Identifying and addressing equivocal trouble in understanding within classroom interaction

Stuart Ekberg  
Queensland University of Technology, Australia

Susan Danby  
Queensland University of Technology, Australia

Christina Davidson  
Charles Sturt University, Australia

Karen J Thorpe  
Queensland University of Technology, Australia

Abstract
Maintaining intersubjectivity is crucial for accomplishing coordinated social action. Although conversational repair is a recognised defence of intersubjectivity and routinely used to address ostensible sources of trouble in social interaction, it is less clear how people address more equivocal trouble. This study uses conversation analysis to examine preschool classroom interaction, focusing on practices used to identify and address such trouble. Repair is found to be a recurrent frontline practice for addressing equivocal trouble, occasioning space for further information that might enable identifying a specific trouble source. Where further information is forthcoming, a range of strategies are subsequently employed to address the trouble. Where this is not possible or does not succeed, a secondary option is to progress a broader activity-in-progress. This allows for the possibility of another opportunity to identify and address the
trouble. Given that misunderstandings can jeopardise interactants’ ability to mutually accomplish courses of action, these practices defend intersubjectivity against the threat of equivocal trouble.

Keywords
Children, classroom, conversation analysis, displays of understanding, equivocal trouble, Internet, intersubjectivity, preschool, repair, teacher

Introduction
Shared understanding is a mundane, routine and largely unnoticed social accomplishment. This intersubjectivity enables people to transcend their private perspectives and collaborate on mutually recognisable courses of action (Heritage, 1984). Through detailed investigation of conversational repair, research undertaken within conversation analysis has demonstrated a unique capacity to generate an empirical account of the practices people use to maintain intersubjectivity (Heritage, 1984; Schegloff, 1992, 2006). In contrast to this existing research, however, which has largely focused on ostensible threats to intersubjectivity, this article illustrates that identifying such threats is not always straightforward. Nevertheless, using the method of conversation analytic research, we show how a recipient to a potential trouble in understanding responds in systematic ways to identify the nature of the problem and to address it accordingly.

A foundational method that people use to establish and maintain intersubjectivity is through contributions to their interactions with one another. By making a contribution, whether through a turn at talk or some other communicative act like gesturing, a participant displays their understanding of what has preceded their contribution (Edwards, 1993; Heritage, 1984; Macbeth, 2011; Moerman and Sacks, 1988; Sacks, 1992; Schegloff and Sacks, 1973). For example, in a routine home visit following the birth of a baby, a community nurse observes the baby sucking or chewing an object and remarks ‘he’s enjoying that isn’t he’. The child’s father responds ‘yes, he certainly is’, displaying an understanding of the nurse’s remark as a mere observation. In contrast, the child’s mother responds ‘he’s not hungry cuz he’s just had his bottle’, displaying an understanding that the nurse may be implying the child requires feeding (Drew and Heritage, 1992). In making sense of one another’s conduct, the sequential ordering of contributions to an interaction can be an important resource. This enables participants to interpret one another’s contributions on the basis of its congruence with prior contributions, including the immediately prior turn (Schegloff and Sacks, 1973) as well as broader contributions to an extended sequence of action (Schegloff, 1990). In the same way that participants’ contributions display their understanding of others’ contributions to the interaction, participants’ conduct can also display understandings of the social and physical world beyond their current interaction (Davidson et al., 2014; Hester and Francis, 1997).

Many types of educational encounters, especially those that are classroom-based, are hallmarked by a three-turn sequence (Bellack et al., 1966; McHoul, 1978; Mehan, 1979; Sinclair and Coulthard, 1975), comprising an initiating move (e.g. a question), a responsive move (e.g. an answer) and a reactive move (e.g. an assessment). Among other things, these sequences provide for displays of understanding (Edwards, 1993; Hester and
Francis, 1997; Macbeth, 2011; Mushin et al., 2013). In particular, the response components of these sequences, which are overwhelmingly produced by students following teachers’ questions, display understandings of whatever is being discussed. These displays can convey different levels of understanding (Koole, 2010; Sacks, 1992). They might demonstrate understanding by providing information that establishes the speaker’s understanding as independent of the information already available within the interaction. For example, following a teacher’s description of how to locate eight o’clock on a sunshine chart, a student demonstrates her independent understanding of how to interpret that chart by claiming ‘this is nine o’clock’ (Koole, 2010).

In contrast to demonstrations of understanding, participants can also claim understanding, but without providing information that would enable an interlocutor to identify the basis for that understanding. For example, following a teacher’s explanation of how to draw a graph, a student responding ‘yes yes I get it’ claims understanding, but does not actively demonstrate an understanding of how to draw a graph (Koole, 2010). Participants’ contributions therefore convey greater or lesser details about their level of understanding. The sequential organisation of participant’s contributions to an interaction thus provides an ‘architecture of intersubjectivity’ (Heritage, 1984), which enables participants to determine – to greater or lesser extents – whether they share an understanding of some aspect of the world they are discussing. This can be especially important for educational encounters involving young children. This study examines how intersubjectivity can be defended in a setting where one party’s competence – that of a child – is liable to being questioned (Baker and Freebody, 1989; Mackay, 1974).

Insofar as sequence organisation establishes an ‘architecture of intersubjectivity’, this organisation also enables identification of gaps, breakdowns and divergences in intersubjectivity. Where this occurs, repair organisation provides for the defence of intersubjectivity (Schegloff, 1992). Although it is recognised that repair is particularly important for intersubjectivity in educational contexts (Macbeth, 2004, 2011; McHoul, 1990), further research is required to understand how practices of repair relate to broader activities and roles pursued by educators and learners (Gardner, 2013). Further exploration of alternative practices to repair, such as those that create spaces for alternative understandings to be proffered (Hester and Francis, 1997), is also needed. Our study attends to this by considering how participants address equivocal trouble in the classroom.

**Method**

The data reported here were collected as part of a study that investigated how teachers and students engage in Web searching in Australian preschool classrooms that cater for children aged between three and five years. Between May and November 2012, approximately 170 hours of classroom interaction were recorded across nine preschool classrooms in south-east Queensland. Two video cameras were used to record different perspectives. Research assistants operated the cameras and moved around the classroom in response to shifts in activity. An additional perspective of computer use was recorded using screen capture software.

This study utilises the methodology of conversation analysis (Sidnell and Stivers, 2013). This approach provides an alternative to those that principally focus on pre-theorised global
orders of discourse, such as asymmetrical power relations between teachers and students. Instead, the primary analytic focus in conversation analysis is how discursive practices are used to accomplish recognisable social actions (Macbeth, 2003; Schegloff, 1997c). The aim of this study is to utilise established findings to progress understanding of practices that are used for addressing equivocal sources of trouble. Although informed by an examination of the entire corpus of data, we achieve this aim through single case analysis. This approach is well suited to utilising existing findings to identify novel interactional practices (Schegloff, 1987a), particularly when focusing on the broader organisation of extended sequences of action (Psathas, 1992). A single case study thus enables an exploration of aspects of interaction that have relevance for organising the use of language within social encounters.

The data were transcribed according to the Jeffersonian system used within conversation analysis (Hepburn and Bolden, 2013), details of which are available as an appendix to this article. One adaptation was to use all capital letters for teacher speaker labels, in order to make clear the difference between teachers and students. Where it is unclear which student contributed to the interaction, this was transcribed with the label ‘St’ rather than a pseudonym. Close analysis of the video recordings and their transcriptions facilitated development of a multimodal analysis considering verbal and non-verbal conduct, and computer screen activity.

Analysis

Addressing unequivocal trouble

The following fragment is included as a point of contrast for the subsequent focus on attempts to address equivocal sources of trouble. This instance illustrates how teachers can readily address unequivocal misunderstandings. Extensive conversation analytic research investigating repair and correction in both mundane social encounters (Schegloff, 1992; Schegloff et al., 1977) and classroom interaction (Macbeth, 2004; McHoul, 1990) establishes how these practices can be used readily in response to the emergence of an apparent source of trouble, including misunderstandings. In Fragment 1, an apparent source of trouble is a student’s understanding of the communication technology they are about to use. Around 100 seconds prior to the beginning of this fragment, the teacher, Miss Sally, has been explaining to the class that a former teacher, Miss Pam, has asked the class to send her an email. This fragment begins with a teacher’s aide, Miss Linda, crouching under the table to plug a device into the computer. The references made by Sally at lines 3 and 4 and one of the students at line 6 are in relation to this device:

Fragment 1 [KWeb: Centre 6, 31 Oct 2012, 02:10–02:29]

01 SAL: Oh:kay.
02     (0.2)
03 SAL: Poor Miss Li:nda has to scurry on the floor and put some things
04 into the computer.
05 St1?: ([ ])
06 St2?: [It’s for seeing] Miss Pa:m. >On the< com[uter. ]
07 St1?: [(Miss)] Sa:ll[y:=
08 SAL: =>We won’t< see Miss Pam. Wu- We’re not doi:ng, we’re not doi:ng,
At line 6, a student displays an understanding about a device being plugged into the
computer that has just been referred to by Sally at lines 3 and 4. The student’s claim
about the device, ‘It’s for seeing Miss Pam. >On the< computer.’, displays an apparent
understanding that it is a webcam. Sally’s next turn is a third position repair (Schegloff,
1987b, 1992, 1997b), correcting the student’s understanding by rejecting the claim that
they will be able to see Miss Pam (line 8), and explaining they will not be using SkypeTM
(lines 8, 9, 12, 13 and 15) but rather will send her an email (line 15).

The student’s claim at line 6 thus displays an unequivocal misunderstanding that Sally
can correct using third position repair. A primary constraint on this particular repair prac-
tice is an interlocutor’s display that the participants are not utilising the same understand-
ing of some aspect of the world (Schegloff, 1992) – in this case, what the ‘things’ being
plugged into the computer will enable the class to do. In contrast to unequivocal troubles
such as these, which have been the predominant focus in existing research on repair (cf.
Schegloff, 1992: 1331–1332), our study focuses on practices used where there is equivoc-
ality about the nature of a misunderstanding. In particular, although previous research
has considered difficulties in identifying the specific basis of an otherwise ostensive
misunderstanding (Schegloff, 1992: 1331–1334), we focus on equivocality in relation to
whether there is even misunderstanding in the first place.

**Addressing equivocal trouble**

The remainder of this article focuses on a single episode of interaction in which a teacher
attempts to address an equivocal source of trouble. The primary reason for using a single
case analysis approach (Schegloff, 1987a) is frequency. In the 170 hours of classroom
data collected, we only located this one instance where a teacher was addressing an
apparently equivocal trouble. This phenomenon may be relatively infrequent because the
moment-by-moment progress of interaction provides for the progressive determination
of intersubjectivity (Heritage, 1984; Schegloff, 2006). Where there is a possible threat to
intersubjectivity, people generally identify an ostensible source of trouble and address
this with an appropriate repair practice (Schegloff, 1992, 2006). Although they may be
relatively uncommon, equivocal sources of trouble warrant analysis as they afford oppor-
tunities to extend understanding of the methods that people use to promote
intersubjectivity.

Another reason for a single case study approach is that breakdowns in intersubjectiv-
ity can become protracted (Ekberg, 2012; Schegloff, 1992). A detailed focus on how
such breakdowns are occasioned and sustained, and whether and how they are resolved,
is necessary to determine resources people use in extended attempts to identify and
address equivocal trouble. Our analysis identifies a set of practices used to address such trouble. Across several fragments, we document how each practice is used, sometimes recurrently, and eventually overcomes a potential and yet equivocal trouble.

The focal episode involves a teacher called Sheree and three students: Hanna, Naomi and Sally. These participants are searching the World Wide Web for an image of a tick resembling the one that had bitten Hanna the previous evening. In just under nine minutes, they locate an adequate likeness. Before this is achieved, however, Hanna consistently rejects a series of candidate likenesses, which poses a problem for Sheree’s facilitation of the search.

As the episode progresses, it becomes apparent there are two possible explanations available for Sheree to appreciate why they have failed to achieve the goal of their search. The first is simply that they have not yet located an adequate likeness. A second is that there is a problem with Hanna’s understanding of the images on the screen, which impedes locating an adequate likeness. These alternative possibilities provide an analytic opportunity to explore practices people use to address equivocal sources of trouble in interaction.

In documenting the practices that Sheree employs to address the equivocal trouble, we consider five fragments from this episode (a transcript of the broader encounter from which these fragments have been taken is available as an online appendix). The first fragment follows a collaborative task in which the teacher supported the students to type the word ‘ticks’ into an image search engine, followed by an initial inspection of the search results. Hanna has already selected an image that Sheree copied into a word processing program. As Sheree returns to view the search results, she asks whether the image they have just copied resembles the tick that had bitten Hanna the previous evening. This occasions space in which Sheree seems to infer that Hanna has misunderstood the scale of the image on the screen:

Fragment 2A [KWeb: Centre 3, 17 Sep 2012, 03:54–04:29]

165 SHE: Are there any other pictures [that you wanted Hanna?<Is] this-
166 Han: [ ( ( N o d d i n g ) ) ]
167 SHE: is it- does this one look like the one that was on you:?
168 Han: ((Bobbles head from side to side and scrunches face)) N:ò:::=
169 SHE: =↑It doesn’t↑?
170     (0.2)
171 Han: [It [it- [it (was-)]
172 Sal: [Is [it [s i m i l]ar?=]
173 Han: =((Turns to face Sheree)) It was a <little one.>
174 SHE: >Oh was a little one< [was it.<Okay let’s have a look then.
175 Han:       [((Turns to face computer))]
176     (2.1)
177 Sal: Whic[h one wa]s it Hanna;
178 SHE: [ O:okay, ]
179 Han: It ha:s little cla::w, (0.4) ("a:nd u:hm:" ) (0.2)
180 Nao?: (Din son wo)=
181 SHE: =This one- this one would actually be quite little it’s just
182 that t:hey’ve <blo:w>↓it up. Like under a magnifying glass to
183 make it look big↓.
Ekberg et al.

Our goal in analysing this fragment is to account for Sheree’s explanation, at lines 181–183, of how the tick on the screen could seem bigger than the tick that was on Hanna. In particular, we show that this explanation can be attributed to an inference, made by Sheree, that Hanna has misunderstood the scale of the image on the screen. The context of Sheree’s explanation is occasioned by her question at line 167, asking whether the tick on the screen (Figure 1) resembles the tick that was on Hanna. The rejection of this likeness (line 168) poses a potential problem for their search. Although it is clear that they have not yet identified an adequate resemblance, it is not clear how the image on the screen is different.

Sheree’s next turn is designed in response to an unsubstantiated rejection that has been made by Hanna. Her prosodically marked question (Selting, 1996) ‘It doesn’t?’ (line 169) occasions space in which Hanna might further comment on the likeness of the two ticks. This is successful, insofar as Hanna subsequently explains that the tick on her ‘was a <little one.>’ (line 173).

Hanna’s reference to size can be understood as a relevant account for the difference between the two ticks. If the tick that was on Hanna was ‘little’, then the tick on the screen must be a different size (i.e. bigger). Superordinate categories like ‘size’ and subordinate categories like ‘little’ can enable inferences that extend beyond what a speaker has said (Sacks, 1992: Vol. I, 113–125). In this instance, Sheree has already been informed that the ticks are different and, having occasioned space in which Hanna might account for that difference, is then informed that one was ‘little’. Given the ticks are different and one is described as ‘little’ as an apparent point of difference, an inference about the other tick can be made by selecting a contrastive category within a superordinate category that subsumes both (Bilmes, 2009). In this case, ‘little’ can be subsumed under the superordinate category ‘size’, which contains the contrastive category ‘big’ (Murphy and Jones, 2008).

So if the tick that was on Hanna was little, there is scope for inferring the tick on the screen must be big or, at least, bigger. Indeed, Sheree later clearly indicates, at line 183, that she has understood Hanna’s claim to imply that the tick on the screen is big. More immediately, such an inference seems to underpin Sheree’s acceptance, at line 174, of this explanation as an adequate account for the difference between the ticks. The impediment to completing their search is thus established as a failure to locate an adequate likeness, and Sheree addresses this by continuing their activity.

Having established the impediment as failure to locate an adequate likeness, there are subsequently grounds for Sheree to infer the impediment might actually be a misunderstanding by Hanna of the scale of the image on the screen. This is occasioned by Hanna’s explanation that the tick that was on her ‘has little claw’ (line 179). Although Hanna’s explanation has only shifted from the generic littleness of the tick that was on her to the littleness of its ‘claw’, this results in Sheree responding in a substantively different way. Using the same inferential process described earlier, Hanna’s mention of the little claw
on the tick that was on her provides a basis for Sheree to infer that the tick on the screen must have a big, or bigger, claw. Such an inference, however, leads to a problem, as the tick on the screen (Figure 1) does not have a particularly big claw.

Where Hanna’s previous explanation of generic size made it possible to attribute the impediment for the search to failure in locating an adequate likeness, her subsequent reference to the size of the tick’s claw makes it possible to attribute the impediment to a misunderstanding. This shift accounts for the different approach Sheree takes in lines 181–183 to her earlier response at line 174. She now explains how the two ticks could be the same size, although the former might look bigger. Sheree’s explanation treats Hanna as having made a scale error by failing to appreciate that the tick on the screen is bigger than it would appear when seen without magnification.

The problem with inferring a misunderstanding, however, is that there is no basis for being certain that such a misunderstanding has occurred. It is also possible that Hanna perfectly understands the scale of the image and the problem is simply that the image does not resemble the tick that was on her. Hanna has a much higher epistemic status (Heritage, 2012) in this regard: she was present when the tick was on her, Sheree was not. The design of Sheree’s turn at lines 181–183 suits an equivocal misunderstanding. She does not use a practice like third position repair, which is suited to addressing clear misunderstandings (Schegloff, 1992). Rather, Sheree’s explanation does not orient to a clear misunderstanding but does provide information that may correct any misunderstanding resulting from a scale error. If, however, there is no misunderstanding, then Hanna can respond in a way that does not orient to the possible correction.

On this occasion, Hanna responds in a way that is indicative of the latter option. She does this by rejecting the image they have been looking at, and suggesting a possible alternative likeness (Figure 2). Irrespective of whether she has misunderstood the scale of the image on the screen, her turn at lines 184–186 leaves little scope for Sheree to continue addressing such a misunderstanding. At line 187, Sheree therefore aligns with Hanna’s suggestion of an alternative possible likeness. Hanna and Sheree’s continued discussion of this alternative likeness, however, is circumvented by Sheree’s subsequent
noticing of another image. In data not shown here, but which is available in the online appendix to this article (see from line 189), Sheree’s noticing eventually leads to the discussion of another image, which is the focus of Fragment 2B.

The practices for addressing an equivocal trouble a identified so far can be repeatedly observed throughout the broader episode of interaction. Where an equivocal source of trouble emerges, Sheree attempts to occasion spaces in which Hanna could modify a prior claim (Hester and Francis, 1997), or provide information in support of that claim (Robinson, 2009). The former outcome is not manifest in this interaction, although the latter possibility is often realised. When this provides scope to do so, Sheree infers a source of trouble and addresses it appropriately (e.g. lines 181–183). When this is not possible, or an attempt to identify the trouble is unsuccessful, a secondary option is to progress an activity without addressing the equivocal trouble (e.g. line 174). By progressing the activity, it is possible another opportunity will arise to identify and address the trouble (Schegloff, 1992). The remainder of our article establishes how these practices are used repeatedly in Sheree’s attempts to address this impediment to their search. We will argue that these are systematic practices for identifying and addressing equivocal trouble in understanding.

The next fragment begins around 90 seconds after the end of Fragment 2A and involves discussion of another image now displayed on the screen. This fragment affords further opportunities to examine how Sheree addresses the equivocal source of trouble impeding their search:

**Figure 2. Focal image across lines 185–188.**  
‘Ticks before and after feeding’ Bjørn Christian Tørrissen http://en.wikipedia.org/wiki/Ixodes_holocyclus#/media/File:Tick_before_and_after_feeding.jpg CC BY-SA 3.0 http://creativecommons.org/licenses/by-sa/3.0/

The next fragment begins around 90 seconds after the end of Fragment 2A and involves discussion of another image now displayed on the screen. This fragment affords further opportunities to examine how Sheree addresses the equivocal source of trouble impeding their search:

**Fragment 2B [KWeb: Centre 3, 17 Sep 2012, 05:56–06:57]**

245 SHE: If I clo:se this, there’s some infor-ma:tion here. Look. It s:a:ys, t;icks: a:nd pe:opl:e, in the Austra::lian bush:.
247     (0.4)
248 SHE: And the:re’s one the:re look.
249     (0.2)
250 SHE: ((Pointing)) I wonder if tho:se are the bits: that were in yo:ur s:kin, Hanna. >Do you think.<=
Discourse Studies 18(1)

252 Han: =((Shaking head)) N:o::,=
253 SHE: =N:o::?
254 (0.4)
255 Han: I[t ’ s : ]
256 SHE: [ >(Do you-<) ] ((Looks at Hanna))
257 (1.9)
258 Han: I don’t kno:w w[had it (was.)]
259 SHE: [You don’t kno:w]:w;
260 (0.4)
261 SHE: Do you want me to re:ad it¿
262 (0.2)
263 Han: ((Nods)) Mm:,
264 (2.1)
265 SHE: It says, (0.4) that ticks can be a bi:::ry, for people
266 who go bush wa:lkInq, an::d ca::mpi::ng, (0.2) a::nd, doing
267 activities in the Australian bush.=There’s no denying that
268 ticks are ann:oying pests=but we::, nee:d not be disco:uraged
269 if we understand the risks about how to reduc:e= o::h= it says
270 >if we’re ca:reful, (0.2) and we try hard so the ticks don’t
271 get ::on:: us::.
272 (1.3)
273 Han: ((Shaking head)) I’s: ((pointing)) not that
274 <o:[ n e . > ] ((Looks at Sheree))
275 SHE: [It’s not that] ((scrolls down screen)) one¿=Well th;is o::ne,
276 is a para:lysis tick.
277 (1.1)
278 Han: I d:on’t think it was that on[e. ]
279 SHE: [Don’t think it was that=]
280 =one¿
281 Han: [((Shaking head))
282 SHE: [Let’s see if there’s a differen’ ki::nd,]

Similar to Fragment 2A, at lines 250 and 251 of Fragment 2B Sheree again asks about the likeness between the tick on the screen (Figure 3) and the tick that was on Hanna. As in the previous fragment, Hanna responds by disconfirming the correspondence, and again without accounting for the difference. This rejection poses a problem, again, for the image search. Without a basis for appreciating the difference between the two ticks, it is not possible for Sheree to clearly identify the impediment to achieving the goal of their activity and what might be required to address that impediment.

In a context of ambiguity about the impediment to the image search, Sheree again occasions space in which reconciliatory information might be provided. This time, at line 253, she uses a questioning repeat, which initiates repair on Hanna’s prior turn (Jefferson, 1972; Keel, 2011; Robinson, 2009, 2013; Robinson and Kevoe-Feldman, 2010; Schegloff, 1997a; Schegloff et al., 1977). Sheree reproduces the entire trouble-source turn, establishing that her difficulty was not hearing the turn but rather making sense of it (Robinson and Kevoe-Feldman, 2010). Similar to Sheree’s earlier question (line 169), this repeat seeks clarification (Robinson, 2013). Although this is followed by the possible beginning of an explanation (line 255), Hanna’s eventual response disclaims relevant knowledge about the matter (line 258). In reply, Sheree again uses a questioning repeat to create further space for reconciliatory information (line 259). No response, however, is forthcoming from Hanna (line 260).
Sheree’s pursuit of reconciliatory information to this point in Fragment 2B has not resulted in the outcome observed in Fragment 2A. In that earlier instance, Hanna provided an account for the difference between the two ticks – an account based on size – that enabled Sheree to infer and address an equivocal trouble. This has not been possible in Fragment 2B. The inability to identify divergent understanding means there is no basis to address a breakdown in intersubjectivity (Pollner, 1975; Schegloff, 1992). As established earlier, where it is not possible to infer and address an equivocal trouble, a secondary option is to progress the interaction without addressing that trouble. In doing so, it is possible that another opportunity will arise to identify and address the trouble. This is the course Sheree takes from line 261, which soon occasions another opportunity to identify a source of trouble.

Following Sheree’s attempt to progress the interaction by reading information about ticks displayed on the screen (lines 265–271), Hanna again rejects the correspondence between the image on the screen and the tick that was on her (lines 273 and 274). Sheree in turn responds with a questioning repeat (line 275). As she repeats Hanna’s prior turn, Sheree scrolls down the webpage, which displays a label ‘paralysis tick’ for the image they have been inspecting. Sheree’s informing of this additional detail (lines 275 and 276) may help overcome the impediment to their search, if Hanna knows the type of tick that was on her. This does not happen, however, with Hanna instead repeating her rejection of a likeness (line 278). Sheree again employs a questioning repeat to occasion space for reconciliatory information (lines 279 and 280). In this instance, however, the negative grammatical form of Sheree’s repeat makes disconfirmation the preferred response (cf. Heinemann, 2005; Heritage, 2010; Raymond, 2003). Hanna’s production of this preferred response (line 281) means no reconciliatory information is forthcoming.

In spite of multiple attempts to occasion space for reconciliatory information to aid identifying and addressing the equivocal trouble, the absence of such information leaves little scope for Sheree other than to progress their activity. In this case, in data not shown here (but available in the online appendix), Sheree continues to scroll down the same
Discourse Studies 18(1)

webpage, which results in the discussion of another image (Figure 4), as shown from the beginning of the next fragment:

Fragment 2C [KWeb: Centre 3, 17 Sep 2012, 07:16–08:06]

303 SHE: .hhh ((Pointing)) This i::s:, (. ) this says the mo:u- this’s the
m:outh here! ((0.9; Moves finger around the base of the image,
and then up to the barbs)) And tho:se bits there are called
ba:::rbs:,<and ((Stops pointing)) I would sa:y, (. ) >tha’
307 that’s: (. ) what got into you Hanna,
308 Han: ((Shakes head)) I don’t think it wa:::s?:
309 SHE: (Don’t think it wa:::s?=
310 Han: =((Shakes head)) N:o:p
311 (2.9)
312 Sal: : ((Looking at screen)) (He:rsendon:,)
313 SHE: And >do you know< wha:::t, (. ) it’s te-it’s re-I’m re:ading
these words, and it sa:ys ;that tricks are aro:und, in s:pring
315 and s:ummer, And what ti:me of the ye:ar is it no:w?
316 (2.3)
317 Han: S:pri:n g .
318 SHE: (It’s s:)pring. Mm:::.
319 (2.6)
320 SHE: They ca:n be po- a:::h,<as a pois’nous animal they sh:ould be
321 considered an <envi:ronmental> Factor.
322 (0.6)
323 SHE: Mm:::.
324 (0.5)
325 Han: >It didn<- (0.2) It had ((repeatedly touches thumb and index
326 fingers together on both hands)) (l:idle=
327 SHE: (((Moves hand to grasp mouse))
328 Han: =cla[:w.]
329 SHE: [tch] >It had little< >>claws.<< ((Starts scrolling down
330 screen)) <I th:ink you’re getting confu:sed becaus:e (1.0) they
331 [look so [bi]:g:=

The first part of this fragment involves the same trajectory repeatedly observed earlier. Sheree refers to a potential correspondence (lines 306 and 307) and Hanna discounts this likeness without accounting for the difference (line 308). Sheree replies with a questioning repeat (line 309), occasioning space for reconciliatory information. No such information, however, is forthcoming (line 310). Once again, there is little scope to infer and address the equivocal trouble, and so again Sheree responds by progressing to a broader activity (from line 313).

To this point, over three and half minutes have passed since the first instance (at line 179) in which there was scope for Sheree to infer an apparent misunderstanding. Now, at lines 325–328, a second opportunity arises, which is again occasioned by Hanna’s reference to size. This is another basis for Sheree to return to attributing their impediment to a misunderstanding by Hanna based on a scale error. Where Sheree previously (at lines 181–183) addressed this apparent misunderstanding by explaining the scale of the image on the screen, here (at lines 330 and 331) she takes the approach of attributing confusion (Drew, 2005). Their difficulty in locating an adequate likeness is thus accounted for by explicitly attributing misunderstanding to Hanna.
As it happens, Hanna does not respond to Sheree’s attribution. As shown in the following, she instead orients to another image. In their ensuing interaction, however, there is another opportunity to address the equivocal trouble:

Fragment 2D [KWeb: Centre 3, 17 Sep 2012, 08:01–08:22]

330 SHE: <I th:ink you’re getting confu:sed becaus:e (1.0) they
331 [look so [big.=
332 [((New im[a]ge appears as Sheree scrolls down the screen))
333 Han:  [((Suddenly sits forward in chair slightly and moves
334 arm as if to point; then abruptly halts both these actions))
335 Han: =((Pointing)) No that (one, their,=) = ((NB: May not be a third
336 morpheme here - it may be background talk))
337 SHE: =Is that what it looked li:ke?
338 Han: ((Stop= pointing)) I don’t think it wa:s:.
339 SHE: =Don’t think it was like that.=.hh Was its body really big
340 and swo:llen like This:.
341 Han: ((Slight nod))
342 SHE: >See how it’s< really big,
343 (0.5)
344 SHE: ((Looks at Hanna))
345 Han: ((Slight head shake)) N:o::::=
346 SHE: =N[o :]:[: ?]
347 Han: [It-] [I’w]as really ti::ne:y[: .]
348 SHE: — [Was i:t?]= ((Looks back towards
349 screen))
350 Han: =And it was s::till ali::[ve.]
351 SHE: [ O ] kay.

Hanna and Sheree’s discussion of another image follows a similar trajectory to that observed earlier and exposes another basis for inferring a misunderstanding based on a scale error. Sheree initially asks, at lines 339 and 340, whether the tick on Hanna was ‘really big and swo:llen’ like the image displayed on the screen (Figure 5). Hanna possibly confirms this with a slight nod (line 341). Following this, however, Sheree comments that the tick on the screen is ‘really big’ (line 342), to which Hanna responds by disconfirming a likeness (line 345). In the same way that Sheree has previously responded
to disconfirmation of a likeness, here she occasions space in which reconciliatory information might be provided (line 346). As Sheree produces this repeat, however, Hanna continues to expand her turn (line 347), providing the very account Sheree is soliciting.

Similar to the explanations provided at line 179 and lines 325–328, Hanna’s explanation here provides a basis for Sheree to infer that Hanna has misunderstood the scale of the image on the screen. This time, however, Sheree responds in a way that proves to be successful in addressing the apparent impediment to their search:

Fragment 2E [KWeb: Centre 3, 17 Sep 2012, 08:17–08:45]

347 Han: [It-] [I‘w]as really ti::ney:[:.
348 SHE: _______ [Wa]s i:t¿= ([Looks back towards screen])
349 Han: =And it was s::till ali::[ve.]
350 SHE:         [O kay. ((Starts scrolling up the webpage)) (.hh) Do you wanna see >if we c’n< fi::nd som::e u::hm tch (0.6) tch (0.8) ((clicks back to previous webpage, containing the picture of the tick life cycle)) some pictures of them o:n someone’s skin=
355 Han: [((Slight nod?))]
356 SHE: =((clicks back to previous webpage, containing results of their image search)) [ma:ybe?]
358 Han: [((N o d))]
359 SHE: ((Starts moving cursor)) There’s one on one, ((Points to image with cursor)) Look.
360 (0.5) ((Sheree moves cursor to another image))
361 SHE: .huh! Was it like th;at?
362 (0.5) ((Continues nodding))]
363 Han: ((Nodding)) Yea:h. [((Continues nodding))]
364 SHE: _______ [I s t h a t w h]at it looked li:ke?
365 (0.5)
366 Han: ((Nodding)) Yea:h. [((Continues nodding))]
367 SHE: _______ [Mmkay,’]
368 Han: ((Nods)) Yes:[.]
369 SHE: _______ [ Y]eah¿
370 (0.7)
371 SHE: °Mmkay,°
372 (0.2)
373 SHE: Do you >want me t’< copy that one?
374 Han: ((Nods))
Hanna’s third mention of the size of the tick that was on her (line 347) occasions another opportunity for Sheree to infer and address the equivocal trouble impeding their search. To reiterate, that trouble is equivocal because there are at least two possible explanations that could account for the impediment. The first is that they simply have not managed to locate an adequate likeness. A second possibility is Hanna has misunderstood the scale of the images they are looking at, and this is impeding their ability to locate an adequate likeness.

In her previous attempts to identify and address this equivocal trouble, Sheree utilised two different approaches. Her first approach involved explaining how a tick on the screen could be the same size as the tick that was on Hanna although they appeared different (lines 181–183). Sheree’s second approach involved attributing confusion to Hanna (lines 330 and 331). Her third attempt involves circumventing the basis for a misunderstanding by suggesting they locate images of ticks on a person’s skin (lines 352–355). If Hanna has indeed made a scale error, Sheree’s suggestion of focusing on images of ticks in scale should circumvent the basis of this error. This approach proves successful. At lines 361 and 362, Sheree nominates a candidate likeness. She then continues to scroll down the screen and, at line 364, nominates another possible likeness (Figure 6), which Hanna confirms (line 366). The practices used by Sheree have culminated in the resolution of an apparent trouble by circumventing the basis of that trouble, rather than finding a more direct way to address it.

Although Sheree seems to have identified a possible misunderstanding in the early stages of their image search, it takes time and repeated attempts to implement an approach that appears to successfully remove the impediment to the search. Her eventual success comes from circumventing the conditions under which Hanna could be potentially misunderstanding what they are looking at, rather than directly addressing that possible misunderstanding. The approach taken by Sheree suits the equivocal nature of the trouble she seeks to address. Although there is evidence supporting Sheree’s apparent inference that Hanna has made a scale error, at no point does this misunderstanding become absolutely clear. The strategies employed by Sheree suit this equivocality.

**Conclusion**

Our analysis progresses understanding about addressing breakdowns in intersubjectivity, predominantly studied in the past with a focus on repair of ostensible trouble, by
examining howequivocaltrouble can be addressed. Exploring an interaction between a teacher and preschool-aged student in which it was unclear whether they shared the same understanding of the images they were examining, this study has identified practices used by one party in attempts to identify and address a possible misunderstanding that may be impeding the success of their activity. This analysis contributes to existing research that explores practices people use to preserve intersubjectivity (Heritage, 1984; Schegloff, 1992, 2006). It provides further demonstration of the potential for conversation analytic research in this area, by extending existing findings about how repair practices are used to defend intersubjectivity by exploring how equivocal troubles are addressed.

In each instance where an equivocal source of trouble emerged, the recipient to that trouble initially occasioned space in which reconciliatory information could be provided (Robinson, 2009). Most often, this was accomplished by repeating a version of the turn exposing the equivocal source of trouble. Although these repeats initiated repair (Jefferson, 1972; Keel, 2011; Robinson, 2009, 2013; Robinson and Kevoe-Feldman, 2010; Schegloff, 1997a; Schegloff et al., 1977), they did not resolve the equivocal trouble. Rather they created space for information that might facilitate identification of the trouble. Where information was forthcoming, the party who initiated repair used this to infer and address a source of trouble.

Where further information was not forthcoming, or where an attempt to identify and address a source of trouble failed, a secondary option was to continue some broader activity without attempting to identify and address the source of trouble. By progressing the activity, it is possible another opportunity may arise to address the trouble (Schegloff, 1992). The practices used by Sheree suggest a particular type of preference for progressivity (cf. Stivers and Robinson, 2006): where equivocal trouble emerges and cannot be addressed, a recipient of an equivocal trouble can progress a broader activity-in-progress with the prospect that further opportunities may arise to identify and address that trouble.

In taking a conversation analytic approach, this study has identified practices that are demonstrably relevant to participants. Although informed by relevant prior research, the specific avoidance of pre-theorised global orders of discourse enables an analytic enterprise for identifying methodical procedures people use to deal with the local contingencies of social interaction (Macbeth, 2003; Schegloff, 1997c). Our study explores one particular contingency – equivocal misunderstanding – and methodical procedures for ordering a social interaction affected by this contingency: the use of repair to create space for reconciliatory information and, in the absence of any reconciliatory information, progress of some broader activity without attempting to identify and address the source of trouble.

Each instance where the recipient to an equivocal trouble eventually manages to infer and address that trouble was achieved with alternatives to repair: explanation (lines 181–183), accounting (lines 329–331) and finally circumventing the potential basis for a misunderstanding (lines 351–368). These alternatives suit contexts in which it remains unclear whether there indeed has been a misunderstanding that needs to be addressed. Our expectation is that interactants may not adopt such approaches when solicitations of reconciliatory information occasion displays of ostensible rather than equivocal misunderstandings. Where this occurs, a major constraint on the use of third position repair is
overcome (Schegloff, 1992). What appears crucial, then, is the strength and quality of any reconciliatory information that becomes available.

The three practices used to address the equivocal trouble also appear to involve not treating the student as being competent in appropriately understanding what she has looked at on the computer screen. Although her general capacity to identify a tick that resembled the one that was on her is recognised, her specific ability to comprehend the scale of the images on the screen is questioned. Students – particularly young students – appear to be routinely subject to such circumstances where their competence is simultaneous assumed and denied (Baker and Freebody, 1989; Mackay, 1974). We therefore expect that the practices we have considered may be more prevalent in settings where one party’s competence is liable to being questioned.

Identifying and addressing misunderstandings is an important interactional achievement, insofar as misunderstandings can jeopardise interactants’ ability to mutually accomplish a course of action (Ekberg, 2012; Pollner, 1975; Schegloff, 1992). Although the turn-by-turn display of participants’ understandings and practices of repair provide a basis for defending intersubjectivity, our study explores instances that prove difficult to address with this ‘self-righting mechanism’ for interaction (Schegloff, 1992: 1299). Such instances can be pivotal in educational settings. Here, the core business is to increase and enhance knowledge, and yet this achievement is contingent on participants establishing intersubjective understandings that enable the shared activities of the classroom to progress (Macbeth, 2011). By focusing on particular equivocal trouble in understanding, we have identified practices used in attempts to preserve the intersubjectivity required in education and, presumably, in social life more generally.

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Notes

1. Inspection of the broader episode from which this fragment is taken reveals the device is a digital camera, which has been used to take still photographs that are subsequently attached to the email the class is composing. At this point in the interaction, however, in data not shown here, this device has only been referred to indirectly by Sally as ‘the camera’. There is therefore scope for the student at line 6 to understand the camera as a webcam – which would be used to enable a video call – rather than as a digital camera used to take still photographs.

2. Although the tick did indeed bite Hanna, and this was discussed in an interaction involving the entire class, there is no actual reference to biting while Sheree and the students are
searching for images. In correspondence with the references used by participants during this particular episode (e.g. at line 167), we refer to ‘the tick that was on Hanna’.

3. It may well be the case that the tick on the screen is ‘bigger’ than the tick that was on Hanna. In data not shown here (but which is available at line 116 of the online appendix), Sheree commented that the tick displayed in Figure 1 was ‘all swollen up’. So it is possible that the tick that was on Hanna was not as swollen as the tick on the screen. As will become apparent in the subsequent interaction, however, Sheree soon appears to supplant this interpretation with an inference that Hanna has misunderstood the scale of the image on the screen.

4. Hanna’s mention of the tick’s ‘claw’ is most likely a reference to its mouthparts (Sonenshine and Anderson, 2014), an illustration of which is available in Figure 4.

5. Although previous experimental research has identified scale errors being made by children up to the age of two and a half years old (DeLoache et al., 2004; Ware et al., 2006), we are not aware of any research exploring scale errors in children aged three to five years, the age range of participants in this study. This study is not designed to establish whether and how frequently children in this age group might make scale errors, but does show they are liable to having such an error attributed to them.

6. Sheree has just been reading information displayed on the screen, and Hanna’s mention of size is disjunctive with the topic of that information. Her use of past tense at lines 325–328, however, makes it clear that Hanna is referring to the tick that was on her the previous evening, rather than the tick currently displayed on the screen.

7. Although Sheree begins her turn with a repeat of Hanna’s prior turn, this is not produced with rising intonation like the other repeats we have considered. The falling intonation at the end of this repeat appears to accomplish confirmation (Schegloff, 1997a), rather than pursuit of the matter being repeated.

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**Author biographies**

**Stuart Ekberg** is a Research Fellow within the School of Early Childhood at Queensland University of Technology (QUT), Australia. His research uses conversation analysis to examine interaction in social and health care and educational settings. Much of his research considers the role of digital technology in social interaction.

**Susan Danby** is a professor in the School of Early Childhood, and program leader of the Children and Youth Research Centre, at Queensland University of Technology, Australia. Her research applies ethnomethodological and conversation analysis perspectives to investigations of children’s peer groups as well as to social interaction between children and adults in institutional settings such as homes, classrooms and helplines. She recently co-edited (with Maryanne Theobald) *Disputes in Everyday Life: Social and moral orders of children and young people* (ASA/Emerald).

**Christina Davidson** is a senior lecturer in the School of Education at Charles Sturt University. Her research encompasses conversation analytic studies of young children’s activity at home and in educational settings.

**Karen J Thorpe** is a Professor of Developmental Psychology at the Centre for Child Health Research, Queensland University of Technology. Her research examines the effects of early life experiences on social, learning and health trajectories across the lifespan. A particular interest is social interactions in home and early childcare and education environments. In 2013, she was named among Australia’s 100 Women of Influence for her research impacts on educational and family policy.

**Appendix: Transcription Conventions**

| Symbol | Description |
|--------|-------------|
| [Word] | Square brackets mark speaker overlap, with left square brackets indicating overlap onset and right square brackets indicating overlap offset |
| Word=word | An equals sign indicates absence of discernible silence between two utterances or actions, which can occur within a single person’s turn or between the turns of two people |
| Word (0.4) word | A number within parentheses refers to silence, which is measured to the nearest tenth of a second and can occur either as a pause within a current speaker’s turn or a gap between two speaker’s turns |
| Word (.) word | A period within parentheses indicates a micropause of less than two-tenths of a second |
| Word. | A period indicates falling intonation at the end of a unit of talk |
| Word, | A comma indicates slightly rising intonation |
| Word? | A question mark indicates rising intonation |
| Word_ | An inverted comma indicates moderately rising intonation |
| Word | Underlining indicates emphasis being placed on the underlined sounds |
| Wo:::rd | Colons indicates the stretching of the immediately preceding sound, with multiple colons representing prolonged stretching |
Underling followed by one or more colons indicates a shift in pitch during the pronunciation of a sound, with rising pitch on the underlined component followed by falling pitched on the colon component that is not underlined.

An underlined colon indicates the converse of the above, with rising pitch on the underlined colon component.

Upward arrows mark a sharp increased pitch shift, which begins in the syllable following the arrow. An utterance encased with upward arrows indicates that the talk is produced at a higher pitch than surrounding talk.

Downward arrows mark a sharp decreased pitch shift, which begins in the syllable following the arrow. An utterance encased with downward arrows indicates that the talk is produced at a lower pitch than surrounding talk.

Words encased in degree signs indicate utterances produced at a lower volume than surrounding talk.

Words encased with greater-than followed by less than symbols indicate talk produced at a faster pace than surrounding talk.

Words encased with less-than followed by greater-than symbols indicate talk produced at a slower pace than surrounding talk.

A hyphen indicates an abrupt termination in the pronunciation of the preceding sound.

A period followed by the letter ‘h’ indicates audible inhalation, with more letters indicating longer inhalation.

This transcription indicates a dental click.

Words encased in single parentheses indicate an utterance that was unclear to the transcriptionist. Where there are two or more possible hearings, these are separated by a forward slash.

Words encased in double parentheses indicate aspects of conduct that do not have formal transcription conventions.