the only one to think he's just the principal pusher of a tired and dangerous myth about the Brutal Savage. Many want to believe him, of course, but perhaps that's largely because his ideas appear to validate the 'moral supremacy' of powerful nation states, and their colonialism which ensues.

Anyway, there's no doubt that Chagnon has played a central role in the ongoing debate about tribal peoples and their place in the world. This is much more than an academic spat: it's the key to shaping their futures. What the world thinks of them influences - even dictates what happens to them. Whether tribes are viewed as Brute Savages or merely human, furnishes the philosophical justification for how they're treated: such ideas are just as important as the value of tribal lands which governments and businesses want to steal, perhaps more so.

Chagnon openly acknowledges that the transmogrification of the Yanomami into 'the prime example of a warlike, aggressive people' is 'largely' down to him.⁶⁶ Although he strenuously denies it, this portrayal undoubtedly assists those who would attack Indian rights.⁶⁷

The Indians still face many problems, but at least in one way they are now winning: one of the largest areas of protected rainforest in the world is that of the Brazilian

Yanomami. Although still subject to illegal invasions, their land is clearly in far better hands than it would be if it were controlled by those who try to lock modern so-called 'conservation' to its imperial origins, where 'the natives' are seen as an impediment to 'nature'.

Whatever position one takes, no one can suggest that Chagnon's vision of the Yanomami differs significantly from the old colonial view of tribespeople: supposedly they are throwbacks to a past when brute savagery reigned. In my view, those who are blind to what's wrong with that have failed to grasp that the perpetration of harmful stereotypes – even if sometimes understandable to rouse aggression in war – is not acceptable in academic or public debate.

Of course there are murderous Yanomami, just as there are murderous Americans. But numbers must be used with extreme care. Even where they claim scientific validity, it's easy to show that selecting, leave alone massaging, data which pretends to measure 'violence' – or 'peace' – can be pressed into the service of almost any viewpoint. ⁶⁸ (Should American veterans' suicides, for example, be counted as war casualties, which they now exceed?) Irrespective of how you measure it, any statement such as 'Latin Americans are more violent' can only ever bear more political than scientific resonance (try substituting 'African-Americans', or 'immigrants').

The truth may be prosaic, unsensational, and unlikely to sell books, but neither the Yanomami nor tribal peoples in general, are any more 'Brute Savages', than the rest of us. Chagnon's work proves nothing to the contrary.

Despite that, it has become the central refrain, the supposed 'scientific proof', chanted whenever the Brutal Savage creed is preached. To cast the hapless Yanomami in such a role is, frankly, diabolical.

Finis

¹ The 'Yanomami' consist of a number of sub-groups all speaking closely related, largely mutually intelligible, languages. They had no name which encompassed all of them. Different anthropologists have come up with different choices including 'Yanomami' which has become the accepted term, employed by practically everyone except Chagnon and his supporters. It is now also widely used by the Indians when addressing outsiders. Chagnon on the other hand calls them 'Yanomamö', intending the accent to modify the pronunciation (as with a German *umlaut*, rather than a diaeresis or French *tréma*). This is the self-designation of the sub-group he largely worked with, and he uses it for the Yanomami in general.

² N Chagnon, *Noble Savages: my life among two dangerous tribes – the Yanomamö and the anthropologists,* Simon & Schuster, New York, 2013.

³ Chagnon includes amongst his critics the late David Maybury-Lewis, head of social anthropology at Harvard and founder of Cultural Survival, an organization originally housed in the Peabody Museum at the university. Chagnon suggests that, in 1987, Cultural Survival, 'perhaps... regarded [Chagnon's] nonprofit Yanomamö Survival Fund as a competitor for charitable donations because it attempted to denigrate [him].' In the next sentence, clearly confusing Cultural Survival with Survival International, Chagnon continues, 'The president of Survival International's American branch was Terence Turner.' The confusion is compounded, as the following paragraph begins, 'Another NGO, Survival International...' (my emphasis). Cultural Survival and Survival International are separate organizations, as Chagnon must realize, so his reference to the latter when talking about the former is a clear error. Terence Turner did not in fact become 'president of Survival International's American branch' until over twenty years after the period Chagnon is talking about. All this is easy to verify; one wonders why Chagnon didn't during the many years he was writing his book. Incidentally, I have been unable to find out what Chagnon's 'Yanomamö Survival Fund' did. I asked him in 1993 and he replied (October 29, 1993) saying he was writing a statement explaining the objectives and why he had kept it 'low-profile for the past 3 years'. He said he would send it to me, but never has. I asked again in 2000 and he replied asking why I was asking 'about something this old'. I explained why on September 26, 2000, but never heard back. I asked him again in 2013 when this article was in preparation, but received no reply.

⁴ Chagnon was initially funded through his participation in a \$2.5 million US Atomic Energy Commission program, charged with collecting genetic information to compare to that of Japanese A-bomb survivors.

⁵ See, for example, Chagnon, *Noble Savages*, pp. 39, 63, 162, 188, 287.

⁶ Such as sardines, tuna, peanut butter, crackers, oatmeal, chocolate, powdered milk, coffee etc.

⁷ As one of many examples, Chagnon admits, 'I have been chased around the village on a number of occasions by irate people wielding clubs and firebrands, people who were very upset because I was attempting to photograph specific events – particularly cremations.' N Chagnon, Studying the Yanomamö, Holt, Rinehart, and Winston, New York, 1974, p 111.

⁸ As Chagnon himself admits in his earlier book, the decision to do so, 'was a major turning point in my fieldwork. Thereafter, I began taking advantage of local arguments and animosities in selecting my informants.' (N Chagnon, Yanomamö: The Fierce People, Holt, Rinehart and Winston, New York, 1968, p. 12). Anthropologists have long questioned this methodology, see for example M Sahlins, 'Jungle Fever' in The Washington Post, Book World, December 10, 2000, p. X01. In his latest book, Chagnon admits, 'the Yanomamö didn't want me to know their names... [and]... didn't want me to use them in public.' He was 'determined to figure out their social system... but they were just as determined to conceal these facts.' (Chagnon, Noble Savages, p.52). He ends up, 'writing a number on their arms with a felt-tip marker to make sure each person had only one name and one identity number' (pp. 156-7). He clearly does not understand why anyone should find this objectionable.

⁹ We can only pray that any school teachers equipped with firearms are better trained, and don't close the breech when their weapon is pointed at anyone, unless they intend to kill them.

¹⁰ Chagnon, *Noble Savages*, p. 21. In N Chagnon, *Yanomamö the Fierce People*, 2nd edition, Holt, Rinehart & Winston, New York, 1977, p. 151, he doesn't mention that an evangelical missionary accompanied him on his first visit, but says there 'were no missionaries whatsoever present... during the first three months [he] lived among the Yanomamö'.

¹¹ 'As is apparent, there are more males in the Yanomamö population than females. This demographic fact results from the practice of selectively killing female babies: female infanticide' (original emphasis)... Many women will kill a female baby just to avoid disappointing their husbands.' (Chagnon, Yanomamö, 1977, pp. 74-5.)

¹² For a rebuff to the negative stereotyping of Amazon Indians in another context but also dealing with infanticide, see http://assets.survivalinternational.org/static/files/background/hakani-qanda.pdf.

¹³ In *Yanomamö*, 4th edition, Holt, Rinehart & Winston, New York, 1992, Chagnon explains he had 'stopped publishing on Yanomamö infanticide' because it was 'an ethical problem' (p. 93). In 1985, he was asked to give his views on this for 'Venezuelan Congressional records', and says he reported that he had 'never seen a Yanomamö kill an infant'.

¹⁴ Even if one accepts that some Yanomami communities have more men than women, it doesn't follow that this proves female infanticide, as Smith & Smith point out with reference to the Inuit ('Inuit Sex-Ratio Variation: Population Control, Ethnographic Error, or Parental Manipulation', *Current Anthropology*, vol. 35, no. 5, December 1994, pp. 595-659).

¹⁵ See, for example, D Fry, 'War, Peace, and Human Nature: The Challenge of Scientific Objectivity' in D Fry (ed.), *War, Peace, and Human Nature: The Convergence of Evolutionary and Cultural Views*, OUP, Oxford, 2013, pp. 1-22.

¹⁶ Crow Creek is, by far, the biggest known massacre in North America prior to the arrival of Europeans.

¹⁷ J Morgan, *The life and adventures of William Buckley: Thirty-two years as a wanderer amongst the aborigines,* Australia National University Press, Canberra, 1852 [1979].

¹⁸ Buckley claims, for example, to have seen and tried to hunt the mythological creature called 'Bunyip'. He thought the Aboriginals were going to cook him, when they were really just preparing food for him (Morgan, pp. 18, 28). He mistook a welcoming ceremony as preparations to kill him (p. 34)!

¹⁹ Larry Zimmerman, the award-winning archeologist who directed the excavation and pressed that proper respect be shown to the human remains, emphasizes that attempts to understand what took place are nothing more than working hypotheses. The one he currently favors is that the massacre could have resulted from increased competition for food, as the population grew at the same time as the weather reduced agricultural yields. He says, 'I have never heard of a group specifically going raiding to capture women' (personal communication, 2013).

²⁰ Chagnon, Yanomamö, 1977, p 123.

²¹ Adding their wives and children gives a total figure of 1,810 men, women and children, of whom 137 (less than eight percent) say they're *unokais*.

²² N Chagnon, 'Life Histories, Blood Revenge, and Warfare in a Tribal Population', *Science*, New Series, vol. 239, no. 4843, Feb 26, 1988, pp. 985-992.

²³ The plural of *unokai* is generally *unokai pë,* but I have used *'unokais'*, as does Chagnon, for simplicity in English.

²⁴ Oddly, Chagnon appears to contradict himself in the same paragraph, writing, 'Most victims are shot by just one or two raiders' (Chagnon, 'Life Histories', p.987). This isn't the only time Chagnon contradicts himself. The website http://edge.org/memberbio/steven_pinker (accessed June 20, 2013) has four filmed discussions with Chagnon. In the first [38m:27s] Chagnon remarks, 'I don't eat primates, despite the blood running down my mouth when I eat tapir.' In the second [28m:25s] he says, 'I've eaten lots of monkey.' In spite of watching these more than once, I cannot understand how either remark could involve a slip of the tongue or any misunderstanding. Chagnon announces, within an hour or so, both that he doesn't eat monkeys and that he's eaten lots. His diet is irrelevant; the contradiction is concerning. The films consist of three academics (including Steven Pinker) questioning Chagnon about his work; they are interesting for other reasons, primarily, the supercilious manner in which the scholars talk about the Indians, some clear excisions, and the manner in which the accompanying written 'transcript' differs from what is actually said. For example, when Chagnon is filmed calling Indians, 'sons of bitches,' 'asshole', 'buggers', the transcription substitutes, 'people', 'tyrant', 'neighbors'. Chagnon calls those who criticize him 'enemies' on film, but this is changed to 'detractors' in the supposed 'transcription'.

²⁵ Chagnon is far from meticulous with numbers: in the 3rd edition of *Yanomamö* (Holt, Rinehart & Winston, New York, 1983) he says both that he's spent 42 and 41 months with the Yanomami (pp. ix & 7). An insignificant difference of course, but other discrepancies can be easily found in Chagnon's supposedly scientific work.

²⁶ Boy soldiers in Africa are often pre-teen; so are those recruited by the Taliban and others. Boy soldiers and seamen were common in early European warfare. George Maher was 13 when he enlisted for the British army in 1917, surviving the Battle of the Somme. By the end of that war, there are reckoned to have been about 70,000 British soldiers under the age of 18. The war grave of the youngest is recorded as 'John Condon, age 14', though it is more likely it was of Patrick Condon, his brother (who really was aged 14, and used his brother's name). Many RAF pilots in WWII were just eighteen. Towards the end of that war, some German soldiers could have been as young as eight, and there were certainly several aged ten.

²⁷ Note that Ritchie claims, 'No Yanomamö would brag that he had never killed a man' in M Ritchie, Spirit of the Rainforest: a Yanomamö Shaman's Story, Island Lake Press, Chicago, 2000, p. 14.

²⁸ Chagnon, 'Life Histories', p. 987.

²⁹ Though see note 21 above.

³⁰ Averaged over the total Soviet population, not just in the war zones where obviously it would have been much higher.

³¹ R Ferguson, *Yanomami Warfare: A political history,* SAR Press, Santa Fe, 1995, p. 361.

³² See comments section of J Antrosio, 'Shoddy Anthropology & Gun Control: Human Nature, Culture, History' in *Living Anthropologically*, May 24, 2013, http://www.livinganthropologically.com/2013/03/05/shoddy-anthropology-gun-control/#comment-824342758).

³³ See, for example, 'Letters: 'Noble Savages'' in *Sunday Book Review, The New York Times,* March 7, 2013, http://www.nytimes.com/2013/03/10/books/review/noble-savages.html).

⁴⁹ In Ritchie's book, the (unconverted) Yanomami lament their way of life. They complain of being 'naked' because they have no

³⁴ N Chagnon, 'Response to Ferguson', *American Ethnologist*, 16, 1989, pp. 565–70.

³⁵ M Miklikowska & D P Fry, 'Natural Born Nonkillers' in D Christie & J Pim (eds), Nonkilling Psychology, Center for Global Nonkilling, Hawaii, 2012, p. 55. Hunting the 'animal double' of a victim, rather than the man himself, can also make a Yanomami unokai. (See B Albert, 'Yanomami 'violence': inclusive fitness or ethnographer's representation?', Current Anthropology, 1989, 20 (5), pp. 637-640.)

³⁶ This is also a basic theme in Yanomami mythology: excessively violent individuals end up being finished off by those tired of their killing. (B Albert, personal communication, 2013, and myths 47 and 288 in J Wilbert & K Simoneau, Folk Literature of the Yanomami Indians, UCLA, Latin American Center Publications, 1990.)

³⁷ See G Herzog-Schröder, Okoyõma – Die Krebsjägerinnen. Vom Leben der Yanomamï-Frauen in Südvenezuela, LIT-Verlag Münster, Hamburg, 2000, p. 257f. The term *unokai* is also used for the condition of the woman during her first menstruation. See MC Mattei Müller, Lengua y Cultura Yanomami: diccionario ilustrado, UNESCO, Caracas, 2007, p. 340, and J Lizot, Diccionario enciclopédico de la lengua yanomami, Vicariato Apostolico, Ayacucho, 2004, p. 443.

³⁸ Chagnon, Noble Savages, p. 316.

³⁹ Chagnon, *Yanomamö*, 1977, p. 123.

⁴⁰ Chagnon, Yanomamö, 1977, p 149.

⁴¹ Human societies cannot be studied in the same way as animals can. Chagnon is well aware of this regarding sexual behavior, but apparently not concerning violence. Prior to genetic testing, which many societies object to, all kinship studies were merely theoretical because not every father can accurately identify his own children, and not every mother is right about who fathered her baby. We know about ants or chimps killing others because we see or film them doing it; we only know if people like the Yanomami have killed from what they tell researchers. There are several reasons, of course, why they might not be always accurate: people fabricate, for prestige, shame, malice, or humor; they convince themselves of things which didn't actually happen, especially when afraid or angry; they forget or get confused. Additionally, the spirit world can be viewed as real as the tangible. Many people in many societies, including industrialized ones, do not accept the notion of a natural, or even accidental, death: they frequently blame others. (Chagnon's book, incidentally, is dedicated to two biologists who studied, respectively, crickets and ants.)

⁴² Gender imbalance may be a factor in population buildup, but there are many other possible reasons. G Larson, 'The Structure and Demography of the Cycle of Warfare among the Ilaga Dani of Irian Jaya' (Vols I and II) (Indonesia), PhD Dissertation, University of Michigan, 1987. The 'preface', which I presume was written by Larson, was accessed at http://www.papuaweb.org/dlib/s123/larson/ rk.html.

⁴³ Another really nasty story repeated by Chagnon, this time about infanticide, comes from Helena Valero and was written down by an Italian parasitologist, Ettore Biocca (E Biocca, Yanoáma: The Story of a Woman Abducted by Brazilian Indians, George Allen & Unwin, London, 1969). The incident Chagnon cites happened no less than seventy-five years ago, and was recounted by Valero to Biocca nearly a quarter century after it took place.

⁴⁴ M Ritchie, Spirit of the Rainforest: a Yanomamö Shaman's Story, Island Lake Press, Chicago, 2000, p. 8. Lest we are in any doubt about this, the fact is repeated: 'Even though I wasn't there, I could feel it all' (p. 176).

⁴⁵ Ritchie's book is actually quite interesting about aspects of 'relative truth'. For example, he thinks, 'much of what happens in the spirit world is commonly confused in the Yanomamö mind as to whether it actually happened in the physical world' (Ritchie, p. 270). He also says that some things are 'not admitted to by the eyewitnesses' (p. 274). He seems to think that citing the date when stories were told to the missionary confirms their truth. 'Every story in the book represents precisely what Jungleman and his people have said' (p.245). In one instance a 'bizarre' charge 'appears credible for three reasons'. The first is 'the sincerity, conviction, and passion with which [the storyteller] told his stories was quite compelling." (p. 272). He also writes, "I stared every source into the eyes as I listened to his story' (p. 256). Whether or not his book is true, asserting that he really did hear a translation of someone recounting it, with whatever degree of passion and conviction, hardly constitutes proof.

⁴⁶ Eg. Chagnon, *Yanomamö*, 1977, p 126.

⁴⁷ R Croucher and others, 'Pokemon And Evil Spirits,' in John Mark Ministries website, July 2, 2003. http://www.jmm.org.au/articles/371.htm.

⁴⁸ Ritchie, p. 8.

⁵⁰ Richie, p. 270.

⁵¹ Pinker and Diamond also cite old colonial sources to support their ideas. Diamond, for example, refers to an eighteenth century priest's account of Californian Indians. As well as Buckley, Pinker cites a Mayflower pilgrim (S Pinker, *The Better Angels of Our Nature: Why Violence Has Declined*, Viking, New York, 2011, p. 45) and says, *'Though we bristle when we read of European colonists calling native people savages, and justly fault them for their hypocrisy and racism, it's not as if they were making the atrocities up.'* This is an astonishingly naive denial of the reality and ubiquity of propaganda in colonialism and war. For example, it's well known that stories of some twentieth century atrocities are fabricated; there are countless examples. As a general reportedly said after WWI, 'To make armies go on killing one another it is necessary to invent lies about the enemy.' Pinker chooses to believe the ancient propaganda over contemporary anthropologists who don't agree with his conclusions, he scathingly dismisses the latter as 'anthropologists of peace'.

⁵² http://www.survivalinternational.org/news/8200 and http://assets.survivalinternational.org/documents/706/manhunt-paraguay-noise-reduction.mp3.

⁵³ In the 1970s, there was a great deal of criticism that American missionaries furthered, however unwittingly, their government's interests in Latin America, principally as watchdogs for leftist activity. This is an old chestnut, but it's important to remember that the Latin American left was one of Washington's principal anxieties during that era. Memories of the 1962 Cuban missile crisis, and of the killing of Che Guevara five years later, when he was trying to foment revolution in the Bolivian rainforest, were still fresh.

Skol's statement becomes tautologous once you realize that he defines 'pro-democracy' as meaning 'pro-Washington'. During an interview on the Free Venezuela Podcast (which dates from late 2012 or early 2013), the following exchanges occur between interviewer, Andres Correa, and Skol. Correa [18m:47s]: Some analysts say that one of the reasons that helped Chavez to be so popular... was that he was denouncing the terrible relations that the US government had with the region during the 70s and the 80s, supporting dictators and invading some countries. Do you concord [sic] with that...? Skol: ...you cannot find another country anywhere... which, beginning with Ronald Reagan, more supported and acted in support of democracy – true democracy – in Latin America, than the United States. Later [31m:15s] Skol offers this insight into relations between Washington and Latin American governments. Skol: ...at one point [Chile's President Pinochet, the military dictator who usurped power in a Washington-supported, and very bloody, coup in 1973] actually wanted to close down the plebiscite that was being staged to see whether Chile should... return to democracy. But, to not go too deeply into what happened..., the United States knew about it and told Pinochet not to disrupt the plebiscite. I don't think we have the influence to pressure Chavez in the same way... I know we don't have the influence to be able to do the kinds of things that we were able to do in Chile at the end of Pinochet. https://soundcloud.com/free-venezuela/free-venezuela-podcast-3.

⁵⁵ Skol's is the lead 'review' of Chagnon's book on the amazon.com website. He placed it a few days after publication and gives *Noble Savages* full marks. http://www.amazon.com/Noble-Savages-Dangerous-Yanomamo-Anthropologists/dp/0684855100/ref=cm_aya_orig_subj.

⁵⁶ See Michael Skol's Letter to the Editor, *Sunday Book Review, The New York Times,* March 7, 2013, http://www.nytimes.com/2013/03/10/books/review/noble-savages.html.

⁵⁷ Chagnon seems to suggest this is almost accidental. He admits to having 'briefly visited' the missionary, James Barker, in Chicago before leaving for Venezuela, saying 'as luck would have it' they arrived in Venezuela at the same time, and claiming Barker was 'a bit surprised to see' him at the New Tribes Mission headquarters (Chagnon, Noble Savages, p. 16). I don't understand why this should have been surprising, as the two had met shortly before in the United States. Chagnon labors the point that their meeting in Venezuela was accidental, yet he enters Yanomami territory via the New Tribes headquarters, and has selected as his own base the same one where Barker resides (which is an odd choice for an anthropologist supposedly seeking so-called 'pristine' Indians). See Chagnon, ibid., p. 16.

⁵⁸ Chagnon's September 19 letter is reproduced in 'Brown Gold', November 1966, p. 10.

⁵⁹ The Roman Catholic missions with Yanomami in Brazil are also very different to those in Venezuela.

⁶⁰ Chagnon, *Noble Savages*, p. 417.

⁶¹ 'Several missionaries, both Catholic and Protestant, have told me that they like to give trade goods such as shotguns and flashlights, for it made the Indians dependent on them.' Chagnon, Yanomamö, 1977, p 149.

⁶² Chagnon, Yanomamö, p. 9. which Yanomamo book?

⁶³ http://assets.survivalinternational.org/documents/899/5-davi-kopenawa-on-chagnon.pdfcc. Davi Kopenawa's book (with Bruce Albert), *La Chute du Ciel*, Plon, Paris, 2010, chapter 21. To be published in English as *The Falling Sky* (Harvard University Press, 2013).

⁶⁴ Otto Zerries wrote several articles about the Yanomami (who were known as Waika) from his fieldwork in the 1950s, ten years before Chagnon turned up. Chagnon acknowledges this in his original thesis, Yanomamö Warfare, Social Organization and Marriage Alliances (unpublished PhD dissertation) Ann Arbor, MI: Department of Anthropology, University of Michigan, 1966. saying, 'I did not attempt to collect data on all aspects of Yanomamö culture. Hans Becher (1960) and Otto Zerries (1964) had

already done this. I concentrated, rather, on Yanomamö social organization, settlement pattern, warfare and ideology,' (p. 15) and, 'Zerries' data are excellent and his conclusions sound; and his major work (1964) will remain the basic ethnographic source on the Yanomamö for many years' (p. 49). In Chagnon's latest book, however, he seems to have changed his tune and completely discounts Zerries' writings. He only, and very oddly, says, '[Zerries'] research assistant, Meinhard Schuster (Schuster, 1958), published generally accurate but superficial observations on Yanomamö social organization.' Although Zerries occasionally mentions raids, unlike Chagnon he doesn't focus on the supposed fierceness or 'warfare' of the Yanomami. See O Zerries, Waika: die kulturgeschichtliche Stellung der Waika-Indianer des oberen Orinoco im Rahmen der Völkerkunde Südamerikas, Klaus Renner Verlag, Munich, 1964 and O Zerries and M Schuster, Mahekodotedi: Monographie eines Dorfes der Waika-Indianer (Yanoama) am oberen Orinoco (Venezuela), Klaus Renner Verlag, Berlin, 1974.

65 It's irrelevant, but perhaps entertaining, to note that Napoleon Bonaparte's extraordinary tomb in Paris extols the 'main achievements of his reign' as: 'pacification of the nation, administrative centralisation, State Council, Civil Code, Concordat, Imperial University, court of accounts, code of commerce, Major Works, and the Legion of Honour.' (http://www.musee-armee.fr/en/collections/museum-spaces/dome-des-invalides-tomb-of-napoleon-i.html). For most though, he's known as a brilliant general who tried but failed to take over Europe.

67 'Based on the reputation of the Yanomami in the United States stemming from Chagnon's works, a major Brazilian newspaper, the Folha de São Paulo (April 7, 1990), called them a 'fierce people who practice wife-beating and female infanticide.' The article, entitled 'Feminists attack the Yanomami' was published at the same time as thousands of gold panners were invading Yanomami territory, spreading disease and violence. It quoted a group of American feminists who described the Yanomami as 'a primitive and brutal culture' and asked, 'Does this society merit being protected against the twentieth century? Or, to put the question another way: are the gold panners really the outlaws in this story?' (B. Albert, 'Human Rights and Research Ethics among Indigenous People: Final Comments' in Borofsky (ed.), Yanomami: the fierce controversy and what we can learn from it, University of California Press, Berkerly, 2005, pp. 210-233). Several gold miners were convicted of genocide for a 1993 massacre of Yanomami, so the Brazilian courts certainly thought the 'outlaws' were the miners, not the Yanomami. Albert mentions other evidence that Chagnon's work created a new and damaging image of the Yanomami (see Borofsky (ed.), Yanomami, pp. 161-163,). Another anthropologist, J. Shapiro (who worked with the Yanomami in 1968), wrote to Time in 1976, 'Now in the light of pop ethology and sociobiology, the Yanomamö are seen not only as 'wild Indians' but as one short step away from a baboon troop. The familiar tendency to look upon other groups of people as less fully human than ourselves here masquerades as science.' See also S Corry, Tribal peoples for tomorrow's world, Freeman Press, Alcester, 2011, p. 253; B Albert and A R Ramos, 'Yanomami Indians and Anthropological Ethics', Science, vol 244, 1989, p 632.

⁶⁶ Chagno*n, Yanomamö*, 1977, p 162.

For example, the Institute for Economics and Peace (IEP), established by an Australian businessman in 2009, publishes a 'global peace index' (GPI) which is widely reported as, 'the leading objective measure of the relative peacefulness of the world's nation states'. In answer to, 'How is IEP funded?' its website is silent, saying only that it was initially funded by its founder. http://economicsandpeace.org/about-us/fag. It also says, 'The private sector uses the GPI to identify the financial incentives of peace and to form industry alliances to positively influence government policy.' The 'index' is derived from twenty-three 'indicators', weighted in a fairly complex way. These include, for example, 'ease of access to small arms', 'funding for UN peacekeeping missions', weapons' exports, and 'perceived criminality', all of which might of course be high in relatively peaceful places. The indicators, on the other hand, exclude suicide, much domestic violence against women and children (including genital mutilation and infanticide), and selective abortion for gender preference (common in India and China). The fact that an estimated 24% of the English population, mainly women, has been subjected to domestic physical or sexual violence or abuse is also ignored in these figures (see http://www.natcen.ac.uk/media/1107157/reva%20apms_a4%20(2).pdf). As always, the real degree of violence or peace in any numerous society depends on exactly which sector you ask.