Cannibalism as a topic of interest, both general and anthropological, has seen a revival of concern in the last seven years or so. Primarily responsible for this revival is the controversial stance taken by William Arens in his book, The Man-Eating Myth: Anthropology and Anthropophagy (1979). Following the publication of this work has been a deluge of articles and books, popular and specialized, dealing with this topic in either a pro or con fashion regarding the existence or non-existence of cannibalism as an actual cultural practice in past (or even more recent) history (Riviere 1980; Parry 1982; Strather 1982; Brown and Tuzin 1983; Harris 1985; Kolata 1986; Sanday 1986). A note must be made here that Arens specifically states that he is only referring to "cannibalism as a custom" (Arens 1979:21), or ritual cannibalism, as opposed to the other forms of cannibalism such as survival cannibalism, dietary cannibalism, or the other various types of cannibalism that have been proposed which will be dealt with in greater detail in this paper.

The resultant furor due to Arens' book has caused the re-evaluation of cannibalism as a cultural phenomenon by anthropologists from varying schools of interpretation. Marvin Harris, the materialist spokesman, recently dealt with cannibalism in a chapter called "People Eating" in his 1985 book, Good to Eat: Riddles of Food and Culture. More recently, Peggy R. Sanday, representative of the symbolist/interpretive school, has published her book on the subject, Divine Hunger: Cannibalism as a Cultural System (1986). So, it is quite evident that cannibalism as an issue is still very much alive in the present day; its appetite is being fed by the inevitable conflict aroused by the different research strategies involved.

At this point it is warranted that we define cannibalism and list the various types of cannibalism that have been devised, most of which will be discussed in this paper. Cannibalism is the act of eating human flesh or human parts by human beings or feeding on the flesh or parts of one's own kind. A typology of cannibalism can be derived from the suggestions of other authors in this field. Typologies that have been developed include:
dietary, ceremonial, and obligatory or emergency ration cannibalism (Nickens 1975: 291); gastronomic, ritual or magical, and survival cannibalism (Arens 1979:18); famine, competition or revenge, mortuary, cannibalism as a "behavioral referent of a mythical charter for society and, with other social and cosmological categories, is a condition for the maintenance and reproduction of the social order" (Sanday 1986:25-26), cannibalism as "part of the cultural construction of personhood" (Sanday, 1986:26); survival, ritual, and preferential cannibalism (Sagan 1974); endophagy, exophagy, ritual, and famine cannibalism (Tannahill 1975:9, 106); dietetic, famine, fertility, gluttony, magic, pietistic, punishment, revenge, shipwreck, and siege cannibalism (Hogg 1958). Other types of cannibalism mentioned in the literature are: cannibal warfare (Harrisson 1948:97-109), survival and ritualistic cannibalism (Kolata 1986:1497), warfare and mortuary cannibalism (Harris 1985:204), and ritual cannibalism (Lindenbaum 1979:22).

From this multitudinous list, I propose that a more definitive typology be derived using the above as a pool from which to draw types and subtypes. This typology would be defined as:

I. Survival Cannibalism - the eating of human flesh or human parts by humans under adverse, stressful conditions as a last resort to survive.
   A. Famine
   B. Obligatory or Emergency Ration
   C. Shipwreck
   D. Siege/War

II. Ritual Cannibalism - the eating of human flesh or human parts by humans in a ceremonial or religious context repetitively over time.
   A. Ceremonial
   B. Mortuary/Funerary
   C. Magical
   D. Fertility
   E. Pietistic
   F. Customary

III. Warfare Cannibalism - the eating of human flesh or human parts by humans of victims captured especially for cannibalistic purposes, revenge, punishment, or out of competition.
   A. Revenge
   B. Punishment
   C. Competition

IV. Dietary Cannibalism - the eating of human flesh or human parts by humans as a gustatory preference.
   A. Preferential
V. Symbolic Cannibalism - the eating of human flesh or human parts by humans either in actuality or by substitution (of human for other types of matter), which has as its purpose functional, symbolic or psychological definitions of a group or person.

A. Cannibalism as a "behavioral referent of a mythical charter...for the maintenance and reproduction of the social order" (Sanday 1986:25-26)
B. Cannibalism as a "symbol of evil in the socialization of persons" (Sanday 1986:26)
C. Cannibalism as "part of the cultural construction of personhood" (Sanday 1986:26)

It must be noted here that, as with any other typology, this one is by its nature arbitrary, and theoretically, overlapping may occur among any of the types, or perhaps among all of them.

Other concepts of cannibalism are the notions of endocannibalism, exocannibalism (endophagy and exophagy have been proposed by Tannahill 1975), as well as Sagan's notions of affectionate and aggressive cannibalism (1974). Arens remarks humorously on this note in citing Dole's (1962:567) category, "gastronomic endocannibalism" which "transforms the act of eating human beings into something almost unpronounceable by the human mouth" (Arens 1979:18).

Just as the typological considerations concerning cannibalism are difficult to untangle, so are the various research strategies from which it is possible to interpret cannibalism. A few of these include the cultural materialist, structuralist, functionalist, psychological, and symbolist approaches. The cultural materialist tends to view cannibalism as a response to environmental stresses of protein deficiency (see Harris 1985, 1979, 1977: Harner 1977). The structuralist view is more complex. Cannibalism is viewed through the mythology of various cultures to explain the similarities of those cultures through the likenesses of unconscious thought processes. Functionalists would consider the function or purpose of cannibalism in a society together as a vehicle of group solidarity, identity, and cohesion. Furthermore, functionalists would state that cannibalism provides the ultimate in-group/out-group distinction: We eat others, not ourselves, or vice versa. The psychological approach would tend to focus on cannibalism as a form of oral sadism accompanied with feelings of ambivalence (love/hate) toward the victim. Finally, the symbolist would interpret cannibalism as a metaphor for the simultaneous creation
and destruction of life tied up with the fertility and regeneration of the practicing culture.

The main issue involved in this paper is the character of the difference between the structuralist and cultural materialist schools concerning the nature and interpretation of cannibalism. The structuralist school views cannibalism as a phenomenon primarily through the mythology of various cultures as a representation of the collective consciousness of human beings without regard to whether cannibalism actually exists in reality, rather focusing on analyzing the myths in which cannibalism occurs. From this angle, cannibalism can be conceived of as a model or a social form which serves some purpose in the society in question. This concept is best elucidated by Levi-Strauss: "A structural model may be conscious or unconscious without this difference affecting its nature. It can only be said that when the structure of a certain type of phenomena does not lie at a great depth, it is more likely that some kind of model, standing as a screen to hide it, will exist in the collective consciousness. For conscious models, which are usually known as 'norms' are by definition very poor ones, since they are not intended to explain the phenomena but to perpetuate them" (1963:281). Thus, cannibalism serves as a norm, or rather as a device exerting normative controls on a group through the maintenance of the social order while perpetuating the cannibalism myths in a cyclic fashion.

One of the basic tools of the structuralist is that of the dichotomy. The tendency for mankind to think in terms of binary oppositions has long been recognized by the structuralist and provides a technique by which to discern the nature of how cultures divide their world, while providing insight into how a certain group thinks. Basic to the mode of structuralism is the notion that

Uniformities in cultures arise from the structures of the human brain and consequent similarities of unconscious thought processes. The most important structural feature of the human mind is the tendency to dichotomize, or to think in terms of binary oppositions, and then to attempt to mediate this opposition by a third concept, which may serve as the basis for yet another opposition. A recurrent opposition present in many myths, for example, is culture:nature (Harris 1980:522-523).

Use of the dichotomy allows an analysis of the components of myth into meaningful categories to be subjected to emic and/or etic interpretations. Applied to the study of cannibalism, the use of binary oppositions allows the anthropologist to dissect the
native world in terms of tame:wild, safety:danger, human:inhuman, culture:nature.

In the case of the Yanomamo, this duality is very explicit. According to Chagnon, the Yanomamo are "endocannibalistic anthropophagiers" *(1983:105)* with a lively cannibal complex both in the realm of myth and ritual mortuary cannibalism. The nature of the Yanomamo dichotomy is best exemplified by an observation by Chagnon:

The Yanomamo pit Culture against Nature,...and see the cosmos in many contexts as an 'either/or' moiety. Thus, an animal, captured in the wild, is 'of the forest,' but once brought into the village, it is 'of the village' and somehow different, for it is then a part of Culture. For this reason, they do not otherwise eat edible pets...for to them, it is similar to cannibalism: eating something 'cultural' and therefore 'humanlike' *(1983:96).*

Through the above example, it is quite evident that the use of dichotomies to analyze the native world view can be of great use; it enables a clear cut division of emic categories to be undertaken, in this case revealing the Yanomamo conceptions 'of the village' and 'of the forest'. Unfortunately, clear cut dichotomies do not always exist, and while providing problematic analytical stumbling blocks, these vague dichotomies can be very revealing as well. Once again using the Yanomamo, their view of the jaguar indicates an ambivalence toward an animal that is at the same time both almost human and wild, dangerous jungle beast. This ambivalence is reflected in the liminal status granted the jaguar.

Jaguar is peculiar to them (the Yanomamo), for he combines several human capacities while at the same time he is 'natural'. It is almost as if they both respect and fear jaguars, and the 'dual' nature of Jaguar might be viewed as a kind of contradiction of the sort that Levi-Strauss had in mind when he viewed myths as the intellectual vehicle through which such contradictions are reconciled *(Chagnon 1983:96).*

Using other myth material from South America, Levi-Strauss found a widespread cannibal complex among numerous "tribes". Mythic instances of South American cannibalism frequently occur in origin myths, giving credence to Sanday's notion that "Cannibalism is a behavioral referent of a mythical charter for society" *(1986:25).* Among the myths featuring cannibalism
collected by Levi-Strauss are M22, "The origin of the jaguar" (Mataco); M23, "The origin of tobacco" (Toba-Pilaga); M24 "The origin of tobacco" (Tereno); M65, "The origin of fire" (Mbya) [see Levi-Strauss 1964:99-100, 140]. In each of these myths, cannibalism is the causal element for the origin of important items in the cosmological, ritual, and survival inventory of each of these "tribes".

As Chagnon found cannibalism of "cultural" animals horrific among the Yanomamo, Levi-Strauss found cannibalism of "cultural" plants horrific among the Timbira. "A Timbira myth (M71) confirms that a vague feeling of guilt attached to this agricultural process (slash and burn), which made a certain form of cannibalism the precondition of civilized nourishment" (Levi-Strauss 1964:151). The seeming paradoxical nature of this observation indicates that cannibalism is indeed a very complex concept, not necessarily restricted to the eating of humans, but extended also to the realm of the vegetable kingdom. Among some groups of native South Americans (Mundurucu), there was a taboo on felling "living" trees for firewood (Levi-Strauss 1964:151).

It is evident that there is a connection between the trees and humans in the minds of these aborigines. A type of mystical relationship exists between the two: mankind must terminate the life of trees to cultivate vegetation in order to continue the life of mankind. In this cyclical arrangement, mankind can be viewed as a potential killer of the very substance that gives him life, indirectly threatening himself. This confusing scenario is best related by Levi-Strauss who notes that

It is now clear that, for natives who practice the 'slash and burn' technique, even vegetarian cooking cannot be dissociated from a kind of 'cannibalism', which is also vegetarian. Man's mortality manifests itself in two ways: either through a natural death - old age or disease - as is the case with trees when they 'die' and become firewood; or by a violent death at the hands of an enemy, who may be a cannibal - therefore an ogre - and who is always a cannibal, at least in the metaphorical sense, even in the guise of the tree feller attacking the living tree (1964:152).

From the above observations it can be seen that these swidden horticulturalists (slash and burners) live in a mutually symbiotic relationship with their environment; they make room for the food crops to grow and the crops in turn flourish and provide nourishment. In recognition of this complementary relationship, the natives have incorporated the concept of alternating cooperation into their world view. As Sanday has so aptly
phrased it, "the elementary structures of consciousness are based on the establishment of a reciprocal relationship between the individual and his or her physical and social environment" (1986:121).

Typical of the structuralist interpretation is the notion that cannibalism need not actually be practiced, but the presence of reputed cannibalism in myth or ritual is of interest since it instills fear, acts as the focus of ritual drama, or otherwise creates social forms which can then be studied by the anthropologist. In his research on the Hewa of the Western Highlands of Papua New Guinea, Steadman has taken the stance that I have no evidence which suggests that cannibalism is, or was in the past practiced in Hewa society. The Hew claim that it was and is - but by witches. But the question whether Hewa witches do in fact eat their fellow man is irrelevant to my explanation of the Hewa use of the witchcraft idiom, since the idiom is based on the fear that they might (1975:118-119).

So it is really not necessary for actual cannibalism to be or to have been practiced in a certain culture for structural analysis to proceed. The meager existence of cannibalism in mythic form or as a normative control can be seen as a mental construct simultaneously having strong concrete manifestations in a society in which cannibalism as a fact does not even exist. Poole has reached the same conclusion in his studies of the Bimin-Kuskusmin of the West Sepik Province of New Guinea. While Poole has observed real acts of mortuary cannibalism in his fieldwork, he still feels that, "whether or not Bimin-Kuskusmin anthropophagy is portrayed in belief or in practice, all acts of eating human flesh are elaborate metaphor, ritual and symbolic constructions" (1983:30).

This aspect of the symbolic nature of cannibalism presents another side to an already multifaceted phenomenon. To some anthropologists the structural, interpretive, and symbolic nature of cannibalism is obvious. Yet to others, the mental constructs associated with the cannibalism complex are disregarded in favor of materialist and environmental concerns. Marshall Sahlins has tied these loose ends together neatly by concluding that, "The problem, of course, is that cannibalism is always 'symbolic', even when it is 'real'" (1983:88). Other anthropologists seem to agree that the symbolic interpretation of cannibal myths and rituals is extremely important to solving the puzzle of how the cannibalism complex fits into a certain society. Shirley Lindenbaum, through her research on kuru sorcery and cannibalism among the Fore of the Eastern Highlands of Papua New Guinea, has developed a keen awareness of the need for symbolic
interpretation of cannibal behavior. She notes that "an adequate anthropological analysis goes beyond the matter of whether or not cannibalism actually occurs, and requires an investigation of the symbolic or ideological dimensions of reported acts or beliefs...Thus, we are confronted with the double, or perhaps simultaneous, tasks of eliciting for each culture a coherent 'world view' as well as evaluating those beliefs and representations together with what we observe to be the social behaviors and social realities" (Lindenbaum 1983:96). (The points pronounced by Sahlins and Lindenbaum above are seen as the justifications in the creation of the type "Symbolic Cannibalism" suggested earlier in this paper.)

It is imperative that cannibalism be explained in all its manifestations among the diverse cultures where it has been recorded. Whether or not the particular "brand" of cannibalism practiced is ideologically or materially based is secondary to the anthropological duty of recording, reporting, and interpreting the act(s) accurately. If the anthropologists involved in the past (and probably future) debates on the nature of cannibalism would stick to trying to faithfully interpret reality instead of collecting data which supports their own personal interpretations, the discipline generally would be better off and cannibalism would probably be better understood. With these thoughts in mind, the words of Sanday become particularly relevant to structuralist aims:

Since the main causal variable posited by the materialist explanation is the ongoing satisfaction of hunger or protein deficiency, obviously the data must reflect actual as opposed to fantasized or infrequent consumption of flesh...the discussion will include the fear of cannibalism, whether or not cannibalism is thought to be actually practiced...I will not be concerned with whether the consumption of human flesh actually takes place, because my focus will be on interpreting the rituals in which human flesh is purportedly consumed (1986:8-9).

The cultural materialist school views cannibalism as a phenomenon primarily as a result of environmental constraints placed on human populations. These constraints would be the need for food and a lack of certain types of proteins. Marvin Harris probably sums up the goals of cultural materialism best: "the primary task of anthropology is to give causal explanations for the differences and similarities in thought and behavior found among human groups...cultural materialism makes the assumption that this task can best be carried out by studying the material constraints to which human existence is subjected. These constraints arise from the need to produce food, shelter, tools
and machines, and to reproduce human populations within limits set by biology and the environment... For cultural materialists, the most likely causes of variation in the mental or spiritual aspects of human life are the variations in the material constraints affecting the way people cope with the problems of satisfying basic needs in a particular habitat" (1980:5).

If we look at some particular cases it can definitely be noted that such environmental stresses on human populations can be cited as causes for cannibalism. In his research on natives of Colombia, Thomas S. Schorr has explained various types of internecine hostilities, including cannibalism, as a means of coping with restricted or fluctuating environmental resources. Two of these "tribes" were the Gorrons and Pijaos of the Western Cordillera of Colombia, both notorious warriors and cannibals as reported by the early Spanish chroniclers. Schorr saw their bellicose activities in this light: "Raids, plunder, cannibalism, and capture were adaptive responses, institutionalized and practiced reciprocally when it became necessary to alleviate subsistence risks of a given group caused by deficiencies in production as a result of droughts, plagues, floods, or other seasonal variations" (1968:458). Rather than being destructive, wasteful actions of wanton barbarity, the intertribal warfare of Western Cordilleran Colombia can be seen as a "positive" adaptive response to variable environmental conditions. As the produce fluctuated, the human population also needed to fluctuate to maintain equilibrium with the carrying capacity of the local surroundings. As a result, the institution of cannibal warfare developed "stably structured, symbiotic practices of predatory fighting and killing through periodic warfare and cannibalism, (which) far from being disruptive or maladaptive, served to maintain each group at a level of optimum population numbers in the face of periodic threats to survival" (Schorr 1970:19).

In perhaps the most famous, or rather infamous, case of institutionalized people eating, the Aztecs of the Central Valley of Mexico practiced a large-scale system of warfare/sacrifice/cannibalism during precolonial and (briefly) postcontact eras. As proposed by Michael J. Harner, the Aztecs practiced this lavish system of sacrifice/cannibalism in order to supplement their protein deficient diets which were heavily reliant on the starchy staples of maize, beans, and gourds (see Harner, 1977). Harris has gone much further, using Harner's basic thesis as a springboard for interpreting the Aztec system as an elaborate meat redistribution chain for the nobility of the empire.

Could the redistribution of meat from sacrificial victims actually have significantly improved the protein and fat content in the diet of the Aztec nation. If
the population of the Valley of Mexico was 2 million and the number of prisoners available for redistribution per annum was only 15,000, the answer is no...The point should be not how much these cannibal redistributions contributed to the health and vigor of the average citizen but how much the cost/benefits of political control underwent a favorable shift as a result of having human flesh to reward selected groups at crucial periods...if the meat was supplied in concentrated packages to the nobility, soldiers, and their retainers, and if the supply was synchronized to compensate for deficits in the agricultural cycle, the payoff for Moctezuma and the ruling class might have been significant enough to stave off political collapse (Harris 1977:165-166).

Marvin Harris unfortunately relies on too many "if" statements in his theory, making it all the more tenuous without ever testing the basic hypothesis of his proposal: that it was in fact an actual meat redistribution network. Harris' theory of the Aztec meat redistribution system is probably the most well-known instance of cannibalism, having been featured in the popular book, Cannibals and Kings (1977). Perhaps in recognition of the numerous flaws in his Aztec scheme, Harris has reworked some of the details of his theory. Now, according to Harris, there was an added impetus to the development of Aztec cannibalism, that of the lack of a large domesticated meatbearing animal.

As in other state societies, the Aztec elite had to strike a balance between the nutritional benefits provided by human flesh and the political and economic costs of destroying the wealth-producing potential of human labor power...The reason they (the Aztecs) made this unique choice was that their system of food production was uniquely devoid of efficient sources of animal foods. The Aztec had never succeeded in domesticating a single large herbivore or omnivore" (Harris 1985:228). The arguments presented by Harris make use of facts and claim to be satisfactory explanations of the Aztec situation, however, there is a body of literature that presents evidence to the contrary (see Sahlins 1979a, 1979b, 1979).

Although Harris' explanation may be weak, upon thorough scrutiny, other evidence exists for cannibalism as a result of
marginal environmental conditions. In one particular case, this time an archeological site, the Richards site (Fort Ancient phase) in Muskingum County, Ohio, the human osteological remains provide indications of cannibalism having taken place. The systematic butchering of humans based on the "butcher marks" left on the bones, similar to marks left on animal bones by aboriginal and early Anglo-European populations, suggests the activities of cannibalism. Also, the spatial distribution of the refuse pits in which these remains were found indicates limited temporality to the duration of cannibal practices.

The refuse pits containing the bulk of the sample were concentrated in Features 16 through 23, adjacent features, which is suggestive that the act of cannibalism at the Richards site was restricted to a limited period of time and not practiced on a regular basis. This evidence might imply that the type of cannibalism may not have been preferential, but may well indicate a situation of survival cannibalism (Patterson 1977:138).

Patterson goes on to make a logical deduction from this evidence that, "An irregular practice of cannibalism could well have occurred as the result of food shortage, perhaps during a severe winter period" (1977:138).

Other evidence for cannibalism as a result of environmental stress can be found in the American Southwest among Pueblo III and Anasazi cultures. At a site called 5MTUMR2346 in the Mancos Canyon of southwestern Colorado, human skeletal remains were found exhibiting splintering and cut marks indicating marrow removal and butchery practices. Paul R. Nickens summarizes the meaning of this find quite well:

While the presence of cannibalism in the Southwest is established in the archeological record, its significance remains to be determined. Half of the total occurrences...report evidence of violent death in association with cannibalized remains, however, no definite magico-religious significance is apparent at any of the sites. This information coupled with the vagaries of food supply during Pueblo times probably indicates that obligatory or emergency ration cannibalism was practiced during hard times although this hypothesis cannot be considered conclusive at this time (Nickens 1975:292).
There is some evidence for drought conditions in the Southwest based on dendrochronological evidence for ca. 1222-1227 A.D. (James M. Adovasio: Personal Communication) and also for the last quarter of the thirteenth century A.D. "There are strong indications that a severe drought extended over the plateau from 1276 to 1299, and quite possibly the Anasazi found agriculture as they had come to depend on it impossible" (Muench 1974:19).

In fact, it may be possible to correlate the climatic deterioration in the American Southwest to marginal climatic conditions in the American Northeast. This period of poorer climates is known as the Little Ice Age and may have been a worldwide phenomenon from ca. 1200-1800 A.D. This cooling period was probably responsible for a decrease in the number of frost-free growing days, particularly in the northern climes such as the American Northeast, where cannibalism may have been practiced as a response to harsher climates among such groups as the Iroquois, Huron, and Monongahela (William C. Johnson: Personal Communication). In numerous cases it can be seen that cannibalism exists as a response to environmental stress. This is the type of evidence the cultural materialist should look for in trying to prove theories of cannibalism as an adaptation to ecological constraints. As we can see, there is a very good correlation of environmentally marginal situations and cannibalism. Interestingly, the kind of cannibalism that seems to predominate in this situation is of the survival type. This makes sense in that what were not usually considered food sources were resorted to in times of dire need (except in the cases of the Iroquians, where a cannibalism complex already existed).

Switching over to an area far removed from the above, we find more evidence to support the cultural materialist argument. In his extensive research in New Guinea among the Melpa of the Western Highlands Province and other groups, Strathern has noticed an interesting relationship between cannibalism and the lack of domesticated pigs. Strathern explains,

If we look at the Highlands area in geographical terms, it is evident that the practice of cannibalism is (according to reports) associated most clearly with sparsely-populated fringe regions where large herds of domestic pigs are absent. Although we cannot argue from this that protein-hungry people become anthropophagous, there is obviously a material correlation of some interest here (1982:111).

New Guinea cannibalism chiefly is practiced in the mortuary/funerary mode of ritual cannibalism, therefore making it an exception to the correlation of marginal areas and instances of survival cannibalism noted earlier. This last discrepancy
only adds fuel to the fire of the argument that the materialist explanation is inherently unsatisfactory as a means to interpret cannibalism as a cultural phenomenon.

Marshall Sahlins is probably the leading adversary of the materialist school, with strong support from Sanday, Parry, and Chagnon. Sahlins' attack principally revolves around the Aztec sacrifice/cannibalism complex as presented by Harris. The main argument posited by Sahlins is that the ceremonially intricate and symbolically abundant ritual of Aztec sacrifice/cannibalism is too strongly based on an ideology and world view to be even partially explained by materialist doctrine.

Clearly the cultural content at issue, this stupendous system of sacrifice, is too rich, logically as well as practically, to be explained by the natural need for protein by which Harris proposes to account for it. To accept his view, we have to make some kind of bargain with the ethnographic reality, trading away what we know about it in order to understand it; or at least, it takes a heroic act of utilitarian faith to conclude that this sacrificial system was a way the Aztecs had of getting some meat (Sahlins 1978:45).

Overall, the materialist explanation is presented by Sahlins as incomplete in its attempt to illustrate that Aztec sacrifice/cannibalism was in fact an ideological system that sprung from the Aztec's response to a protein-poor environment. In a further attempt to demonstrate Harris' failure to adequately explain the Aztec system, Sahlins goes on to point out that Harris has neglected a major view of sacrifice that makes the Aztec routine all the more logical through a symbolic interpretation. "What is important here is that in a culinary theory of cannibalism the ritual as such is without motivation. Nor could it be of interest to Harris that the Logic of Aztec sacrifice conforms to that in the classic texts of French sociology on the subject (notably Hubert's and Mauss Sacrifice). "Offered as food to the god, the victim takes on the nature of a god. Consumed then by man, the offering transmits this divine power to man. Death is thus turned into life: what happens to the sacrificial victim may be made to happen in reverse to the one who sacrifices" (Sahlins 1978:46).

It is true that the Aztec sacrifice/cannibalism was symbolically charged. The sacrifice of victims was necessary to placate the destructive gods of war (Huitzilopochtli) and rain (Tlaloc), both of whom were capable of destroying the nation if improperly worshipped. Also, the sacrificial, cannibalistic rituals were performed in a world renewal rite in which every 52
years the cosmological cycle had to be restored or else the end of the world was inevitable. "The Aztecs saw war and sacrifice as an eternal order, as a means to an end - the end of perpetuating a doomed world" (Fagan 1984:236). Numerous anthropologists have voiced their opinions about the failure of cultural materialism to explain what are clearly ideologically based instances of cannibalism. In fact, Sanday has suggested that in the Aztec case, the ideological ritual complex existed first and perhaps only then was it adapted to changing environmental conditions. She has said, "The Aztec response to famine will, no doubt, be taken by some as good evidence for the materialist hypothesis...I suggest, however, that the sacrificial code was expanded, not created, in response to famine and drought" (Sanday 1986:183). The Aztec case is probably the most hotly debated of the issues in the recent cannibalism controversy.

Augmenting the argument that the cultural materialist explanation is insufficient, there exists some interesting data from Benares, India as related by Jonathan Parry, about a peculiar Hindu sect called the Aghoris. These pleasure shunning disciples of Siva inhabit the cremation grounds and are reputed to be responsible for ritual sacrifices and acts of cannibalism. There is a strong local oral tradition perpetuating the Aghori acts of cannibalism and similar reports have reached the newspapers and magazines within the last decade. According to Parry, however, the cannibalistic acts of the Aghori are based on ritual rather than material concerns. "I am convinced that if necrophagy is indeed practiced by any of the Aghoris I encountered, it has nothing whatever to do with the requirements of a balanced diet (as Harris 1977, has somewhat implausibly claimed for the Aztecs); but is an irregular - perhaps even a once-off-affair, performed in a ritualized manner at night during certain phases of the moon (associated with Siva)" (Parry 1982:90).

Perhaps the clearest and best illustrated account of the inadequacy of cultural materialism as an interpretation of cannibalism is Chagnon's concise example, albeit a hypothetical one, it is no less relevant.

For example, a valiant warrior overcomes his equally valiant enemy in a mortal hand-to-hand contest. In celebration of his victory, he rips his enemy's heart out and ritually devours a portion of it to both honor his dead enemy and perhaps acquire some of his enemy's valor to add to his own. Is the valiant warrior short of protein, or is his act more sensibly interpreted as a symbolic gesture? Perhaps the best way to drive home the argument is to ask whether the taking of
Holy Communion is evidence of caloric shortage or a symbolic, mystical - and ritually cannibalistic - act of eating the 'body and blood' of man called Jesus Christ? Holy Communion falls into a special category of cannibalism called theophagy, the Eating of Gods, and would make little sense if explained in terms of calorie or protein shortages. Most anthropophagy - the eating of man - is also like this (Chagnon 1983:105).

In a current work on the subject, Sanday has espoused assertions that in some cases the cultural materialist explanation may be applicable. Evidence presented earlier in this paper seems to give credence to this conclusion, particularly in cases of survival cannibalism where the environmental situation was marginal. However, Sanday goes on to further explain that

The significant association I establish ...between the regular experience of hunger, famine, or protein deficiency and cannibal practice suggests that the material forces cannot be ignored. However, the fact that hunger is just as likely to characterize societies that do not practice cannibalism ...suggests that the materialist explanation is insufficient (Sanday 1986:x-xi).

In the classic model of Marxist analysis, the infrastructure (the material aspects of society) is seen as determining the superstructure (the ideological aspects of society). Sanday, in fact, turns this concept around in order to explain not only cannibalism, but implicitly other ideological systems as well. Her explanation is in direct conflict with cultural materialist views and represents a major premise of structuralism and other schools. Sanday iterates, "I suggest that during the formulation of a people's relationship to the world and to other beings, ontological considerations take precedence over the utilitarian concerns given priority in the materialist point of view...and that these considerations frame a people's response to stress" (1986:229).

At this point, it becomes necessary to address the cause of the recent debate on the nature of cannibalism, namely Arens' book The Man-eating Myth... (1979). Arens' summary statement of his position reduces the essence of his book to a single sentence, "although the theoretical possibility of customary cannibalism cannot be dismissed, the available evidence does not permit the facile assumption that the act was or ever has been a prevalent cultural feature" (1979:182). It is for this
statement, I am afraid, that Arens has paid with his professional reputation. The ethnographic, archealogical, and ethnohistoric evidence from widely distributed geographical areas overwhelmingly nullifies Arens' claim. Strong support for the existence of cannibalism comes from the New World areas of the American Northeast, Southwest, Mesoamerica and South America. Old World areas where cannibalism has existed include India, Africa (not treated in this paper), and the Pacific Islands. Riviere has noted:

Arens's catastrophic failure to take account of well-authenticated cases of cannibalism... Arens considers only four other sources on Tupi cannibalism. It is not possible to tell whether he is ignorant of all the others or chose to ignore them...Bad books do not usually deserve long reviews, and I have given this one more attention because it is also a dangerous book. With little work and less scholarship, it may well be the origin of a myth (1980:205,205).

Donald Forsyth has perhaps mounted the most detailed criticism of Arens, including a list of all the sources that verify Hans Staden's account of his visit among the Tupinamba which Arens failed to cite. Forsyth's critique of Arens' work is directed from an ethnohistoric viewpoint, and serves as a fine example of ethnohistoric research in its own right. Forsyth has claimed that Arens's treatment of Tupinamba cannibalism is an example of poor ethnohistoric scholarship...because his methods do not meet the basic standards of historical analysis...Arens's work, at least with respect to the Tupinamba, is marred by inadequate control of chronology, selective use of data to make his case (while ignoring data which contradict his thesis), misleading and improbable interpretations of the sources' narratives, and a totally deficient treatment of the corroborative data available on the matter of cannibalism...For these reasons Arens's negation of the occurrence of customary cannibalism among the Tupinamba...cannot be taken seriously (1985:31).

With these final words on this subject, it is efficient at this time to dismiss Arens' conclusion on cannibalism as the misinformation that it is.
The purpose of the typology suggested earlier in this paper is twofold: first, to summarize and combine previously suggested types and in the process extract redundancies; second, to present a clearer, more definitive system based on previously published terminology with categories that will hopefully be satisfactory to anthropologists from varying (if not conflicting) research strategies. The need for a definitive typology is evident from a review of the literature. While many typologies of cannibalism already exist (Sanday's is particularly impressive), none of them include all of the categories suggested in this paper. The main need this paper meets is to have a typology of cannibalism that is concentrated, comprehensive, and significantly consolidated in one place.

Cannibalism, as viewed by the structuralists, is seen as a phenomenon primarily through the mythology of various cultures as a representation of the collective consciousness of the group in question. The structuralist interpretation is not reliant on the actual existence of cannibalism, rather it focuses on the analysis of myths in which cannibalism occurs. As a device of normative control, cannibalism can be very effective in a culture concerning the social order, while serving at the same time to perpetuate itself as a myth through the reinforcement of norms which in turn regulate group of individual behavior. A basic tool for structural analysis of myth and culture is the dichotomy. Since man universally thinks in terms of binary oppositions, these oppositions are useful to the structuralist anthropologist in analyzing native myth, culture, and world view. Significantly, cannibalism need not exist in reality, yet the concrete manifestations of cannibalism in the form of normative controls are seen as the key devices by which to understand the native society.

The cultural materialist views cannibalism as an actuality in which the constraints of the environment, namely in the form of hunger and protein needs, cause an adaptive response in the human population. The materialist interpretation of cannibalism as formulated by Harner (1977) and expounded by Harris (1985, 1979, 1977) uses as its case study the Aztec system of sacrifice/cannibalism. In this example, the Aztec system is seen as a complex meat redistribution network as a response to a protein shortage due to a lack of domesticated meat-bearing animals. Other materialist examples of cannibalism come from the ethnohistoric and archaeological records in which instances of warfare and survival cannibalism, respectively, are seen as responses to marginal cannibalism, respectively.

Some anthropologists feel that the materialist explanation is an insufficient approach to cannibalism in many cases. Yet it is obvious that environmental constraints have played a large role in the development of cannibalism as an adaptive response in the American Northeast, Southwest, and the Western Cordillera of
Colombia. This brings us to a very important conclusion about the nature of cannibalism and, perhaps more importantly, about the nature of anthropology itself. To be successful, specifically in the case of cannibalism (and perhaps in other cases as well), the approach must be multidisciplinary, or at least multifaceted, as far as concerns the application of research strategies which in turn may yield a more appropriate explanation in combination than when divided. Marshall Sahlins has made the critical observation that "The problem, of course, is that cannibalism is always 'symbolic', even when it is 'real'" (1983:88). This is the most concise statement that bridges the two interpretations, structuralism and cultural materialism. Although it is perhaps painfully obvious, what is even more painful is the fact that in some cases research strategies are adhered to as if they were religious commandments at the cost of an objective interpretation of an anthropological reality. Shirley Lindenbaum has voiced her opinion on this matter quite appropriately, "we are confronted with the double, or perhaps simultaneous, tasks of eliciting for each culture a coherent 'world view' as well as evaluating those beliefs and representations together with what we observe to be the social behaviors and social realities" (1983:96). It is more than evident that ideological constructs have concrete manifestations in the real world, sometimes determined by the constraints of the environment, and other times determined by the basic human need to understand or control the environment. Using an integrated research strategy, allowing the strengths of the one to compensate for the weaknesses of the other, the anthropologist would be more able to interpret cultural phenomena, such as cannibalism, in a more accurate, unbiased manner. Once again, Lindenbaum has penetrated to the heart of the issue:

...myth, ritual, and historic action give meaning each to the other...Sahlins (1983) unique dialectic vision...does away with the so-called myth/reality problem...The strength of the method lies in the revelation of systemic and transforming cultural logics...With this approach, the way in which symbols reflect and/or mask reality is not considered problematic (1983:97).

The time has come for anthropology to mature as a discipline based on a "dialectic approach" in which contradictions are revealed and then synthetically resolved. This end can be achieved by the means of adopting flexible or multifaceted research strategies which in turn would allow anthropologists more comprehensive analyses of social forms, such as cannibalism. In the end, the individual anthropologist, the discipline itself and, perhaps most significantly, the public would benefit by being relieved of inaccurate and biased interpretations which in turn lead only to the perpetuation of misinformation.
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