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Yanomami "Violence": Inclusive Fitness or Ethnographer's Representation?¹

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Brazilian anthropologists have recently argued that Chagnon's (1988) work advancing a sociobiologically inspired theory of Yanomami "violence" has been widely disseminated by the Brazilian press to exacerbate prejudice against these Indians and that it has given the government arguments to justify the dismemberment of their lands (see Carneiro da Cunha 1989; see also Albert and Ramos, 1989, Booth 1989, and, for a detailed account of the Yanomami's situation in Brazil, Albert 1989a, b). Chagnon (1989), in response, has said that he reported scientific facts that have simply been misused. I will show that these "facts" are questionable either in themselves or in the context in which they are presented and that the theoretical framework in which they are embedded is riddled with cultural preconceptions.²

Chagnon takes as indicators of the level of violence in Yanomami society (pp. 985, 986-89) the percentage of adult male mortality due to violence (approximately 30%), the percentage of males estimated 25 years of age or older who "have participated in the killing of someone" (44%), and the percentage of adults over an estimated 40 years of age who have "lost a close genetic relative due to violence" (nearly 70%). He also tentatively explains an apparent statistical correlation between the status of "killer" ("unokai") and higher reproductive success (p. 989, table 2) in terms of the greater success of "unokais" in acquiring mates (p. 989, table 3) either by abduction or through their prestige in arranging marriage alliances (pp. 989-90).

First, several comments can be made about the validity of Chagnon's criteria for the assessment of Yanomami "violence":

1. I am grateful to Waud Kracke, Alcida Ramos, Kenneth Taylor, Eduardo Viveiros de Castro, and Robin Wright for their helpful comments on earlier versions of this report.
2. For other criticisms of Chagnon's reification of Yanomami "violence," see Davis (1976), Sponsel (1983, 1985), Ramos (1987), and Lizot (1989).

1. From Chagnon's report that, while Yanomami warfare has recently diminished in most regions because of permanent contact with missionaries and government agents, it is still actively engaged in in the cluster of villages in which he has done field research (p. 986), one gets the impression that the situation in this region is representative of a pristine and pan-Yanomami reality. This, however, is not the case. The Yanomami number about 22,500 (not 15,000), distributed throughout a territory of approximately 192,000 km² in Venezuela and Brazil (see Oficina Central [1985:38] and Colchester [1985:7] for the Yanomami population in Venezuela, Secretaria-Geral [1988:13] for the Yanomami of Brazil). They are linguistically and culturally divided into four subgroups: Yanomami (Chagnon's "Yanomamö"), Yanomam, Sanima, and Ninam (Migliazza 1972). The level of male mortality³ in warfare as calculated from genealogies covering three to five generations (and therefore including mostly deaths prior to intensive and permanent contact with whites) varies significantly among these subgroups: for example, it is 40% among the Shamatari Yanomami (after Chagnon 1974:160, table 4.10) and 14% among the Catrimani Yanomam (Albert 1985:99-100 n. 9). It also varies among different clusters of villages within the same subgroup: for example, among the Yanomami it is 40% for the Shamatari, 24% for the Namoweiteri (after Chagnon 1974:160, table 4.10), 12% for the Haiyamo (Hames 1983:420), and 10-24% for the "central Yanomami" (Lizot 1972: 216 n.1). It thus appears that the intensity of warfare was lower in most parts of Yanomami territory than it was in the Shamatari area even before recent interethnic contact.⁴ On the basis of his earlier writings one could hypothesize, precisely the opposite of Chagnon's present argument, that the comparatively high level of warfare intensity registered among the Shamatari is linked to historical changes that affected this population in the more distant past. Thus the particularly dynamic process of village fission and the attendant high frequency of intervillage hostilities observed among the Shamatari might very well have their origin in the "population explosion" that resulted from their early acquisition of steel tools through indirect contact and access to unoc-

3. Given the nature of the available Yanomami comparative data, I use here male instead of adult male mortality percentages. At any rate, the general underreporting of child deaths in Yanomami genealogies probably makes the latter not much higher than the former.

4. Chagnon (1974:48) describes the Shamatari as the "Fiercer People." For accounts of low warfare intensity in most Yanomami areas from fieldwork observations during the '60s and '70s, see Colchester [1982:105-6 [Western Sanima]], Fredlund [1982:37 [Ocamo Yanomami]], Migliazza, quoted in Chagnon (1966:193, 195 [Uraricaa Ninam]), Shapiro [1972:39, 170-71, 173-74 [Catrimani and Parima Yanomam]], Smole [1976:74, 233 n. 105 [Parima Yanomami]], Sponsel [1981:102-3 [Western Sanima]], and Taylor [1974:25 [Eastern Sanima]]; see also Peters [1980:276, table 2], whose data show 11% male [and 14% adult male] mortality in warfare for the Mucajal Ninam between 1958 and 1980.

cupied territories vacated by other populations (see Chagnon 1966:167).⁵

Moreover, Chagnon's figure of 30% is considerably lower than those reported for other indigenous groups within the Amazon region (see Sponsel 1985:10): adult male mortality in warfare is 59% for the Achuarä (Ross 1980:46) and about 61% for the Waorani (plus 11% in conflicts due to contact [after Larrick et al. 1979:167, table 7]). Yet Ross notes that the Achuarä, even though showing much higher adult male mortality in warfare than the Yanomami, have "a decidedly less ostentatious format for accomplishing such ends" (p. 46). The Waorani, for their part, are reputed to have an ethos that emphasizes peacefulness, having been described as a "tribe where harmony rules" (Collins 1983, quoted by Knauff 1987:473). Culturally valued demonstrations of aggressiveness (Yanomami "fierceness") or gentleness (Waorani "peacefulness") must not be confused with corresponding rates of violent death, and the use of either to characterize a society as a whole is bound to foster preconceptions rather than anthropological knowledge (see Knauff 1987 and Riches 1987).

2. In reporting that 44% of men 25 years of age or older have participated in the killing of someone (pp. 985, 989), Chagnon takes the Yanomami ritual category of *unokai* to be equivalent to the Western concept of "killer." *Unokai*, however, denotes a state of symbolic impurity that is said to result from the supernatural incorporation by the killer of the blood and flesh of a slain enemy, whether this enemy was killed by an arrow, by shamanism, by sorcery, or by the killing of his animal alter ego (20 of the 29 Yanomam deaths registered during my fieldwork were attributed to these human attacks by supernatural means [see Albert 1985:707]).⁶ Chagnon's data on Yanomami "killers" are based on native retrospective accounts of *unokai* cases. Given the polysemy of the symbolic category of *unokai*, the variable degree of reliability of his informants, and the size of the demographic basis for his survey (380 men aged 20 years or older [see p. 989, table 2]), one cannot rule out some

5. The Karawatari and Kohoroshitari village clusters, which may have a common origin with the Shamatar, migrated through the Mavaca and Siapa drainage before them, at the turn of the century (Chagnon 1974:82-87). The previous occupants of this region, Arawak-speaking indigenous groups hostile to the Yanomami, were by then extinct (see Chagnon 1966:29-32; Albert 1985:40-41, 54-55). For more details on the history of contact and changes among the Yanomami, see Colchester [1982:chap.2; 1984] and Albert (1985:chap.1; 1988).

6. According to the Yanomam, a man in the condition of *unokai* must observe a complex set of ritual restrictions on his movements, behavior, and diet (*unokaimu*) in order to protect himself from the risk of premature aging caused by the supernatural intrusion of his victim's blood into his body. In this respect the condition of *unokai* is symbolically constructed as a masculine inversion of menstruation. The *unokaimu* ritual process is, moreover, conceived as a digestion of the decaying flesh of the killed enemy. This "exocannibalism" is closely related to the "endocannibal" symbolism of the funerary ritual, in which the powdered bone ashes of affines are consumed (effectively or symbolically). For a full analysis of Yanomam ritual symbolism, see Albert (1985).

degree of emic/etic confusion in his record of "killers." In spite of his report that he did not consider supernatural death (p. 987), it seems likely that a portion of the men who stated that they or others had undergone *unokai* could have done so on the basis of supernatural rather than physical killing.

Chagnon (1989) argues that the Yanomami he studied distinguish a "true" *unokai* produced by physical killing ("unokai a yai") from a "false" one caused by supernatural killing ("unokai a horemou"). On the one hand, I never heard of the distinction during my 29 months of fieldwork among the Yanomam in Brazil. On the other hand, the idea that the Yanomami—or members of any comparable society—would consider the ritual consequences of a supernatural killing less real than those of a physical one is bewildering. J. Lizot, who for 20 years has lived among Yanomami who speak the same language as Chagnon's informants and has worked intensively on linguistics, has recently reported not only that he never encountered the "unokai a yai/unokai a horemou" distinction in Yanomami but also that its supposed formulation as presented by Chagnon is not grammatically correct (personal communication, January 25, 1989).⁷ Furthermore, even in cases of actual warfare killing there is no simple equivalence between our notion of "killer" or homicide and the Yanomami category of *unokai*. Besides the fact that several different warriors shoot the same victims in combat or collectively kill isolated enemies (Chagnon 1988:987), a number of them also shoot dying or, sometimes, even already dead victims to manifest their anger against the killer ("real" or "symbolic") of some relative, to affirm political and ritual solidarity with allies, or to confirm ritually their adult status. For the Yanomami, everyone who has shot an arrow into the victim is considered to be in the condition of *unokai*. In this context, more often than not it is virtually impossible to single out who did the actual killing in terms comparable to the notion embedded in the Western concept of homicide. For all these reasons, after any Yanomami raid, the number of warriors said to be in the state of *unokai* (Yanomam *unokarimë thëbë*) is always considerably greater than that of victims. This being the case, the percentage of men "who have participated in the killing of someone," even calculated on the basis of claims to past *unokai* conditions in warfare, cannot be considered equivalent to a percentage of homicides and thus by no means offers a reliable comparative measure of violence in Yanomami society.⁸

7. Chagnon (1989) gives as an example of the "false" category, besides supernatural "killers," "men who deflower prepubescent virgins," but neither among the Yanomam nor among the Yanomami (Lizot, personal communication, April 18, 1989) does the deflowering of a girl cause a man to enter the state of *unokai* and undergo the *unokaimu* ritual. In fact, the use of the *unokai* category is metaphorical in this context, as in several others (see Albert 1985:345-46 n. 11, 12), while its ritual usage *sensu stricto* consists not in a trope but in a belief (see Sperber 1974:114-19), whether associated with a physical killing or with a supernatural one.

8. For a convergent analysis of Chagnon's misuse of the *unokai* category, see Lizot (1989:33).

3. The third index—the percentage of adults who have “lost a close genetic relative due to violence”—is no less problematical. Chagnon himself recognizes (n. 35) that “taken by itself this measure might ‘inflate’ the amount of a society’s violence: if all members of a society were related, then a few deaths would result in a statistic showing that a large fraction of people have lost close kin.” Yet he relies on this percentage even though he points to a high degree of relatedness at the village and the intervillage level (pp. 987–89; see also Chagnon 1974:133–41; 1975; 1983 [1968]:138–42).

The relation between the status of “killer” and reproductive success is, as Chagnon recognizes in the many caveats in his introduction of propositions on the topic (pp. 989, 990), based on no firmer grounds than his measurement of Yanomami “violence.” The argument that the reproductive success of the 44% of the male population aged 25 or older who are “*unokais*” (“killers”) is increased by their capacity to abduct women is not supported by any empirical evidence. On the contrary, Lizot (1988:540–41) reports that of a total of 350 marriages in a large village cluster that he surveyed in 1975, 0.9% were by abduction of women from allied villages and 0.8% by capture of women from enemy villages. Nevertheless, Chagnon insists that Yanomami men go to war over women (p. 986).

He further argues that the “*unokais*” achieve greater marital and reproductive success because “they seem to be more attractive as mates than non-*unokais*” in marriage alliance arrangements (p. 989), but the only ethnographic support he offers is the anecdotal and misleading association of *unokai* and “*waiteri*” (“fierce”) as equivalent qualities attributed to males supposed to be a *nowā dodihiwā* (“valuable”) (p. 990).⁹ The meaning of “*waiteri*” (in fact *waitheri*) is more complex than “fierce” or aggressive; it refers also, and principally, to a set of ideal qualities such as courage, daring, toughness, authoritative speaking, initiative, generosity, and humor (see Albert 1985:97–98; Bortoli 1983:17–18; Lizot 1989:32–33). *Unokai* refers to a temporary ritual state and *waitheri* denotes a configuration of personal qualities; these concepts are thus not assimilated by the Yanomami. As should be clear from the above remarks on *unokai*, it is unnecessary to be *waitheri* to undergo this ritual condition (see also Lizot 1989:33), in the same way that it is not enough to have undergone *unokai* to achieve the reputation of being *waitheri*.

The remainder of Chagnon’s argument that “*unokais*” have greater marital and reproductive success is based only on the notion that “military achievements are valued and associated with high esteem, as they are in many other cultures, including our own,” and that “non-*unokais* might be willing to concede more reproductive opportunities to *unokais* in exchange for a life with fewer mortal risks and fewer reproductive advantages” (p. 990).

9. Lizot has never encountered the expression a *nowā dodihiwā* (personal communication, June 8, 1988), and neither have I.

Chagnon’s characterization of Yanomami society, rather than an analytical effort to understand it in its own terms, reveals a projection of traditional preconceptions of the Western construction of Otherness. The Yanomami were first depicted in his writings as “The Fierce People” within the framework of a theory of “warfare over women” in which selective female infanticide was purported to play a determinant role (see Chagnon 1966, 1968, 1983 [1968], and, for discussion, Colchester n.d.: 4–7, 20–21; Sponsel 1981:322–26). No quantitative evidence was ever produced by Chagnon either on the proportion of marriages by abduction or on the proportion of female infanticide (see Davis 1976:11–12). Lizot’s data disprove the first argument, and the second was abandoned some time ago (see Chagnon, Flinn, and Melancon 1979). Since his adoption of a sociobiological approach, Chagnon’s theory of Yanomami warfare has been mainly reformulated through the argument of maximization of the “inclusive fitness” of “killers.” As we have seen, however, serious doubts can be entertained about this argument. Thus, in Chagnon’s ethnographic representation of Yanomami society, it is as if violence and sexual competition constituted preferred themes persisting through changes of theoretical clothing and in the face of contrary evidence.

This being the case, Chagnon’s model of Yanomami “violence” does not, properly speaking, show scientific coherence. On the other hand, it is easy to trace the choice of themes of violence and sexual competition to ideological (*sensu* Dumont 1977) premises of Euro-American culture, and ultimately it is in this realm that this model finds its coherence. The “fierce-people” image of generalized warfare and natural “possessive individualism” (Macpherson 1971) may be traced directly to 17th-century European political philosophy, which now serves, as Sahlins (1980:173) has pointed out, as something of an origin myth for Western society. The ethnographic representation of the Yanomami built by and through Chagnon appears, then, to be a symbolic transformation, keyed to genetics, of the Hobbesian picture of the “state of nature”:¹⁰ chronic “killers” for individual (biological) benefits, Chagnon’s Yanomami are said to be “our contemporary ancestors” (1983 [1968]:214) and their society comparable to macaque troops (1975:108). They are even described as being fascinated by the discovery of police and law and as urgently requesting them as a means to curb their chronic warfare and put an end to the “constant fear” in which they live (1988:990). As in the sorts of inversions made in myth, the Yanomami are constructed here as a negative image of orderly society, thereby contributing to the production and validation of current Western cultural values. Our sociological present is advanced as the norm, resulting from a double inversion: of our own past and of the Other’s present, considered equivalent. In this

10. This image of Hobbesian inspiration is, of course, doubly in contradiction with the view of Hobbes himself, for whom the “state of nature” was, by definition, prior to any societal institution and a mere theoretical construction.

way, the representation of cultural Otherness as natural savagery turns this savagery into a fascinating "black mirror" supposed to reflect both the origin and the reverse of (our) society. This may be one reason for the widespread and uncritical interest in Chagnon's work.¹¹

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11. Much could be said also about the epistemological status of the "modern evolutionary thought" that inspires Chagnon, but that would be beyond my purpose here. For an interesting analysis of the Spencerian misappropriation of Hobbes and Darwin promoted by sociobiology, see Tort (1983).