

身体動作と発話のリズム分析にみるコミュニケーションの達成

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The Rhythm of Everyday Communication

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1. The Significance of the Rhythm in Communication

In Japanese, lively conversation is described with the phrases “*ikiga au*” and “*hanashiga hazumu*”. “*Ikiga au*”, literally translated, means that interlocutors are synchronizing their breathing. “*Hanashiga hazumu*” literally means that the conversation bounces. The word synchronize refers to the perfection of timing of action and its maintenance. The word bounce refers to the rhythmic movement and its repetition. Both expressions are related to the rhythm of human action. In other words, there is a sense of rhythm in lively conversation.

As for school classes, observers evaluate the rhythm of classroom conversation informally using such expressions as good rhythm or good flow and poor rhythm or poor flow. The classroom rhythm is generated by the series of rhythms of individual communicative acts between teacher and student and among students themselves. This research looks at communication not from the perspective of information exchange but from the standpoint of whether participants are trying to share the same rhythm. Rhythm does not simply occur as the by-product of the communication of meanings. The author’s view is that a certain rhythm and its repetition constitute a basis for communication.² In this sense, dialogue is the act of trying to maintain the rhythm through the cooperation of those participating in the discourse. Being able to speak in good rhythm and being able to interject in a timely manner while the other person is talking are not simply a matter of communication technique. Rather, such collaborative behaviors are communication itself.

2. Definition of the Rhythm of Communication

According to Erickson and Shultz (1982), the rhythm of communication is the “organization of verbal and non-verbal communication.” It refers to a rhythm being created through interactions, including non-verbal acts such as laughter, nodding and gesture. To put it another way, the rhythm of communication does not develop simply from the linguistic feature of time-stress in English. Rather, it is also created by the vocal and bodily rhythmic senses of interlocutors. A speaker adjusts the rhythm of her/his own speech and body movements to harmonize with those of her/his conversation partner.

Erickson and Shultz say that the rhythm of communication in English creates “mechanically measurable” repetition and that it continues with considerable metronomic time accuracy.³ They report the regular interval for English speakers is four beats in 10 seconds, plus or minus two beats. The appropriateness of this assertion is endorsed by many studies that observed the interaction between caretakers and their children (Beebe 1985; Gratler 1999, 2000; Malloch 1999, 2000). For example, Malloch reports that turn taking and the accompanying turn unit time (1.53+/-1 sec.) repeat regularly after observing the exchange of voices between a mother and her six-month old baby. Based on the observing an interaction among newborn infants and their caretakers, Gratler also states that there were four continuous beats in 10 seconds in their interaction. These instances coincide with the regularity of communication in English as Erickson argues. As part of the communication issue dealt with in thesis, a voice analysis was made and the existence of “rhythmic repetition” as described by Erickson et al. was confirmed.⁴

However, the rhythm mentioned in this paper refers not only to mechanically measurable time called “*Chronos*”, but also appropriate time called “*Kairos*”.⁵ “*Kairos* mean the right time—the *now* whose time has come.” (Erickson 1982, p. 72) The Ecclesiastes poem begins with “To every thing there is a season, and a time to every purpose under heaven: a time to be born and a time to die...a time to keep silence, and a time to speak; [Ecclesiastes 3:1, 2 and 7].” In this poem, the Hebrew word translated as “time” in English corresponds to the Greek word *Kairos*, appropriate time. In a broad sense, *Kairos* provides organization, be it for life changing events or successive units of discourse. In the case of conversation, *Kairos* means the moment

when interlocutors feel that something should happen next, for example, tactically important things such as appropriate timing of response.

From the perspective of music, Yako (2001) also defined rhythm as a combination of both *Chronos* and *Kairos*. He understood rhythm to be not only a phenomena of sound but also a product of attention, that is how a person focuses her/his mind on the phenomenon. The rhythm patterns tell the hearer where in time to focus attention. Speech rhythms provide a foundation for speech and action.

3 The Rhythm of Everyday Conversation

3.1 Change of Rhythm in the Discourse

Let us imagine the following scenes : (1) You are trying on a bikini in a fitting room. Looking mournfully at your sagging belly in the dressing room mirror, you ask a store clerk, "How do I look?" After a long pause, the sales person says, "Oh, you look great!" (2) You find your colleagues whispering shoulder to shoulder in your office. You approach them and ask, "What happened?" Your colleagues respond quickly, repeating "Nothing," "Nothing." In the case of (1), do you believe the words of the store clerk? You will probably feel the salesperson stammered because the swimsuit did not really suit you. In the case of (2), you might suspect from the way your colleagues responded hastily that perhaps they were gossiping about you.

Silence and changes in the speed of utterance in communication sometimes prove to be more eloquent than the contents of the utterance. After all, *when* and *how* we talk is just as important as *what* we talk about in our daily conversations with others. The issues of when and how we speak are concerned with the elements of rhythm such as the timing, pitch and speed of utterance, as well as the quality of voices and expressions. Erickson and Shultz (1982) emphasized the importance of when and how.

Conversationalists have two related practical problems in the conduct of talk together. One problem is when, specifically, to say what to whom. Another problem is how, specifically, to say what to whom. Most analysis of conversation by students of face-to-face interaction, regardless of disciplinary perspective, has been concerned with understanding the latter of these two problems of practice. But since conversation takes place in real time, the when of the action may be as

fundamental a practical matter as the what of it. To “say” or to “listen” the right thing in the wrong time, verbally or nonverbally, can be as inappropriate—as inadequately social—as to say (or listen) the wrong thing in the right time. (p. 76)

Observing a conversation between teachers and students, Erickson and Shultz stated that when the rhythm of conversation goes off track, those involved in the communication tend to get an unfavorable impression and may misunderstand each other. They argue that derailment of conversational rhythm, which is constituted by both verbal and non-verbal behaviors, is caused by such things as the absence of well-timed responses and a change in the tempo of utterance.⁶ In Figure 1, for instance, a student was asked, “How did you do in your 010 biology test?” The student answered “A” after an interval of two beats instead of answering immediately. In everyday conversation, a listener is normally expected to respond on the beat immediately after the last word of a speaker, that is “LRRM”, Listener Response Relevance Moment defined by Erickson and Schultz, or on the next beat at the latest. But, in this example, the student’s responses came later than normally anticipated. This “failure” to respond in the right time might have been interpreted by the counselor merely as an indication of unfamiliarity with the conversation. However, Erickson and Shultz reported that student’s hesitation gave the counselor an unfavorable impression of the student and some students who had hesitated to answer in the interview failed the interactional mini-test, which was conducted experimentally after observation of counseling.

	C: Counselor (Teacher)	S: Students	• : Pause	
1	C: •	•	•	Bi
2	C: <u>o</u> logy	one-on-one	•	•
3	S: “A”	•	•	•
4	C: Reading	one	Hundred?	•
5	S: “B”	•	•	•

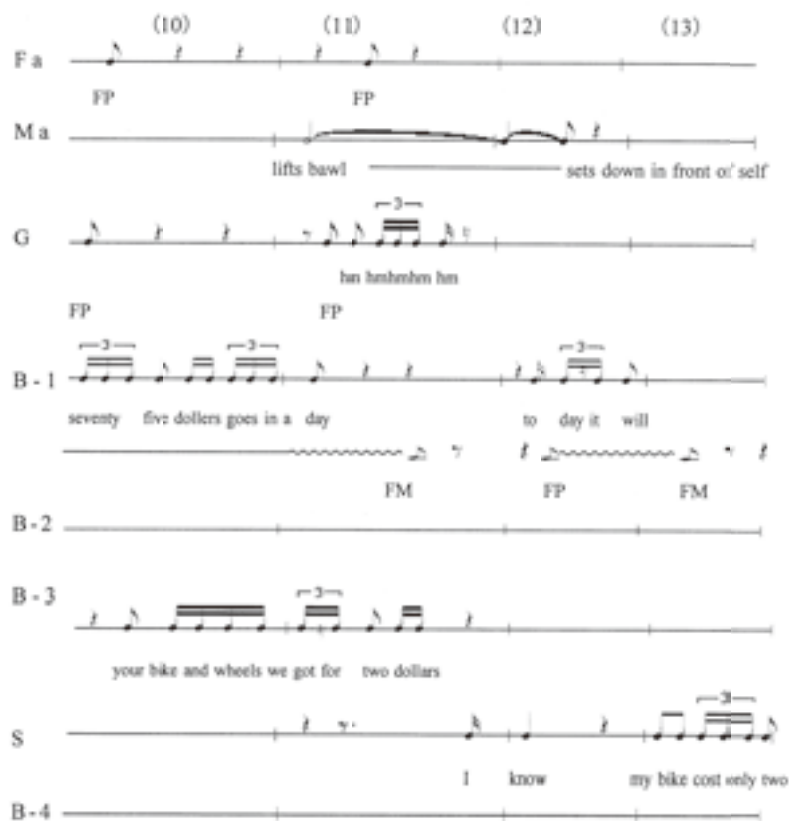
Figure 1. Communication between American university tutors and students

F. Erickson & J. Shultz (1982), *The counselor as gatekeeper: social interaction in interview*, p. 94.

3.2 Co-established Rhythm in the Discourse

Auer et al. focused on the rhythm of dialogue in everyday communication in an analysis of telephone talks in their 1992 study. They observed telephone talks of English, German and Italian speakers from beginning to end. They found that all of the speakers had the best coordination in the rhythm (meaning they exchanged conversational turns smoothly) just before they put down the telephone. Auer et al. determined that the rapid-fire rhythm generated by the exchange of short words at the end of a conversation acts as a signal to end the conversation over the telephone. Therefore, it may be said that the rhythm of the telephone conversation plays the role of a contextualization cue that dictates the behavior of a speaker in a certain situation. When the two speakers bring the conversational rhythm to a high point, the rhythm serves as a sign to hang up the receiver.

A similar study conducted by Erickson (1992) indicates that conversation is maintained using various contextualization cues and through the coordination of verbal and non-verbal behaviors. Erickson analyzed an American family's dinner table talk. Using a rhythm score, his research shows how the utterances and even the movements of the seven family members and their guests proceed in a certain rhythm throughout the meal (see Figure 2).⁷ From this rhythm score it can be seen that the utterances and physical movements of this family are continuing in two-four time without a break. Erickson gives three reasons for the repetition of the conversation at a precise interval (0.85 seconds). (1) "The transition relevance point" lies on the beat next to a stressed syllable of earlier speaker's utterance or on two beats behind and all speakers alternate in giving utterance according to this rule. (2) The stress position of the speakers' syllables often overlap. However, even when two or more speakers are taking turns speaking simultaneously, the conversation proceeds without this being perceived as interference when they are talking about the same topic. (3) Portioning out food, as well as and talking and listening are performed to the beat of the conversation. This family's dinner table talk indicates that time-based coordination has a significant place in generating and maintaining conversation.



※Fa: Father, M: Mother, G: Guest, B: Brother, S: Sister

- B-1 represents the eldest brother. In this conversation there are four brothers who talk.
- The utterances are presented in measures of two beats each, with a time signature of 2/4. The numbers, 10~13 represent the measures.
- FP represents eater's fork touched the plate. FM represents the food-laden fork touched the eater's mouth.

Figure 2. Excerpt from family dinner table conversation

F. Erickson (1992), They know all the lines: Rhythmic organization and contextualization in a conversational listing routine. In P. Auer and A.D. Luzio (Eds.), *The contextualization of language*, pp. 265-397.

4. Discourse production resources in dinner table talk

So far we saw from the earlier studies by Erickson et al. (1992) that everyday communication is made up of verbal and non-verbal exchanges of rhythm. In other word, the rhythm of conversation is not achieved solely by speech. Rhythm is created through the integration of speech, body motion, laughter, and other elements into a rhythmical or framework shared by the participants in the conversation. Here we will first examine the resources that form the basis for interaction in everyday conversation. The word, *resource* as used by Erickson and other conversation analysts indicates elements that generate and develop conversation. This use of the word resource arises from the view that every conversational participant is an agent who establishes conversation actively. With regard to the discourse at the American dinner table discussed, Erickson (1992) states that those gathered around the table use the following six resources: (1) knowledge of topic, (2) knowledge of grammar, (3) knowledge of table manners, (4) spatial positioning, (5) family relationships, and (6) temporal organization of speech and body motion. Erickson described these resources as follows:

1. General cultural knowledge of what things cost nowadays (by which members could participate in the overall topic of conversation of the moment).
2. Knowledge of phonology, lexicon, and grammar (by which list generation could be done as a speech routine).
3. Knowledge of skill in using utensils, dishes, and food in serving and ingestion, and knowledge of how to do this in relation to the talk that is going on simultaneously with eating.
4. Spatial positioning of participants-in relation to the food and to one another at the table.
5. Patterns of family relationships, especially as regards speaker-audience collaboration, including the presence of the guest as a special auditor during the production of the speech routine, and including teamwork in cooperating and/or competing for audience attention.
6. Temporal organization of speech and body motion in interaction. (p. 369)

Erickson takes the view that these production resources enabled the conversation to be

carried out smoothly. According to Erickson's analysis, the resources are under the influence of the family-shared, culturally learned schemata of expectations of how one should talk and eat at the dinner table. The resources of conversation are not universal but peculiar to each individual situation. Although Erickson has not given his explanation in more detail, it seems that these resources are not in a parallel relationship, but mutually are related on different levels, and finally are concentrated on the sixth resource, namely that of temporal organization of speech and body motion. (see Figure 3). To take an example reported by Erickson, when family members discuss the high cost of living, those participating in the conversation need to have a common knowledge of that specific topic as well as knowledge of grammar and vocabulary. These two resources thus form an inseparable relationship. However, Erickson does not seem to use the term knowledge to simply represent a set of grammatical rules possessed by individual speakers. He also seems to be referring to tactics employed by conversation's participants in order to give the conversation continuity and cohesiveness. For example, the members of this family were seen to continue conversation by echoing the sentence structure and vocabulary of the previous speaker as follows.

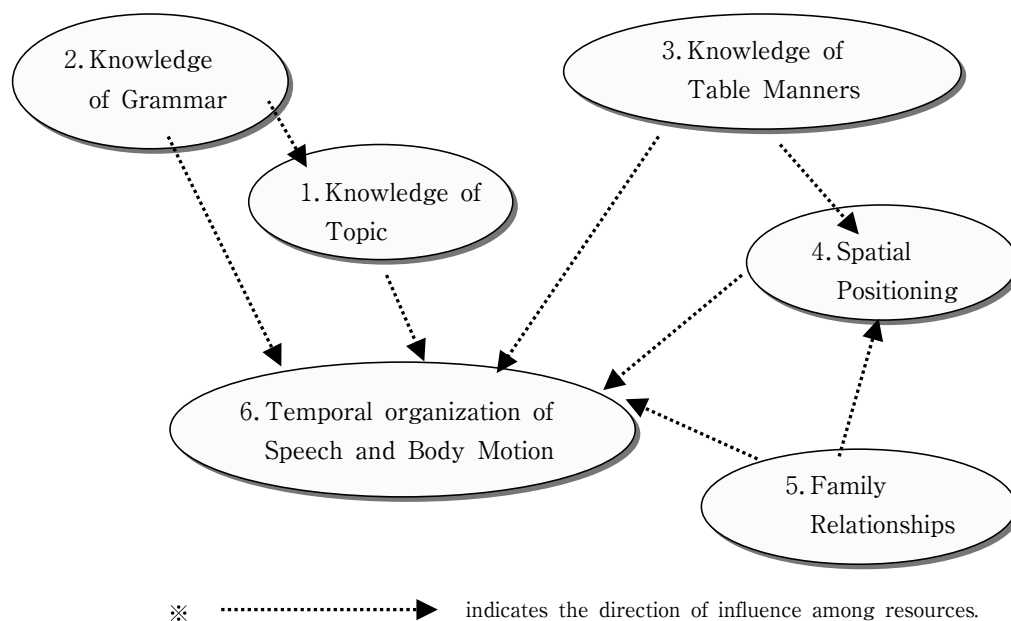


Figure 3. Discourse production resources and their relations at dinner table talk in an American family (Based on Erickson, 1992)

- (15a) B-1: I don't have to pay taxes on a house
- (15b) B-1: I don't have to pay mortgage
- (15c) B-1: I don't have to pay uh all kinds
- (18) S: a water bill
- (15d) B-1: I don't have to pay all kinds of stuff like that
- (19) B-2: You don't have to pay for a car
- 'n the insurance
- (19) B-4: electric bill
- I don't have to keep two cars on the road
- (20) M: electric bill
- gas
- insurance
- (21) B-3: You don't support five kids
- (24) B-1: I don't support five kids either
- (25) B-4: You don't have to pay for gas
- (27) B-3: shoes
- 'n clothes

※B: Brother, S: Sister, M: Mother

- The numbers in the parentheses represent the turn in the conversation.
- B-1 represents the eldest brother. B-2, B-3 and B-4 represent the second, third and fourth brothers.

In this conversation each family member borrows the previous speakers' expression and they collectively build a long list of household expenses. Here each speaker's utterance directly becomes a resource for the other speakers. Erickson remarks that this "list routine conversation" (p. 395) unfolded as if the participants knew what the others would say from the beginning.

A knowledge of table manners is directly concerned with how each person uses space at the table (spatial positioning). Family relationships also widely influence the amount of space used by the various family members at the table and the order in which they join the conversation. In this family a local rule of turn taking was seen in

several conversation sequences where it was reported that the eldest son took the first turn and the father took the last turn, giving the final word on the topic.

The conversational resources in Figure 3 are particular to the situation in which the family has dinner at home. More general conversational resources are conceptualized and illustrated by the author in Figure 4. The three white ellipses, *speech*, *body motion* and *time*, are the constituents of discourse, and at the same time, each of them is also a resource for the discourse that follows. The two dark ellipses of *topic* and *manner of place* are both derivatives of *speech* and *body motion*. It can thus be said that the *speech*-*topic* and *body motion*-*manner of place* pairs of resources have a similar relationship to that of light and shadow.

With regards to this light-and-shadow relationship between speech and topic, as we have already seen, the family members at the dinner table utilize a part of the previous speakers' speech for making their own utterances. This behavior of borrowing the other family members' words as a resource of one's own utterances illustrate that each participant tacitly utilizes the shared family knowledge of the topic in order to create conversational cohesiveness. As Erickson (1992) mentioned, each situation in which a conversation occurs has unique rules that the participants follow subconsciously. The rules seem to be constituted by the habits and histories of the participants and the relationships of power and authority among the participants. The relationship between manner of place and body motions is the same. The family members and the guest, eight persons in total, can sit around the table and establish the dinner table

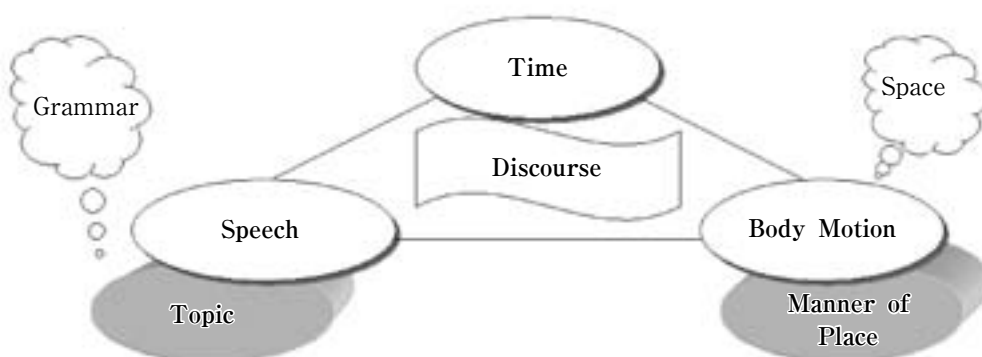


Figure 4. Discourse production resources and their relationships

conversation by conforming to the manner of place tacitly: how to use the space of the table, how to talk and take a meal simultaneously, how to take a speaking turn. These local rules are regulated by the habits and relationships of power in this family.

Time is the concept which unifies *speech* and *body motion* when participants are engaged in a conversation. The reason we can maintain conversation, even when there are a large number of participants taking part or when participants cannot see each other such as telephone talk, is that the participants utilize *time* as an effective guidepost for marking the appropriate moment when the participants should listen or should take their turn to talk. *Time* functions as a framework giving cohesiveness individual utterances. *Time* is more than just a resource of discourse. *Time* is the linchpin that holds discourse together.

5. English classes with an everyday conversation style

Classroom communication research has traditionally emphasized the peculiarities of classroom discourse as opposed to everyday conversation. However, certain types of behavior similar to everyday conversation can be found in some English classes. These behaviors are: (1) cooperative efforts to get in rhythm with others at the change of the speaking turn, (2) the students' use of nods and glances that synchronize with the teachers' speech and (3) adjusting the length and rhythm of one's speech to fit with the previous speakers' rhythm. In the English classes discussed in previous papers (Matsui 2003a 2003b 2004a), teachers and students participated in classroom conversation by cooperating with each other through the shared senses of time and body motions. This is the same as everyday conversation, such as the dinner table conversation observed by Erickson.

The classroom rules (such that students stand up when they make comments) and teacher's speech style (such entrusting behavior by which a speaker leaves the interpretation of the meanings of their utterances up to the student) are also significant. The author considers these two elements to be the resources that differentiate the classes where classroom conversation closely resembles everyday conversation and those where no such resemblance is found. With regard to classroom rules, an example was seen where the classroom rules requiring the students to stand up when called on obstructed the rhythm of verbal communication. An example of the significance of

teacher's speech style was observed where the students repeated teacher's words or asked her questions without being required to do so. The author believes this is due to the fact that the teacher's utterances were not meant to evaluate the students or give them instructions. This ambiguity of the utterance by the teacher encouraged the student to speak in everyday manner and to maintain the conversation.

Notes

1. This paper is revised based on the part of the unpublished master thesis (Matsui 2004).
2. Borrowing Wittgenstein's phrase "language game", Yako (2001) says, "In the language game called music, rhythm becomes the basis for the connection between those who create sounds and those who listen to them". Likewise in the "English language game", the give and take of everyday English conversation, rhythm has a similar importance.
3. However, Couper-Kuhlen (1993) reports that quantitative and rhythmic repetitions in English are not necessarily accompanied by time-based accuracy and the rhythm varies widely even in the sequence of a piece of communication.
4. Refer to 2.3.1 in Chapter 2.
5. The Greek words *Kairos* and *Chronos* are Greek translations of two concepts of time distinguished by ancient Hebrews. Originally, *Kairos* defined time on a cosmic scale, encompassing such things as birth and death. *Chronos* referred to the continuance of time in the normal space-time.
6. This is called *Arhythmia*. The term indicates that some problem has occurred with the exchange of utterances, causing the participants to get embarrassed.
7. Just as there is an expression "one speaks as if one sings" or a theory that music originates from words, spoken language and music are closely related. The importance of musical elements such as pitch, sound volume and the timing of utterance in the act of speaking has been studied in the field of linguistics. However, it has not been clarified how such musical elements in language are organized in conversation. Erickson has shown it by transposing native English speaker's conversation into musical notation.

References

- Beebe, B., J. Jaffe, S. Feldstein, K. Mays, and D. Alson. (1985) Inter-personal timing: The application of an adult dialogue model to mother-infant vocal and kinetic interactions. In T. M. Field and N. F. Norwood (Eds.), *Social perception in infants*. (249-268). N.J.: Ablex.
- Couper-Kuhlen, E. (1993) *English speech rhythm: form and function in everyday verbal interaction*. Amsterdam: John Benjamins Publishing Company.
- Erickson, F. (1992) They know all the lines: Rhythmic organization and contextualization in a conversational listing routine. In P. Auer and A. D. Luzio (Eds.), *The contextualization of language*. (365-397). Amsterdam/Philadelphia: John Benjamin's Publishing Company.
- Erickson and Shultz (1982) *The counselor as gatekeeper: social interaction in interviews*. N.Y.: Academic Press Inc.
- Gratler, M. (1999/2000) Expressions of belonging: The effect of acculturation on the rhythm and harmony of mother-infant vocal interaction. *Musicae Scientiae: Journal of the European Society for the Cognitive Sciences of Music* (special issue 1999/2000) (93-122).
- Matsui, K. (2004) *How the Rhythm of Conversation is Created: A Qualitative Analysis of Communication in Junior High School English Classrooms*. Unpublished Master thesis submitted to Hyogo University of Teacher Education.
- Malloch, S. (1999/2000) Mother and infants and communicative musicality. *Musicae Scientiae: Journal of the European Society for the Cognitive Sciences of Music*. (special issue 1999/2000) (29-58).
- Yako, M. (2001) *Gengo geimu toshiteno ongaku*. Tokyo. Keisou shobou. (38-41).