The Evening Conversation of the Efe Pygmy Men and Its Social Implication: A Men’s Display to Women

Masato SAWADA
Assozie de recherche du C.R.S.N.,
Republique du Zaïre
Kyoto University, Japan

ABSTRACT The evening conversations of the Efe Pygmy are described and analysed. The conversation process is divided into calm phases (c-phases) and excited phases (e-phases). While in c-phase, calm and ordinary speech is heard, in e-phase, loud and rapid speech is heard. In c-phase, adult women sometimes participate in the conversation. However, in e-phase, they do not and only adult men speak. In e-phase, adult men mutually support one another’s assertions, and rarely contradict each other. It is shown that in e-phase, the pragmatic variables e.g., loudness, rapidity of speech, function to make women remain silent and to draw the attention of women to the men’s conversation. It is suggested that the e-phase is a collective display towards women by the men in which they demonstrate their mutual supporting relationship.

INTRODUCTION

Anthropological and sociological studies on conversations are rapidly increasing in recent years. These include the area called the ethnography of communication.

Saville-Troike (1982) states that the scope and focus of this area are as follows:

The subject matter of the ethnography of communication is best illustrated by one of its most general questions: What does a speaker need to know to communicate appropriately within a particular speech community, and how does he or she learn? (Saville-Troike. 1982:2)

In general the ethnography of communication tries to describe and explain speech competence, which at least partly makes up the conversation process. Competence includes, for example, the adequate usage of words that varies with a speaker’s age, sex, social status, origin and so on. These social variables are considered to have much effect upon conversation.

In contrast with the above, there is another approach that derives sociological implications from the social situation of the conversation itself. Urban (1986) presents ceremonial dialogues in native South America. The ceremonial dialogues are stylistically marked with particular pragmatic variables e.g., intonation contour, stress, volume and so on. He reports an example of the Kuna Indians in Panama. In their ceremonial dialogue, the two voices harmonize at the overlaps between turns, giving hearers the impression that the dialogue was created with the coop-
eration of the speakers. He concludes that these formal characteristics suggest indexically the social solidarity that is one consequence of their cooperation (Urban, 1986).

Unfortunately, because Urban's analysis is limited to the dialogic interaction between two speakers, he gives little attention to the following aspects of the social situation. Among what kinds of gatherings do ceremonial dialogues take place? How do the hearers respond to the ceremonial dialogues? Without these data, we can not even know who hear the ceremonial dialogues and who recognize so called solidarity between speakers. Thus, the sociological implications of the ceremonial dialogue can not be well understood.

This paper attempts to present the sociological implications of the evening conversation among the Efe Pygmy. Although many researchers are impressed by the loudness and the liveliness of the evening conversations of the Pygmies, even the contents of the conversation have not been described nor analysed.

In general, Pygmies in the Ituri Forest, Zaire, are classified into two groups by their hunting methods, net hunters and archers. The research was carried out among the archer Pygmies from August, 1985, to January, 1986, around Andiri village of the Lese farmers, 20 km northeast of Nduye (Fig. 1). Around the village the archer Pygmies who are called efe in the Lese language lived in several camps.

Fig. 1. The research area.
The evening conversations of the Efe archers are presented and analysed. First, the characteristics of the gatherings where the conversations took place are described. Second, three recorded conversations are described. Third, the pragmatic and semantic characteristics of the conversations are analysed. Based on these analyses, the sociological implication of the evening conversation is discussed.

ADULT MEN'S GATHERINGS AND EVENING CONVERSATIONS

1) Spatial segregation between men and women in everyday life

In the everyday life of the archer Pygmies the division of labor by sex is distinct. Men hunt animals and women gather food plants. In contrast to the archers, among the Mbuti net hunters, men and women are both involved in the hunting activities. During net hunting, women beat the bushes and men wait for animals at each net (Harako, 1976, Tanno, 1976, Ichikawa, 1978).

According to Terashima (1983), there are four hunting methods among the Efe archers: spear hunting, individual bow-and-arrow hunting, collective bow-and-arrow hunting called *mota*, and larger collective bow-and-arrow hunting called *musilo* (Terashima, 1983).

Women participate only in the *musilo* hunting for symbolical tasks e.g., performing a pre-hunt ritual. Women do not play a practical role by acting as beaters (Terashima, 1983). Consequently among the Efe archers, most hunting is done exclusively by men. Except for individual bow-and-arrow hunting, several men form one working group.

Among the Efe archers, hunting and gathering are done separately in space. Thus adult men and adult women do not often meet each other in the daytime.

2) Men's gathering in evening conversation

As mentioned above, men and women do their subsistence activities separately. Consequently, the camp site is a special place for the Efe archers because both men and women spend their time together.

Men's gatherings are also found at the camp in the evening. After eating the evening meal at each hut, men come to the fire one after another to form the men's gathering. Around the fire adult men and young adult men sit and chat noisily. Though younger boys and girls are found there, they hardly take part in the conversation. Adult women rarely come near the fire, and they cook or rest in the huts after eating. Adult women sometimes talk to men during the conversation but at the climax of conversation they do not speak at all.

From early evening until midnight, what men do is only to converse loudly while clapping their hands and arms. The evening conversations are very different in noise and contents from ordinary conversations of the daytime.

The conversation process is divided into calm phases (c-phases) and excited phases (e-phases). C-phases occupy a larger amount of conversation time than e-phases, and e-phases are sometimes inserted between c-phases. As the two phases are defined by their loudness, one phase may continuously change into another.
THREE CASES OF EVENING CONVERSATION

I present three cases of evening conversation. Following each case I describe the characteristics of the pragmatic variables e.g., volume, pitch, rapidity of speech, intonation contour etc., and those of the semantic contents. Then I show that in e-phase the characteristics of the pragmatic variables draw the attention of hearers, and that speakers agree with each other.

The conversation sequence between two asterisks is in e-phase. The Lese language, which is usually used, is the mother tongue of both the farmers, Balese, and the Efe Pygmy. I recorded the evening conversations and had some Balese youths translate them into the Swahili language which is a lingua franca in eastern Zaire. Then I translated them into English. Each number principally shows a speaker's turn. However, when rapid turn exchanges occur, one number shows some combined turns. Names are given in abbreviations. Two letters, for example ND, is male. Three letters, for example IKU, is female. Brief notes in parentheses are given. The genealogy of the members of the study camp including the speakers is shown in Fig. 2.

Fig. 2. The genealogy of the camp where the research was carried out. The speakers who appear in the text are named. Anditee, Anditacha, Anditopi, Mulaki and Andanjil are the names of the patri-kin groups. $\varpi$, $Q$: Individuals absent from the study camp in Jan., 1986.
The Evening Conversation of the Efe Pygmy Men

Case 1

Recorded on 20th Jan., 1986 at the camp near the village for about 140 seconds.

Speakers: Adult male, ND and MB.
Adult female, IKU.

(1) ND: If SIY (a young adult female in the camp) went to bed with NG (a young adult male in the camp), NG should give his "sister" (which means a girl in the same patri-kin group) to MU (a younger brother of SIY). Then MU will marry her. (ND is insisting a sister-exchange marriage should be made).

(2) IKU: Because SIY is living with NG, we want NG to bring a girl for SIY.

(KI and ND speak inaudibly)

(3) MB: Make him bring a girl!

(4) ND: We can't do any harm to the girl (whom NG will bring to MU).

(5) MB: I am going to tell him to bring a girl.

(6) ND: If someone shows him a girl (that is if NG finds an appropriate girl), bring her!

(7) MB: If NG has no money (to pay as a bridewealth), just exchange ("sisters" between NG and MU)! Go and catch (a girl)!

(8) ND: Go and catch.

(9) MB: eho.

(10) ND: NG should go to catch a girl and bring her to his brother-in-law. (As shown in Fig. 2. SIY and MB belong to the same patri-kin group, so ND calls MB SIY's brother. Then MB is NG's brother-in-law.) It is good that he comes with our girl (who will belong to the camp). Immediately catch a girl and come back with her.

(11) MB: Money is inappropriate. Money is just money. Exchange is just exchange. (I think MB means he prefers exchange of girls to paying a bridewealth.)

(12) ND: Exactly. Although IK (ND's sister's son) was living with API (whom ND and IK's parents had expelled before), I didn't like her. She didn't look like a good girl. Her eyes looked evil. I didn't believe her.

(13) MB: API said, "If IK marries ITO (whom ND and IK's parents recommended IK to marry instead of API), IK will die. (API means she will kill him with sorcery.) We will wrap his corpse."

(14) ND: API said, "When IK will die, IKU (IK's mother and ND's sister) will smear her face with ashes (that means she will be in mourning)."

(15) MB: OCH (MB's brother's daughter) is staying with me, but I did not get her money. (This statement cannot be interpreted.)

(16) ND: If API kills IK, she will be beaten.

(17) MB: API didn't know that she had a husband (IK). (The rumor ran that API committed adultery.)

(18) ND: She will be beaten badly.

(19) MB: That woman didn't know who is her husband. If she makes more trouble, we will beat her to death.
Characteristics of the pragmatic variables in case I

(1)-(2) After ND’s turn a few people talk so faintly and while overlapping one another that their words can not be understood. MB’s voice is heard from a distance.

(2)-(3) ND and K1 are heard but not understood.

(3) MB’s voice draws near. LA and NI are heard between (3) and (4) but not understood. Both of them are boys and stop speaking immediately. There is a 4-second interval between (3) and (4).

(4) Hereafter ND speaks more rapidly than in (1).

(5) Hereafter MB speaks more loudly and in a higher pitch.

(6)-(7) Exchange of short turns between MB and ND occurs several times. They speak so rapidly and with so much overlap between turns that it sounds as if they spoke simultaneously. They sound very excited. It takes only 3.5 seconds from (6) to (7).

(8) “Go and catch” is “oro rata” in the Lese language. Both of them say this sentence slowly and in the same intonation contour, making a fugue-like refrain. ND makes his voice a little lower.

(9) ND’s voice is getting lower and lower during this turn.

(10) MB makes his voice lower than in (6)-(7).

(11) ND begins to speak as if he interrupted MB’s turn. His speech is loud and rapid. The topic of the conversation changed suddenly.

(12) As in (6)-(7), exchange of short and loud turns occur several times. There are overlaps between turns. ND speaks more slowly than before. On the contrary MB speaks rapidly. Consequently this contrast between high and low speed makes the conversation sound rhythmical. It takes 17 seconds from (13) to (15).

(13)-(15) Each turn is longer than in (13)-(15). There is no overlap. The contrast between the speed of their speech is unchanged. In (18), ND claps his hands rhythmically to keep time with his speech.

On the contents of case I

In the first half, ND insisted that NG should give his wife’s brother a girl in his patri-kin group i.e., exchange of “sisters.” MB responded to support ND by opposing NG’s payment of a bridewealth for his wife. After the topic changed, both of them presented new facts on API one after another during (12)-(14). From (17)-(19), MB presented a new fact but ND only repeated the statement in (16).

Particularly during the e-phase, it is difficult to determine who led the conversation because their statements supported each other. It should be noted that all the members of the camp had shared the opinion by talking many times about these topics. Consequently it is suggested that in the e-phase their statements did not function to inform the other speakers about a new fact or a novel opinion.

Also it is important that the topic during (1)-(11) changed suddenly after ND’s turn (12) because MB responded with another topic. MB apparently wanted to share the new topic with ND rather than to repeat his preceding opinion.

The lack of new information and opinion means that each turn served to continue the conversation interaction itself. The sudden change of topic shows that the expression of shared topics and opinions might be the very purpose of the interaction.
Case 2

Recorded on 23rd Jan., 1986 at the camp near the village for 150 seconds.

Speakers: Adult male. MB. KI (MB’s elder brother). IK and KU (IK’s father).

Juvenile, LA (MB’s son).

(1) MB: When we went to cultivate (certain villager’s field), we were very hungry.

(2) KI: I took a meal at JE’s mother (a farmer).

(3) KU: Don’t turn the pot.

(4) IK: I had not eaten too. I went in hunger.

(5) KI: There at JE’s mother, I ate cassava only.

* (6) MB: I don’t like to eat a large meal. I eat little. When I go to do mota, I don’t eat until arriving back home.

(7) KI: Even I don’t.

(8) IK: Even I don’t

(9) MB: When I go to do musilo, if I don’t shoot any game, I will go up to the Madinga river with Dorenbaunde (his dog’s name). (He means he’ll go hunting there.)

(00) IK: Missing game will hurt me also. I will go up to the Madinga, too.

(01) MB: Soon, soon, I’m going.

(02) IK: Soon, soon, let’s go up to the Madinga. Very well, leles (a lele is a bell hung on the dog’s neck at hunting) are ready.

(03) MB: We will hang leles on both of the two dogs. Dorenbaunde and Ndokote (the name of IK’s dog). I will rub the medicine (to make a dog chase game) into their noses one more time.

* (04) IK: There is the medicinal plant on the opposite bank.

(05) LA: Whose package is it? (Asking his father. MB about a package of food in the fire.)

(06) MB: It’s yours. LA.

Characteristics of the pragmatic variables in case 2

(1) : MB speaks with ordinary loudness and pitch.

(2) : KI speaks a little more loudly than usual.

(3) : KU’s statement overlaps completely the whole latter half of (2).

(4) : Immediately after (3). IK speaks in a depressed tone.

(6)-(8) : MB makes some calm responses “a::n, a::n,” to KI’s turn (5), after which he suddenly starts to talk rapidly, loudly and in a high pitch. First, MB begins to talk. KI interrupts MB’s turn and MB makes his voice a little lower during KI’s turn after which MB resumes his voice and continues to speak rapidly. At the end of MB’s turn, he once claps his arm. Immediately after MB’s turn, IK speaks more loudly than in (4). It takes about 10 seconds from (6) to (8).

(9) : In 2 seconds after (8), MB again starts to speak rapidly, loudly and in a high pitch. IK calmly responds at the outset of (9), “u:::”. MB claps his arm twice to keep time with his utterance.

(09)-(12) : The exchange of turns occurs several times. There are overlaps between turns. In general. IK’s turns are shorter than MB’s. MB speaks
as in (9). and IK speaks loudly. in a high pitch but not rapidly. For a very short period, both make their voices louder. MB claps his arm twice. They seem to be most excited during case 2. It takes 10 seconds from (10) to (12).

(13): Though MB lowers his voice a little. he still claps his arm in excitement.

(14): IK lowers his voice and becomes calm.

(15): Both MB and IK keep silent for several seconds. Then LA asks his father in a low voice.

(16): MB answers in a calm and low voice.

On the contents of case 2

At the onset of the e-phase when MB presented a new topic, KI and IK agreed with him immediately in a loud voice. So they seemed to cooperate together to initiate the e-phase.

After (6). MB led the conversation. IK also contributed to the topic in (12) and (14). Both cooperated to make up the plan. This plan was not carried out in spite of the excitement and enthusiasm of the planning. Consequently, it is suggested that in the e-phase they had the conversation not to form a practical plan nor to make a promise on their future action. Rather they together intended to share the plan and to make an imaginary journey.

Case 3

Recorded on 6th Oct., 1985 at the camp in the forest for 70 seconds.

Speakers: Adult male, ND. PI (ND’s younger brother), MB and SO. Adult female, AIK (PI’s wife).

(1) PI: We found the elephant lying on the ground. It started to walk.

(2) SO: If I had been there, I should have speared it at once.

(3) PI: A man with whom I went came and tried to stab with the kapita’s spear. (A kapita is the administrative representative of a camp.) But the spear missed the target.

(4) AIK: Then why did the man miss the elephant? Was he afraid of the elephant?

(5) PI: He was afraid. His body was trembling a little.

(6) SO: But for fear, he could have speared successfully.

(7) PI: If he could have been careful when spearing!

(8) MB: A man can not miss an elephant because its limbs are very big.

(9) PI: KA (a Pygme’s name) missed. “You! Spear quickly!” (PI said to KA at the scene.) Then he missed the elephant.

(10) MB: Then another man had speared the elephant before. UB (a Pygme’s name) had speared first. (After UB’s first spearing, KA missed.) If another man speared before, I don’t aim at the same place. (UB speared the hind limb of the elephant where the first attack usually aimed. KA aimed at the same place even in the next attack.)

(11) SO: I would have speared at once without trembling.

(12) MB: If I had been there, I would have speared at once without trembling. Kuh::hu! (He mimics the sound of stabbing an elephant.)

(13) PI: KA had made way for UB. (KA gave the spear to UB.) Then UB
went to spear. When he speared again, he called his younger sister’s name. “Matailae::h, Matailae::h, Matailae::h.” (UB’s sister was of course absent from the hunting.)

(14) ND: I once missed spearing because of trembling.
(15) MB: Because even their limbs are very big, a man can miss from fear.
(16) PI: If another man has speared before, you spear anywhere.
(17) MB: That’s the way it should be.
(18) PI: If another man has speared before, you spear just anywhere.
(19) MB: If another man has speared before, you spear just anywhere.
(20) PI: Yes! If another man has speared before, you spear just anywhere.
(21) MB: Yes!

Characteristics of the pragmatic variables in case 3
(1) :PI is telling an old story. His voice is louder and his pronunciation is clearer than usual. He speaks slowly and rhythmically.
(2) :SO speaks a little in a low voice.
(3) :PI resumes the story. The onset of his turn overlaps the end of (2) as if he interrupted SO. PI’s storytelling style is unchanged.
(4) :AIK asks her husband PI. She speaks her turn slowly in a loud voice and in a chant-like intonation rising at the end.
(5) :PI answers AIK with almost the same sentence as AIK’s question, in the same intonation contour. Then he resumes his storytelling style immediately.
(6) :SO comments briefly in a slightly loud voice, the onset of this turn overlaps the end of (5).
(7) :PI speaks in the same style, the onset of this turn overlapping the end of (6).
(8) :Immediately after (7), MB starts to speak in a slightly loud voice.
(9)–(10) :PI starts to speak. the onset of this turn overlapping the end of (8). The storytelling style is still maintained. When he begins to speak his second sentence. MB also begins to speak. At that time both of them raise their voices higher as if they competed with each other. MB speaks rapidly. PI also speaks rapidly and out of rhythm abandoning his storytelling style. After (9), MB still continues to speak. Overlapping the latter half of (10). PI’s rapid speech, which is not translated, starts again, speaking even after (10). As PI’s speech is drawing to the end, he resumes his storytelling style. Both of them sound excited.
(11) :SO speaks in a louder voice than in (6).
(12) :MB still speaks loudly and in a high pitch.
(13) :PI keeps on telling the old story. He utters “Matailae::h” three times in a high pitch and in the same intonation. His voice becomes lower and lower through (13). At the end it is almost impossible to hear.
(14)–(17) :Several men’s voices are heard but not understood, except for the following.
(14) :ND speaks in a loud and clear voice and in a high pitch. This turn overlaps the end of (13).
(15) :MB’s voice is very low.
(16) :Hereafter PI speaks rapidly, in a loud voice and in a high pitch. His
utterance is different from that of the storytelling style.

(17) MB resumes speaking loudly and in a high pitch. He sounds excited again.

(18)-(19) (19) follows the intonation contour of (18), making a rhythmical sound pattern like a phrase in a fugue.

(18) PI's voice remains loud. Furthermore, putting stress on the onset of his utterance sounds as if he was appealing to the others.

(19) Immediately after (18), MB repeats almost the same sentence as (18), in the same intonation contour.

(20) The onset of “Yes” overlaps the end of (19). After a short interval, PI again says loudly the same content as (18).

(21) MB responds in a lower voice. It takes about 7 seconds from (18) to (21).

On the contents of case 3

Through case 3, PI kept on telling an old story. But listeners often interrupted him, commenting on the story. While PI was narrating the facts one after another, the listeners only commented on KA's mistake. At (16), PI gave up storytelling at last and joined in the conversation with MB. Then it can be concluded PI did not perfectly lead the storytelling, rather what he did was just to present a topic of conversation.

(2), (11), (12) and (14) show that speakers considered themselves to be at the scene of elephant hunting. In other words, they described their actions of the past or an imaginary scene. Particularly in (11) and (12), they agreed with each other even in their imaginary actions.

When ND's statement in (14) was inconsistent with the previous statements of MB and SO, MB immediately changed his opinion and supported ND in (15). This fact reveals their desire for agreement with the others. The conversation sequence from (16) to (21) also supports the above conclusion.

PRAGMATIC AND SEMANTIC ANALYSES OF THE E-PHASE

Among the characteristics of the pragmatic variables described in each case, the following are the most significant in e-phase.

1. Those except adult men do not speak in e-phase.

2. In e-phase, men speak in louder voices and in a higher pitch than in c-phase.

3. In e-phase there is almost no interval between turns.

4. In e-phase rapid exchanges of turn may occur with overlaps between turns when men speak more rapidly, more loudly and in a higher pitch. (e.g., from (6) to (7) and from (13) to (15) in case 1, from (10) to (12) in case 2 and from (9) to (10) in case 3.)

5. When one speaker makes his voice louder, the others often do also. (e.g., from (5) to (6) in case 1, from (6) to (8) and from (10) to (12) in case 2 and from (9) to (10) in case 3.) On the contrary, when one makes his voice lower, the others often do also. (e.g., from (10) to (11) in case 1 and from (13) to (14) in case 2.) The loudness of one utterance tends to be in accord with that of the preceding
utterance.

6. Speakers often make musical effects cooperatively such as by the repeated contrast between a rapid speaker and a slow speaker, or by the fugue-like refrain of the preceding utterance’s intonation contour. (e.g., from (13) to (15) in case 1 and from (18) to (20) in case 3.)

7. Besides the above, speaker may by himself make his utterance rhythmical, particularly by clapping his arm or hands during the conversation. (e.g., (18) in case 1 and from (6) to (8), (9) and from (10) to (12) in case 2.)

Among these characteristics, especially 2, 4, 5, 6 and 7 draw the attention of the non-participants to the conversation. On the other hand as shown in 1, women and boys do not participate in e-phase. Consequently, the distinctive vocalization of the men in the camp is in remarkable contrast to the silence of women and boys.

Moreover, the conversation with the characteristics of 6 and 7 sounds cheerful while the conversation with those of 2, 3, and 4 seems to be in a aggressive and serious mood.

In each case it was pointed out that speakers did not contradict each other, rather they supported each other’s opinions. Therefore, the listeners know that the speakers share opinions and/or plans, for example the sharing of opinions on NG’s marriage and API’s evildoing.

The shared opinions can be expressed in other styles. For example, the sharing of a dogma is expressed to the onlooker with semantically unilateral communication in which a preacher speaks first and the preached respond with pragmatic responses such as nodding or “u:m” in English. However, it seems to be natural for Efe men to contribute semantically to the expression of shared opinions, rather than to respond to the lead speaker with pragmatic responses.

Speakers seem to have a strong desire to share the topics, as pointed out in each case. For example, in case 1 when ND suddenly changed the topic, without hesitation MB followed ND. In case 2 both cooperated to form a plan, impracticable and useless even to themselves.

**EVENING CONVERSATION IN E-PHASE AS A DISPLAY TO WOMEN**

Although in c-phase, neither men nor women speak loudly, their voices can be heard from anywhere in the camp. Thus the evening conversation can not be a private one. Then, why do women cease speaking when e-phase starts? It is hard to believe that women are prohibited from mentioning certain topics, since the c-phase topics in case 1 and case 3 are still maintained during e-phases. In both cases, women spoke in c-phase, but did not in e-phase. Rather the characteristics of pragmatic variables in e-phase, such as loudness and rapidity of speech, may have a metacommunicative message that tells women to be silent and listen to the men’s conversation.

Because women receive and understand the message, e-phase can begin. In other words, e-phase is initiated by the cooperation of both men and women. In e-phase, two different roles are found, namely speakers and hearers, which are not known in c-phase. These two roles can be seen in the relationship between actors and audience in the theater. The audience does not usually respond to the actors’
speech; the actors can play a drama and the audience can enjoy it. In a sense, the actors and the audience collaborate with each other.

During the daytime, the division of labor keeps Efe men separate from women, and thus the evening conversation is the limited occasion for women to hear men's conversation. Especially in e-phase, the social situation of the conversation is like a play. As in the play on a stage, in e-phase, exaggerated and modified vocalizations are utilized. For example, among the significant characteristics of pragmatic variables in the preceding section, particularly 6 and 7 are not heard in the ordinary conversations. The musical effects of 6 and 7 can be compared with that of the vocalizations in an opera or in a kabuki play, although it is unknown whether men intentionally make the characteristic sounds.

Because men's statements in e-phases are not received only by other speakers, they should be recognized to be the lines of actors to be heard by the audience, namely women. It is concluded that men display their mutual supporting relationship to women and intend consciously or unconsciously to impress women with their relationship.

However, how do women interpret the men's display? Do women together display their relationship in another setting? If so, what kind of relationship do they display? The social dynamics among Efe men and Efe women remain to be studied. The present paper is an initial contribution to this investigation.

ACKNOWLEDGEMENTS I am grateful to the Département de la Recherche Scientifique, and C. R. S. N. (Centre de Recherche Scientifique Naturelle), Rép. du Zaïre, for permission to conduct this study; Ministry of Education, Science and Culture, Japan (Grant-in-Aid for Overseas Scientific Research No. 60041006, and Grant-in-Aid for Data Compilation No. 61043004, for financial support and facilities: Prof. J. Itani. Drs. M. Kakeya. M. Ichikawa, and H. Terashima for their encouragement and advice; the members of the Laboratory of Human Evolution Studies, Kyoto University, for their valuable comments; and the people of the Ituri Forest for their hospitality.

REFERENCES