CROSS-CULTURAL EPISTEMIC DISPLAYS IN TECHNOLOGICALLY MEDIATED INTERACTIONS

Don Bysouth

Contents

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Introduction

This study was undertaken within a framework of ongoing higher education reform in Japan that seeks to internationalize Japanese higher education with initiatives to recruit higher numbers of foreign students and academic professionals, encourage greater numbers of Japanese students to undertake international exchange, and to develop and implement academic teaching, learning and administrative practices drawing on best practices from other nations. In more concrete and practical terms the study was developed to gain further empirically grounded understandings of how the development of educational curriculum to develop international communication skills in college and graduate students from different cultural backgrounds, utilizing web teleconferencing technology, might further contribute to such internationalization initiatives.

The term 'international communication skills' (and perhaps we should also include the term 'intercultural competence') seeks to encapsulate complex multilingual and multicultural practices involving the skills and abilities to produce and understand opinions, engage in productive negotiations and contribute to discussions in interactions (e.g., Spitzberg & Changnon, 2009; van Hook, 2011). In this era of globalization a high premium is placed on such abilities, particularly for undergraduate and graduate university students, with calls for universities to ensure that graduates are equipped with such skills ubiquitous. While the discourses surrounding such issues are no doubt highly problematic and worthy of sustained investigation (for a detailed treatment of various issues and approaches see Deardorff, 2009), we can nevertheless consider that as a pragmatic matter these skills and abilities are considered highly desirable by companies that deploy staff in many different countries, and for those that require domestic staff to interact with international colleagues or clients on a routine basis.

However, when one considers Japan it would appear that such pragmatic concerns are likely to be difficult to address given students and graduates may have limited opportunities (often due to growing economic burdens and job seeking requirements) to learn and practice international communication skills (e.g., by taking long-term study abroad opportunities). While there has been significant growth in international student mobility over the last decade, this does not appear to

be the case for Japanese students with continuing low rates of outbound exchange (OECD, 2014). In addition, for those students who do develop skills in grammar and vocabulary in their home countries, those who then go overseas may discover that their ability to communicate effectively may remain undeveloped in many cases (Brooks & Waters, 2011). In this sense, it may be critically important for students to experience real international communication prior to entry into foreign countries in order for them to cultivate and develop what is essentially a practical ability (Ikeda & Bysouth, 2013).

The importance of interaction in developing intercultural communication skills and abilities has been a focus of a growing body of empirical research since the late 1990s, with studies examining how speakers may attain development of cross-cultural awareness the development of a range of communication strategies (e.g., Fujio, 2011; Firth, 1996; Haberland, Lønsmann & Preisler, 2013; Tsuda, 2003). The 'internationalization' trend of recent years, as evinced by an increasing number of international exchange activities undertaken by Japanese institutions (notwithstanding the low participation rate by Japanese students), cannot be taken to lead straightforwardly to an improvement in student intercultural communication skills simply as the result of an increase in the frequency and likelihood that students may experience intercultural interactions (Ikeda & Bysouth, 2013). Indeed, within the foreign language education research field there have long been concerns that cross-cultural competence needs to be included as an explicit element within curricula in order to provide any tangible benefits (e.g., Alptekin, 2002; Bennett, 2009; Haberland, Lønsmann & Preisler, 2013).

2. Purpose

The qualitative research project was undertaken in order to explore the use of technology (video conferencing) and variations in instructional styles for the pedagogical purpose of facilitating international and intercultural/cross-cultural skills for students (in particular domestic Japanese students). This involved connecting student participants in Japan and other countries to provide opportunities for multicultural exchanges whereby participants did not need to leave their host countries. The key applied focus of the study was to investigate how students can be afforded opportunities to cultivate so-called 'global competencies' or 'intercultural skills' when engaging in English language interactions. In practical terms the study examined the utility of information and communications technology (ICT) to promote such competencies or skills, and to explore how different forms of teaching practice might impede or promote learning when undertaken using ICT. This might yield insights that can assist in the development of new curriculum models that aim to promote learning of intercultural skills and abilities.

With regard to the current paper, my purpose is to explore ideas about knowledge, more specifically how knowledge is constructed, produced and displayed in-and-through interaction. The analytic focus is specifically directed towards providing some analysis of interactional practices

(e.g., Haddington, Keisanen, Mondada & Nevile, 2014) – particularly those that relate to displays of understanding and epistemics (e.g., Stivers, Mondada & Steensig, 2011) – that participants engage with in technologically mediated interactions. Of particular interest is how such epistemic concerns are dealt with in cross-cultural interactions in which English is utilized as lingua franca, and in which the putative aim of the interactions is to enhance participants' intercultural communication skills.

2.1. Epistemics in Interaction

As Heritage (2012) points out, consider the function of (as just one example) questions as straightforward requests for information in interactive settings. In short, questions can function to enable speakers to demonstrate they lack knowledge that recipients may possess. In such cases, questions may appear to be straightforwardly 'questions' entailing that the speaker indicates epistemic status (i.e., 'I don't know X') to a recipient that may project for an epistemic update (i.e., elaboration of X). However, various lexical and morphosyntactic elements may warrant other interpretations by speakers and recipients. For example, consider the differences with a declarative "You're married", a declarative with a tag question "You're married, aren't you", and a declarative with intonational marking "You're married?" (Heritage, 2012). Heritage highlights the fact that while these have the same propositional content they clearly involve different epistemic stances.

With regard to analytic approaches to such epistemic issues, Heritage and Raymond (2012) have suggested the utility of a concept of an 'epistemic gradient'. For example, an act of questioning may involve a claim that the questioner lacks information or certainty about X, this is a 'K-' position. This entails that the addressee has some level of access to X, and as such the addressee is in a 'K+' position. They suggest that the act of questioning thus involves a relative 'K-/K+' epistemic gradient between speakers that enables a determination of the type or range of responses. Additionally, epistemics involves rights and responsibilities (Stivers, Mondada & Steensig, 2011) with regard to categorical entitlements of questioners and addressees. Importantly, such activities (including those entailing the display of a range of psychological aspects involving thoughts and feelings) take place as socially organized, publically available activities, rather than as hidden mental or cognitive processes (e.g., Bysouth, 2009). In addition, while the work of Heritage and others has focused primarily on the sequential organization of epistemic displays in talk-in-interaction, other approaches have directed attention towards how such practices are embodied (e.g., Goodwin, 1994; Mondada, 2011; Streeck, Goodwin & LeBaron, 2011).

While there are of course contexts in which private access to knowledge, experiences, thoughts and feelings may be disputed or challenged (e.g., court rooms or therapy sessions) consider that this may also be the case in explicitly educational settings, for example in cross-cultural awareness programs or similar. In these settings, the relative rights to hold or declare information may be

subject to a range of inquiries into how such information is produced in and through cultural practices. In this regard, what is of interest here is how, in settings in which cultural practices involving a range of epistemic concerns may be highly relevant to the institutional business at hand (i.e., teaching intercultural communication skills and cross-cultural competence), participants are able to produce and recognize a range of epistemic constraints and affordances in the undertaking of practical actions.

2.2. Teaching Contexts and Epistemics

Consider that in teacher-student interactions the role of epistemic access is likely to be highly significant. In teaching contexts, the epistemic gradient might be assumed to be normatively steep. That is, a teacher or professor has access to relevant information but that students do not. As one example, consider how a teacher may ask questions (K+) of students (K-) in order to ascertain whether students are acquiring knowledge about a relevant topic or procedure. Or how a teacher may ask 'rhetorical' questions to demonstrate they in fact do have privileged access to knowledge of relevance to a particular domain or activity.

This epistemic asymmetry – that students and teachers orient to teachers as having 'epistemic primacy' (Stivers, Mondada & Steensig, 2011) – may be deeply problematic in teaching environments in which a teacher attempts to flatten the epistemic gradient, for example by declaring they have no specialized knowledge of a topic or theme under discussion, or when pedagogy involves more direct examination of individual students articulated thoughts, feelings and experiences. As Koole remarks "students who ask their teacher for help with a learning problem are faced with the epistemic paradox of having to 'know what you don't know' or 'understand what you don't understand'" (Koole, 2012, p. 1902).

Moreover, consider issues arising in settings in which the primary language of teaching is English, and that may involve cross-cultural/intercultural interactions with participants who do not have English as L1. As one example, consider teaching that occurs in English-medium settings in Japanese cultural contexts. Instructors may attempt to employ interactive teaching styles with students accustomed to adopting more passive roles in formal teaching settings. In short, professors' talk and students listen. Given the growing emphasis on changing teaching practices in Japanese higher education, and attempts to overcome the reported 'passivity' associated with domestic Japanese students, it may be prudent to examine the role of epistemics in interaction. Rather than solely relying on assumptions about the challenges of undertaking teaching and learning activities in linguistically and culturally diverse contexts, invoking dispositional attributions of learners, or assuming *a priori* limitations of undertaking ICT, explorations of interactional epistemics might provide for some insights to permit better teaching and learning practices.

3. Data and Method

Regular Skype group video meetings were conducted with groups of three to four student participants located in different countries (e.g., one from UK, one from Australia, and one from Japan). Sessions were conducted weekly or biweekly, and groups met between four and eight times over the course of a 15-week semester period. Each group comprised the same participants for each session. Two types of instructor led participation styles were implemented and evaluated with regard to how they might facilitate or inhibit a range of interactional practices that participants may employ in technologically mediated, intercultural interactional settings.

Each session involved participants engaging in interactions that involved 1) questions, 2) discussions, 3) activities and 4) tasks. Questions required participants to provide individual responses to instructor questions. Discussions required participants to provide responses to questions put to all participants. Tasks required group discussion to provide consensus responses while activities required participants to solve practical problems as a group. The instructor varied the delivery of each of these in order to be either a) *directive* (e.g., questions or requests to provide assessments or accounts were given to specific, named participants) or b) *non-directive* (e.g., minimizing interaction with participants so they would be required to self-select for taking turns at talk or otherwise organizing activities). Each session lasted between 30-60 minutes and was digitally recorded.

The data corpus used in final analysis comprised approximately 20 hours of recorded Skype group meetings, involving 20 participants (6 male, 14 female) aged between 18 and 28 years (median age = 21 years). Groups comprised the same participants (3-5 per group) for up to 8 consecutive sessions. Each group had at least 1 Japanese participant. A total of 6 groups completed the group meetings. Participants were undergraduate (16) or graduate (4) students studying in a range of disciplines. Participants spoke a wide range of languages (see Table 1) and were located in several countries (see Table 2). Participants identified as having a variety of ethnic/cultural identities (e.g., Japanese, Danish, Italian, Thai, Spanish, Australian, Indian, Russian, Swedish, Korean).

Czech	Danish	Dutch	English
French	German	Hindi	Italian
Japanese	Korean	Norwegian	Russian
Slovak	Spanish	Swedish	Thai

Table 1. Languages Spoken by Participants

Australia	Czech Republic	Denmark	India
Italy	Japan	Kazakhstan	Korea
Spain	Sweden	United Kingdom	United States

Table 2. Location of ParticipantsConclusion

Following the conclusion of the group video meetings, participants completed an online questionnaire (16 respondents) comprising qualitative, open-ended questions in addition to questions requiring ranking using a 5-point Likert scale.

Analysis of the recorded sessions was undertaken with an ethnomethodological orientation to analysis of social interaction (Garfinkel, 1967) utilizing the analytic methods and procedures of conversation analysis (e.g., Sacks, 1992; Sacks, Schegloff, & Jefferson, 1974; Schegloff, 2007; Sidnell & Stivers, 2014). While space does not suffice for a detailed overview of conversation analysis, it is worth noting that conversation analysis takes as a central concern the sequential organization of talk in interaction. In addition, more recent developments in the application of conversation analysis have incorporated a greater emphasis on the detailed study of multimodal features of social interaction such as gaze, gesture, body orientation and so forth (for a detailed overview of recent studies see Nevile, 2015). Analysis involved the use of conversation analytic and multimodal methods of analysis to explore discursive and embodied actions of participants that were relevant in the performance of the instructional tasks.

Participants were provided with a research overview and consent form and were required to provide their informed consent prior to participation. Participants consented to participating in online discussions, which were recorded. In addition, participants consented to the recordings and their responses to the questionnaire being used for research purposes. Participants understood they had the right to withdraw participation at any time and for any reason. The project received research ethics approval by the Department of Psychology and Behavioral Sciences, Graduate School of Human Sciences, Osaka University.
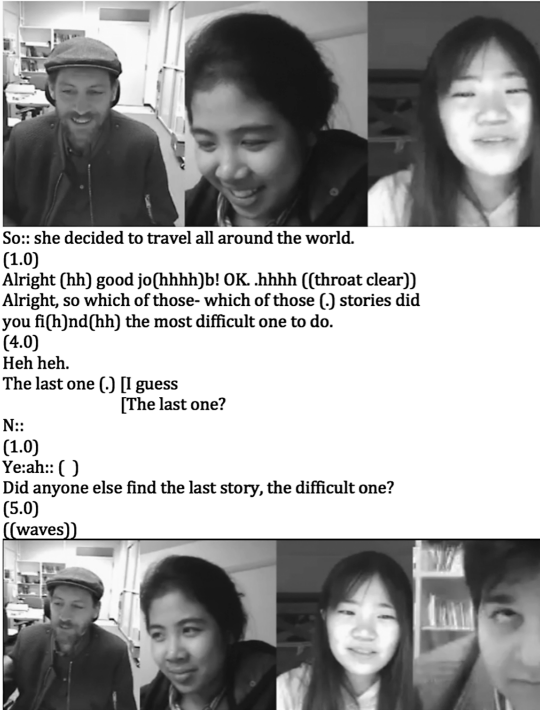
4. Analysis

Analysis provided insights into how participants with minimal experience in multiparty video-mediated interactions were able to employ a range of discursive and embodied practices in order to complete group activities that are often considered to negatively detract from Skype-type communications, involving visual availability, gesture, affect displays and gaze. Analysis revealed how participants employed these practices and how embodied actions that involve epistemic status are produced and recognized by participants in Skype-type video interactions.

Findings were illustrative of a number of pervasive features and practices involved in online settings using synchronous A/V (turn-taking, speaker selection, repair). Analysis of the data indicated several significant constraints that need to be considered in the development of learning activities when using online video collaboration – but also revealed resources that participants exploit in the completion of collaborative, interactive activities.

4.1. Example of Interactional Features

The following extract demonstrates a number of pervasive features of technologically meditated interaction, notably how participants determine speaker selection and manage turn order (e.g., Sacks, Schegloff & Jefferson, 1974), identify trouble and undertake repair (e.g., Pomerantz, 1984; Schegloff, Jefferson & Sacks, 1974), and given the various constraints and affordances of the mediated setting display visual/aural availability (see Appendix for transcription symbols). This extract is taken from the conclusion of an activity in which participants were required to produce several collaborative stories. That is, participants were provided with a brief statement by the instructor and then took turns to produce the components of a story (e.g., the first participant would provide the introduction, the second the story 'middle', and the third the story conclusion). Note that in this collaborative activity each participant was allocated a clear turn order, which was varied across each story (i.e., *directive*) – however final assessments of the stories was undertaken in a more freeform manner (i.e., *non-directive*).

Extract 1: Example of Interactional Features

```
 1
 2   Ris:   So:: she decided to travel all around the world.
 3          (1.0)
 4   Don:   Alright (hh) good jo(hhhh)b! OK. .hhhh ((throat clear))
 5          Alright, so which of those- which of those (.) stories did
 6          you fi(h)nd(hh) the most difficult one to do.
 7          (4.0)
 8   Don:   Heh heh.
 9   Var:   The last one (.) [I guess
10   Don:                    [The last one?
11   Ris:   N::
12          (1.0)
13   Var:   Ye:ah:: ( )
14   Don:   Did anyone else find the last story, the difficult one?
15          (5.0)
16   Don:   ((waves))
17
18   Don:   We have you back Varun, I can see you now.
19   Ris:   Hi!
20   Var:   Oh.
21          (0.5)
22   Don:   Heh heh heh heh.
23   Ris:   ((coughing))
24          (2.0)
25   Don:   Or whi- Or did you find (.) one of those stories
26   Var:   Yeah.
27   Don:   particularly easy to do.
28          (6.0)
29   Ris:   ((talking with degraded audio 6.0))
30   Var:   (So) Are- are you talking to me?
31          (4.0)
32   Var:   Moushi Moushi?
33          (2.0)
34   Ati:   Hai.
35          (0.5)
36   Ris:   Hai.
37          (1.0)
38   Don:   Yeah. So I didn't- I didn't hear that Risa,
39   Ris:   [Oh. I said-
40   Var:   [Ah
```

Note that this extract features a sequence in which only three participants (from left-to-right: Don, Ati and Ris) have audio-visual access to other participants – one participant (Var) does not have video access until line 16 (Var is shown in rightmost position). Here we can observe how next speaker selection is undertaken across lines 4-6 with an invitation for self-selection (i.e., Don does not nominate a specific participant to take next turn). At line 9 Var self-selects as next speaker and

begins his turn while he is notably not visible to the other three participants. While this appears to pose no significant interactional problems for the visible participants, note that at line 16 (and the image at line 17) we can observe Don waving to the screen while displaying updated epistemic status to the participants with "We have you back Varun, I can see you now." which is immediately followed by Ris's "Hi!".

This type of sequence is ubiquitous in technologically mediated settings such as multiparty Skype video calls, with participants providing discursive and embodied displays indicating the visual and audio availability of other participants throughout sessions. Importantly, participants as a matter of practical action need to display and recognize their own and others epistemic status with regard to whether others can see or hear them, and that they can see and hear others. Such work, that involves the display of understandings, involves the synchronous production of both discursive and embodied practices (e.g., Mondada, 2011). While participant 'drop outs' and 'drop ins' are commonplace in online interactions, they are often undertaken with minimal disruption to the preceding topical interaction, they may be accompanied by response cries or other markers that a trouble source has been identified and often repaired (e.g., Don's laughter in line 22).

Following this we can observe more marked interactional trouble beginning in line 29 with Ris attempting to provide a response to the question "did you find (.) one of those stories particularly easy to do." across lines 25-27. Note that repair initiation is undertaken by another participant with Var initiating repair at line 30 ("Are- are you talking to me?") followed by further repair initiation of a more technical form at line 32 ("Moushi Moushi?"). Here, the other three participants provide some measure of repair with Ati's "Hai.", Ris's "Hai", and Don's identification of the likely trouble source at line 38 "Yeah. So I didn't- I didn't hear that Risa,".

4.2. Embodied Actions and Epistemic Displays

In Extract 2, five participants (from upper left to lower right: Mer, Chi, Ant, Jii and Don) engage in a discussion of what sounds various animals would make in different languages. This activity was unscripted and provides for an opportunity to observe how participants display and recognize a range of epistemic constraints and affordances in undertaking a collaborative discussion.

Extract 2: Epistemic Status

```
1   Don:   I think its interesting cause I think a pig sound (.) maybe, most people
2          would produce the same sound. But if it's something like a chicken or a
3          cat (.) it could be(h)- It cou(h)d be ve(h)ry confusing. Heh heh
4          Because for example in- in Japanese a cat does not go "meow meow" (.)
5          Right.
6   Mer:   How does it go?=
7   Chi:   =Nya nya. Nya nya. Nya=
```



```
8
9   Don:   =A(h)nd- [a(h)nd a dog doesn't go "woof woof"
10  Chi:            [Nya
11  Chi:   Wan wan.
12         (0.5)
13  Don:   Right [so it-
14  Mer:         [In Spain to.
15  Don:   So it's kinda similar [but there can be differences.
16  Chi:                         [Wan wan.
17  Don:   Is it Spanish?
18  Chi:   Wan wan.
19  Mer:   Also yeah.
20  Don:   That's interesting. So- How about a cat?
21  Mer:   Meow.
22         (.)
23  Don:   [>A cat.<
24  Mer:   [Meow.
25  Don:   Yeah.
26  Mer:   But (.) How about a bird? In: Japanese.
```

Consider that at lines 4-5 Don's assertion "Because for example in- in Japanese a cat does not go 'meow meow'" can be oriented to as a question, given it is followed by the tag "Right". In other words, it is delivered as an assertion with a request for possible alignment or clarification by another participant. Consider that in this form it projects that he does know the answer, as a kind of rhetorical question that might invite some follow up from participants. This is indeed followed by Mer producing a question at line 6 "How does it go?" which is answered immediately by another participant Chi at line 7 "=Nya nya. Nya nya. Nya=". Here, Mer displays her epistemic status K-, in that she does not know what sound a cat makes in Japanese, or minimally, that she is orienting to the ongoing action as involving a particular kind of discursive activity (i.e., a group discussion). Chi, on the other hand, provides for her epistemic status as K+, by providing a voiced example of the sound a cat makes in Japanese. Of interest, Don receipts this answer as being correct not with some marked talk on the correctness of the response (e.g., 'correct' or 'that is right') but by providing a linked assertion at line 9 "=A(h)nd- [a(h)nd a dog doesn't go 'woof woof'" which is again ratified by Chi with another voiced example "Wan

wan". Here, Don and Chi display to each other and the other participants an alignment of epistemic status (i.e., as K+). At this point, Mer then introduces some new information at line 14 that (paraphrasing) 'wan wan' is how a dog sound is produced in Spanish. Note that here Don indicates his epistemic status with the question "Is it Spanish?", suggesting he did not know this and that he has receipted this as new information.

Extract 3: Embodied Epistemic Displays


```
27
28    Chi:    Bi::rd?
29            (1.0)
30    Don:    Tori san.
31            (0.5)
32    Chi:    Piyo piyo.
33            (0.5)
34    Mer:    [Oh! Like in [Spanish.
35    Don:    [(   )
36    Chi:                 [Piyo piyo.
37    Ant:    Oh! [really?
38    Mer:       [Piyo [piyo yes?
39    Chi:              [Piyo
40    Mer:    Heh heh.
41            (0.5)
42    Don:    So so=
43    Mer:    =same.
44    Don:    What does a bird- you know, a Korean bird. What sound does it make?
45            (1.0)
46    Jii:    I don't think there is any sound to a [bird
47    Mer:                                          [((surprise display))
48    Don:                                          [((surprise display))
```



```
49
50    Don:    Heh heh heh heh heh.
51    Jii:    Heh heh .hh
```

Of particular interest in Extract 3 (which is a continuation of the interaction from Extract 2) is the sequence across lines 27-43 that follows Mer's question on what sound does a Japanese bird make and her embodied demonstration of a bird flapping its wings. Note that at line 38 Chi undertakes repair initiation ("Bi::rd?") which is repaired by Don as an English word recognition problem, with his offer of the Japanese "Tori san". This is receipted by Chi with the response "Piyo piyo". Following this, Mer provides a verbal and embodied change of epistemic state display, with the "Oh!" serving as a clear change of state token (Heritage, 1984) immediately followed with the ratification "Like in Spanish.". Note that this is accompanied by a simultaneous *embodied* display by Don (see Figure 1). Of further interest here, we can observe that another participant, Ant, follows this with another "Oh!" token (Heritage, 1984) which may be more indicative of surprise (Wilkinson & Kitzinger, 2006) given it is followed by the tag-question "really?" which is answered (with overlap) by Mer ("Piyo piyo yes?").

Figure 1. Collaborative Epistemic Display

The upshot here is that we can clearly see how participants actively undertake work to display and recognize their own, and others, epistemic status by way of utilizing sequential, morphosyntactic *and* embodied resources in technologically mediated interactive settings.

4.1. Importance of Highly Directive Instructional Styles

The particular interest in epistemic displays in the current paper emerged from more general observation that appeared to be consistent across the participant groups and sessions in the study, which was that a highly directive instructor style appeared to facilitate collaborative learning activities by providing resources for participants to manage such things as turn taking, speaker selection, participation role and repair (misunderstandings and dealing with technical issues). This is in some contrast to understandings that *less* directive instructor styles might best facilitate effective collaborative learning (e.g., involving non-instructor led group problem solving) in traditional face-to-face settings.

In addition, explicitly sequential activities and tasks (i.e., those requiring participants to take turns of action directed by an instructor to complete a collaborative task) were undertaken with considerably

more skill than more open or free-form activities, and participants employed a range of embodied practices to facilitate task completion. This was particularly noticeable given the groups were formed of culturally diverse participants with widely differing language skills and abilities. The following data (Extracts 4-7) are illustrative of these two findings.

Extract 4: Directive, Collaborative Interaction

```
50   Don:   Alright.=So now.=We got another story, (.) This time Mana will go first,
51          then Dakota then Line. Okay. So. John (.) had his sixtieth birthday, and?
52          (2.0)
```



```
53
54   Man:   N:: (1.0) He had a party with his friends. He invited (0.5) n::::: (2.0) n::::
55          (2.0) >many people.<
56          (3.0)
57   Dak:   Unfortunately (.) none of his friends could turn up
58          [(.) because they were in Zimbabwe.
59   Don:   [.hhhhhhhhhhhhhhh
60   Lin:   [Heh heh [heh
61   Man:            [Heh heh
```



```
62
63          ((muffled laughter))
64   Dak:   So he decided to fly to Zimbabwe. (.) They held the party, but Somalian
65          pirates (.) captured John.
```

In this activity, participants follow the instructor (Don, leftmost) in producing a collaborative story (as detailed in Section 4.1). Here, note that one Japanese participant (Man, rightmost position) has considerably lower English language ability than the other participants (Dak, second from left; Lin, second from right) – and provides a visual display in the first image (line 53) of 'doing concentration' (i.e., gaze directed downwards, adjusting headset) in preparation for providing the first response to the instructor directions. As can be seen in lines 50-51 the instructor provides for the beginning of the story with explicit instructions on turn-order. While Man appears to exhibit some difficulty with producing her story turn (particularly with the delayed word selection that occurs twice with the turn-holder 'n::' in line 54) Dak is nevertheless able to begin his story turn at line 57, which incorporates elements of Man's turn, in order to continue the story.

Here, participants' display their understanding of the collaborative story as it is being produced with vocalized laughter and facial displays (lines 59-63). Note that Don does not produce clear laughter, but a lengthy sustained in-breath (line 59) which may serve to display to the other participants that he does not intend to take next-turn at talk, and thus preserve the previously allocated turn order for the task (e.g., Ikeda & Bysouth, 2013).

Extract 5: Directive, Collaborative Interaction (continued)

```
66          ((5.0 – muffled laughter all participants))
67   Lin:   But luckily the flying shark [ah heh heh sa(h)ve(h)d them .hh from the
68                                        [((all participants do humour display))
69          pi(h)ra(h)tes [heh heh heh heh
70   Man:                 [Ah heh. [Heh heh.
71   Don:                          [Heh heh heh heh
72   Dak:                          [Heh heh heh heh heh
```



```
73
74          ((overlapping laughter – all participants))
75   Lin:   And Mary and John lived happily ever after. [In Zimbabwe.
76   Don:                                                [Oh well done-
77   Don:   Well done. I quite enjoyed that story, I think that [is the best one.
78   Lin:                                                       [Yeah- that was a good
79          one.
80   Don:   Heh heh heh heh heh heh.
```

In Extract 5 we can observe further how all participants demonstrate an understanding of the humorous quality of the unfolding, collaborative story, which is completed by Lin across lines 67-75. Again, and as with the previous extract, note that that all participants display clear visual, embodied displays of their understandings in addition to the discursive actions (line 73). This form of interaction was much more frequent in the *directive*, sequentially organized instructor activities and tasks. The next extract illustrates and example of problems that can occur with *non-directive* questions and invitations to provide assessments and accounts.

Extract 6: Non-directive Questions

```
34   Don:   O(h)ka(h)y so. Yeah can you think of any other things- .h maybe, maybe
35          think of a few examples of things that would be considered u:m:: quite
36          embarrassing (.) And maybe we can- we can see if- we can get some
37          agreement between (.) three different countries. Something that
38          everybody would consider to be embarrassing.
39          (4.0)
40   Ale:   Hm.
```
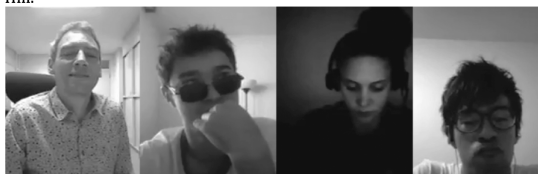


```
41
42          (12.0)
```

In contrast, *non-directive* and open (i.e., questions and activities not directed to specific participants) were less likely to yield effective group interactions. This is particularly noticeable when participants were required to provide an account in response to a question. In Extract 6, following the instructor's (Don, leftmost) question the other participants display minimal

availability to self-select as a next speakers over the very long delay of 12 seconds across lines 41-42. Importantly, this involves more than just the absence of utterances (i.e., no discursive actions) with participants clearly providing displays of unavailability through various embodied actions (e.g., gaze away from screen and camera, various facial displays such as cheek sucking and lip pursing). This is important, as an *absence* of such embodied displays might prompt for repair initiation by one or more participants given the technologically mediated setting (i.e., that one or more participants cannot see, hear or otherwise interact due to technical problems). Contrast this with Extracts 4 and 5 where participants display clear attention to each other.

Extract 7: Non-directive Questions (continued)

```
43    Ale:    Hmm:::
44            (5.0)
45    Don:    And- I don't wa(h)nna [make=
46    Ale:                          [(   )
47    Don:    =it easy for you, so I'm no(h)t go(h)nna sugge(h)st anythi(h)ng.
```
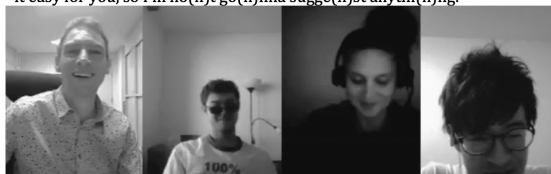


```
48
49            (1.0)
```

In Extract 7 (which follows directly from Extract 6) note how participants continue to show disattention, with the instructor following up with a rationale for why a *non-directive* approach is being used (i.e., waiting for participants to decide who will respond and in what manner). This form of interaction was much more frequent in question and discussion activities in which participants had to a) choose who was initial responder to a question and/or b) when group collaboration was not explicitly managed by the instructor.

4.2. Epistemic Constraints and Affordances

Participants produced and recognized a range of epistemic constraints and affordances in the completion of tasks while interacting in a synchronous telecommunication setting. These frequently involved explicit visual displays that were significant interactional resources that participants employed to communicate their understandings and to display their understandings of other participants.

As one example, consider in the previous extracts (Extracts 6 and 7) how the participant second from the left (Ale) moves from a position of having his head clearly framed (i.e., close to screen and camera) to being significantly further away from the screen and camera (displaying his upper torso). Such body positioning (including gesture, gaze, head displays) features as a significant interactional feature of the online setting. The following provides an example of the importance of such displays, particularly as they relate to demonstrations of hidden, or ostensibly private psychological activities (e.g., thinking) in online settings.

Extract 8: Cognitive Displays

```
1   Don:   What would you bring (.) or if you heh heh want to you can cook
2          something. But what would you bring for the- for the group meal?
```



```
3
4          (9.0)
```



```
5
6   Don:   And you can bring anything or cook anything, but what would you like to
7          bring.
8          (3.0)
```



```
9
10  Mar:   Well. I think I would bring what I always bring.
11         (.)
12  Don:   Heh heh
```

In Extract 8 participants are engaged in a group activity in which they are asked to name items that they would bring to a group meal if participants could meet face-to-face. The instructor (Don, bottom right) undertook this activity in a non-directive manner. Note the manner by which the two participants in the top frames (Chi and Mar) provide clear embodied displays of 'thinking' (i.e., looking upwards, holding head and headset, looking away from screen) following the question to the group at lines 1-2. In answering a question, giving an assessment, or indeed a while range of interactional activities, it is incumbent upon participants to give relevant 'psychological' displays, in this case of a 'cognitive' form, that such activities are being credibly undertaken (Bysouth, 2009). For example, consider how Chi and

Mar provide displays that they are doing something following Don's question, notwithstanding the lack of any discursive actions. Note also how the participant in the bottom, middle frame engages in tilting her head and biting/sucking lower lip while the instructor (Don) turns his head away from camera while awaiting a response (line 9). Only the participant in the bottom left (Ant) makes minimal visual displays. Importantly, participants perform such displays not only for the benefit of the instructor (i.e., the last speaker), but also for each other. In the absence of such displays, participants might orient to the lack of a hearable next-speaker as constituting a possible trouble source – perhaps one of a technical nature given the setting. However, in this case the displays work to secure a first response to come from Mar as she has accountably produced the most significant visual displays relevant to providing a 'considered' response (note how she ratifies her display with "Well. I think" at line 10).

Extract 9: Lack of Visual Availability

```
1    Don:   Who wants to go first
2    Ste:   Ah .hh well about my country (.) When we- when we speak, we we make a
3           lot of gestures (.) And ah
4    Don:   Heh heh heh
5    Asa:   Heh heh heh
6    Ste:   We- we do that yeah yeah I think it's very interesting this very often (0.5)
```
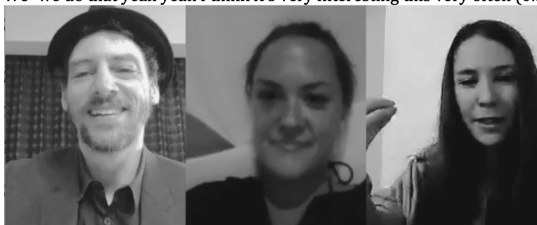


```
7
8    Don:   So [what does that mean?
9    Ste:      [And we also do this.
```
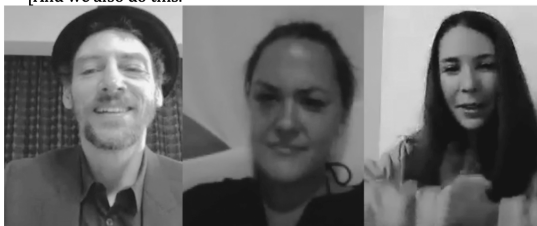


```
10
11   Ste:   Okay. This means you- you're not understanding what other people are
12          saying.
13   Asa:   OO! Oh! I can't see you but I know what you're doing. Heh=
14   Don:   =Heh! [Heh heh heh heh.
15   Ste:         [Heh heh [heh
16   Joc:               [Heh heh
```
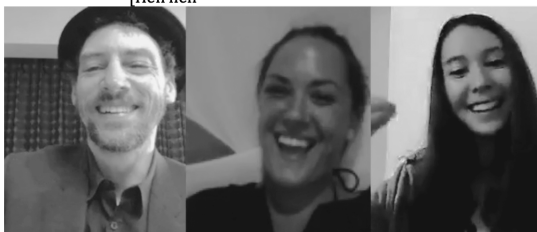


```
17
18   Ste:   Yes, I of- often talk about it because I do it without thinking.
19   Don:   Right
20   Asa:   Heh heh heh heh.
```

Notes

While participants can produce visual, embodied displays for other participants as with the previous extract, consider that in this extract one participant (Asa – not depicted) does *not* have visual access to the other participants (Don, leftmost; Joc, middle; Ste, rightmost) and they do not have visual access to her. This sequence is taken from an activity in which participants were invited to discuss things that in their home countries or cultures might be considered strange or unusual to people from another country or culture. In this extract Ste produced two hand gestures often accompanying speech (in Italian) as examples. Note that at line 6-7 Ste produces the first gesture with her right hand while providing a minimal verbal description of the action "We- we do that yeah yeah I think it' very interesting this very often". Then across lines 9-10 she produces a different gesture ("and we also do this.") involving both hands. Note that these gestures are produced in a manner that enables the other two visually available participants to observe the gestures in production.

Then at line 11 Ste provides a formulation of the gesture as "this means you – you're not understanding what other people are saying" which is met with Asa providing a dramatic response cry "OO!" and change of state token "Oh!" with an account "I can't see you but I know what you're doing." This is met with overlapping laughter by the other participants – clearly displaying ratification or acceptance of Asa's epistemic claim of access of the gesture, notwithstanding her accountable lack of visual access. Now, we might consider that if Asa did have visual access to the gestures, she might not be required to provide a marked confirmation or display of the *doing* of the gesture (i.e., that she is seeing it) in contrast to demonstrating her understanding of the meaning of the gesture (i.e., that it signifies to people that you do not understand what they are saying). Here, in doing a display of uptake or understanding she is required to provide an account that clearly marks her lack of visual access in order to ratify any assessment.

4.3. Participant Evaluations

While not the primary focus of the research, analysis of the questionnaire responses indicated that participants found the group video interactions to be useful in learning intercultural competencies. While space precludes detailed examples of the qualitative responses, a brief summary is provided of an evaluative component of the questionnaire asking respondents to rate agreement to a range of statements relating to using the technology and the various activities (see Figure 2).
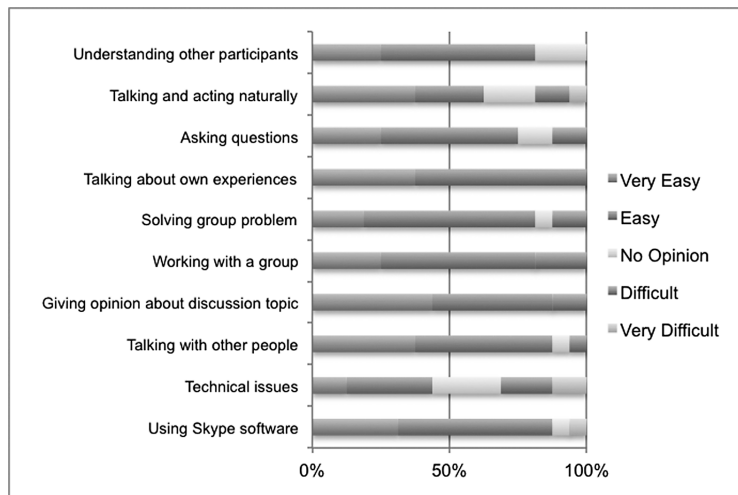
Figure 2: Summary of Evaluative Responses on 5-point Likert Scale (n = 16)

5. Conclusion

The project was undertaken as an exploratory, qualitative project that had an explicit focus on interactional practices that participants engage with in technologically mediated, cross-cultural interactions. In this sense, the main focus of the study was not to generate quantitative, summative measures but to provide more detailed, micro-analytic accounts of a range of practices involved with turn-taking, speaker selection, topic initiation, repair (i.e., management of problems with speaking, hearing, displaying understandings, technical issues with hardware and software) and in particular embodiment (i.e., gesture, gaze, body orientation).

Taken together with results from the qualitative, online survey completed by participants at the end of the study, findings indicate a number of ways in which collaborative, online learning settings may be enhanced (particularly with regard to developing intercultural communicative competence) – and how these settings should not be considered as simply analogues to traditional (i.e., classroom based) collaborative learning settings. Firstly, while group discussions, collaborative activities and tasks can be transplanted from face-to-face, physically copresent settings to those relying on ICT, it is important for instructors or moderators to adopt more *directive* teaching/interaction styles when utilizing ICT. For example, by ensuring that questions are directed to specific participants rather than all participants, this may better afford participants' displays of epistemic status. In addition, in group activities, attention should be directed to providing participants with clear frameworks for turn-taking, for example by specifying a turn order for contributions to group problem solving or discussion.

While technologically mediated settings may present a number of challenges for participants,

for example in managing turn taking, identification of current speakers, and other technical issues, the current research highlights how participants to such settings are required as a practical matter to demonstrate epistemic stance and status with available modalities. In the case of synchronous video communications, the display of epistemics through embodied displays is a key method by which participants can collaboratively produce and recognize a range of practical activities.

Appendix
Table 2. Transcription Symbols

Symbol	Meaning
(.)	Just noticeable pause (less than 0.2 seconds).
(0.3), (2.2)	Examples of timed pauses in seconds.
word	Italics indicate emphasis (in pitch, intonation, or amplitude).
[word	Square brackets marks the point at which the current talk is
[word	overlapped by other talk.
wo(h)rd	(h) used to denote laughter.
.hh hh	h denotes breath, the period denotes inbreath.
wor-	Dash indicatives a sharp cut-off from the current sound.
(words)	Problematic hearing, unclear talk.
word=	The equals sign indicates 'latching'; there is no interval
=word	between the end of a prior turn and the start of the next of talk.
WORD	Capitals denote increased volume.
°word°	Degree indicates decreased volume.
((sobbing))	Transcriber comments.
.	Period denotes falling, final intonation contour.
,	Comma denotes falling-rising intonation contour.
?	Question mark denotes rising intonation contour.
Wo::rd	Colons indicate the sound preceding has been noticeably lengthened.
→	Arrow denotes material of analytic interest.
>word<	Carets pointing inward denote faster speech.
<word>	Carets pointing outward denote slower speech.

Transcription utilizes Jefferson notation (Jefferson, 2004) that has been slightly modified to enable readability (see Goodwin, 2006, pp. 256-257).

Acknowledgements

References

Alptekin, C. (2002). Towards intercultural communicative competence in ELT. *ELT Journal*, 56(1), 57-64.

Bennett, M.J. (2009). Defining, measuring, and facilitating intercultural learning: A conceptual introduction to the *Intercultural Education* double supplement. *Intercultural Education*, 20(S1-2), S1-S13.

Brooks, R. & Waters, J. (2011). *Student mobilities, migration, and the internationalization of higher education*. London: Palgrave Macmillan.

Bysouth, D. (2009). The production-recognition of 'cognition' as social action in talk-in-interaction. *Crossroads of Language, Interaction, and Culture, 7*, 3-15.

Deardorff, D. (Ed.). (2009). *The SAGE handbook of intercultural competence*. Thousand Oaks, CA: Sage.

Firth, A. (1996). The discursive accomplishment of "normality": On conversation analysis and "lingua franca". *Journal of Pragmatics, 26*(2), 237-259.

Fujio, M. (2011). *Communication strategies in action: The negotiation, establishment, and confirmation of common ground*. Tokyo: Seibido.

Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, New Jersey: Prentice Hall.

Goodwin, C. (1994). Professional vision. *American Anthropologist, 96* (3), 606–633.

Goodwin, M. (2006). *The hidden life of girls: Games of stance, status, and exclusion*. Oxford: Blackwell.

Haddington, P., Keisanen, T., Mondada, L. & Nevile, M. (Eds.). (2014). *Multiactivity in social interaction: Beyond multitasking*. Amsterdam: Benjamins.

Haberland, H., Lønsmann, D. & Preisler, B. (Eds.). (2013). *Language alternation, language choice and language encounter in international education* (pp. 31-52). Springer Publishers.

Heritage, J. (1984). A change of state token and aspects of its sequential placement. In J. Maxwell Atkinson & John Heritage (Eds.), *Structures of Social Action* (pp. 299-345). Cambridge: Cambridge University Press.

Heritage, J. (2012). Epistemics in action: Action formation and territories of knowledge. *Research on Language and Social Interaction*, 45(1), 1-29.

Heritage, J. & Raymond, G. (2012). Navigating epistemic landscapes: Acquiescence, agency and resistance in responses to polar questions. In J.P. de Ruiter (Ed.), *Questions: Formal, functional and interactional perspectives* (pp. 179-192). Cambridge: Cambridge University Press.

Ikeda, K. & Bysouth, D. (2013). Japanese and English as lingua francas: Language choices for international students in contemporary Japan. In H. Haberland, D. Lønsmann & B. Preisler (Eds.), *Language alternation, language choice and language encounter in international education* (pp. 31-52). Springer Publishers.

Ikeda, K. & Bysouth, D. (2013). Laughter and turn-taking: Warranting next speakership in multiparty interactions. In Phillip Glen & Elizabeth Holt (Eds.), *Studies of laughter in interaction* (pp. 39-67). London: Bloomsbury.

Jefferson, G. (2004). Glossary of transcript symbols with an introduction. In G. H. Lerner (Ed.), *Conversation analysis: Studies from the first generation* (pp. 13-31). Amsterdam: John Benjamins.

Koole, T. (2012). The epistemics of student problems: Explaining mathematics in a multi-lingual class. *Journal of Pragmatics, 44*, 1902-1916.

Nevile. M. (2015). The embodied turn in research on language and social interaction. *Research on Language and Social Interaction, 48*(2), 121-151.

Mondada, L. (2011). Understanding as an embodied, situated and sequential achievement in interaction. *Journal of Pragmatics, 43*, 542–552.

OECD. (2014). *Education at a glance 2014: OECD indicators*. OECD Publishing. http://dx.doi.org/10.1787/eag-2014-en

Pomerantz, A. (1984). Agreeing and disagreeing with assessments: some features of preferred/dispreferred turn shapes. In J. M. Atkinson & J. C. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 57-101). Cambridge: Cambridge University Press.

Sacks, H. (1992). Lectures on conversation. Oxford: Blackwell.

Sacks, H., Schegloff, E. A. & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. *Language, 50*, 696-735.

Schegloff, E. A. (2007). *Sequence organization in interaction: A primer in conversation analysis* (Vol. 1). Cambridge: Cambridge University Press.

Schegloff, E. A., Jefferson, G. & Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language, 53*, 361-382.

Sidnell, J. & Stivers, T. (Eds.). (2014). *The handbook of conversation analysis*. Wiley-Blackwell.

Spitzberg, B.H. & Changnon, G. (2009). Conceptualizing multicultural competence. In D.K. Deardorff (Ed.), *Handbook of intercultural competence* (pp. 2-52). Thousand Oaks, CA: Sage.

Stivers, T., Mondada, L. & Steensig, J. (Eds.). (2011). *The Morality of Knowledge in Conversation*. Cambridge: Cambridge University Press.

Stivers, T., Mondada, L. & Steensig, J. (2011). Knowledge, morality and affiliation in social interaction. In Tanya Stivers, Lorenza Mondada & Jakob Steensig (Eds.), *The Morality of Knowledge in Conversation* (pp. 3-24). Cambridge University Press, Cambridge.

Streeck, J., Goodwin, C. & LeBaron, C. (Eds.). (2011). *Embodied interaction: Language and body in the material world*. New York: Cambridge University Press.

Tsuda, S. (2003). Attitudes toward English language learning in higher education in Japan (2): Raising awareness of the notion of global English. *Intercultural Communication Studies, XII-3*, 61-75.

Van Hook, S. (2011). Modes and models for transcending cultural differences in international classrooms. *Journal of Research in International Education, 10*(1), 5-27.

Wilkinson, S. & Kitzinger, C. (2006). Surprise as an interactional achievement: Reaction tokens in conversation. *Social Psychology Quarterly, 69*(2), 150-182.

CROSS-CULTURAL EPISTEMIC DISPLAYS IN TECHNOLOGICALLY MEDIATED INTERACTIONS

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Abstract

In technologically mediated interactions, particularly those featuring synchronous video interactions, participants employ numerous practices to display to each other their epistemic status. The current study provides detailed empirical examples of a range of these epistemic practices in order to explore how they are produced as visible displays relevant for the coproduction of understandings through embodied actions. Skype video meetings were undertaken as part of a collaborative online international learning (COIL) program, which provided participants with opportunities to engage in discussions and activities that might promote intercultural communicative competence and cross-cultural awareness. Participants spoke a wide range of languages (e.g., English, Spanish, Japanese, Dutch, Korean, Italian, Thai) and were located in several countries (e.g., North American, Asia-Pacific, Europe). Analysis is provided of how participants produced and recognized a range of epistemic constraints and affordances, notwithstanding their minimal experience of multiparty video-mediated interactions, and examines how participants were able to employ a range of embodied practices (including visual availability, gesture, affect displays and gaze) in order to complete activities in cross-cultural interaction.