

## **NII Shonan Meeting Report**

No. 2013-1

# Multi-activity in Interaction: A Multimodal Perspective on the Complexity of Human Action

Lorenza Mondada, Basel University, Switzerland  
Mayumi Bono, National Institute of Informatics, Japan  
Aug Nishizaka, Meiji-Gakuin University, Japan

February 18–20, 2013



National Institute of Informatics  
2-1-2 Hitotsubashi, Chiyoda-Ku, Tokyo, Japan

## **Participants**

David Aline, Kanagawa University

Lefebvre Augustin, Université Sorbonne Nouvelle Paris III

Domenic Berducci, Toyama Prefectural University

Adam Brandt, Kansai University

Nobuhiro Furuyama, NII

Eric Hauser, University of Electro-Communications

Kaoru Hayano, Ochanomizu University, Center for Foreign Language Education

Takeshi Hiramoto, Kyoto University

Hidehito Honda, NII

Motoko Igarashi, Joetsu University of Education

Tomoko Ikeda, J. F. Oberlin University

Ayami Joh, JSPS / University of Shiga Prefecture

Kuniyoshi Kataoka, Aichi University

Kouhei Kikuchi, NII

Daiji Kimura, Kyoto University

Satomi Kuroshima, Meiji-Gakuin University

Gustav Lymer, University of Gothenburg

Yoshifumi Mizukawa, Hokusei Gakuen University

Ikuyo Morimoto, Kwansei Gakuin University

Hiroyuki Nisisawa, Tokiwa University

Misao Okada, Hokusei Gakuen University

Akira Takada, Kyoto University

Katsuya Takanashi, JST/ Kyoto University

Hiroaki Tanaka, Kyoto Institute of Technology

Eiko Yasui, Nagoya University

## Schedule

### Monday, Feb. 18th,

9:00–10:30 Lecture 1 (Prof. Lorenza Mondada)

10:40–11:20 Presentation 1 (Satomi Kuroshima)

11:20–12:00 Presentation 2 (Eric Hauser)

Lunch & Photo

14:00–14:40 Presentation 3 (Aug Nishizaka)

14:50–15:30 Presentation 4 (Kuniyoshi Kataoka)

Break (30min.)

16:00–18:00 Data Session 1 (Domenic Berducci) / Data Session 2 (Eiko Yasui)

Dinner

### Tuesday, Feb. 19th,

9:00–10:30 Lecture 2 (Prof. Lorenza Mondada)

10:40–11:20 Presentation 5 (Gustav Lymer)

11:20–12:00 Presentation 6 (Daiji Kimura)

Lunch

13:30–14:10 Presentation 7 (Akira Takada)

14:10–14:50 Presentation 8 (Augustin Lefebvre)

15:00–15:40 Presentation 9 (Mayumi Bono)

Break (20min.)

16:00–18:00 Data Session 3 (Kaoru Hayano) / Data Session 4 (Misao Okada)  
/ Data Session 5 (Adam Brandt)

Dinner

### Wednesday, Feb. 20th,

9:00–10:30 Lecture 3 (Prof. Lorenza Mondada)

10:40–11:20 Presentation 10 (Ikuyo Morimoto)

11:20–12:00 Presentation 11 (Takeshi Hiramoto)

Lunch

13:30–14:10 Presentation 12 (Kouhei Kikuchi)

14:10–14:50 Presentation 13 (Hidehito Honda)

15:00–15:40 Presentation 14 (Hiroaki Tanaka)

## Overview

The workshop intends to bring together researchers in ethnomethodology, conversation analysis, workplace studies and invite them to contribute to the study of multi-activity.

Multi-activity is a pervasive feature of contemporary work spaces: people are often engaged in more than one activity at a time, manage concurrent courses of action, overhear other conversations and phone calls while working, pay attention at different events happening at the same time. These features characterize very different professional settings; they are particularly salient in computer supported work environments. People use different screens at the same time, engaging in different activities such as writing a report, writing emails, skyping, checking the news; they often phone while reading or writing at their PC; they engage in other activities while they continue to work on their computer, etc. These forms of multi-activity are spread over many types of professional settings – just to give a few examples, in call centers, call takers speak at the phone with customers and use their computer to record and search for information, as well as for dispatching the service asked for; in doctor-patient consultations, the physician both attends the patient and uses the computer to access the patient’s file and write his report; in surgical theatres, the surgeon operates on a patient, discusses with colleagues about the latest technologies or the insurance policies, while looking at a screen the endoscopic image supporting the procedure; in control rooms, professionals are constantly monitoring various screens while taking decisions and coordinating action at distance.

These phenomena raise an important set of questions: How are these activities concurrently organized? How are multiple temporalities intertwined and embedded one with the other? Which kind of shared attention, focus of attention, focal or peripheral monitoring are involved in these activities? How do participants rely on the ecology of the activity to organize their multi-activity? How are objects, artifacts, and technologies mobilized in these contexts? How do participants interact together while attending different courses of action? Which effect has multi-activity in the emergent and situated organization of talk? How are multiple participation frameworks superposed and managed at the same time? These questions concern both the organization of social action, the temporality of action, and the role of artifacts in interaction. These questions are both crucial from a theoretical perspective on human action, technology and interaction, but also from an applied perspective, since they concern a multiplicity of practical problems encountered at the workplace.

Even if there exist a very rich literature about multitasking, our understanding of the finely tuned and situated way in which people manage several courses of action at the same time – what we call multi-activity – is still scarce. Previous studies have mainly focused on the cognitive management and stress characterizing these settings as well as on individual skills – but less research has been carried out on the situated organization of multi- activity, as it is seen and managed moment by moment by the participants themselves and coordinated in a socially coordinated way. Moreover, previous studies are often based on experimental procedures and questionnaires or post-hoc interviews, but less work has been done on video documented naturalistic settings in which multi-activity is actually carried out.

In order to respond to the questions sketched above and to develop a conceptual

and analytical approach of multi-activity that is based on the actual embodied situated practice of social actors, the workshop will draw on recent work in ethnomethodology, workplace studies, multimodal conversation analysis and video analysis. Ethnomethodology (Garfinkel, 1967) has shown the constitutive dimension of situated action and Conversation Analysis (Sacks, 1992; Schegloff, 2007) has demonstrated in the last decades the systematic organization of talk as it is orchestrates sequentially and temporally complex arrays of linguistic and embodied resources. These insights are fundamental for developing an in depth comprehension of simple actions but also for more complex courses of action. They have been consequential for the development of workplace studies, which have revealed the complexity of the ecologies characterizing professional activities – such as control rooms in airports and underground transportation (see the seminal work of Suchman, 1996, Heath & Luff, 2000, Goodwin & Goodwin, 1996) – showing the intricacy between situated action, the use of technologies, and the coordination at distance with other participants (often in a technologically mediated way). Last but not least, in the last couple of decades, there has been a enormous interest in multimodal interaction, generating important studies that include not only language but also gesture, gaze, bodily postures and movements, and manipulations of objects (Goodwin, 2000; Streeck, Goodwin, LeBaron, 2011) – thus significantly enlarging our view of situated action. All of these approaches are crucially based on video recordings of situated activities in their ordinary settings.

These insights are fundamental for the understanding and in-depth description of multi- activity. The workshop aims at developing analytical tools and conceptual thoughts based on empirical investigations of video documented multi-activity settings. The focus on multi- activity in interaction includes, but is not limited to, the coordination of multi-activity in workplace environments, with a special attention to multiple activities managed by human agents and/or robots in computer-mediated interactions; overlapping activities in real space and in telecommunication space, between co-present and remote participants; interactions in face to face formations combined with the use of teleconferencing system and Skype; interactions in which the multimodal resources are concurrently and complementarily mobilized in spoken interactions, sign language conversations, and technologically mediated work.

Thus, the workshop will offer an interactional, ethnomethodological, conversation analytic perspective on multi-activity, with a special focus on work environments and on the use of computer technologies. Participants will propose in-depth analyses of video data documenting actual professional situations. The workshop will take the form of paper presentations, data sessions and methodological/theoretical discussions.

Its aim is to offer a reconsideration of theoretical frameworks for multimodality and multi- activity and to contribute to interdisciplinary attempts to understand and develop our understanding of situated action, including human communication in artificial intelligence, human-computer interaction, humanoid robotics, human-agent interaction at distance.

The workshop will produce significant analytical results contributing to our understanding of how complex activities are organized together in situ and in real time. This understanding is crucial for many fields; more specifically, in the field of technologies and informatics, these findings can significantly contribute to a) a better knowledge of users' practices and b) an integration of this

knowledge into user-oriented design of interfaces. Concerning the first point, we know that computer users are most often engaged in more than one task while using their computer. They might be involved in a side conversation or activity; they might also be involved in another activity on the screen (like chatting, having a skype conversation, doing emails and navigating on the internet). This multi-activity affects the way in which they use technologies, computers, and softwares. Concerning the second point, and building upon the first, this knowledge of multi-activities might contribute to design specific interfaces, programs, and the ergonomics of the screen in such a way that it supports these dynamics. Currently, all tasks supported by the technologies are conceived as if an individual user would be using them in an exclusive way – which is not the case: users use them in interaction, in complex ecologies of action and within a multiplicity of other parallel actions. Thus, the workshop will improve our knowledge of these very mundane but very configuring practices, producing innovative insights for user-based technology design.

## Lecture series

### **Multiactivity in interaction: the systematic organization of concurrent courses of action**

Lorenza Mondada

This series of 3 talks aims at sketching a first systematics of the organization of multiple simultaneous activities in social interaction.

The first talk discusses general features of temporality in interaction and focuses on how linguistic and embodied resources are mobilized together by the participants (multimodality) as well as on how participants might engage in various courses of actions at the same time (multiactivity). This opens a reflexion about different sequential and temporal patterns characterizing both simultaneity and embeddedness of actions. The first talk will explore a variety of dimensions that might be considered together for the conceptualization of multiactivity.

In order to explore in detail these systematic forms of organization, the remaining talks will focus on 3 perspicuous settings, all documented thanks to video data which have been transcribed in a multimodal way: a) call centres in which call takers respond to calls and simultaneously engage in some activity on their computer, b) surgical operations in which the surgeon simultaneously engages in operating on a patient and in demonstrating and explaining the operation, c) car conversations in which the driver et the passenger engage in conversation while simultaneously driving their car. These 3 settings offer different contexts for multiactivity, which will be investigated in detail: some settings are professional and involve multiactivity as a central and institutionalized phenomenon, whereas other settings are ordinary and raise different issues related to the normativity of multiactivity. In some cases the two activities are interrelated (call centre), in some others not (car conversations); in some cases the parallel activities proceed smoothly, in others they produce interferences and troubles. The study of 3 settings will therefore allow to compare and differentiate various issues characterizing multiactivity.

## Presentation 1

### **Role of gaze and body in a multi-activity setting: Activity orientation to the temporality of medical treatment in the emergency room**

Satomi Kuroshima

When initiating an action, gaze direction can be a resource for the participants to know who is being addressed. In a setting where multiple activities are concurrent, however, such gaze direction affiliated with an initiated action can be frequently absent and thus the speaker sustains the activity in progress. By examining two types of initiating actions, namely requests and directives, during the treatment of the emergency medical context, in this presentation, I would like to show how participants organize their body and talk according to

the temporally unfolding activities (e.g., medical treatment), and how the anticipation of the next activity within the ongoing treatment is realized through the initiation of these actions. The preliminary finding suggests that the medical professionals sustain the temporality of the medical treatment based on the patient's condition by exhibiting the undivided attention to the focal activity through their body and gaze direction. While doing so, they also display their orientation to the temporality in designing the next anticipated action. I will discuss how the participants manage to accomplish the multiple activities with several resources besides gaze direction, such as a context of talk, participants' body, and relevant identity.

## **Presentation 2**

### **The Bilingual Dictionary as a Shared Tool**

Eric Hauser

This presentation looks at some of the ways that participants in second language (L2) discussions collaboratively use electronic bilingual dictionaries. The data are drawn from a corpus of video-recorded interactions among Japanese university students who are engaged in L2 English discussions as part of a class assignment. While some participants do not use dictionaries, others do use them and a few rely on dictionaries extensively. The analyses are based on detailed examination of participants' talk, gaze, and physical alignment as they use electronic dictionaries. The analyses show: 1) how the layout of items on the screen may provide information about what is relevant, 2) that participants orient to dictionaries as owned by particular participants, 3) how the configuration of material objects and participants' bodies can have consequences for how shared dictionary use is accomplished, 4) that physical manipulation of a dictionary can have interactional significance, and 5) that participants often say a word that they find. The study contributes to an understanding of the practical use of a common technological tool.

## **Presentation 3**

### **The Interactional Organization of Multiple Activities in “Footbath Volunteer Activity” in Fukushima**

Aug Nishizaka and Masafumi Sunaga

A huge earthquake occurred in northeastern Japan on March 11, 2011. Many individuals were killed by tsunamis. Furthermore, the subsequent explosions at a nuclear power plant in Fukushima Prefecture forced a huge number of people to evacuate their hometowns; they presently continue to lead a life in “temporary” housing without any concrete prospects as to when and where they will be able to eventually settle themselves.

This paper focuses on one aspect of the organization of interaction in “footbath volunteer activity” in Fukushima Prefecture. Official purposes of this particular volunteer activity include listening to evacuees' talk to understand their

needs, as well as massaging their hands and arms, while their feet are being bathed, to provide them with a moment of relaxation. This activity includes two distinct sub-activities, i.e., talking and massaging, which the participants in footbath-activity interactions perform basically simultaneously, and sometimes sequentially. We explore ways in which the participants organize this multi-activity situation in and through the actual development of interaction. In conclusion, we discuss the reason why this particular type of activity prevails throughout all the areas affected by the earthquake.

## **Presentation 4**

### **Multi-activity in media discourse: A case study of a Japanese TV commercial**

Kuniyoshi Kataoka

By focusing on an award-winning Japanese TV commercial, we will confirm that multimodal resources – such as sound/rhythm, verbal text, bodily performance, and visual representations – may integratively contribute to the holistic achievement of mediated narration. Specifically, we look into a case in which poetic intentions are apparently maximized for the greatest appeal to the audience and the highest expectation of profit – a TV commercial message. First, I will present the overall structure of the commercial by referring to the rhythmic and rhetorical features of the performance. As widely known, the Japanese poetic form haiku consists of a fixed set of moraic units – i.e., 5-7-5 moras – and this TV commercial also cultivates the same sort of traditional formats. Then I claim that this commercial heavily cultivates the potential of a multimodal ethnopoetic narrative – it is highly devoid of semantic and verbal content but rich in semiotic representations. The aesthetics encoded and shared therein must be an outcome of the repeated practice, accumulated and sedimented by attending to the ongoing social participation, with the creators and the audience included. Such actual and virtual participations seem to encode and disseminate a greater appeal to the prospective audience-consumers by covertly evoking shared cultural values.

## **Data Session 1**

### **Feeding infant, making video, talking to audience: multi-activities in infant/caregiver interaction**

Domenic Berducci

This abstract consists of two parts, first, an outline of my research project to orient the attendees, and second, a description of what I intend to do during the data session.

My research project will reveal, employing CA, a functional connection between infants' biology, in the form of natural reactions, such as crying, grabbing, etc., and infants' potential sociality. The project will describe how infant sociality originates, grounded through their 'deploying' their natural reactions in

interaction with caregivers. I do so without assuming any form of innate infant cognition. I claim that such infant/caregiver interaction grounds infants' moves from reacting, to eventually understanding, and personhood.

My data session will focus on one sequence. In this sequence, a caregiver is making a video of how to stop an infant crying, for eventual uploading to internet. To accomplish this activity, the caregiver needs to engage in multiple subactivities: adjusting camera, coordinating with co-present caregiver, holding infant, feeding infant, and designing turns for audience and infant as well.

In this data session, with the participants at Shonan, I would like to determine first, if my claims are valid, and if so, then how are these multiple activities sequentially organized.

## **Data Session 2**

### **Closings and transitions of activities during a group meeting**

Eiko Yasui

In this data session, I will be showing a set of data segments in which college students discuss their class group project. In the data, what I focus on is the closings and transitions of activities. During a meeting, as they discuss multiple matters, the participants repeatedly have to settle a discussion and move on to the next one. It thus becomes an issue for them to know when and how they can close a discussion sequence and transition to another one. The purpose of this data session, therefore, is to look at: (1) how the participants close an ongoing discussion, and (2) how they mark the transition to the discussion of a different issue. We will be focusing on their verbal and nonverbal behaviors as well as actions they produce before and at the transition of activities. The data is in English.

## **Presentation 5**

### **Making sense of multiple streams of talk and action: Student questions in endodontic live video seminars**

Gustav Lymer

Seminars organized around live video broadcasts of endodontic procedures (i.e. root canal treatments) are examined with a focus on student questions. These questions reveal the multiple demands put on students' sense-making work in the seminar: first, they must make sense of the unfolding endodontic procedure; second, this procedure is accompanied by two streams of talk – that of the operating dentist and that of the seminar leader. The narration of the seminar leader and the talk and actions of the dentist show differing degrees of coordination, the former sometimes engaging in generalized instruction disconnected from the unfolding operation. In such situations, student questions work to draw the seminar leader's attention back to the events on screen. Student questions concern: a) the seminar leader's talk, and technical terms in it (e.g.

“what do you mean by orthograde revision”); b) anatomical details shown on screen (e.g. “what is that black stuff”); c) the dentist’s actions (e.g. “what is s/he doing now”); and d) general issues concerning the seminar leader’s talk or the dentist’s talk/actions (e.g. “does one always do it like that”). Taken together, these questions highlight the coordinative work engaged in by students as they attempt to build a gestalt coherence from narration, operation, and conceptual knowledge.

## Presentation 6

### Diversity of the “mode of co-presence”: Two cases from Africa

Daiji Kimura

Research on the social interactional aspects of human communication has predominantly focused on Western subjects and theories. This “dialogue dogma”, focuses on the following generalizations: (1) conversational parties are generally small and usually do not exceed four to five persons, (2) verbal interchanges take place in face-to-face situations, and (3) utterances are carried out in a reciprocal manner (i.e., turn taking).

However, my anthropological field research among the Bongando people in DR- Congo, and the Baka hunter-gatherers in Cameroon, has revealed great variation with respect to the verbal interactions. In a Bongando village, I observed frequent “addressee-unspecified loud speech”. Even when alone in my residence, I could hear the voices of others outside almost all the time. The villagers, living in the context of such perpetual “background speech”, usually assumed an attitude of inattention, but they could also tune in to these utterances and begin long-distance conversations.

In contrast, conversation among the Baka was characterized by frequent overlapping of utterances. In some situations, speakers even appeared to synchronize the beginnings of each utterance.

Whether these conversation styles, or “modes of co-presence”, are singular phenomena, or rather common in human societies, is still an open question. However, these cases may provide clues for re-thinking the “dialogue dogma” and the nature of human communication.

## Presentation 7

### Wayfinding practices of the |Gui/||Gana in the Kalahari

Akira Takada

The |Gui/||Gana, two neighboring groups of the San, have lived in the arid environment of the Kalahari Desert. Among their many outstanding attributes, their well- developed sense of orientation, a trait based on the amalgamation of several skills have received particular admiration. Their perception of the environment is complemented by a multi-scaled integration of folk knowledge, through which the |Gui/||Gana transform “nature” into “culture”. The key

points are as follows: (1) Their keen perception about the ground conditions for avoiding obstacles, such as the burrows of animals and thorny plants. The |Gui/||Gana find the areas with few obstacles readily when they move through the bushveld. (2) An immense knowledge of specific trees, used as landmarks in the bushveld. (3) Understanding woodlands and basins as nodes in the environment. These areas provide valuable resources for the |Gui/||Gana and serve as campsites during their nomadic travels. (4) Conceptualization of sequences of woodlands and/or basins with reference to ecological features. Such sequences are sometimes employed as a route for nomadic movement or as a referential framework during hunting-gathering excursions. In this presentation, I will demonstrate how they generate and re-generate such knowledge by scrutinizing their real-life use of language and gesture.

## **Presentation 8**

### **Normative and sequential aspects of physical interactions in a non-competitive martial art, Aikido**

Augustin Lefebvre

My presentation will focus on physical interaction details which could highlight some multimodal aspects of human's action complexity. I will examine the organizational features of interactions in a non-competitive martial art - Aikido - focusing specifically on the sequential and normative aspects of the practice. Through various video extracts and sets of screen shots, I will first describe what is relevant, from a member's point of view, to accomplish a gesture. In an ethnomethodological perspective, I will consider that gestures account for the normative expectancies practitioners orient to in "doing-being" a standardized pair of membership categories: the Attacker (Uke) and Defender (Tori). I will present reflexively the methods by which practitioners interpret the gestures of their partners and argue that gestures can be conceived as units which project something next, with some similarities with the TCUs in conversation, for instance the fact that practitioners can project the sequel of a gesture while this gesture is unfolding. The video extracts will make observable quite different situations (e.g. with weapons or without weapons; with multi-attackers) in which members manage to methodically coordinate their gestures, i.e. they organize a context-free and context-sensitive gestural system.

## **Presentation 9**

### **Involving Visitors in Science Communication: A multimodal analysis of multi-activities at a science museum in Japan**

Mayumi Bono

We started a project in which we determined criteria based on an analysis of multimodal interactions to evaluate the skills of science communicators (SCs) at the National Museum of Emerging Science and Innovation (Miraiikan) in Japan,

in October 2012. This presentation focuses on a senior and skilled SC who built her career as a SC over 7 years and who is held in very high esteem by everyone around her, to assess what SCs do in their daily activities at Miraikan. We had three analytical points: (1) how the SC gives an account of who she is to visitors, (2) how the SC conducts interactions with visitors in communicating science, and (3) how the SC changes the space into a workplace where she offers new insights related to science to visitors. In a semi-open space environment, such as a museum, there is a tendency for people not to focus on one interaction or activity, compared with a closed space environment, such as a living room. Most previous studies in conversation analysis have focused on interactions that are decided by the number of participants and the spatial boundaries of interactions in advance. Using these concepts, we discuss how we can analyze human actions involving concepts of multiple activities, schisming of conversations, and multiple participation frameworks in semi-open space environment interactions.

### Data Session 3

Kaoru Hanayo

In this data session, we will analyze an excerpt in which sisters-in-law, Kazu and Yoko, look at and discuss a picture book drawn and written by their grandfather – Yoko’s biological grandfather and Kazu’s grandfather-in-law whom she never had a chance to meet. Kazu is married to Yoko’s eldest brother and had lived with Yoko’s mother until she recently moved into a nursing home. Kazu found the book in the family’s altar when she was cleaning her mother-in-law’s room. The segment involves an interesting organization of epistemic rights and access, which gets negotiated and transformed through turn-by-turn talk. I would like us to elucidate the dynamic process in which talk reflexively indexes and shapes knowledge distribution between the participants and how ongoing experience (i.e., a look at the picture book) contributes to it.

### Data Session 4

#### **A coach and a boxer in a teaching and learning activity: how they jointly embody their professional knowledge of hitting a particular punch**

Misao Okada

By using video data of a naturally-occurring interaction during a single boxing practice, I analyze the process of how a coach and a boxer establish, maintain, and end an activity of teaching and learning how to hit a particular punch effectively. More specifically, in the practice, the coach repeatedly tells the boxer to hit the opponent’s chest rather than head, and in order to make this point, she uses different resources, such as talk, pointing at her own or the boxer’s body, and demonstrating a boxing movement.

During the process, the coach and boxer organize the following multiple activities: 1) instruction where the coach is displayed as teacher, and the boxer as student, and 2) boxing performance where the coach engages in the boxer’s

role, and the boxer in the role of the opponent, or vice versa. My analyses so far suggest that the former activity occurs mostly at the beginning of the practice, while both activities may simultaneously occur in the middle and toward the end of the practice.

For my data session, I present two segments, Excerpt (1), which occurs in the middle of the practice, and Excerpt (2), which occurs toward the end. I would like session participants to focus on how the coach and the boxer monitor and coordinate their own and the coparticipant's vocal and nonvocal behaviors in order to organize the above-mentioned multiple activities. In particular, I am interested in how they skillfully and simultaneously coordinate different parts of their bodies such as eye-gaze and hand or body movement in order to engage in these different activities at the same time.

## **Data Session 5**

### **Data session: office hour meeting at a private university in Japan**

Adam Brandt

This data is from a corpus of audio-visual recordings of “office hour” meetings at a private university in Japan. The meetings involve international exchange students, enrolled on a “Japanese Language and Culture” program at the university, and their personal tutor, who is also the director of the program.

This particular excerpt is taken from a meeting recorded in the middle of the first teaching week, and one day before the deadline for enrolment on courses. The participants are Benjamin – an exchange student from Sweden – and Takeda-sensei, who is Japanese. The meeting was arranged by Takeda-sensei, who wished to check which courses Benjamin was planning to take. Both Japanese and English are used throughout this meeting.

There is no prescribed analytic focus for this data session, although one aspect of the interaction that may fit with the theme of this workshop is the way that the participants utilise a number of documents and other physical objects in conducting the business of the meeting.

## **Presentation 10**

### **Reformulating practices in courtroom deliberations**

Ikuyo Morimoto

In 2009, the Japanese government introduced a lay judge system for criminal trials under which three professional judges and six private citizens (lay judges) work together to reach a verdict. Although they have immense differences in experiences and expertise, they are required to overcome the differences and collaborate in examining the evidences, sentencing, and determining an appropriate punishment. The purpose of this study is to explore the structural orderliness of interaction during deliberations in mock trials. The focus of the

analysis is on reformulating practices that chief judges utilize in his confirmation of comments lay judges express. The analysis revealed the following three types of reformulation: 1) replacing everyday expressions which lay jurors use in their comments to judicial terminology, 2) taking up points to be dealt with and sorting out other points from the comments at the same time, 3) making lay judges to restate their previous comments to what is appropriate to legal settings. Based on those findings, I would like to discuss that such reformulating practice exhibits participants' (especially chief judges') situated identities during the course of deliberation.

## **Presentation 11**

### **Doing being histrionic in service encounter: A case study of traditional Japanese sushi restaurant**

Takeshi Hiramoto

This study reports some verbal and/or non-verbal practices by which chefs of traditional Japanese sushi restaurants attach values to the services/goods they supply. One of the most prominent characteristic of the service encounter in traditional Japanese sushi restaurant is the absence of indicators or information about the values of the supplied services/goods where there is no menu or advertisement in the store. In other words, from the customers' perspective, customers can only infer the value of services/goods if he/she wants to know them. When we examine the recorded interaction in service encounter of traditional Japanese sushi restaurant, it is obvious that chefs and customers are sensitive to the values of foods/drinks and orient to organize practices by which these values are exhibited and negotiated. In particular, we will focus on the chefs' "performance" in this presentation and show that detailed configuration of verbal and non-verbal resources and management of multi-activity is needed to organize the recognizable "performance". As a result, it will be discussed that the "performance" of chefs seems to constitute the embodied, lived values of foods/drinks in the service encounter in traditional Japanese sushi restaurant.

## **Presentation 12**

### **Sign interpretation as a multi-activity**

Kouhei Kikuchi

The main focus of this presentation is how sign interpreter organize their utterances as an integrated multi activities in interaction. Sign interpretation is the rendering of source verbal language into target sign language, and vice versa. It is necessary for interpretation to compose utterances based on theoretical and technical background of sign interpretation. The signed utterances are also part of ongoing interaction, they are obviously subject to the influence of interaction. Moreover sign interpreter's utterances have some features that; (1) they are started after starting of original utterance, (2) they are not treated as

overlapping talk in spite of being produced overlapping with source utterance, (3) there seems to be some techniques and orderliness for designing utterances toward certain participants, and so on. These features have not been focused on in previous studies, and it is not clear that their interactional property. Thus, for clarifying the property of signed interpretation, It is important to place the signed utterances in interaction, and to analyze their features as a part of interaction.

## **Presentation 13**

### **Information theoretic analysis of conversational behaviors on uncertainty: Frame choice and probability communication**

Hidehito Honda

In this talk, I will discuss conversational behaviors on uncertainty. In particular, I will talk about experimental studies on frame choice and simulation studies on probability communication using verbal expressions, and argue that these conversational behaviors can be explained in terms of “informativeness” defined by information theory.

In frame choice, participants were asked to choose one of two logically equivalent frames describing outcomes of uncertain events. For example, imagine that professor X submitted 10 papers to Journal Y, and 3 papers were accepted and 7 papers were rejected. People can convey these outcomes by one of two logically equivalent frames, such as “3 out of 10 papers were accepted” or “7 out of 10 papers were rejected.” Results of experimental studies showed that participants preferred the frames describing rare events to those describing common events. I will argue that this preference can be predicted by perception of informativeness for uncertain event.

As to probability communication, previous studies showed that people prefer using verbal probability expressions indicating extreme values (e.g., 0.01 or 0.99), such as “certain” or “impossible,” rather than those indicating intermediate values, such as “doubtful” or “probable.” Through simulation studies, I will provide the evidence that when people are assumed to convey probability information in terms of informativeness, they tend to prefer using expressions indicating extreme values.

## **Presentation 14**

### **Grammaticalization and intersubjectivity in conversation: Chotto and mata in Japanese**

Hiroaki Tanaka

This paper argues that current grammaticalization theories fail to describe the role of sequential and incremental properties of on-going utterances between the conversational participants. My claim is that closer scrutiny of polysemous

lexical items in dialogic interactions is essential to elucidate the process of grammaticalization, if they are pursued independently of diachronic development. One or two such items in Japanese are a minimizer *chotto* (lit. a bit in English) and an additive adverbial *mata* (lit. again, also, too in English), involving the opposite notions of attenuation and incrementation in the (inter) subjective mode of utterance.

The development of *chotto* and *mata* goes through the three stages: non-(inter-)subjective, at-issue scalar meaning, subjective meaning, and intersubjective, discourse maker's meaning. These three still coexist in the present-day Japanese and constitute the polysemous phenomenon of each word. I maintain that a certain conversational cue can account for the last intersubjective stage of the word, which is to claim that the other two – at least the first stage – are to be traced back if we don't find it in interactive routines. One such cue for the last stage is how fast people can take the floor without having to wait for the next transition-relevance place. They can interruptively strike the other's turn at his/her heart without provocation.

All in all, I show how this pragmatic and conversational tool kit approach can be seen as a prime candidate for an analysis in terms of grammaticalization and intersubjectification.