Toward a comprehensive model of negotiated interaction in computer-mediated communication

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Abstract

In this paper we explore and identify emerging patterns of synchronous digital discourse trajectories between dyads of native (NS) and non-native speakers (NNS), with a particular focus on (absence of) negotiated interaction. We will present a new model of L2 learning interaction that is a schematic representation of two main types of hearer response that have been found after a trigger of non-understanding: Task-appropriate response (TAR) and face-appropriate response (FAR). In addition, we outline five different discourse trajectories. The model we propose is based on data derived from interactive task performances of groups of Dutch and Australian students in two telecollaboration projects. The discourse trajectories represented in our model provide us with useful insights into the complexities of digital interaction in an L2-learning environment and show that NNS-NS communication is more complex than traditional negotiation of meaning models suggest. We expect our model to contribute to a better understanding of L2 learning processes related to interaction in digital settings.

Keywords: Telecollaboration, Computer-Mediated Communication, Language Learning Strategies, Task-based Instruction

Language(s) Learned in This Study: English


Introduction

A major pedagogical operationalisation of the interactionist approach to L2 learning (Long, 1981) is the notion of negotiation of meaning (NoM). Negotiation of meaning is defined as a series of conversational turns in which one of the participants in an interaction—usually, but not necessarily, the learner—stops the conversational flow due to difficulties in comprehension in an attempt to solve the communication breakdown. A substantial body of research seems to confirm the claim that negotiation of meaning does, in fact, enhance comprehension and internalization of linguistic features in L2 learning (Long, 1981, 1983; Pica, Young, and Doughty, 1987; Ellis, 2003; Pica, 1991, 1992, 1994; Varonis & Gass, 1985a, 1985b; Pelletieri, 2000; Nakahama, Tyler, & van Lier, 2001; Oliver, 2002; Gass & Mackey, 2007). Indeed, Mackey Abbuhl, and Gass, (2012) observe that it is now commonly accepted that “the interactional ‘work’ that occurs when a learner and his/her interlocutor encounter some kind of communication breakdown … is beneficial for L2 development” (p. 9).

The most widely used model to describe and analyze episodes of negotiation of meaning is the Varonis and Gass Model of Non-Understandings (1985a). Although the model is originally based on NNS-NNS communication, it has also been applied to NS-NNS interaction (Smith, 2003a; Wang, 2006; Yanguas, 2010; Van der Zwaard & Bannink, 2014, 2016, 2018). This model divides negotiation of meaning
episodes into two parts: A trigger and a resolution:

<table>
<thead>
<tr>
<th>Trigger</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>I- R- RR</td>
</tr>
</tbody>
</table>

A trigger (T) uttered by the speaker during interaction is considered to be any part of the discourse that prompts non-understanding on the part of the hearer. During the resolution, the non-understanding episode is dealt with: the indicator (I) is the episode in which the hearer signifies the non-understanding, arresting the progression of the conversation. This leads to a response (R) of the speaker to the non-understanding episode. The final prime is the reaction to response (RR) uttered by the hearer (and initiator of the negotiated routine), which usually marks the end of the negotiated routine (i.e., the non-understanding has been solved and the flow of the discourse can continue).

The Varonis and Gass model has also been researched in technology enhanced environments, for instance in interaction through video conference (Wang, 2006; Lee, 2007; Yanguas, 2010; Monteiro, 2014) and through text-based chat (Blake, 2000; Lee, 2001; Fernández-García & Martínez-Arbelaiz, 2002; Smith, 2003a, 2003b; O’Rourke, 2005; Smith, 2005; Lee, 2007; Kost, 2008). In his research into task-based chat interactions between two groups of intermediate learners, Smith (2003a) found an occasional delay between the trigger and indicator in instant chat, which led to non-adjacent discourse patterns and “split negotiation routines” (p. 48). More importantly, his data showed that the reaction-to-response phase was more dynamic than had been reported on previously and that negotiation of meaning episodes continued after the reaction to response. Smith, therefore, proposed an expanded and adapted version of the Varonis and Gass model to accommodate a number of features that are distinctive of the medium. He added three components to the original model: (a) learner responses, such as testing deductions to check understanding; (b) a confirmation phase, in which the NNS participant either confirms or refutes the extent of understanding; and (c) a reconfirmation phase, usually consisting of single-word markers such as Oh or OK, communicated after the reaction to response.

In this paper we present an alternative model that we argue does full justice to the complexities of NS-NNS discourse in digital L2 learning environments. In the interactionist approach, learners are generally expected to be primarily concerned with their own pedagogical improvement. Existing models, such as the Varonis and Gass model for non-understandings (1985a) and Smith’s elaboration of the model for instant chat (2003a), presuppose that hearers will always explicitly indicate non-understanding after a communication breakdown and initiate a negotiation of meaning episode. As such, these models expect the participants to respond task-appropriately (i.e., they expect the hearer to act by acknowledging and signalling non-understanding and the speaker to react to the appeal for assistance by explaining and clarifying). But having to communicate a signal of non-understanding, pedagogically sound as it may be, and starting up negotiation of meaning tends to be seen by hearers as having failed to understand (Pica, Holliday, Lewis, & Morgenthaler, 1989; Foster, 1998; Pellettieri, 2000; Foster & Ohta, 2005; Eckerth, 2009; Slimani-Rolls, 2005; Vandergriff, 2016). Initiating negotiation of meaning has, therefore, been found to be potentially embarrassing and face-threatening by the hearer. As Firth and Wagner (1997) argue, L2 learners are not just language-processing beings and L2 learning does not take place in a social vacuum. As such, the identities of the participants involved are intricate and layered. The starting-point for our model, therefore, is a categorization of participant responses, in both videoconferencing and instant chat, into two main types: task-appropriate response (TAR; Smith, 2003a) and face-appropriate response (FAR; Van der Zwaard & Bannink, 2014).

Distinct interactional features of EFL classroom discourse have, of course, been the object of investigation before, both for face-to-face (Pica et al., 1989) and for cyberspace (Pellettieri, 2000; Liddicoat & Tudini, 2013) communication. We aim to contribute to this body of research with a comprehensive, descriptive model that configures and classifies different interactive trajectories. Empirical evidence for this model was generated in a research project that explored discourse patterns
between advanced NNSs and NSs in two telecollaboration projects.

The Projects

The data we report on in this paper (30 hours of recorded split screen video chats and 50 A4-pages of instant chat recordings) were collected through two telecollaboration projects that, during two consecutive years, brought together groups of students from The Netherlands and Australia. The Dutch participants majored in European Studies that included a minor program in English language proficiency. Their level was Intermediate high or Advanced, or level B2 or C1, according to the Common European Framework of Reference (CEFR). The Australian participants were undergraduate university students of Drama and Education, all native speakers of English. In total, 60 students took part in the projects. \(N = 60\). The students telecollaborated through synchronous computer mediated communication (Skype and instant chat) for the duration of one semester (eight weeks). Together they co-authored a digital theatre play that was performed by all students involved at the end of the semester.

Our data collection focused on the one-to-one tasks that randomly formed NS-NNS dyads performed during the first two weeks of each of the projects. These were important parts of the embedding task of the play writing, in the sense that they were needed to generate input for the script for the play the students were meant to co-author. The first task consisted of a variation on the classic consensus-building Things-in-Pocket (Batstone & Ellis, 2009; Ellis, 2009; Sadlier-Riggenbach, Samuda, & Larsen-Freeman, 2000; Samuda & Bygate, 2008; Adams, 2009; Larsen-Freeman, 2015; Smith, 2003a, 2003b; Ellis, 2014). For this task, the students were invited to exchange lexical items on the wish lists of fictional characters (Appendix A). The second task involved the exchange of a set of culturally-specific jokes as a means to explore cultural differences in Dutch and Australian humor (Appendix B).

The dyads were given the tasks with instructions at the beginning of the one-to-one telecollaboration sessions (it was sent digitally to the Australian participants); the Dutch participants performed the task from the university computer lab; due to the time difference, the Australian participants carried out the tasks from their home devices. At the beginning of each session, the researchers would check and secure the connection and the recording device for the video part of the task. Time-on-task was approximately one hour. Half of the dyads did the Things-in-Pocket-type task; the other half, the cultural jokes task. In order to offset the possible influence of the digital communication device on the discourse and task outcome, the first half of both tasks was carried out using Skype and the second half using instant chat or vice versa in a counterbalanced design. The Skype sessions were recorded, transcribed and analyzed by two researchers; the chat logs (including emoticons) were automatically saved by the program.

To triangulate the interpretation of the data, three types of metadata were collected (cf. Van der Zwaard & Bannink, 2016):

- Control group: 77 NNS students who did not take part in the project anonymously filled out a questionnaire to indicate their (non)-understanding of the target lexical items for the Things-in-Pocket task.
- Post-task questionnaire: All participants in the study anonymously filled out a post-task questionnaire, in which they were asked questions such as: “Did you know the items you were presented with? If not, what did you do? Did you understand the jokes? If not, what did you do?”
- Stimulated recall: If, after close scrutiny of the data, there was still any doubt about whether mutual understanding had been reached, the researchers queried the participant through stimulated recall (Gass & Mackey, 2000).

Analysis of the data has resulted in four publications which we will briefly summarize below.

In Van der Zwaard and Bannink (2014) we present a cross-media comparative analysis (dyadic videoconferencing and chat) of NS-NNS telecollaboration. The results show relatively distinct patterns of negotiation of meaning with a clear relation to the mode of digital communication. It was found that task
performance through video call was more hampered by social constraints; the proximity of the webcam, which streams image and sound in real time, seemed to launch the participants in a more face-threatening context, which ultimately resulted in more episodes of negotiation of face than negotiation of meaning. In a number of instances, negotiation of meaning was significantly absent, although it was obvious that the NNS had not understood the trigger. Also, negotiation of meaning sequences were abandoned after an average of two indicators of non-understanding, even in cases where the problem had clearly not been resolved: Participants simply wrapped up the task without having reached mutual understanding. During the chat sessions, on the other hand, participants were spared the webcam registration of their response; they had time to read and reread messages before responding, and had the advantage of relative anonymity, which may account for the higher incidence of negotiation of meaning episodes found in the study.

Van der Zwaard and Bannink (2016) focused explicitly on the data from the project with a significant absence negotiation of meaning—data that are mostly disregarded in negotiation-of-meaning studies. Not only did this investigation confirm the findings of Van der Zwaard and Bannink (2014) that the incidence of negotiation of meaning during instant chat was higher than during videoconferencing, its main conclusion was that, with respect to negotiation of meaning, L2 learners in synchronous computer-mediated communication (SCMC) environments show behavioral patterns that are similar to L2 learners’ behaviours in non-digital L2 classroom environments. This led us to claim that analyses that disregard instances of (suspected) non-occurrence of negotiation of meaning—rather than considering all data—not only give too limited a view of L2 behaviour in task-based digital communication, but also increase the risk of drawing misleading conclusions regarding learners’ negotiation of meaning. We, therefore, proposed that, if we accept the assumption that language learners could benefit from negotiation of meaning sequences in their L2 learning process, we should—paradoxically—also include in our investigations interactions where negotiation of meaning does not occur.

The effects of a type of task that involves the NS-NNS exchange of multiple items, with multiple triggers of potential non-understanding, were investigated in Van der Zwaard & Bannink (in print). It was found that: (a) NNS response tends to gradually move from task appropriate to face appropriate, even in the less face-threatening instant chat messages; and (b) the NS tends to counterbalance NNS face-appropriate behaviour with task-appropriate responses in order to ensure successful task completion. Furthermore, non-understanding of previous target items on the part of the NNS seems to shape the expectations of both NS and NNS concerning following items.

The behaviours of the native speakers in NS-NNS interactions was the focus of Van der Zwaard and Bannink (2018). This study set out to analyse and discuss the interactive dynamics between NNS and NS in an environment that involved a change in footing (Goffman, 1981) between expert and learner participation roles. We found that the NNS, when taking on the role of cultural experts, tended to use the same strategies and tactics to avoid and repair conversational trouble, which was described as NS interactional conduct by Long (1983), during NS-NNS conversation. In their turn, the NS, when taking on the learner participant roles, were reluctant to initiate negotiation of meaning, most likely due to issues of face. The NNS, when taking on expert member roles, tended to compensate for their counterpart’s face-appropriate behaviour with task-appropriate responses: They felt responsible for successful task completion and actively provided unsolicited input. Additionally, we found multiple examples of instances where both NS and NNS attempted to save their counterparts’ face through an act of solidarity by emphasizing the symmetry of their mutual participation roles.

The Model

As opposed to the Varonis and Gass model, which presupposes that hearers consistently and explicitly indicate non-understanding after a communication breakdown, the responses in our NS-NNS data, in both videoconferencing and instant chat, can be classified into two main types: task-appropriate (Smith, 2003a) and face-appropriate (Van der Zwaard & Bannink, 2014, 2016). If hearers started up a negotiation of
meaning sequence during an interactional task and exerted every effort to reach mutual understanding, their interactive behaviour was marked as a TAR: They participated actively in the interest of the task by indicating non-understanding, if need be several times, and by inviting their interlocutor to respond and explain in order to reach mutual understanding. A TAR, then, would result in the resolution of the communication breakdown. The data in our corpus, however, show that participants may also act in the interest of face, which was marked as FAR. This interactional behavior would lead to a significant absence of negotiation of meaning. In some cases, however, the speaker stepped in and, by pushing for more information, fostered a change from TAR into TAR. Conversely, task-appropriate behaviour tended to dwindle if hearers had to negotiate the same item more than twice or if they were confronted with a string of triggers during the same task performance, causing a change from TAR to FAR. On top of these categories, our data also showed another distinct interactional pattern: Speakers would supply hearers with extra input before a (suspected) trigger in order to prevent hearer non-understanding.

The above leads us to five distinct communication trajectories, which are identified below as follows:

- **Trajectory (0):** The speaker supplies the hearer with task- or face-appropriate input (or both) before the trigger.
- **Trajectory (i):** Represents the type of response that follows the Varonis and Gass model of non-understandings: The hearer (either the NNS or the NS; Van der Zwaard & Bannink, 2018) initiates negotiation of meaning after the trigger by indicating non-understanding; the speaker explains and elaborates, followed by the hearer indicating understanding.
- **Trajectory (ii):** Represents a face-appropriate response, for instance when the hearer does not respond, or claims understanding without having understood.
- **Trajectory (iii):** Illustrates a progression from FAR to TAR.
- **Trajectory (iv):** Marks a transition from TAR to FAR.

*Figure 1. Model of communication trajectories during digital task-based interaction. (S = speaker; H = hearer)*
The Data

Below we will illustrate each trajectory with data from our previous research.

(0): Pre-trigger task-appropriate and face-appropriate speaker input

Our data show that speakers sometimes actively anticipate a trigger in an attempt to prevent hearer non-understanding and, therefore, possible conversational trouble. To achieve this, they employed two distinct strategies. In some cases they added extra information about the projected trouble source (comprehensible input; Long, 1983), as illustrated in the example in Table 1.

Table 1: Task: Things-in-pocket; Digital medium: video call

<table>
<thead>
<tr>
<th>Turn</th>
<th>Speaker</th>
<th>Transcript (including researcher observations in […])</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>Uhmmm … a wrench</td>
</tr>
<tr>
<td>2.</td>
<td>NNS</td>
<td>[no reaction – blank face]</td>
</tr>
<tr>
<td>3.</td>
<td>NS</td>
<td>Like the things you use to … [makes a tightening with wrench-type movement with her hand]</td>
</tr>
<tr>
<td>4.</td>
<td>NNS</td>
<td>Oh yeah …</td>
</tr>
<tr>
<td>5.</td>
<td>NS</td>
<td>To screw bolts in</td>
</tr>
<tr>
<td>6.</td>
<td>NNS</td>
<td>[nods] yeah yeah</td>
</tr>
<tr>
<td>7.</td>
<td>NS</td>
<td>Braces, you know, the [clutches her shoulders with both hands] things that guys use to keep their pants up that go over their shoulders.</td>
</tr>
<tr>
<td>8.</td>
<td>NNS</td>
<td>[nods]</td>
</tr>
<tr>
<td>9.</td>
<td>NS</td>
<td>Braces. Not enough boys wear them now [smiles]</td>
</tr>
<tr>
<td>10.</td>
<td>NNS</td>
<td>[smiles]</td>
</tr>
<tr>
<td>11.</td>
<td>NS</td>
<td>A laurel wreath, which – how do I even begin to describe this? You know like the Greek, the ancient Greek pictures you see and they’ve got the thing [makes circular gestures around her head], like with the golden leaves in their hair?</td>
</tr>
</tbody>
</table>

In this example from a video call, the NS communicates a number of task items to her NNS counterpart. Although the NNS does not overtly negotiate the word wrench, the NS still provides unsolicited, nonverbal comprehensible input by making a wrench-type movement with her hands. In anticipation of more triggers and, consequently, more potential threats to both her counterpart’s and her own face, the NS actively avoids negotiation of meaning sequences with her next two items, first by describing the object before mentioning the lexical item, braces, itself, and second by providing a detailed explanation of a laurel wreath before the NNS has even had the chance to indicate possible non-understanding.

Table 2: Task: Things-in-Pocket; Digital medium: instant chat

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Time between turns</th>
<th>Chat script</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS</td>
<td>[12:14:19]</td>
<td>now this one is really hard</td>
</tr>
<tr>
<td>NS</td>
<td>[12:14:24]</td>
<td>a laurel wreath</td>
</tr>
</tbody>
</table>

In the example in Table 2 from a chat, rather than simply stating the next item on the wish list, laurel wreath, the NS, taking on the expert role, prepares the NNS in a pre-sequence (Levinson, 1983) for what he perceives to be a hard item to understand. As such, the NS cautions the NNS that a possible trigger is
about to follow, at the same time facilitating negotiation of meaning by implying that it would be perfectly normal for the NNS not to understand since the item is difficult.

Interestingly, these strategies were not used by the NS only. In the jokes task, which involved intercultural communication, NNS speakers, when taking on the role of cultural experts, also volunteered extra information in an attempt to prevent a breakdown in the communication. The NNS in the example in Table 3, for instance, extensively contextualizes the joke she is about to tell. She performs a number of pre-sequences to make sure her interlocutor has the necessary background knowledge to understand the joke.

Table 3: Task: jokes; Digital medium: instant chat

<table>
<thead>
<tr>
<th>Turn</th>
<th>Messenger</th>
<th>Time between turns</th>
<th>Chat script</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NNS</td>
<td>[10:58:06]</td>
<td>shall I continue with the next one then?</td>
</tr>
<tr>
<td>3.</td>
<td>NS</td>
<td>[10:58:33]</td>
<td>tell me!! :)</td>
</tr>
<tr>
<td>4.</td>
<td>NNS</td>
<td>[10:58:40]</td>
<td>do you know our princess?</td>
</tr>
<tr>
<td>5.</td>
<td>NNS</td>
<td>[10:58:45]</td>
<td>that is not the joke haha</td>
</tr>
<tr>
<td>8.</td>
<td>NNS</td>
<td>[10:59:14]</td>
<td>that she is argentinian and her father was minister in the fidela regime</td>
</tr>
<tr>
<td>9.</td>
<td>NNS</td>
<td>[10:59:29]</td>
<td>do you know fidela?</td>
</tr>
<tr>
<td>12.</td>
<td>NNS</td>
<td>[11:00:10]</td>
<td>Under his comment there happened lots of cruelties in argentina</td>
</tr>
<tr>
<td>13.</td>
<td>NS</td>
<td>[11:00:24]</td>
<td>Ok, that’s not good. :(</td>
</tr>
<tr>
<td>14.</td>
<td>NNS</td>
<td>[11:00:29]</td>
<td>and the father of maxima was probably involved with some of it</td>
</tr>
<tr>
<td>15.</td>
<td>NNS</td>
<td>[11:00:52]</td>
<td>so that is good to know before i tell the joke</td>
</tr>
<tr>
<td>16.</td>
<td>NS</td>
<td>[11:01:03]</td>
<td>Ok, I’m following so far!</td>
</tr>
<tr>
<td>17.</td>
<td>NNS</td>
<td>[11:01:25]</td>
<td>Q: What would be the perfect minister of treasury as well as the best father in law?</td>
</tr>
</tbody>
</table>

The NNS in this example begins by asking the NS for permission to move on to the next joke. Permission granted, she continues with a pre-sequence: “Do you know our princess?” (Turn 4), which she quickly follows with a meta-comment on the nature of the question (since the task also includes question-answer type jokes, it might be misunderstood as the first part of a two-part joke). When the NS answers negatively, the NNS launches into an extensive description of the protagonists of the joke and their role in Dutch and Argentinian society. By feeding the NS with contextual and cultural information, the NNS preps her counterpart for the joke that she is about to communicate: “So that is good to know before i tell the joke” (turn 15). This elaboration is both task-appropriate—indeed, it is in the interest of the task that the NS understands the joke—and face-appropriate: by providing the key information about the joke, the NNS increases the chance that the NS does in fact understand it.
The use of communication strategies such as comprehensible input has often been interpreted as the speaker taking on a teacher role. As Liddicoat and Tudini (2013) propose, “the didactic voice of the native speaker, and the non-native speaker’s orientations to it, can [therefore] be understood as interactional expressions at the micro-level of the power of the native speaker” (p. 167; italics added). Table 3 shows, however, that this role is more complex than Liddicoat and Tudini suggest. Since it was adopted by both the NS and the NNS, we may safely assume that broader, face-related dimensions of communication also motivate this interactional behavior.

**Trajectory (i): Task-Appropriate Speaker and Hearer Response**

Trajectory (i) follows the Model of Non-understanding as proposed by Varonis and Gass (1985a), as can be seen in Table 4:

<table>
<thead>
<tr>
<th>Turn</th>
<th>Messenger</th>
<th>Time between turns</th>
<th>Chat script</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>[10:46:49]</td>
<td>Question: How do you know if you’re a bogan? Answer: You let your 15 year old daughter smoke at the dinner table ...in front of her kids.</td>
</tr>
<tr>
<td>2.</td>
<td>NS</td>
<td>[10:46:53]</td>
<td>thats the other one</td>
</tr>
<tr>
<td>5.</td>
<td>NS</td>
<td>[11:46:48]</td>
<td>This is hard to describe but a bogan is essentially an Australian slob</td>
</tr>
<tr>
<td>6.</td>
<td>NS</td>
<td>[11:47:08]</td>
<td>If you get that</td>
</tr>
<tr>
<td>7.</td>
<td>NNS</td>
<td>[11:47:21]</td>
<td>Is a slob a poor white trash person?</td>
</tr>
</tbody>
</table>

Table 4 shows a NNS indicator of non-understanding after the trigger, followed by a complete resolution sequence as described in the Varonis and Gass model: There is a speaker response, a hearer reaction to response (display of understanding; Koole, 2010), and finally, in line with Smith’s (2003a) expansion of the model, a reconfirmation by the speaker.

**Trajectory (ii): Face-Appropriate Hearer Response**

As argued above, however, hearers do not always initiate NoM when they encounter a comprehension problem. Hearers may simply claim understanding and respond face-appropriately to a trigger, as is illustrated in Table 5:

<table>
<thead>
<tr>
<th>Turn</th>
<th>Messenger</th>
<th>Time between turns</th>
<th>Chat script</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>[10:56:53]</td>
<td>ok, another Aussie one: Question: How do you know if you’re a bogan?</td>
</tr>
<tr>
<td>2.</td>
<td>NS</td>
<td>[10:57:12]</td>
<td>Answer: You let your 15 year old daughter smoke at the dinner table ...in front of her kids.</td>
</tr>
</tbody>
</table>
Although the NNS in Table 5 indicated that he did not know what a *bogan* was during the stimulated recall session that was conducted to triangulate data analysis, he does not initiate negotiation of meaning; instead, he sends several claims of understanding. These four messages (Turns 3, 4, 5, and 7) are ambiguous enough to hide his non-understanding and can be argued to be quite sophisticated from a communication strategy point of view, but they are not in the interest of the task. The NS may be aware of the NNS’s comprehension problems but chooses not to push the point any further, which allows the NNS to quickly move on to another task item.

In Trajectory (ii), the hearer does not initiate negotiation of meaning. This means that the completion of the task-as-workplan depends on the response of the speaker. She may abandon the task item and continue with the next one on the list (the preferred response in informal, everyday conversation; Schegloff, Jefferson, & Sacks, 1977), as we have seen in the example in Table 5 or she may push for further information, as we will see in Trajectory (iii).

**Trajectory (iii): From FAR to TAR Hearer Response**

Table 6 below shows how speakers may also push for more information and respond task-appropriately to the face-appropriate response of the hearer.

*Table 6: Task: Things-in-Pocket; Digital Medium: Video Call*

<table>
<thead>
<tr>
<th>Turn</th>
<th>Speaker</th>
<th>Transcript (including researcher observations in [...])</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>Alright … the first item is …. a tassle!</td>
</tr>
<tr>
<td>2.</td>
<td>NNS</td>
<td>[no response – blank face]</td>
</tr>
<tr>
<td>3.</td>
<td>NS</td>
<td>Do you know what a tassle is?</td>
</tr>
<tr>
<td>4.</td>
<td>NNS</td>
<td>[shakes head]</td>
</tr>
</tbody>
</table>

The hearer response to the trigger in this data is ambiguous. The speaker decides to push for more information and to explicitly check whether his counterpart has, in fact, understood (*comprehension check*; Long, 1983). A comprehension check is in the interest of the task, but is highly face-threatening. Indeed, by asking a direct question (*bald-on-record*; Brown & Levinson, 1987), especially after claimed (or feigned) understanding, the speaker puts the hearer in a rather awkward position. Speakers, therefore, tend to hedge their face-threatening checks, as is illustrated in examples in Table 7 and Table 8.

In the example in Table 7, the speaker meta-communicates about the Aussie slang in the joke he has just sent as a mitigating strategy to alleviate the face-threatening effect of the hearer’s possible non-understanding.

*Table 7: Task: Jokes; Digital Medium: Instant Chat*

<table>
<thead>
<tr>
<th>Turn</th>
<th>Messenger</th>
<th>Time between turns</th>
<th>Chat script</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>[10:33:27]</td>
<td>Two Aussie cattle drovers standing in an Outback bar. One asked, “What are you up to, Mate?”</td>
</tr>
</tbody>
</table>
2. **NS**   [10:33:31]  "Ahh, I’m takin’ a mob of 6000 from Goondiwindi to Gympie. Oh yeah ... and what route are you takin’? Ah, probably the Missus; after all, she stuck by me durin’ the drought."

3. **NNS**   No response from NNS

4. **NS**   [10:33:58]  "It’s got some aussie slang in there, do you understand it?"

5. **NNS**   [10:34:27]  "(after a 30-second time lapse) hahaha to be honoust no....."

In this example, the NS sends off his Australian joke, including the punch line, in two separate messages. When, after a 30 second time lapse, the NNS still has not responded, the NS sends off a message that is both in the interest of his counterpart’s face, “It’s got some aussie slang in there” (Turn 4; i.e., do not worry about not understanding), and checks for understanding, “Do you understand it?” (Turn 4). Only then, and after another 30 second time lapse, does the NNS give off a task-appropriate response by overtly admitting to non-understanding (Turn 5).

In a number of cases, we also found that speakers resorted to blaming themselves for the non-understanding of the hearer in an attempt to save their counterpart’s face, as illustrated in the example in Table 8. The item the NS tries to communicate to her counterpart is the fifth item of a total of 12. For items one to four, the NNS moved more and more into face-appropriate behaviour, particularly by giving off minimal responses (e.g., raising eyebrows, looking away from the camera, etc.).

**Table 8**: Task: Things-in-Pocket; Digital Medium: Video Call

<table>
<thead>
<tr>
<th>Turn</th>
<th>Speaker</th>
<th>Transcript (including researcher observations in [...]）</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>Pruning shears</td>
</tr>
<tr>
<td>2.</td>
<td>NNS</td>
<td>[writing while mumbling] pruning s.</td>
</tr>
<tr>
<td>3.</td>
<td>NS</td>
<td>If I say it clearer it’s gonna make it even harder for you ... because of my accent</td>
</tr>
<tr>
<td>4.</td>
<td>NNS</td>
<td>No … they’re all kinds of words I’ve never heard of, you know. So … pruning ....</td>
</tr>
<tr>
<td>5.</td>
<td>NS</td>
<td>I can’t believe how good you guys speak English.</td>
</tr>
<tr>
<td>6.</td>
<td>NNS</td>
<td>Yeah? Do you think?</td>
</tr>
<tr>
<td>7.</td>
<td>NS</td>
<td>You speak English better than I do.</td>
</tr>
</tbody>
</table>

When the item pruning shears is communicated in Turn 1, the NNS responds by mumbling and simultaneously writing down pruning s. She stops there, but does not ask for assistance or clarification. The NS, in her turn, adds a face-saving comment by blaming her own (Australian) accent rather than the NNS’s ignorance (Turn 4). This prompts the NNS into declaring that “They’re all kinds of words I’ve never heard of” (Turn 4), a clear reference to problems she encountered with the previous items she did not negotiate. The NS, then, continues her face-saving discourse (didactic voice; Liddicoat, 2016): She compliments the level of English of her Dutch partners in the project, even adding an over-the-top “You speak better English than I do” (Turn 7).

Trajectory (iii) shows how important the role of the speaker is in the communication and in the negotiation of meaning process. Speakers may either accept the hearer’s decision not to indicate non-
understanding or they may take it upon themselves to (i.e., initiate to) solve the problem (other (initiated) correction; Schegloff et al., 1977), either by checking for comprehension, by meta-communicating about the nature of the problem, or by expressing a form of solidarity.

**Trajectory (iv): From TAR into FAR Hearer Response**

In the final trajectory of our model, Trajectory (iv), the hearer moves from TAR to FAR. This occurs if hearers have to indicate non-understanding of the same trigger multiple times (example in Table 9) or if they have to negotiate multiple consecutive triggers during the same interactive session (example in Table 10).

**Table 9:** Task: Things-in-Pocket; Digital Medium: Video Call

<table>
<thead>
<tr>
<th>Turn</th>
<th>Speaker</th>
<th>Transcript (including researcher observations in […]诱导)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NS</td>
<td>Uhhhm. Then there is … pruning shears</td>
</tr>
<tr>
<td>2.</td>
<td>NNS</td>
<td>[Silence Shakes her head and bites her lip]</td>
</tr>
<tr>
<td>3.</td>
<td>NS</td>
<td>So pruning shears are like scissors for your garden. So you ….</td>
</tr>
<tr>
<td>4.</td>
<td>NNS</td>
<td>Aah [nods].</td>
</tr>
<tr>
<td>5.</td>
<td>NS</td>
<td>That’s exactly it. You prune bushes with them.</td>
</tr>
<tr>
<td>6.</td>
<td>NNS</td>
<td>Yeah [nods].</td>
</tr>
<tr>
<td>7.</td>
<td>NS</td>
<td>Uhhmm … he’s got a turtleneck sweater</td>
</tr>
<tr>
<td>8.</td>
<td>NNS</td>
<td>Yeah … I know that one [emphasis on that]. [Nods and smiles while looking straight at the webcam].</td>
</tr>
</tbody>
</table>

In our data, most hearers ceased to indicate non-understanding after an average of two overt indicators of non-understanding of the same item, even if mutual comprehension had not been reached. In the example in Table 9 the NNS signals that she does not know the lexical item, *pruning shears*, albeit only nonverbally, when the NS mentions it for the first time. She then verbally and nonverbally interrupts the NS explanation with a claim of understanding and reinforces this claim by an affirmation that she has now understood. That this is not the case surfaces in line 8 when the NS introduces the next item on the list (*turtleneck sweater*), to which the NNS responds with a clearly relieved (nods, smiles, looks straight into the camera), “Yeah I know that one.”

The example in Table 10 illustrates how a string of multiple triggers may cause the participants to move from task-appropriate to face-appropriate behaviour. In the transcript we follow one of the dyads as they go through the list of items during the Things-in-Pocket task. During the exchange of items I-VI the NNS initiates negotiation of meaning several times, but by the time the couple has reached item VII he seems to have given up.

**Table 10:** Task: Things-in-Pocket; Digital Medium: Video Call

<table>
<thead>
<tr>
<th>Number of task item</th>
<th>Speaker</th>
<th>Transcript (including researcher observations in […]诱导)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII</td>
<td>NS</td>
<td>Tassel</td>
</tr>
<tr>
<td></td>
<td>NNS</td>
<td>[no response- blank face]</td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>It’s like a string you hang around your curtains to hold them back, and it’s got like …… stringy bits on it.</td>
</tr>
<tr>
<td>VIII</td>
<td>NS</td>
<td>Kirby grips like bobby pins.</td>
</tr>
<tr>
<td></td>
<td>NNS</td>
<td>[no response - blank face]</td>
</tr>
</tbody>
</table>
You know like pins that little girls put in their hair \(\text{[gestures putting a pin in her hair]}\) … these little

\text{IX} \quad \text{NS} \quad \text{a wrench}

\text{NNS} \quad \text{[no response - blank face]}

\text{NS} \quad \text{like the things you use to} \ldots \text{[makes a tightening with wrench-type movement with her hand]}

\text{NNS} \quad \text{Oh yeah …}

\text{NS} \quad \text{To screw bolts in}

\text{NNS} \quad \text{[nods] yeah yeah}

\text{X} \quad \text{NS} \quad \text{Braces. You know the [clutches her shoulders with both hands] things that guys use to keep their pants up that go over their shoulders.}

\text{NNS} \quad \text{[nods]}

\text{NS} \quad \text{Braces. Not enough boys wear them now} \text{[smiles].}

\text{NNS} \quad \text{[smiles]}

\text{XI} \quad \text{NS} \quad \text{A laurel wreath, which … how do I even begin to describe this. You know like the Greek, the ancient Greek pictures you see and they’ve got the thing [makes circular gestures around her head], like with the golden leaves in their hair?}

\text{NNS} \quad \text{[smiles and nods]}

\text{XII} \quad \text{NS} \quad \text{Tweezers. You know, the things that you pluck your eyebrows with.}

\text{NNS} \quad \text{[smiles and nods]}

As we can see, after item VII, the NS provides unsolicited comprehensible input for each of the items, sparing the NNS the effort of explicit negotiation and so protecting his face while simultaneously ensuring successful task completion. After items VIII and IX, the NS still leaves a short pause, giving the NNS the opportunity to react, but when the NNS fails to do so, the NS no longer waits for an indication of non-understanding; instead, he instantly adds an explanation (items X, XI and XII). In the final stage of the task, the NS is doing all the work, while the NNS seems to have retreated into unresponsiveness.

We found one counter-example (example in Table 11) in our data. Here the NNS persists in negotiating and the NS, rather than the NNS, abandons the task item after a string of indicators of non-understanding expressed by the NNS. As part of the Things-in-Pocket task, the NS tells her NNS counterpart she has cotton and a needle on her wish list:

*Table 11:* Task: Things-in-Pocket; Digital Medium: Video Call and Instant Chat
The NNS in this data negotiates for meaning four times over the same trigger (Turns 2, 4, 6, and 8) during the video part of the task. Because the NNS blames the quality of the sound for his non-understanding of part of the trigger (cotton), they decide to switch to instant chat after Turn 8, so the NNS can ask his counterpart to spell the word for him. Finally, the trouble source seems to have been resolved when the NNS sends a claim of understanding (Turn 11). However, when the NS sends extra input in her next message (Turn 12), the verb to sew turns out to be another trouble source, prompting the NNS into yet another potential round of negotiation of meaning (Turn 13). The NS decides to give up, because, as she explained in the stimulated recall session afterwards, she felt they needed to move on.

**Discussion and Conclusions**

In the model we present in this paper, we specify five discourse trajectories in L2 learning discourse, where traditional SLA research distinguishes only two discourse trajectories. Interactionist NoM research focuses on Trajectory (i): it investigates task-appropriate communication behaviour in L2 learning settings and tends to ignore or disregard data in which the participants do not negotiate in the turn immediately following the trigger. Studies critical of negotiation of meaning, on the other hand, zoom in on Trajectory (ii) and argue that learners are sometimes reluctant to initiate negotiation of meaning from fear of losing face (Foster, 1998; Eckerth, 2009). Our model, however, includes three other trajectories, two of which highlight the crucial role of the speaker in L2 learning discourse. As such, we propose that it offers a comprehensive framework that accounts for the full repertoire of interactional behaviors participants have at their disposal in this setting.

In trajectory (0) we see the speakers, NS as well as NNS (Van der Zwaard & Bannink, 2018), offer pre-sequences and comprehensible input in the turn prior to a potential trigger (teacher role; Liddicoat & Tudini, 2013). This is both in the interest of the task and in the interest of face: The extra information increases the chance hearers will understand the trigger and decreases the risk that they are forced to admit non-understanding. In this way, by actively preventing conversational trouble, speakers guard both the hearer’s and their own face wants, and contribute to successful task completion.
The speaker also plays a crucial role in Trajectory (iii) by challenging the hearer’s claim of understanding or following up on the hearer’s covert signals of non-understanding, prompting delayed NoM. Trajectory (iv) occurred in situations where the hearer had to indicate non-understanding of the same trigger multiple times or had to negotiate multiple consecutive triggers during the same session. In this situation, hearers tended to refrain from indicating non-understanding after an average of two overt indicators and sometimes even ceased to actively contribute to the discourse altogether. These discourse patterns could only be traced by including multimodal data in the analysis and by taking longer interactional sequences stretching over multiple turns into account (Van der Zwaard & Bannink, 2016).

To address the issue of quantity (i.e., which trajectory occurred more or less often), instances of all trajectories occurred in our data, but their frequency varied. We found, for instance, that trajectory (i) occurred more during written chat and trajectory (ii) more during video conferencing (Van der Zwaard & Bannink, 2014, 2016). Tasks with a string of multiple consecutive triggers, however, prompted more instances of Trajectory (ii) and Trajectory (iv) type of discourse, irrespective of the medium (Van der Zwaard & Bannink, in print). Trajectory (iii) occurred across task types, although only occasionally, mainly because, according to the meta-data, hearers (both NS and NNS) found it difficult to retract their face-appropriate behaviour. Trajectory (i) also occurred across all tasks, and increased as tasks were more complex, or as hearer negotiation of meaning decreased as participants were working on the task (Van der Zwaard & Bannink, 2016, in print).

The findings show that the (non-)occurrence of a particular trajectory is impacted by multiple, interrelated variables, which reflects the dynamic, emergent nature of L2 learning discourse in (digital) task-based NS-NNS L2 learning. We propose, therefore, that our findings can benefit both L2 teaching and NoM research. In their endeavors to achieve particular objectives and effects, teachers and researchers may decide on experimenting with combinations of particular situational variables in order to promote or discourage the occurrence of certain discourse trajectories. These variables include:

- **Type of Task:** It has been argued that decision-making tasks generate more Trajectory (i) discourse than two-way information tasks (Smith 2003b). In (Van der Zwaard & Bannink, in print), we argue that tasks with multiple consecutive triggers provoke more Trajectory (iv) discourse.

- **Medium or Platform:** We found more instances of Trajectory (i) discourse during chat as compared to video call, which suggests that chat offers more affordances for initiation of NoM (Freiermuth, 2011), possibly due to the relative anonymity of the medium, in which there is no visual contact between participants.

- **Participants:** It has been argued that the lower the NNS L2 level and the more symmetrical the participation roles, the more Trajectory (i) discourse will occur (Varonis and Gass, 1985a; Oliver, 2002; Van der Zwaard & Bannink, 2018). Our data came from digital interactions between advanced EFL learners and native speakers of English, which could have promoted Trajectory (ii) and Trajectory (iv) interactional sequences.

- **L2 Pedagogy:** Task-based telecollaboration projects tend to create more informal learning situations, in the sense that students move away from the institutional environment of school learning. This may reinforce the paradox that, although negotiation of meaning is seen as beneficial for language learning, self-correction is preferred in informal interactions for social, face-related reasons (Bannink, 2002; Eckerth, 2009; Foster, 1998). In other words, the more telecollaboration projects and tasks move away from the institutional context, the more the discourse is expected to move away from Trajectory (i).

**Limitations of the Study**

There are a number of limitations to the present study. Since the participants in our projects were NS and NNS that only have the English language in common, code-switching was ruled out as a communication
strategy (for studies that investigate dimensions related to code-switching, see Tudini, 2016; Sert & Balaman, 2018). In addition, we only investigated data derived from two types of tasks. We acknowledge, therefore, that the robustness of our model is to be tested and, if needed, refined in further studies that address these limitations.

Acknowledgements

We would like to thank the anonymous reviewers of this paper for their valuable ideas and feedback.

Notes:

1. The terms ‘hearer’ and ‘speaker’ refer to the participant roles during task performance.

2. According to this framework, a learner at high B2 or C1-level is expected to be able to “interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party” (Council of Europe 2001, p.23).

3. The data of the digital performance part of the telecollaboration project have been reported on in Prior (2016).

4. Videorecorder for Skype, recording both participants in split screen mode.

5. Time stamps are included in the chat scripts since the length of the intervals between messages can be significant.

6. Spelling and grammatical errors in the chat transcript have not been corrected.

7. As one of the anonymous reviewers of this paper noted, it is sometimes difficult to distinguish between a pre-sequence of this type and self talk (“hm, how do I say this?”). Whenever this was the case, we triangulated our interpretation of the data through stimulated recall.

8. Advanced L2 learners have been reported (Van der Zwaard & Bannink, 2016) to act in the interest of face rather than in the interest of the task when interacting with native speakers as a result of the type of evaluative compliments given in turns 5 and 7 of the example in Table 9. Although meant as a face-saving strategy for the NNS, if the NS is extremely complimentary of the level of their counterparts’ level of English it adds to the pressure of the NNSs not to make mistakes or admit to non-understanding. Indeed, having to negotiate for meaning after your native speaker counterpart has just told you that ‘your English is better than mine’ warrants non-understanding even more face-threatening and disconcerting.

References


**Appendix A**

**Things in Pocket (Australian version: chat – video call)**

In today’s session you are going to telecollaborate with your Dutch counterpart.

Together you exchange and discuss a number of items on the wish lists of four fictional characters each.

Based on these wish lists you will create character profiles and discuss if and how they could be incorporated in the play.

The first half of the task will be done through Skype written chat, the second half through Skype video call. The Skype video call session will be recorded and anonymised for research purposes.

**Beginning:**

Your Dutch counterpart will contact you through Skype written chat.

**Part 1:**

Below are the wish lists of two fictional characters, each with 6 items. Your Dutch counterpart has the wish lists of two Dutch fictional characters, also including 6 items each (Mr and Mrs de Vries). Exchange the items of Mr Adams (you) and Mr de Vries (your counterpart).

**NOTE:** it is entirely up to you to decide in which order or who goes first as long as you do not show your counterpart the pictures.

Briefly discuss Mr Adams’ and Mr de Vries’ characters/life styles, based on his wish list.
Decide if and how Mr Adams and Mr de Vries could be characters in the play.

Mr Adams’ wish list:

Appendix B

Jokes Task (Australian version: written chat – video call)

- In today’s session you are going to telecollaborate with your Dutch counterpart.
- The theme of today’s session is cultural humour. To get acquainted with each other’s type of cultural humour you will exchange culturally specific jokes.
- When you have exchanged your jokes, you will discuss ideas about the cultural humour of both The Netherlands and Australia.
- Finally, you will discuss if and how the theme of cultural humour could be incorporated in the play.
- The first half of the task will be done through Skype video call, the second half through Skype chat. The Skype video call session will be recorded and anonymised for research purposes.

Beginning:

- Your Dutch counterpart will contact you on Skype video call.
- **Part 1:**
  - Introduce yourselves and get acquainted
  - Below are 2 Australian jokes (your Dutch counterpart has been given Dutch jokes).
  - Take a few minutes to read them.
  - Exchange your jokes with your counterpart.
  - It is entirely up to you who goes first, or in what order you exchange the jokes.

Joke 1:

Two Aussie cattle drovers standing in an Outback bar.
One asked, “What are you up to, Mate?”
“Ahh, I’m takin’ a mob of 6000 from Goondiwindi to Gympie.”
“Oh yeah ... and what route are you takin’?”
“Ah, probably the Missus; after all, she stuck by me durin’ the drought.”

Joke 2:
Question: How do you know if you’re a bogan?
Answer: You let your 15-year-old daughter smoke at the dinner table ... in front of her kids.