

# Nonkilling Societies

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# Into the Heart of Darkness

## Rethinking the Canonical Ethnography on the Yanomamo

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The most famous study of conflict in the ethnographic literature is Chagnon's work on the Yanomamo. Chagnon described Yanomamo warfare as a longstanding pattern of conflict attributable to particularities of social organization, ecological pressures, and the "fierce" personality type. (Heider, 2001: 335)

They are probably not the kind of people you would invite over for afternoon tea. They are quick to anger, will bear a grudge for years and often launch violent attacks on members of their own tribe. (Allman, 1988: 57)

Contemporary anthropology continues to invent other peoples to serve as vehicles to conceptualize important social and intellectual problems of the Western human self today. We have invented the Yanomamo of South America as a symbol to conceptualize human aggression and sexuality. (Pandian, 1985: 48)

Historians, by centering violence, conflict and war have also, if counter to their intentions, contributed to their enduring legitimization, popularization and perpetuation by marginalizing nonkilling, nonviolence, and peace. (Adolf and Sanmartin, 2009: 206)

### Introduction

In the early 1970s, in a graduate seminar called Ethnology of Lowland South America facilitated by Professor Thomas Gregor at Cornell University, I first read the then famous ethnography by Napoleon Chagnon (1968a) titled *Yanomamo: The Fierce People* based on his extensive fieldwork starting in 1964. My impression was that the Yanomamo are essentially Hobbesian savages with a nasty and brutish lifestyle wherein violence is ubiquitous. My reaction was that these were about the last people in the world that I would ever want to visit. But then in planning the research design for my doctoral dissertation I asked a former student of Professor Gregor, then already a leading Venezuelan anthropologist Dr. Nelly Arvelo-

Jimenez, which indigenous society in the Amazon would be the most appropriate for the fieldwork component of my dissertation focused on a biological approach to indigenous hunting behavior and ecology (Sponsel, 1981). She responded that the Yanomamo would be best. She mentioned that she had met them in the forest while working with the adjacent Yecuana, and found them very friendly. She kindly agreed to serve as my sponsor where she worked in the Department of Anthropology at the Venezuelan Institute for Scientific Investigations (IVIC) near Caracas, and she proved most kind, generous, and helpful with her expertise, advice, and time. There I also met briefly with the French social anthropologist, Jacques Lizot, who by that time had already lived and worked with Yanomamo for several years. He assured me that there was violence among the Yanomamo, but volunteered that it had been grossly exaggerated by Chagnon.

After traveling five days up river by motorized canoe with Yecuana and then walking half a day into the forest I finally entered my first Yanomamo village, a northern subgroup known as the Sanema in the Erebató River region, a tributary of the Caura River. From the outset and throughout my stay the Sanema proved to be most kind, courteous, and helpful, like other indigenous peoples I visited and worked with in the Amazon. Moreover, the Sanema, although a subgroup of Yanomamo, were not the "fierce people" at all as initially labeled by Chagnon in the subtitle of the first three editions of his book. Nevertheless, there were three alarms of an incipient raid on the village although they turned out to be false, merely some strange noise alerting the village but later recognized as harmless. From the trembling women standing next to me at the time of one alarm it was quite obvious that villagers took the matter very seriously. However, my experiences with the Sanema made me begin to wonder about Chagnon's depiction of Yanomamo as such a violent society, as had the previous remarks of Arvelo-Jimenez and Lizot.

Since my fieldwork in 1974-75 for six months sampling the behavioral ecology of Sanema predator-animal prey interactions, I have never enjoyed the opportunity to return to them, but worked elsewhere in the Venezuelan Amazon with Yecuana and Curripaco in association with IVIC and on research grants from Fulbright and the UNESCO-Man and the Biosphere Programme. Then, in 1981, with my regular employment at the University of Hawai'i and marriage to a Thai, I turned to Thailand instead of Venezuela where I have worked ever since. Nevertheless, I have pursued any publication on the Yanomamo that I could find, over the decades reading most of the more than 60 books and other literature on the Yanomamo (Sponsel, 1998).

By now I am convinced that Chagnon's representation of the Yanomamo as the primitive "fierce people" living in chronic endemic tribal warfare is problematic in numerous ways. Indeed, some anthropologists who have lived and worked with the Yanomamo for many years more than Chagnon view his ethnographic description of their aggression as grossly exaggerated, distorting, and misleading, as will be discussed later. This characterization of the Yanomamo has even proven dangerous for them (Albert, 2001; Davis, 1976; Martins, 2005; Ramos, 2001; Rifkin, 1994; Tierney, 2001: 328-331).

The above considerations combined with the emergence of the revolutionary research and other initiatives on nonkilling societies by Glenn Paige (2009), and his diverse collaborators (e.g., Evans Pim, 2009), leads to *the primary goal of this essay*, to rethink the Yanomamo by pursuing the basic question: Are the Yanomamo a killing society, a nonkilling society, or something in between? To answer this question the fifth edition of Chagnon's (1997a) own ethnographic case study will be scrutinized, following Paige's (2009: 85-87) suggestion to reconsider classic texts. Space does not allow a review of other publications by Chagnon or additional authors, but some will be cited as supporting documentation and to provide leads for readers who may wish to pursue some matters further. But, first, for those who are not familiar with the Yanomamo, a brief description will be provided which is summarized from one of my previous publications (Sponsel, 2006b). (For other surveys of Yanomamo culture see Chagnon, 1973; Hames, 1994; Lizot, 1988; Peters-Golden, 2009; Rabben, 2004; and Wilbert, 1972, and for the broader context see Sponsel, 1986a, 2008, 2010a).

## Yanomamo

The Yanomamo are one of the most famous of all cultures in anthropology and beyond; they are truly ethnographic celebrities. More than 27,400 Yanomamo live in some 360 scattered communities that range in size from 30 to 90 individuals with a few reaching more than 200. They reside in a vast area of some 192,000 square kilometers in the Amazon rainforest. Their mostly mountainous territory overlaps the border between northwestern Brazil and southeastern Venezuela. [See Lewis (2009) for the population estimate.]

Reciprocity is one of the most outstanding attributes that distinguishes this unique culture. It is a pivotal social principle applied in almost every aspect of their daily life, and most frequently through kindness, sharing, cooperation, and camaraderie. However, this principle is also applied in resolving

disputes, occasionally even through violence between individuals, groups, or villages, the focus of Chagnon's famous case study.

The Yanomamo live in an intensely intimate world, socially and ecologically. Traditionally they dwell together in a big, palm leaf thatched, communal, round house with a large open central plaza. Their egalitarian society is structured primarily through kinship. Each village is relatively autonomous politically. A charismatic headman can lead only by persuasion in developing a consensus; there is no chief or other authority uniting more than one community let alone Yanomamo society as a whole. However, alliances among several villages are common for economic, social, and political purposes. In their society the units of residence, kinship, and politics are not isomorphic, but they overlap in diverse, complex, and fluid ways.

This fluid dynamic is mirrored by a subsistence economy that entails almost daily forays into the surrounding forest for gardening, hunting, fishing, and gathering. Over two millennia the Yanomamo developed a sustainable society in terms of their low population density, limited interest in accumulating material culture, high mobility, subsistence economy, environmental knowledge, and world view, values, and attitudes. They practice a rotational system of land and resource use not only in their shifting or swidden horticulture, but also in their rotation of hunting, fishing, and gathering areas.

Since the mid-19<sup>th</sup> century more than three dozen anthropologists have worked with the Yanomamo in various areas and ways, but for widely different lengths of time. For instance, the French social anthropologist Jacques Lizot actually lived with them for about a quarter of a century. By now several dozen books have been published about the Yanomamo, although with diverse approaches, scope, foci, depth, quality, and accuracy. With so many different anthropologists publishing this much on the Yanomamo for over a century, it is feasible to compare accounts to identify points of agreement, presumably indicative of ethnographic "reality," and other points of disagreement, presumably reflecting the individual ethnographer's interpretations, idiosyncracies, biases, and other phenomena. The first comprehensive ethnography on the Yanomamo was published in Spanish by Louis Cocco in 1972 after living with them as a Salesian missionary for 15 years. Already at this time there was enough research on them by various investigators to allow Cocco (1972: 35-102) to include several chapters on the history of Yanomamo studies. (Also see Margolies and Suarez, 1978; Migliazza, 1972: 357-393.)

The Yanomamo are neither noble nor ignoble savages (Sponsel, 2005). They live in neither a utopia nor a dystopia, but in the real world. They are simply fellow human beings with a distinctive culture. As one observer of

the Yanomamo, Greg Sanford (1997: 63) has written: "I have a hard time looking at the Yanomami as 'natives,' 'Indians,' 'aborigines' or whatever you may choose to call them. I see them as human beings, people who have the same emotions and feelings as you and I. After all, the word Yanomami simply means "human being." Must we look at them as some kind of exotic beings that exist only to satisfy our curiosity?"

In this essay the spelling used by Chagnon is followed only because the focus is on his ethnographic case study. However, there are numerous other spellings in the literature including Yanoama, Yanomama, and Yanomami. In the earlier literature they are also referred to as Guaika, Shiriana, Shirishana, and Waika, among other ethnonyms (Loukottka, 1968: 224-226; Olson, 1991: 411-412; Salazar Quijada, 1970). Yanomami is most commonly used by anthropologists who have worked most extensively with their society. Also, here diacritical markings are omitted.

First, the attributes of Yanomamo as a killing society will be surveyed, and second, those of Yanomamo as a nonkilling society, both based solely on Chagnon's (1997a) book. Finally, the numerous and diverse problems with his work will be explicated.

## **Killing**

Chagnon (1997a: 206) asserts that resort to violence is the only possibility in a violent world like that of the Yanomamo; killing is the only practical alternative for their survival. However, in the fifth edition of his case study Chagnon presents a new model of "Bellicose and Refugee Strategies" that fits his description of geographical, ecological, social, political, and cultural variation. The model seems quite plausible, but remains hypothetical although the limited data he provides is suggestive (p. 91). The bellicose strategy characterizes the lowlands, while the refugee strategy characterizes the highlands, but this dichotomy may be too simple (cf. Sponsel, 1983: 207).

At the same time Chagnon asserts that war is the central and pivotal factor in Yanomamo life: "The fact that the Yanomamo have lived in a chronic state of warfare is reflected in their mythology, ceremonies, settlement pattern, political behavior, and marriage practices. Accordingly, I have organized this case study in such a way that students can appreciate the effects of warfare on Yanomamo culture in general and on their social organization and political relationships in particular..." (p. 8). He goes on to write: "And, the history of every village I investigated, from 1964 to 1991, was intimately bound up in patterns of warfare with neighbors that shaped its politics and

determined where it was found at any point in time and how it dealt with its current neighbors" (p. 9).

Chagnon equates warfare with raiding: "Yanomamo warfare proper is to go on a raid. Most definitions of war emphasize that it is a 'military contest between two independent groups' with the intent of 'inflicting lethal harm.' Raiding between villages fits this definition...." (p. 185). He goes on to state that "it is sometimes more meaningful to look at their wars as contests between groups of kinsmen who collectively may live in several different villages over short periods of time..." (p. 185). Chagnon writes that: "Most wars are merely a prolongation of earlier hostilities, stimulated by revenge motives. The first causes of hostilities are usually sorcery, killings, or club fights over women in which someone is badly injured or killed.... The Yanomamo themselves regard fights over women as the primary causes of the killings that lead to their wars" (p. 190). A treacherous feast in which many guests are massacred is considered by the Yanomamo themselves to be the ultimate form of violence (p. 190). (See pages 191-204 for a detailed description of a specific war and settlement relocation.)

Aggressive behavior is highly ritualized, including vocalizations, postures, rattling arrows against a bow, and so on (pp. 175, 178). However, Chagnon asserts that Yanomamo warfare is not merely ritualistic because at least 25% of all adult males die violently in the area where he conducted field research (pp. 7, 205).

From Chagnon's perspective then, the Yanomamo are "the fierce people" (*waitiri*), not only in the subtitle of the first three editions of his book, but in his persistent characterization of their culture. Accordingly, the Prologue sets the tone for much of the remainder of Chagnon's book. It describes the brutal axe murder of Ruwahiwa while visiting in the Bisaasi-teri village, and the subsequently revenge killing of a dozen Bisaasi-teri while guests at a treacherous feast (pp. 1-3). Moreover, this event initiated a war between the Bisaasi-teri and Shamataru that lasted 20 or 25 years (pp. ix, 207).

Chagnon summarizes his controversial 1988 article in the journal *Science* (pp. 204-206). The "facts" place the nature and extent of violence among Kaobawa's people, the focus of much of the book, into regional perspective: 40% of the adult males participated in the killing of another Yanomamo, the majority of them, 60%, killed only one person. But some men participated in killing up to 16 other people. Moawa killed single-handedly a total of 22 people (pp. 205, 213).

Aggression is the primary theme which reoccurs throughout the entire book, but is concentrated in the Prologue and Chapters 5, 6, and 7. From

the beginning aggression shapes Yanomamo culture (p. 9). The Yanomamo creation myth emphasizes that men are inherently fierce (p. 104). (For rather different versions of Yanomamo creation accounts consult Wilbert and Simoneau, 1990). Boys are socialized to be assertive, for example, returning blow for blow with a stick. Older men instruct them in war games (p. 131). Some men display deep scars on the shaved tops of their heads from club fights as a badges of endurance, courage, and fierceness (p. 52).

*Unokais* are adult males who have killed one or more individuals. They have two and a half times as many wives, and three times as many children. In other words, males who kill more people also have greater reproductive fitness. Chagnon implies that this is the pattern for Yanomamo in general, ignoring here the matter of variation that he discussed earlier. Moreover, *Chagnon asserts that this may be the pattern in the history of the human species as a whole*, but without citing any scientific evidence to substantiate such a claim (p. 205). However, Chagnon also mentions that males with a reputation for being fierce are sometimes killed before other males in a village, thereby leaving the village weakly defended (p. 195).

Chagnon identifies “a graded series of of aggressive encounters” from duels (chest-pounding, side-slapping, club fighting, and ax fighting) to raids. The treacherous feast in which several invited guests from another village may be massacred is another type of aggression. Another form is to shoot a volley of arrows into a village hoping to hit someone (pp. 185-189).

The main objective of lower levels of aggression seems to be to injure the opponent without drawing blood or killing him, and then withdraw from the contest. Thus, for example, the flat blade of a machete or axe is more likely to be used than the cutting edge. However, sometimes injuries are so severe that an individual dies. Also, the aggression may escalate to higher levels (p. 186).

Chagnon describes the raid: “The objective of the raid is to kill one or more of the enemy and flee without being discovered. If, however, the victims of the raid discover their assailants and manage to kill one of them, the campaign is not considered to be a success, no matter how many people the raiders may have killed before sustaining their single loss” (p. 189). Capturing women is a desired side benefit of a raid (p. 189). One village was raided approximately 25 times over the 15 months during Chagnon’s first fieldtrip (p. 9).

Ten is the smallest number of raiders that can be effective (p. 202). When raiders approach an enemy village to stage an ambush they divide into subgroups of four to six individuals and then work in relays, one subgroup ambushing some individual from the village around dawn as they come down the

main trail to fetch water at the river or perform some other morning routine. Then the raiders flee, and some split into a subgroup to wait in ambush for any males from the village that chase after them (p. 198). Most of the time the raiders manage to ambush a single individual, kill him, and retreat before they are discovered. This is considered to be the most desirable outcome of a raid" (p. 199). However, raiders will not attack a large well-armed group as they guard others leaving their village for their early morning activities (p. 199).

Feasts where one village invites another to visit, feast and trade usually cultivate friendly relationships and alliances thereby reducing duels and more serious forms of violence. However, of the six feasts that Chagnon witnessed during his first 18 months with the Yanomamo, two ended in fighting (p. 183).

A *himo* may be used in a club fight, a special palm-wood weapon made for that purpose with a sharp pointed end that can be used to spear if the fight escalates (pp. 106-107, 187). Chagnon mentions "war arrows" as lanceolate bamboo points coated with curare drug, but he does not describe these as distinctive from those used in hunting prey animals (pp. 49, 66, 181). Villages at war may also erect a defensive wooden wall or palisade around the back perimeter of their communal shelter (pp. 59, 194). The entrance of the village may be sealed off at night to make it more difficult for any intruders (p. 132). In addition, barking dogs serve as an alarm to alert villagers about the approach of strangers who may be raiders (p. 59).

Chagnon devotes a whole chapter to discussing alliances in general, next a particular feast in dramatic detail, and then the chest-pounding and side slapping duels, all against the background of intervillage hostilities and histories. Allies provide a safety net for up to a year when fissioning of a village occurs and the resulting refugees need a safe haven with food before their new gardens are productive (p. 159). The forest cannot supply sufficient wild foods to allow a large group to be sedentary; they depend on garden produce. However, a smaller group is vulnerable to hostile others (p. 160). Because of the risk of being driven from their gardens, no village can exist in isolation without some sociopolitical alliances with other villages as recourse for food and shelter (p. 160).

Chagnon asserts that there is no simple single cause of aggression within and among Yanomamo communities; instead, a somewhat different combination of factors may act in synergy varying in space and time with particular circumstances. The main proximate causes of fights among men within and between villages are women, including extramarital affairs, accusations of sorcery causing a death, and theft of food, although theft accusation is often aimed at provocation (p. 186). Chagnon rejects animal protein scarcity as a causal factor in Yanomamo aggression (pp. 91-97). [See Chagnon

(1997a: 93) and Sponsel (1986a, 1998: 100-101) for leads to most of the pertinent literature on the animal protein hypothesis. Also see Good (1989; 1995a, b) and Harris (1984). Wilbert (1972: 15) anticipated the animal protein hypothesis as an explanation of Yanomamo aggression.]

Yanomamo society is male dominated. Sex is a common motif in the oral literature of Yanomamo culture (p. 103, cf. Wilbert and Simoneau, 1990). Most fighting within a village stems from sexual affairs and failure to deliver a promised woman (pp. 7, 79). Competition for women stems in large part from the combination of preferential female infanticide and polygyny. Female neonates are more likely to be killed than male ones when a woman has another nursing infant to support. Preferential female infanticide leads to an unbalanced sex ratio which would otherwise be nearly the same; that is, about as many males as females in the population. Instead, there are more males than females in the population (pp. 94, 97). The imbalance is further aggravated by polygyny as some males have more than one wife. An extreme example is Matakuwa who had 11 wives and 43 children (p. 208). One result of competition among men for female mates is the role of women in exchange between villages (p. 160). Sometimes females are also abducted in a raid. Indeed, when raiding is a serious threat, women always leave the village with the danger of being abducted in their minds, and they may be guarded by men with one of their arrows already set in their bow ready for defense against any potential ambush by raiders (pp. 126, 129).

In general, the Yanomamo consider almost any death not caused by observing some kind of physical aggression to be the result of spiritual aggression. Furthermore, in principle, deaths require revenge by the closest relatives and allies. Thus, death from illness also fuels the cycle of blood revenge. This may be aggravated by introduced disease and epidemics from Western contact, a fact that Chagnon appears to downplay.

Apparently Chagnon has a deep understanding of intra- and inter-village sociopolitical dynamics; however, clearly he interprets these principally in terms of aggression (p. 79). He observes that villagers have to find a balance between village size for defense and village size growth which inevitably generates tensions, conflicts, and eventually violence (pp. 76-77). He notes that "... intervillage warfare was an indelible force that affected village size and village distribution..." (p. 31). The larger the village, the more fighting that occurs (p. 188). Villages are rarely able to exceed 300 individuals without fissioning into smaller new villages because of increasing tensions, conflicts, and violence (p. 152). The violent death of someone through aggression within a village leads to fissioning (p. 77).

Communities based solely on kinship cannot be maintained when they increase to a size of around 300. To hold a larger community together it needs to develop a new organizing principle, such as lineages or clans, or greater political authority, and the Yanomamo do not have such principles. In addition, a larger community would need more formal conflict resolution mechanisms. Chagnon mentions that the largest village is 400 (p. 211), although in the final chapter on cultural change he mentions that some mission villages range up to 600 Yanomamo (p. 229).

What Chagnon identifies as macro movements are motivated by politics and warfare, and he asserts that they must be understood in that context. The initial phase of a macro move is a response to the recognition of the potential of some killing, if people continue to reside in the same village (p. 75). A macro move may also be initiated in response to chronic raids by an enemy with their cumulative death toll (p. 76). Villages within walking distance of one another have to be either allies or enemies because neutrality is not an option (p. 185). The physical size of a communal dwelling is even related to warfare in terms of the space needed to house guests who are allies (p. 58). However, other factors may also influence movement, such as the presence of another indigenous culture, the Yecuana, epidemics, and the attraction of missions for trade goods, medical care, schooling, and security (pp. 63-64).

Chagnon asserts that there is a population explosion among Yanomamo (p. 64), and that a "demographic pump" is pivotal in helping to explain warfare (p. 89). This relates to growth in village size beyond the upper limit of around 300, and also to maintain intervillage spacing to exploit needed natural resources and to keep distance from enemies. [However, it should be noted that village size and population growth does not necessarily generate aggression among other indigenous societies (e.g., Sponsel, 1986b; Thomas, 1982).]

Yanomami male personalities vary in fierceness and bravery (pp. 25-31). An especially aggressive personality and also leadership style can be important determinants of the frequency of different levels of aggression within and between villages (pp. 191, 212-213). The personality of an individual male can generate or reduce violence. In particular, a headman may be a valiant warrior as well as a peacemaker, depending on the specifics of a situation. But Chagnon asserts that "Peacemaking often requires the threat or actual use of force, and most headman have an acquired reputation for being *waiteri*: fierce" (p. 7). In some circumstances, a man can be fearful and avoid conflict. For instance, one of Chagnon's guides, Bakotawa, abandoned him and took his canoe to return home because of fear of an enemy village that Chagnon wished to visit in his research (pp. 36, 41).

There is a whole other dimension of aggression among the Yanomamo and that is very important to them. Chagnon alludes to it repeatedly, but does not pursue it in any depth. Physical aggression, including raids, can be generated by a belief that an enemy shaman from another village has caused death within one's own village (pp. 55, 70, 97). The religious component of Yanomamo culture and aggression might have been documented in much more detail, given its importance for Yanomamo (cf., Good, 1997; Lizot, 1985: 85-137; Peters, 1998: 151-161; Rifkin, 1994: 302-306, 310, 318; Wilbert and Simoneau, 1990). (For Chagnon's brief comments on shamanism and spirits see pp. 113, 116-119, 128, 131, 133, 196, and 216.)

### Nonkilling

From Chagnon's ethnographic observations and interpretations as briefly summarized above it is clear that the Yanomamo are a killing society. Or, are they? Is aggression ubiquitous through space and time? The present author's answer is that, like many societies, while there are killers among the Yanomamo, most people do not kill. There are several reasons for this which are also embedded in Chagnon's ethnography, but not highlighted by him as of any significance.

First, there is the fact that Yanomamo villages lack food surplus, social specialization, and authority, and thus they lack anything that comes close to the common meaning of a military institution, unlike chiefdom and state sociopolitical systems. As Chagnon observes: "Much of the daily life revolves around gathering, hunting, collecting wild foods, collecting firewood, fetching water, visiting with each other, gossiping, and making the few possessions they own...." Men hunt almost daily (p. 5). In many villages there are several shamans who almost daily use hallucinogenic drugs to communicate with their spirits (p. 118). A feast for allies from another village requires a week of hunting in order to accumulate a sufficient quantity of meat for guests, and a day of preparing a banana soup as well, plus a surplus of ripe bananas from the gardens (pp. 170-173). Chagnon states that many activities do not really vary much seasonally (p. 133). Raiding can detract attention from the necessities of everyday survival and it can become intolerable to the point of necessitating a move to gain a modicum of peace and security (p. 76). *If the above factors are taken into consideration, then it would appear that the daily routine in which Yanomamo are usually engaged to sustain their lives is simply incompatible with any regular aggression at any level.* In this regard, a systematic and detailed time allocation study would be re-

vealing to determine the time invested in different activities during the annual seasonal cycle, but such a quantitative inventory is lacking in Chagnon's publications. [See pp. 121-137 for a wealth of detailed information about daily village and social life, and also Peters (1998) and Smole (1976).]

A second factor is demographic. About 30-40% of a village population is comprised of children (p. 247), and children are not killers. Females do not participate in raiding, yet they comprise about half of the population of adults. Elderly males are not killers. Also, if 40% of adult males are killers, then 60% are not. *Clearly the majority of Yanomamo are not killers.* Chagnon (1997: 93) asserts that "The *group* is in a fundamental sense a sum of its *individual* parts." If this is so, then on Chagnon's own terms his characterization of the Yanomamo as "the fierce people" is a gross misrepresentation, because it does not reflect the proportions of killing and nonkilling individuals within Yanomamo society. Of course, the majority of the people even in a society engaged in full-fledged warfare are not killers, but Chagnon's focus on aggression tends to obscure this reality for the less cautious reader. (For demographic data see Chagnon, 1974: 158-159 and Early and Peters, 1990, 2000.)

If 25% of all adult males die from violence, then the remaining 75% of all adult males die from nonviolent causes. Usually women are not killed on a raid, except by accident if a volley of arrows is shot into a village (p. 24). Old women are highly respected, immune to raiders, and can safely serve as intermediaries between enemy villages. They have a unique position in intervillage politics and warfare (p. 126). Therefore, most Yanomamo are not killed by others, but die from diseases and other natural causes. (For some details about the causes of death see Chagnon, 1974: 160.)

A third factor is time, and in particular seasonality. The usual timing of raids is during the dry season and in the early morning hours (pp. 7, 46, 48, 129). The wet season which extends for about six months discourages raiding, among other things because many impassable swamps that inundate the forest in the lowlands require walking around them (p. 194). Also, snakes concentrate in the higher ground to escape flood waters in the forest (pp. 199, 204). In short, what Chagnon calls warfare is a seasonal activity mostly limited to a few months of the year wherever it occurs, and that is not everywhere.

A fourth factor is space. Neighboring villages are usually on at least trading terms and not actively at war (pp. 164, 183). Alliances serve to limit warfare (p. 160). Raiding between villages keeps them widely separated (p. 46). Also, there is far more aggression including warfare in the lowlands than in the highlands. Accordingly, there are extensive areas where relative peace prevails.

A fifth factor is conflict avoidance. Chagnon writes that: "The warfare pattern waxes and wanes in all Yanomamo areas. Years may go by in some regions, such as on the periphery of the tribe, where no intervillage conflicts occur.... Several years might pass without shooting difficulties with some neighboring group, but anything beyond that is not common" (p. 75). Yet one village remained in one area for 60 to 80 years (p. 72).

There are several other hints that at least in some situations some Yanomamo try to avoid conflict. Intervillage alliances provide a safe haven for refugees (pp. 80, 86-87). "The Yanomamo tend to avoid attacking those villages with which they trade and feast, unless some specific incident, such as the abduction of a woman, provokes them" (p. 160). Alliances between villages may stabilize with reciprocity in trading, feasting, and/or women exchange (p. 163). Some villages may retreat into the forest rather than pursue an enemy, and some men may fail to take responsibility to revenge some offense (p. 193). A special ritualistic visitor's pose symbolizes that he has come in peace, but if any host has reason they may shoot him then or not at all (p. 174). Headman Rerebawa sought peace between his village of Mishimishimabowei-teri and the village of Bisaasi-teri (pp. 215, 223). Some in Bisaasi-teri opposed and tried to prevent the ambush of Ruwahiwa (p. 222). A few individuals in the village of Mishimishimabowei-teri helped some of Kaobawa's people escape a massacre (p. 214). Some men avoid or refuse to participate in a massacre during a treacherous feast (p. 166). Some men avoid duels, and a headman opposes escalation of violence to the level of an ax fight (p. 180). Within hours of setting out on a raid some men turn back with excuses like having a sore foot or being sick (p. 198). Males are not always enthusiastic about raiding even though they feel the social pressure of the obligation to avenge the death of a relative (p. 203). A headman may attempt to keep a fight from escalating (p. 188). A headman may order individuals to leave in order to prevent further bloodshed (p. 189). Chagnon himself helped make peace by transporting a headman to another village in his canoe (p. 217). When these scattered points are considered together they undermine the characterization of the Yanomamo as the "fierce people."

A sixth factor is conflict reduction. Chagnon mentions that in some fights between two individuals others seem to join in to balance the sides out of a sense of fairness (pp. 186-187). He writes that: "Indeed, some of the other forms of fighting, such as the formal chest-pounding duel, may even be considered as the antithesis of war, for they provide an alternative to killing. Duels are formal and are regulated by stringent rules about proper ways to deliver and receive blows. Much of Yanomamo fighting is kept innocuous by these rules so

that the concerned parties do not have to resort to drastic means to resolve their grievances. The three most innocuous forms of violence, chest pounding, slide slapping, and club fights, permit the contestants to express their hostilities in such a way that they can continue to remain on relatively peaceful terms with each other after the contest is settled. Thus, Yanomamo culture calls forth aggressive behavior, but at the same time provides a somewhat regulated system in which the expressions of violence can be controlled" (pp. 185-186).

Hallucinogenic drugs that are used in shamanic rituals can also contribute to the violence of an individual. Chagnon notes that ordinarily timid men may become fierce when on drugs, and people try to calm them down because they can become dangerous to others (p. 118). Also, women may apply a magical plant to try to make men less violent (p. 69). Apparently, fierceness is not always positively valued by every Yanomamo.

Chagnon says: "There are also more customary ways to resolve conflicts—each increasingly more violent and dangerous than the previous way" (p. 212). "But their conflicts are not blind, uncontrolled violence. They have a series of graded forms of violence that ranges from chest-pounding and club-fighting duels to out-and-out shooting to kill. This gives them a good deal of flexibility in settling disputes without immediate resort to violence." Also, alliances and friendships limit violence as does intervillage trading, feasting, and marriage (p. 7).

A headman may be engaged in nonviolent conflict resolution, negotiation, peace making, and related initiatives within and between villages to reduce tensions and conflicts or resolve disputes nonviolently, sometimes even intervening in fights or duels, disarming a dangerous individual high on drugs or just out of control, arranging safe conduct in hostile territory, and so on (pp. 134-135).

A man who has killed someone undergoes seclusion for a week during a process of a special purification ritual (p. 200). From Chagnon's description, it appears that killing another human is recognized as something quite extraordinary, personally disturbing to the killer and other villagers, and the aftermath is considered dangerous to the killer. But Chagnon does not elaborate on this matter (cf. Barandiaran, 1967; Grossman, 1995; McNair, 2009: 327, 345).

In conclusion, more than enough has been said about nonkilling based on Chagnon's own ethnography to demonstrate that *killing is not ubiquitous among the Yanomamo*. Furthermore, this raises the possibility that it might well have been very revealing if Chagnon had also considered nonkilling in systematic detail, and, perhaps, even inserted a whole chapter on it in his case study.

## Problems

Chagnon mentions that "Some anthropologists argue that the Yanomamo I have studied are unusual or very different, not representative of the larger population. If the Yanomamo I have studied are 'special' or 'unusual' by comparison to Yanomamo studied by others, it should also be made clear that they represent 25 percent of all known Yanomamo. Until we know how large and representative other samples are, we at least know this one is not an insignificant one." However, while a quarter of a population is an impressive sample size, that alone does not automatically validate any scientific analysis and interpretations. For instance, one of the problems with Chagnon's argument that males who kill more have higher reproductive fitness is the likelihood that they may also be more likely to be killed themselves in revenge and that obviously ends their reproduction. Chagnon does not adequately address this problem (cf. Chagnon, 1997b).

Chagnon notes that at the time of his research there were 250-300 villages, and that each village is somewhat different, although commonalities exist as well (pp. 207-208). Furthermore, he mentions that much of his monograph is about the village of Bisaasi-teri in the Mavaca area, although he also worked in one other village called Mishimishimabowei-teri, and he places these in a larger regional context as well (pp. 2-3). Thus, Chagnon offers one explanation for possible differences in the observations of different researchers among the Yanomamo; namely, geographic and ecological variation within the immense territory of the Yanomamo may be related to large variations in warfare intensity and other forms of violence across regions (pp. xi-xii). Indeed, it is likely that Yanomamo villages in the highlands where there is less violence are more representative of traditional society than the villages in the lowlands where there is more violence and more influence from Westerners.

Another variable may be contact history, no less than 250 years of it to varying degrees (Cocco, 1972; Ferguson, 1995; Migliazza, 1972; Smole, 1976). Although Chagnon portrays the Yanomamo as a largely isolated, uncontacted, and traditional primitive tribal society, especially until the last chapter of his book, he notes that the first missionary, James Barker, had sustained contact beginning in 1951, 13 years before Chagnon first started his fieldwork (p. 3). However, Chagnon asserts that significant cultural change did not begin to occur until the 1990s (pp. ix-x, 1), one of the reasons for the new fifth edition of his book. Yet Brian Ferguson (1995) in a meticulous and penetrating ethnohistorical and ethnological study reveals with substantial documentation that the Yanomamo have been influenced

to varying degrees by external forces for centuries, sometimes directly along the perimeter of their territory, but more often indirectly diffusing inward, especially by Western trade goods and diseases. Thus, Ferguson reaffirms Chagnon's claim that "past events and history must be understood to comprehend the current observable patterns" (p. 1). Had Chagnon himself considered in a scholarly manner the material of others as Ferguson did, then perhaps his characterization of the Yanomamo might be somewhat different. (Also, see Curtis, 2007; Ferguson, 1992a, b; Ramos, 2001; Wright et al., 1999: 367.)

Chagnon mentions assertions by critics that he invented data, exaggerated violence, and so on, and suggests that this may simply reflect researchers working in different areas given the spatial variation among the Yanomamo in terms of geography, ecology, culture, politics, conflict, and contact (pp. 82, 90-91). He writes that: "In Chapter 2 I discussed what is now beginning to look like a major difference in the degree to which violence, warfare, and abductions characterize different areas of Yanomamoland." He asserts: "... the known variations in warfare intensity and fighting over women are so extreme from one region of the Yanomamo to another" (p. 82). In an interview Chagnon states: "No serious scientist has ever doubted my data" (Wong, 2001: 28). (For the controversy over the allegation that Chagnon invented and/or manipulated his data and related problems see Albert, 1989; Beckerman et al., 2009; Carneiro da Cunha, 1989; Chagnon, 1988, 1989, 1990, 1995, 1997b, Early and Peters, 1990; 2000; Ferguson, 1989; Fry, 2006: 184-199, 2007: 135-139; Good and Lizot, 1984; Lizot, 1989, 1994a; Moore, 1990; Ramos, 2001; and Tierney, 2001: 158-180).

The above considerations regarding regional variation, however, do not effectively respond to two of Chagnon's most serious critics. Jacques Lizot (1985) who actually lived with Yanomamo for more than a quarter of a century starting in 1968, and Kenneth Good (1991) who lived with them from 1975-1988. According to Good (personal communication), Lizot's main base for most of his fieldwork was Tayari-teri which is located only about an hour farther up the Orinoco river, depending on water conditions, from Bisaasi-teri which was Chagnon's main base. Good's main village of Hasupuwe-teri was much farther up the Orinoco above the Guajaribo rapids, but he emphasizes that all of the communities are the same Yanomamo. Furthermore, spatial variation among Yanomamo does not explain why *almost all anthropologists who have worked extensively with the Yanomamo are critical of Chagnon's persistent depiction of them as the "fierce people"* long after he dropped that phrase from the subtitle in the fourth edition of his book. (See Lizot, 1985, 1988, 1994.)

Chagnon's whole emphasis throughout his book and elsewhere is on conflict, violence, and warfare, which can be a legitimate focus for any researcher (Chagnon, 1968a, b; 1996a; Ferguson, 1984; Lizot, 1977; Sponsel, 2000a; Sponsel and Good, 2000). His particular focus may be the result of some combination of factors such as personal and/or professional interests (aggression including warfare), individual personality, preoccupations of American culture and society, and historical context. For example, the first edition of Chagnon's book was published in 1968 during the extremely tragic and controversial Vietnam War. In contrast, French anthropologists like Bruce Albert and Jacques Lizot (1985), Brazilian anthropologist Alcida Ramos (1995), and Canadian anthropologist John Peters (1998) do not concentrate on aggression, although they do not deny by any means that aggression is one element in Yanomamo life, society, and culture. However, other American anthropologists who have worked with the Yanomamo, including Kenneth R. Good (1991) and Gale Goodwin Gomez do not concentrate on conflict, violence, and warfare either. (Incidentally, Chagnon does not mention Good's 1991 book, although he does cite the dissertation of his one-time student.) Accordingly, Chagnon's research focus on the subjects of conflict, violence, and warfare, in contrast to other anthropologists who have spent very substantial amounts of time in the field living with and studying the Yanomamo, some of them far longer than Chagnon, is not simply a product of his cultural, sociopolitical, and historical context alone.

Chagnon points out that high levels of violence and warfare are also found elsewhere as reported by Etorre Biocca (1970; 1996) and non-anthropologists Luis Cocco (1972), Margaret Jank (1977a), Mark Ritchie (1996, 2000), and Helena Valero (1984: 208). (Also, see Dawson, 2006; Jank, 1977b; Lizot, 1985: 141-185; and Peters, 1998: 207-220.) Consider the following data extracted from a careful reading of one of the sources that Chagnon cites as confirmation of his account of Yanomamo, Biocca (1996). This text certainly contains some shocking anecdotal accounts of brutal violence. An analysis reveals 46 episodes of aggression over a period of 24 years, about two annually on average. However, these episodes included only two homicides, six blood feuds, and six raids. Accordingly, Biocca does not provide very strong confirmation for Chagnon's representation of the Yanomamo as the fierce people. Furthermore, Biocca's account is based on the memory of a single informant who was a victim, Helena Valero, having been abducted by the Yanomamo at 11 years of age in 1932 and lived with them for 24 years. Biocca taped her recollections in 1962-1963 and cross-checked them with other informants. However, apparently

Valero was dissatisfied with Biocca's account since she published her own book later (Valero, 1984). Nevertheless, Steven A. LeBlanc (2003:152) and Smith (2007: 12-15) both cite an anecdote of an episode of brutal violence recounted in Biocca's book with the implication that violence and warfare are ubiquitous among the Yanomamo. It would appear that science is trumped by the ideology of the apologists for war. It would be interesting to systematically compare the accounts of Biocca and Valero, and also to compare them with a biography from the Waorani, another Amazonian indigenous society that is also infamous for its violence (Wallis, 1965). However, such comparisons are beyond the scope of this essay.

In the most extensive and sophisticated demographic study of any Yanomamo population, Early and Peters (2000: 230) point out that in the entire 66-year period covered by their research on the demography of the Xilixana Yanomami of the Mucajai River area in Brazil, there were only five raids. That is an average of one raid about every 13 years. They also note that there were no raids during Kenneth Taylor's 23 months of fieldwork among eight villages of the Auaris Sanuma subgroup of Yanomami. Early and Peters (2000: 203) conclude: "The Yanomami do conduct deadly raids, but the stereotype of all Yanomami as engaged in chronic warfare is false and resented by the Yanomami themselves" (cf., Salamone, 1997: 20). Peters lived with the Yanomamo in Brazil for a decade.

Lizot (1985: xiv-xv), who lived with Yanomamo starting in 1968 for more than a quarter of a century and virtually in the same area where Chagnon worked, writes: "I would like my book to help revise the exaggerated representation that has been given of Yanomami violence. The Yanomami are warriors; they can be brutal and cruel, but they can also be delicate, sensitive, and loving. Violence is only sporadic; *it never dominates social life for any length of time*, and long peaceful moments can separate two explosions. When one is acquainted with the societies of the North American plains or the societies of the Chaco of South America, one cannot say that Yanomami culture is organized around warfare. They are neither good nor evil savages. These Indians are human beings" (emphasis added).

Good (1991: 13), who lived with Yanomamo for 14 consecutive years mostly in the same general area as Chagnon, from 1975-1988, writes: "To my great surprise I found among them a way of life that, while dangerous and harsh, was also filled with camaraderie, compassion, and a thousand daily lessons in communal harmony." Furthermore, Good (1991: 73) says: "The more I thought about Chagnon's emphasis on Yanomama violence, the more I realized how contrived and distorted it was. Raiding, killing, and

wife beating all happened; I was seeing it, and no doubt I'd see a lot more of it. But by misrepresenting violence as the central theme of Yanomama life, his *Fierce People* book had blown the subject out of any sane proportion." (Also, see pages 13, 55, 56, 73, 174-175 in Good's book.) Indeed, Good was far more impressed with the relative harmony within the intimate communities of the Yanomamo (pp. 13, 33, 69, 80, 82). It should be possible to reach some conclusion about such issues by pursuing a systematic comparison of the several dozen ethnographies on the Yanomamo; however, this may not be easy because the foci, depth, quantification, and other aspects of the contents of different books are very uneven.

Anthropological filmmaker Timothy Asch (1991: 35) who collaborated closely with Chagnon in most of his Yanomamo films wrote: "'The fierce people,' indeed, you can't call an entire society the fierce people or any one thing for that matter...." Asch (1991: 38) also mentions the "irresponsibly categorized and grossly maligned 'fierce people'." Asch's different view of the Yanomamo are reflected in several short films he made that are available from the Documentary Educational Research such as "A Father Washes His Children." (Also see Asch, 1992.)

The above conclusions coincide with the observation by Bruce Albert, Alcida Ramos, Kenneth Taylor, and Fiona Watson (2001) who have all worked with Yanomamo, the first three for many years: "We have, between us, spent over 80 years working with the Yanomami. Most of us speak one or more Yanomami dialect. Not one of us recognizes the society portrayed in Chagnon's books, and we deplore his sensationalism and name-calling" (Albert et al., 2001). Ramos (2001) even refers to Chagnon's description of the Yanomamo as "character assassination."

Other factors which may explain the differences between depictions of the Yanomamo by Chagnon and almost all other anthropologists who have worked with the Yanomamo include personal differences. Indeed, Chagnon himself recognizes that "... the anthropologist's reactions to a particular people are personal and idiosyncratic...." (p. 10). Furthermore, Karl Heider (1997) mentions several reasons why ethnographers may arrive at different perspectives and interpretations about the same culture: someone is wrong; they are observing different subcultures; they are studying the same culture but at different times; and/or they are looking differently at the same culture. Perhaps some of these reasons apply in the case of different anthropologists who have conducted research with the Yanomamo. At the same time, almost all anthropologists who have worked extensively with Yanomamo are in agreement that Chagnon exaggerated and distorted the violence in

Yanomamo society. Even Chagnon's filmmaker, Timothy Asch (1991, 1992), eventually arrived at this same conclusion.

Something else that initially seems to be peculiar about Chagnon's ethnography is his assertion that nonviolent conflict resolution mechanisms are absent among the Yanomamo (p. 211). This is peculiar because such mechanisms are known to be well developed in numerous and diverse other sociocultural systems (Bonta, 1996; Fry and Björkqvist, 1997; Kemp and Fry 2004). Perhaps Chagnon simply wasn't interested in them, or just didn't look for them among his Yanomamo. But this is not necessarily unusual. Researchers and others tend to pay far more attention to killing than to nonkilling in many contexts, marginalizing nonviolence while privileging violence (e.g., Evans Pim, 2009). In trying to understand violence it might well be revealing to also consider nonviolence, as for example, why some men do not join raids or engage in other forms of aggression in Yanomamo society.

As Jacob Pandian (1985: 104) astutely remarks in a discussion about the Yanomamo: "In other words, the social and cultural reality constructed by the anthropologist is actually a portrait of his own psychological reality, as dictated by the ideas that are considered meaningful to him and his audience." (Also see Ramos, 1987; 2001.) Accordingly, further discussion of Chagnon's personality is merited here (cf. Dyer, 2006; Irons, 2004).

Chagnon's first person accounts of his ethnographic experience reveals his remarkable persistence, stamina, and courage in facing many difficult challenges, hardships, and dangers throughout the 60-63 months of actual fieldwork during some 25 fieldtrips stretching over a period of approximately about 30 years. Chagnon says that he risked his life, and it was endangered on several occasions (pp. 42, 209, 254-258). He learned to defend himself fiercely to gain respect (p. 17-19). Given the nature of his research problems, he needed to collect detailed genealogies which is extremely difficult and can even be dangerous in a society in which it is taboo to mention the personal names of individuals and especially deceased persons (cf. Wilbert, 1972: 51). Chagnon describes how he ignored Yanomamo customs and etiquette in pursuing personal names in spite of the taboo (pp. 13-21, 251-252). Also, he learned to manipulate and deceive informants to collect accurate genealogies (pp. 22-25). Chagnon mentions that the Yanomamo are not always truthful (pp. 221-222) and that he himself has lied in dealing with them (p. 252). He also states that among the Yanomamo "Strategically deployed, deception and self deception are survival enhancing social tools" (p. 222). [See Chagnon (1974) for more details about his field methods.]

Chagnon's personal presence throughout his book holds the attention of readers and helps to understand his fieldwork methods and experiences, an approach reminiscent to some degree of postmodernist reflexivity. Indeed, Chagnon is unusually candid in his book. For instance, he mentions that he facilitated a raid by providing transportation for ten raiders in his motorized canoe (pp. 201-202). However, it may be a weakness in revealing some of his ethical misconduct which an extraordinary number of individuals have questioned on that and other grounds (Albert, 2001; Albert and Ramos, 1989; Begley, 2000; Booth, 1989; Borofsky, 2005; Carneiro da Cunha, 1989; Chagnon, 1974, 1995, 1997b; Coronil, 2001; Davis, 1976; Fischer, 2001; Fluehr-Lobban, 2002; Geertz, 2001; Good, 1991; Gregor and Gross, 2004; Horgan, 1988; Hume, 2010; Johnston, 2010; Landes et al., 1976; Mann, 2001; Miller, 2001; Monaghan, 1994; Nugent, 2001; Padilha, 2010; Rabben, 2004; Ramos, 1987, 2001; Rifkin, 1994; Robin, 2004; Sahlins, 2001; Salamone, 1997; Salzano and Hurtado, 2003; Sponsel, 1998, 2010b; Sponsel and Turner, 2002; Stoll, 2001; Tierney, 2000, 2001; Time, 1976; Terrence Turner, 1994, 2001; Trudy Turner, 2005; Whiteford and Trotter, 2008: 5, 40; Wilson, 2001; Wolf, 1994; Wong, 2001).

Chagnon tries to take much of the credit for the visibility of the Yanomami that helped gain them recognition and assistance during the 1980s massive and catastrophic invasion of illegal gold miners into their territory in Brazil. Chagnon credits his publications and films with making the Yanomamo known to the world, although he admits that publications of other "knowledgeable anthropologists" contributed to their "international visibility" (p. 232, also pp. 253, 259, cf. 1997b). While Chagnon's books reached American audiences, Lizot (1976a, 1978) reached audiences in France and in Spanish speaking countries like Venezuela. Moreover, as mentioned previously, there is a long history of numerous and diverse anthropological accounts of the Yanomami extending back into the early 19th century. In addition, Chagnon discusses his personal heroism again in connection with the investigation of the massacre of Yanomamo by gold miners at Hashimu. However, he avoids mentioning the controversy that surrounded his role in the inquiry including being expelled from Venezuela by a judge and military officials on September 30, 1993 (Stoll, 2001: 37), even though he cites some of the literature in a footnote albeit without providing complete citations in the bibliography (pp. 233-235).

Chagnon concludes his book with the assertion that: "The Yanomamo are now a symbol for all tribesmen and their habitats, everywhere" (p. 259). However, many readers may not be clear about precisely what the Yanomamo actually symbolize in Chagnon's ethnography other than Hobbesian savages. In using his case study among others in teaching various anthro-

pology courses for more than three decades it is clear to the present author that the main message which most readers acquire on their own reading is that the Yanomamo are Hobbesian savages who would be better if civilized (cf. Sponsel, 1992, 1994a). Another message is that as primitives the Yanomamo reflect the inherent aggressiveness of human nature (cf. Sponsel, 1996a, 1998, 2009). In short, without the benefit of informed and critical analysis this book may simply reinforce preconceived American cultural stereotypes and ethnocentrism. This is serious, because through the five editions that have been commonly used in anthropology courses since 1968, several million students have been exposed to what the Yanomamo symbolize for Chagnon.

The American cultural mindset appears to be influencing Chagnon's conceptual framework. In his ethnography about the Yanomamo he uses concepts reflecting American militaristic ideology such as credible threat and peace through strength (p. 158). A cold war mindset with its nuclear weaponry for mutually assured destruction as a credible threat to sustain peace between superpowers is mirrored in Chagnon's view of intervillage politics, as for example, when he mentions the "politics of brinkmanship," bluff, intimidation, and detente (pp. 160-161, 216). It appears that his conceptual framework is not totally devoid of ethnocentric conceptualizations and interpretations of the Yanomamo, although the same could be said of many other ethnographers. Science is not ahistorical, acultural, apolitical, and amoral, no matter how much one may attempt to be neutral and objective or claim to be so (e.g., Holmes, 2008).

Chagnon's (1996, 1997a) use of the concepts of war, peace, and military are problematic as well (Lizot, 1994b). The nature and scale of aggression among the Yanomamo include raids and massacres, but they hardly merit the designation of war, except by the broadest definition as a potentially lethal conflict between two political entities which can be villages in the case of the Yanomamo. Such a vague conception of war almost renders it a cross-cultural universal which is counter to the overwhelming bulk of evidence (e.g., Fry, 2006, 2007; Kelly, 2000; Sponsel, 1998: 106-109). Intervillage raids among the Yanomamo are more reminiscent of the famous blood feud between the extended families of the Hatfields and McCoys in the Appalachian mountains of Kentucky and Virginia from 1882 to 1890 that involved the killing of a dozen individuals (Rice, 1982; Waller, 1988). (For similar cases of blood feuding see Boehm, 1984; Keiser, 1991; Kelly, 2000; and Otterbein, 1985, 1994, 2004).

In the case of the Hatfields and McCoys, "yellow journalism" in the popular press focused on selected fragments of reality thereby exaggerating and sensationalizing them into a myth of savagery although there were

feuds many times worse elsewhere. Some think that Chagnon's ethnography was a similar distortion, including most anthropologists who have spent any length of time working with the Yanomamo.

As Good (1991: 44) observes: "The Yanomama, I knew, never engage in anything like open warfare. They think it's absurd to risk your life that way and possibly get a lot of people killed. Instead, a raiding party will sneak up on an enemy village and hide in the bushes overnight, maybe on the trail leading to the village gardens. Then next morning they will wait until someone passes, shoot him, then run off. *No heroics, no single combat, no massed battles.* Just hide, shoot, and run. You accomplish your purpose, and you don't get yourself killed in the process."

In response to Chagnon's (1968a,b) earliest publications on the Yanomamo, Robin Fox (1969) and Elman Service (1968) both questioned his equation of feuding and raiding as warfare. (Also see Fry, 2006, 2007; Sponsel, 1998.) David P. Barash (1991: 32, 82-83) in the first major textbook in peace studies defines war as armed aggression for political goals between or within nation-states involving a military sector separate from a civilian one with 50,000 troops and 1,000 combat dead. However, this definition is too narrow and exclusive for most anthropological students of warfare. What is sorely needed is a systematic and objective typology of warfare and other forms of aggression (Sponsel, 2000; Sponsel and Good, 2000). (Also, see Keegan, 1993: 97, 121; Kelly, 2000: 122-123, 139-142; LeBlanc, 2003: 57; Levinson, 1004: 63-66; Otterbein and Otterbein, 1965; and Smith, 2007: 15-17).

Likewise, Chagnon uses the concept of the military so loosely and carelessly as to be meaningless (e.g., pp. 160-162). The term usually refers to full-time professionally trained armed combatants of a nation state. Levinson (1994: 115) states: "A society is considered militaristic when it engages in warfare frequently; when it devotes considerable resources to preparing for war; when its soldiers kill, torture, or mutilate the enemy; and when pursuit of military glory is an objective of combat." (See also Eckhardt, 1973.) The Yanomamo do not conform to the normal conception of the military. Furthermore, among the Yanomamo, there is nothing comparable by any stretch of the imagination to the military of the Venezuelan state based in the vicinity of some of their communities (Chagnon, 1997a: 238). But reference to war and military among the Yanomamo connects Chagnon's work with the broader discourse on these subjects, thereby lending him notice and prestige. (On American militarism see Andres, 2004; and Hedges, 2002.)

The negative concept of peace is implicated in Chagnon perspective; namely, peace is no more than the absence of war (pp. 168, 216). Adherence

to such a simple and myopic concept of peace may help explain why Chagnon focuses on killing to the neglect of nonkilling in Yanomamo society. However, *peace is not rare, it is just rarely studied*, contrary to Chagnon in the case of the Yanomamo, and also to some of his partisans like Thomas Gregor more generally (1996:xii-xiv, cf., Sponsel, 1996a). As Kelly (2000: 75) observes: "Warfare is not an endemic condition of human existence but an episodic feature of human history (and prehistory) observed at certain times and places and not others." Furthermore, empathy, cooperation, and altruism are no less a part of Yanomamo character than they are part of animal nature in general (Bekoff and Pierce, 2010; Good, 1991). [For further explication of the distinction between negative and positive peace see Sponsel (1994b: 14-16), and for an elaboration of the problems with Chagnon's conceptual framework regarding warfare, military, and other concepts see Sponsel (1998).]

In Yanomamo society women appear to be passive rather than active agents, only laborers, producers of children, sex objects, and items of exchange (Chagnon, 1997a: 210). Yanomamo culture is "decidedly masculine—male chauvinistic" (p. 122) and Chagnon is male; thus, these two factors may help explain why he has relatively little to say about the role of women in intra- and inter-village politics among other matters related to gender. Nevertheless, some anthropologists have accused him of male sexist bias (Tiffany and Adams, 1994, 1995, 1996). Research is sorely needed on all aspects of women in Yanomamo society, culture, economy, politics, violence, and nonviolence. For instance, Chagnon does not consider the reproductive fitness of women, only that of men.

Evolution as cumulative change through time is certainly a scientific fact, but evolutionism is a political ideology; that is, viewing so-called primitive cultures as survivals from some prior stage of cultural evolution (e.g., Fabian, 1991). When Chagnon asserts that Yanomamo reflect some aspects of "our entire history as humans" (p. 154), he is not referring to cross-cultural or pan-human universals shared by humanity. Instead he is referring to the Yanomamo as representing an earlier stage of cultural evolution rather than merely an alternative lifestyle among our contemporaries. Obviously Chagnon views the Yanomamo as some kind of primitive survivals from the Stone Age; that is, foot Indians with minimal horticulture at an early stage of the Neolithic (p. 45, cf. Wilbert, 1972). He mentions the term primitive throughout his book (pp. 5, 10, 11, 19, 31, 79, 121, 139, 144, 145, 164, 211, 243, 247, 248). However, the concept of primitive was challenged as derogatory stereotyping and went out of fashion among professional anthropologists several decades ago, unless very carefully qualified in special contexts (e.g., Montagu, 1968; cf. Roes,

1997). One of Chagnon's collaborators, James V. Neel (1970), also viewed the Yanomamo as "primitive," as did Wilbert (1972: 4, 13-15). However, Chagnon (1997) persists in applying the term in the fifth edition of his book (cf. Fabian, 1991). The Yanomamo are not anachronistic, but Chagnon's continuing use of the term primitive is (Wong, 2001: 26-28). Nevertheless, this adds to the attraction of his book for many naïve readers (cf. Chagnon, 1973, 1997b; Fischer, 1969). Yet using the term primitive without appropriate qualification in the media may serve to reinforce negative stereotypes of the Yanomamo held by the general public (Wong, 2001: 26-28).

Chagnon has spent a total of 63 months (p. viii) or 60 months (p. 1, 8) actually living with Yanomamo during his field research, this stretched out over a period of about 30 years (p. vii, xii). He made 20 (p. 8) or 25 (p. viii) separate fieldtrips, and visited some 60 villages (p. 27). Chagnon says that "... I have been studying the Yanomamo now for nearly 30 years" (p. 204), states that he has been studying the Yanomamo for 32 years (pp. 248, 257), and claims that he has "25 years of field data" (p. 213). Whichever the correct numbers, given the nature of his research Chagnon has likely visited a greater number of villages than any other field researcher. However, his fieldwork was curtailed during various periods by the refusal of the Office of Indian Affairs of the government of Venezuela to issue further research permits. Chagnon (1997b: 101) attributes curtailment during 1975-1984 to professional jealousy and nationalism of Venezuelan anthropologists. However, many Venezuelan anthropologists have their own achievements that are widely recognized nationally and internationally, thus no reason to be jealous. In addition, any Venezuelan nationalism did not prevent other foreigners from conducting long-term field research in the Amazon, such as the American Kenneth R. Good and the Frenchman Jacques Lizot. In short, it is likely that other reasons were involved for the Venezuelan government's refusal of his application to return to the Yanomamo. The government rejected his applications at least three times (Wong, 2001: 27).

Chagnon asserts that he has studied 25% of his estimated some 20,000 individuals among the Yanomamo (p. 83). At the same time, he writes that: "Only two of the seven population blocs shown in Figure 2.14 are the focus of most of the discussion in this book...." (p. 80). He resided mainly in two communities, Kaobawa's village of Bisaasi-teri (pp. 3, 83-84), and to a much lesser degree Mishimisimabowei-teri (p. 209). Both of these two villages are within the sphere of contact influences from missionaries and other Western forces, and were so even before Chagnon started. The Venezuelan Malaria Control station was located near the Mavaca mission for over 25 years (p.

246). Bisaasi-teri was a base of the New Tribes Mission, and a Salesian mission was directly across the river (Kenneth R. Good, personal communication). Chagnon emphasizes the necessity to not limit ethnographic observation to one community at a single point in time (p. 207). However, he initially spent some 15 months in the village of Bisaasi-teri (p. 208). [For more on the context of Chagnon's fieldwork, see Cocco (1972) and Ferguson (1995: 277-306).]

Another dimension of his research sample is his recognition of five distinct ecological zones within the territory of the Yanomamo (pp. 83-88). Moreover, he asserts that: "These ecological and geographical differences seem to lie behind social, political, demographic, and historical differences when villages from the two areas are compared" (p. 87). "The most startling difference is the degree to which violence and warfare—and the consequences of these—distinguish highland and lowland groups from each other. Warfare is much more highly developed and chronic in the lowlands. Men in the lowland villages seem 'pushy' and aggressive, but men from the smaller, highland villages seem sedate and gentle. Not unexpectedly, alliance patterns are more elaborate in the lowlands and dramatic, large, regular feasts are characteristic, events in which large groups invite their current allies to feast and trade. Larger numbers of women in the lowland villages are either abducted from or 'coerced' from weaker, smaller neighbors—including highland villages.... In addition, fewer of the adult men in the highland villages are *unokais*, i.e., men who have participated in the killing of other men...." (p. 87). (Also, see pp. 88-91.) But these zonal differences are not systematically, quantitatively, and statistically demonstrated; he offers mostly qualitative assertions instead (Table 2.1, p. 88). Regional differences need to be far more carefully pursued and documented. For instance, Chagnon suggests that resources in the highlands are less abundant than in the lowlands, thus perhaps protein capture from animal prey may be more of a problem in the former (p. 94).

Chagnon depicts Yanomamo as traditional primitives little influenced by external forces, yet he was led into his first village called Bisaasi-teri by missionary James P. Barker who started in 1950 (p. 11) or 1951 (p. 3), and had lived there for five years (p. 11). The Venezuelan Malaria Control Service had their first permanent field station next to the village and had been in the area for decades (p. 17). He arrived in the village shortly after a serious fight and was confronted by men with drawn arrows (pp. 11-12). He set up temporarily in Barker's hut (p. 13) and Bisaasi-teri remained his base of operations for many years (p. 17).

Chagnon notes that it is difficult to generalize about contact because there is much regional variation in its degree and kind (p. 228). He mentions that Kaobawa's community, Bisaasi-teri, had direct contact with missions for over

four decades by the time of the fifth edition of his book (p. 228). He identifies gradual change in contrast to catastrophic change. But, other than a page or so on gold miners, he focuses almost exclusively on the impact of the Catholic Salesian missionaries, and affords almost no consideration to the Protestant New Tribes missionaries. He discusses mainly the impact of guns from the Salesians on raids of weaker villages and on diseases from contact, especially in intermediate villages that are not isolated, but do not have regular access to medical care from the missions. It becomes obvious that the Salesians and Chagnon have some kind of dispute (pp. 257-258). [Also see Capelletti (1994), Salamone (1997), Tierney (2001: 315-326), and Wong (2001: 27). In 1974, Chagnon released films on both of the missionary organizations, "Ocamo Is My Town," and "New Tribes Mission" (pp. 271-272).]

Yanomamo village size at missions varies from 400-600, a result of the missionization process of centralization for access and administration, plus the attraction of the Yanomamo to missions for trade goods, medical care, schools, and security (p. 229). Warfare is diminishing in the vicinity of missionaries because shotguns afford an advantage against any potential raiders. However, guns may also be used by Yanomamo living in or close to missions as an advantage to raid more distant villages (pp. 238-239). In 1964, there were no shotguns in Mavaca, but by 1975 missionaries had introduced them to some members of at least 8-10 villages and this impacted on warfare patterns (p. 60). [Note that ten villages is a fraction of the estimated total of 360 villages in Yanomamo territory]. Chagnon is preoccupied with the introduction of guns by the missionaries as complicating Yanomamo aggression (pp. 190-191, 204, 215, 224, 226) (cf. Chagnon, 1996b; Ferguson, 1995; Tierney, 2001: 18-35).

Chagnon uses quantitative data and graphs to reveal that the Salesian missions are responsible for disease and deaths, up to 25% in some of 17 villages, but he doesn't consider Protestant missions (pp. 234-254). He writes that: "Contact with foreigners at the Salesian Mission in Venezuela is the most likely explanation of the higher mortality patterns in these groups" (p. 250), and that "we [Westerners] initiated contacts and brought new sickness" (p. 258, cf., Tierney, 2001: 53-82, 334-337).

The forces of culture change or acculturation are mentioned throughout the book. Crude clay pots were still used in 1965, but were replaced by aluminum containers from Western trade by the late 1970s (pp. 49, 172). Matches replaced wooden fire drills (pp. 50-51). Airplanes were rare until after 1964 (p. 101). Chagnon says that we [Westerners] caused the Yanomamo to crave trade goods (pp. 16-19, 242, 250, cf., Ferguson, 1995).

Culture change raises the question of just how traditional were some of the Yanomamo communities that Chagnon visited, and especially his main village of Bisaasi-teri which is the basis for much of his case study. Ferguson (1995) has argued in a meticulous systematic survey of ethnohistorical and ethnological literature that the society that Chagnon views as engaged in primitive, endemic, and tribal warfare has been influenced directly on the periphery of its territory and indirectly in the interior by Westerners of various kinds for centuries. For instance, the first European contact with Yanomamo appears to have been in 1787 with the Portuguese Boundary Commission. (Also see Chagnon, 1996b; Chernela, 1997; Cocco, 1972; Ferguson, 1992a, b, 1995; Migliazza, 1972; Peters, 1998.)

Ferguson raises the possibility that at least some of Yanomamo aggression is a product of contact influences, especially competition for trade goods. In a whole chapter on Chagnon, Ferguson (1995: 277-306) even notes that the aggression in the areas where he worked may be influenced by his distribution of trade goods. But in his book Chagnon only mentions Ferguson in a footnote of one sentence (p. 208, cf. Chagnon, 1996b). Again, perhaps Chagnon's focus in his book on the Salesians is an attempt to deflect attention from Ferguson's critical analysis and its ethical implications. [For another example of Chagnon's response to critics, and to Ferguson in particular, see Curtis (2007).]

The use of literature that fits one's observations and interpretations, and the avoidance of literature that does not is a common tactic of an advocacy argument, but does not advance science and scholarship. For example, Chagnon's critique of the animal protein hypothesis formulated by Marvin Harris (1984) to try to explain aggression among the Yanomamo totally ignores the dissertation by Good (1989) even though it directly addresses that very issue. He only cites that dissertation in a completely unrelated matter (p. 230). Also, he ignores Good (1995a,b), and Good and Lizot (1984).

In discussing the illegal invasion of gold miners into Yanomamo territory in Brazil in the 1980s, Chagnon ignores the critical role of the Pro-Yanomami Commission, the Yanomami Commission of the American Anthropological Association, Survival International, and other organizations (pp. 231-233). In discussing the controversy surrounding the investigation of the massacre of Yanomamo by gold miners at Hashimu Chagnon cites four publications including those of three critics in a footnote, but the full citations are not provided in the bibliography (p. 234). He does not cite an important report on the massacre by the French anthropologist who was part of the official investigation team, Bruce Albert (1994). (Also see other documentation by Ramos et al., 2001; Rocha, 1999; and Turner, 1994.) The reader begins to wonder

how much other relevant information is ignored in Chagnon's book and other publications. (On the tragic consequences of the mining invasion in Yanomamo territory see Albert, 1994; Berwick, 1992; Pro-Yanomami Commission; Rabben, 2004; Ramos, 1995; Sponsel, 1979, 1994a, 1995, 1996b, 1997, 2010c; Survival International, 2010; Tierney, 2001; and Turner, 1991.)

There is also selectivity in quantification. Chagnon's use of quantification and statistical analysis is uneven, not always systematic and clear. For example, he mentions that: "At this time the Patanowa-teri were being raided by a dozen different villages" (p. 135) Also, Chagnon mentions "... the several clubs fights that took place while I was in the field on my first trip...." (p. 136). Episodes of fighting are described throughout the book with varying degrees of detail, but often in anecdotal fashion; for example, "Club fighting is more frequent in large villages..." (p. 188). Again, "The Patanowa-teri then became embroiled in new wars with several villages...." (p. 192). In one year at least eight individuals were killed by raiders. The Pantanowa-teri were raided 25 times during Chagnon's initial fieldwork (p. 194). Chagnon writes that sporadic intervillage raiding may endure a decade or more (p. 204). In addition, serious physical abuse of a wife appears to be rather common among the Yanomamo. Wife abuse occurs, including beating, serious injuries, and even killing (pp. 124-126, 135). In short, Chagnon's quantification of phenomena is not systematic, thorough, and precise; some numbers are specified while others are not. *It is impossible to obtain a clear idea of the frequency and intensity of each of the different levels in the hierarchy of aggression for a single village during a particular period of time, even for the most studied village of Bisaasi-teri, this in spite of Chagnon's apparent wealth of knowledge and data. This belies Chagnon's seeming scientific rigor including instrumentation for measurements and for some subjects statistical and computer analysis. Numbers are magic to many readers in the sense that they impart the appearance of real science, but this can be deceptive. (Also, see Chagnon, 1974; and his films "Yanomama: A Multidisciplinary Study" in 1971, and "A Man Called Bee: Studying the Yanomamo" in 1974.)*

The Yanomamo also need to be considered in cross-cultural perspective (Sponsel, 1998: 109-110). Types of aggression that are present among the Yanomamo are found in the following percentage of societies for various sample sizes: violence as a means of solving problems (54%), female infanticide (17%), wife beating (84.5%), bride raiding (50%), rape (50%), anger and aggression over the death of a loved one (76%), blood feuding (53.5%), village fissioning (78%), and sorcery as a cause of illness and death (47%) (data extracted from Levinson, 1994). Types of aggression that are rare to absent in

Yanomamo society but found in a percentage of other societies for various sample sizes include physical punishment of children (74%), suicide (47%), geronticide (25%), capital punishment (96.2%), human sacrifice (17%), cannibalism (34%), internal warfare (67%), external warfare (78%), and torturing enemies (50%) (data extracted from Levinson, 1994). Thus, from a cross-cultural perspective the Yanomamo are not such an extraordinarily violent society.

Chagnon's violentology with its distorting focus on the Yanomamo as essentially a killing society, and the problematic nature of some of his fieldwork, data, analysis, and interpretations raise another very serious issue. His "fierce people" characterization of the Yanomamo is parroted by many apologists for war and others as reflecting primitive tribal warfare and even human nature in general. Logically, either the authors who uncritically broadcast Chagnon's work to an unsuspecting public are ignorant of the broader literature on the Yanomamo and the criticisms of other anthropologists with extensive experience among the Yanomamo, or they purposefully ignore them. In either case, their indiscriminant use of Chagnon's construction of the Yanomamo as the "fierce people" does not reflect quality science and scholarship. Considering that the criticisms of Chagnon's work have been made for decades by numerous and diverse anthropologists, many of them Yanomamo experts (Sponsel, 1998: 114), one might well suspect that the apologists for war utilize Chagnon's work simply because it conveniently fits and reinforces their political ideology (cf., Kegley and Raymond, 1999: 20-21, 245; Lewontin, 1993).

Just to mention a few, among the apologists for war who seem to uncritically use Chagnon's work as if it were canonical are Ghiglieri (1999), Keeley (1996), LeBlanc (2003), Smith (2007), Watson (1995), and Wrangham and Peterson (1996). However, even more politically neutral scholars of violence and war also use Chagnon's work indiscriminately (eg., Eller, 2006, Keegan, 1993; Otterbein, 2004). The same applies to the authors of numerous introductory textbooks in cultural anthropology. However, Richard H. Robbins (2009: 291-293, 300-305) is more cautious than most when he recognizes Chagnon's representation of the Yanomamo as Hobbesian. Of course, if the raiding and other forms of aggression which occur in some places and times among the Yanomamo do not merit the term war, then the relevance of Chagnon's work to the apologists for war and the study of war in general is reduced if not eliminated. In any case, some of these scientists and scholars would do well to learn how to distinguish truth and its opposite (Frankfurt, 2005, 2006). They might also consider some of the literature that has been accumulating for decades on the anthropology of peace and nonviolence which most neglect entirely (Bonta, 2010; Howell and Willis, 1996;

Montagu, 1978; Sponsel and Gregor, 1994). (For more on assessing ethnographic texts in general see Atkinson, 1992; and Hammersley, 1990.)

It is unlikely that the apologists for war and others of various persuasions are totally unaware of the criticisms, controversies, and scandals that have periodically erupted around Chagnon's work at least since the mid-1970s (e.g., Landes et al., 1976; Time, 1976). They have appeared not only in specialized scientific and academic publications, but also in the broader public media, including periodicals such as the *Chronicle of Higher Education*, *Guardian Weekly*, *Natural History*, *New York Review of Books*, *Newsweek*, *Scientific American*, *The New Republic*, *The New Yorker*, *Time*, and *U.S. News & World Report*.

The net effect of the publications of Chagnon and his disciples has been to stigmatize the Yanomamo as "the fierce people" focusing attention on their internal aggression and deflecting it from the aggression impacting on them from outside influences, including introduced Western diseases that have repeatedly precipitated devastating epidemics (Sponsel, 1994a, 1997, 2006a, b, 2010c).

Smole (1976: 14-15) writes that: "Unfortunately, most explorers have been unable to appreciate the humanness of the Yanoama. Instead, adventurers helped give them a reputation for being more 'wild' (bravo or salvaje in Spanish), violent, and potentially dangerous than most other Indians of South America. Over the years they have become legendary." The fierce characterization by Chagnon has negatively impacted on the Yanomamo in various ways. As just one example, the famous British social anthropologist, Sir Edmund Leach, refused to lend his name as a sponsor for a campaign by Survival International in London to raise funds to develop educational programs for the Yanomamo in the 1990s (Albert et al., 2001).

In spite of the numerous and diverse problems with Chagnon's work revealed above and in the supporting literature cited, his loyal partisans act as if they believe that only Chagnon is right and instead all of his critics are wrong, an improbable scenario to say the least (e.g., Borofsky, 2005; Gregor and Gross, 2004). This scenario is obviously improbable, given the extraordinarily large number of critics of Chagnon's work, among them many with extensive field experience living and working with the Yanomamo. Chagnon (1997b) and his partisans have attempted to frame his critics as simply a matter of individuals who are anti-science, anti-evolution, anti-biology, postmodernists, or jealous. Any examination of the resumes of the varied critics would not sustain such simplistic attempts at dismissal.

An observation from Linda Tuhiwai Smith (1999: 7-8) applies here: "Research is one of the ways in which the underlying code of imperialism and colo-

nialism is both regulated and realized. It is regulated through the formal rules of individual scholarly disciplines and scientific paradigms, and the institutions that support them (including the state). It is realized in the myriad of representations and ideological constructions of 'the Other' in scholarly and 'popular' works, and in the principles which help to select and recontextualize those constructions in such things as the media, official histories and school curricula."

There is no scientific reason for privileging internal aggression over external aggression from culture contact influences when the latter actually threatens the very survival of the vulnerable population of the Yanomamo, except, perhaps, a lingering colonial mentality fixated on the primitive tribal other and its supposed endemic and chronic tribal warfare. Myths have their uses, ideological and otherwise (cf., Albert et al., 2001). In his critique of Chagnon's work Rifkin (1994: 320) goes to the extreme of asserting that: "This anthropology is, then, not an anthropology at all but a deformed social science in the service of the engineering sciences of destruction." [For the broader Cold War context of Chagnon's research see Johnston (2007), Tierney (2001), and Wax (2008).]

## Conclusions

The Yanomamo are especially relevant to the subject of nonkilling societies because they have been celebrated as the most famous ethnographic case of essentially Hobbesian savages, yet this canonical representation is seriously flawed on many counts as demonstrated above using Chagnon's own main book. *The pivotal point of this whole essay is that thinking in terms of nonkilling can open up an entirely new dimension in studying sociocultural systems, and also it can expose the biases and distortions from whatever source that is focusing so much on killing.* Certainly there is considerable aggression among Yanomamo, there is no doubt about that from Chagnon's documentation and that of many other anthropologists and non-anthropologists. However, killing is not ubiquitous in time and space, and not everyone is a killer, indeed only a minority of the population kills. To generalize in the subtitle of his book, and to persistently characterize them after the subtitle was dropped from the fourth edition as "the fierce people," is a misleading oversimplification and overgeneralization that distorts the nature of Yanomamo daily life, society, and culture. Moreover, this derogatory stereotype may influence others in ways that harm, or at least do not help, the Yanomamo as a vulnerable indigenous population in the Amazon (Chagnon, 1997a, b; Davis, 1976; Lizot, 1976; Martins, 2005; Rabben, 2004; Ramos, 1995; Ramos; Taylor, 1979; Rifkin, 1994).

The nonkilling perspective reveals that the Yanomamo case as depicted by Chagnon is problematic in several respects, and, in turn, *that renders the arguments of the apologists for war who rely on it uncritically problematic as well*. Their reliance on this case without taking into consideration more of the literature including by other anthropologists, and especially critics of Chagnon, is careless scholarship and scientifically unreliable and even misleading. If their use of Chagnon's case reflects the quality of their science and scholarship in general, then the entire edifice of their work may be problematic as well. Ironically, individuals, many of whom purport to be hard core scientists and accuse others of being anti-science, reveal their own work as shoddy, unreliable, and irresponsible. Many are the same individuals who accuse critics of Chagnon's work and advocates of the study of nonviolence and peace of being ideological when their own work evinces ideologically driven bias and advocacy in argumentation. *Most of all, science, scholarship, and society cannot advance by ignoring the largest part of reality in any society; namely, nonkilling* (cf., Paige, 2009; Evans Pim, 2009). Yanomamo sociocultural reality is grossly distorted when this dimension of their life is neglected, and that can have very serious negative consequences for them.

In conclusion, the Yanomamo are neither a killing society nor a nonkilling society, but exhibit some attributes of each, and this varies regionally. Chagnon and his partisans have exaggerated aggression among the Yanomamo to the point of distortion in the view of almost all of the anthropologists who have lived and worked extensively with this society. Ultimately, the Yanomamo are our contemporary fellow human beings with a distinctive lifestyle, not an exemplar of some primitive stage of cultural evolution or of an inherently violent human nature. For cultural anthropologists, the challenge is to document and publicize the humanity of the so-called Other, not to stigmatize and dehumanize them. The former can contribute to peace, the latter to just the opposite.

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