ReCALL **29**(3): 276–293. 2017 © European Association for Computer Assisted Language Learning
doi:10.1017/S095834401700009X
First published online 22 May 2017

A framework for learner agency in online spoken interaction tasks

JANINE KNIGHT

Universitat Internacional de Catalunya, Spain
(email: janine@uic.es)

Universitat Oberta de Catalunya, Spain
(email: jknight@uoc.edu)

ELENA BARBERA

Universitat Oberta de Catalunya, Spain
(email: ebarbera@uoc.edu)

CHRISTINE APPEL

Universitat Oberta de Catalunya, Spain
(email: mappel@uoc.edu)

Abstract

Learner agency, the capability of individual human beings to make choices and act on these choices in a way that makes a difference in their lives (Martin, 2004), is instrumental in second language learning because attainment is only arrived at by learner choice (Pavlenko & Lantolf, 2000). If attainment is understood as learner engagement in synchronous, collaborative, spoken interaction which is thought to lead to gains in second language acquisition (SLA), then design considerations that harness learners' agency towards that end is important. This study explores the relationship between learner agency and two different task types, namely an information-gap task and an opinion-sharing task in two peer-to-peer synchronous computer-mediated communication (SCMC) spoken interaction events. Students' choices and how students act on these choices during tasks are analysed using a discourse analysis approach. Audio recordings of four dyads as cases were examined using three analytical dimensions: language functions of verbal interaction, cognitive processing and social processing. The results show that most learners used their agency to reconfigure the tasks from spontaneous to planned interaction, with some choices and actions relating to technology impacting detrimentally on interaction time in the target language. The different tasks were found to filter and channel different types of agency that learners could exercise, namely representational, organisational, and strategic agency as speech acts, and directional agency as a physical act. These types consisted of different natures and purposes and are presented as a framework. The information-gap task supported strategic agency and an opinion-sharing task supported personalisation and identity construction or representational agency.

Keywords: learner agency, task-based learning and teaching, TBLT, synchronous computer-mediated communication, SCMC, spoken interaction, task design

1 Introduction

The ubiquity of technology in everyday life as well as the many digital environments inhabited for work, play or socialisation, increases opportunities for languaging about the world and language as we engage in diverse activities (Blin & Jalkanen, 2014). New digital contexts are increasingly able to facilitate the construction of personal and shared meanings because the multimodal inputs or semiotic resources and the ways they are configured have expanded, offering new opportunities for learner choice and control or agency. This means new challenges for online task design for language learning. In online synchronous computer-mediated communication (SCMC) milieus, task-based learning and teaching (TBLT), one of the most common design approaches in second language acquisition (SLA) has migrated from face-to-face to online contexts (see Lai & Li, 2011, for an overview). TBLT approaches can be used by designers to stimulate peer-to-peer spoken interaction with the goal of increasing time spent in the target language (TL) and provide opportunities for learner engagement in using a range of language functions.

On the one hand, tasks might be considered to facilitate learner agency, giving opportunities for learners to use the TL in extended interaction and therefore promoting SLA (Samuda & Bygate, 2008). Learners are assumed to have control over their linguistic and cognitive resources, choosing which ones to use for task completion. On the other hand, because some perspectives consider a task as an essentially predictive device, in some cases deterministic (Ellis, 2000), the controlling nature or deterministic features of some tasks might constrain agency.

Whereas some researchers call for tasks to be "less structured, more enquiry-based spaces [that] encourage(s) learners to exercise agency and enact identities" (Lamy, 2006: 263), others warn against the use of highly open-ended tasks (e.g. Doughty & Long, 2003; Lafford & Lafford, 2005), recommending instead to follow TBLT design principles in which meaning is primary, there is a real-world relationship, task completion has priority, and task performance is assessed in terms of outcome (Skehan, 1996). Some propose a shift in design because new learning takes place across networks, multiple sites and timescales, and students have potential agency to create new situated activities (Blin & Jalkanen, 2014). How typical tasks such as information gaps fit within this digital learning landscape is unclear as they assume a fixed, constant site for learning and a synchronous time mode (e.g. a face-to-face classroom), without considering how the presence of technological task features and the ability for learners to control them might shape the interaction.

Learning activities can be organised to enhance agency for two reasons: (a) agency has inherent value both within and beyond formal learning environments; and (b) it leads to superior learning (Schwartz & Okita, 2009). The value is in the belief that learners are agents who "play a defining role in shaping the qualities of their learning" (Dewaele, 2009: 638), and have goals, motives and intentions (Dörnyei & Ushioda, 2009). Superior learning can be considered to be that which fits with a learner's life goals because it is personally meaningful. Studying how agency manifests in online contexts is important for a number of reasons: firstly, to identify how learners' intentional choices and actions support the goal of learner "attainment", understood as the act of interacting orally with others in a spontaneous and sustained way in an additional language; secondly, the need to verify that the peer-to-peer spoken interaction occurring is of the kind that is believed to lead to gains in acquisition; and thirdly, to explore how new forms of agency are emerging in digital

landscapes in order to inform future task design. This study explores how agency manifests during two different pedagogical spoken interaction tasks, online. The results form a tentative framework for types of agency.

2 Theoretical framework

2.1 Learner agency, language learning and speech

There is a plethora of definitions regarding learner agency. Martin's (2004: 135) definition as "the capability of individual human beings to make choices and act on these choices in a way that makes a difference in their lives" is preferred over the more common "the socio-culturally mediated capacity to act" (Ahearn, 2001: 112). This is because, although many agree that an individual's capacity to act is socioculturally, contextually and interpersonally mediated (Mercer, 2011), Martin's definition allows for a focus on agency as intentional behaviour during task processes. It goes beyond "capacity" or "capability", which are conceptualisations of agency as a property of the individual.

Agency is a fundamental construct in understanding learning processes and learner identities, but researching it is problematic: the construct is under-theorised, there is a lack of clarity in defining it, difficulty exists in establishing sound analytic research procedures, and operationalising it remains a challenge (Miller, 2012). Many perspectives agree that language plays a central role, with a shared focus on learners' individually constructed and renegotiated relationships with society at large (e.g. various authors in Deters, Gao, Vitanova, & Miller, 2015) including online courses or classrooms (e.g. Xiao, 2014; Zhang, 2010; Yim, 2011). At the level of speech, Blin and Jalkanen (2014) connect agency and "languaging" (Swain, 2006), highlighting a shift in the concept of "language-as-object of study" to "language-as-action or process" involving "making meaning and shaping knowledge and experience through language" (Swain, 2006: 98).

Few studies have focused on agency at the micro level of tasks involving speech. In face-to-face contexts, van Lier (2008) identified four areas of learner initiative: (1) topic work; (2) selection to speak; (3) allocation of speaker(s) or activity; and (4) sequencing the talk or activity. Novick and Sutton (1997), focusing on choices, identified choice of outcome – i.e. "a purposeful pursuit of a particular goal", "choice of task" and "choice of speaker". Both studies highlight that agency can be carried out at two levels in tasks: in relation to the topic (i.e. topic work); and in task management (e.g. selection, allocation, and sequencing). Others have focused on how learners construct the same task through different activity: approaching tasks differently despite having the same instructions (Wang, 1996) or with respect to maintaining the frame of social interaction (a set of shared expectations as to what the interaction ought to entail) and positioning themselves differently (e.g. subjects in an experiment or students in a university – Roebuck, 2000); or having different perceptions of and orientations to task conditions across-learner and within-learner performance (Coughlan & Duff, 1994).

A framework for analysing agency at the level of speech does not currently exist in SLA theory. Based on the results of this study, we take Schwartz and Okita's (2009) three types of agency as a starting point. Their study on learning-by-teaching identifies types of agency as: (a) doing; (b) productive; and (c) passive/active. The last two are pertinent because they focus on interaction between people, whereas the first applies to individuals.

Productive agency is "a recursive system [...] where people can create themselves in the world and see themselves reflected back through the independent behaviour of their creation" (Schwartz & Okita, 2009: 8). An example given is a mother and child interacting where the child initiates the exchange, including an idea, into the joint space. The mother incorporates the child's intent and takes the initiative to turn the conversation into an object-naming lesson. The child picks up the mother's meaning and renames the object. If the mother never heard the child's utterance, then the child would have no agency in that interaction, despite choosing to speak. However, the mother takes the child's idea and builds upon it, which creates a system of productive agency: (a) there is an opportunity to express one's original ideas; (b) other people take up the ideas and add their own element to them; and (c) one gets to respond with new ideas in return (Schwartz & Okita, 2009). In contrast, passive/active agency can be understood as learners giving ideas while passively receiving others' ideas during interaction with little or no take-up of what the other is saying. An example given by Schwartz and Okita (2009) is interacting with people who add nothing to the conversation or simply say "yes" or "no." Interaction is without exchange, only serving to trigger self-explanation. It is semi-recursive.

The characteristics of the spoken interaction in this study differ in two ways to the examples above. The first is that it is peer-to-peer student interaction, not parent-to-child. Peer-to-peer interaction differs because it offers an equalising of participation structures: the authority source (teacher or parent) is subverted as they become a participant in the interaction; control of and responsibility for the interaction is more incumbent on students and speakers to share the floor more equally (Ortega, 1997). The second difference is that the interaction is between non-native rather than native speakers, which, according to Ortega (1997), provides a non-threatening forum for practising developing language skills. However, despite differences in participant characteristics and the features of the speech, compared to Schwartz and Okita's (2009) example, recursive interaction is desirable for both native and non-native speakers. It is an indicator of "highly engaging conversations" (p. 11) of native speakers and is another way of describing extended and collaborative turn-taking, important for SLA. Productive agency (or recursive speech) and passive/active agency (or semi-recursive speech) remain relevant in studying non-native peer-to-peer interaction in online tasks because, as the data reveals, it highlights that not all spoken interaction involves spontaneous, natural, turn-taking. These two types of agency are the starting points for describing how spoken interaction differs in the online tasks analysed. By developing the two types further we hope to describe the interaction occurring and inform future task design and research.

2.2 Tasks, task types and spoken interaction

Breen (1987) highlighted the difference between "task-as-workplan" (concerned with the expectations and intentions of task design) and "task-as-process" (or what actually happens), underscoring "the notion that learners, as active agents in learning processes, can modify activities according to their own intentions – modifications which may or may not be in direct accordance with the initial intentions of that task-as-workplan" (Dooley, 2011: 72). Important to this study, some learners' choices and subsequent actions to reconfigure aspects of the tasks were understood as students' agency at work, highlighting resistance to do the task-as-workplan (e.g. which tools, when and how).

Much research from a cognitivist perspective has tried to determine which task types have a positive effect on quantity of "meaning negotiation" through turn-taking (Foster & Ohta, 2005), with research suggesting that information-gap tasks offer most opportunities for negotiation and therefore time in the TL. This is important because online task design for spoken interaction often aims to encourage quantity of interaction between learners alongside the assumed recursivity that spontaneous interaction implies. Interaction (involving collaborative, recursive, turn-taking) is central in SLA theory because it is believed to lead to gains in the TL (de la Colina & Mayo, 2007; Gass & Mackey, 2006).

3 General objectives

This study aims to explore how agency manifests within TB-SCMC spoken interaction tasks: specifically (a) how learners use language-as-action (languaging) for intentional purposes, alongside other means; (b) how jointly-constructed speech as a form of agency is constructed alongside individual agency (the latter being most prominent in sociocultural perspectives – Swain & Deters, 2007); (c) how agency manifests at "task topic" and "task management" levels, extending van Lier's (2008) and Novick and Sutton's (1997) research in contrast to classroom or course level or "society at large"; and (d) how task types might induce, "filter" (Luckin, 2010), enable, or constrain agency. With these foci, the study differs from previous ones from a sociocultural perspective. The research questions are as follows.

How does learner agency manifest in:
RQ1: a synchronous online spoken interaction event?
RQ2: an information-gap task and an opinion-sharing task at task management level?
RQ3: an information-gap task and an opinion-sharing task at topic level?

4 Method

4.1 Participants

The participants were students enrolled in English as a foreign language classes as part of their degree programme at the Universitat Oberta de Catalunya (UOC), a 100% online university based in Barcelona. The eight participants comprised three male and five female, non-native speaking adults, aged between 26 and 55 years old, and who were engaged in an online synchronous speaking task as four dyads. All learners were considered bilingual, sharing Catalan and Spanish. Students had a global level B2.1 (upper-intermediate) in English on the Common European Framework of Reference for Languages (CEFR; Council of Europe, 2001), although the specific spoken interaction level for each participant is unknown.

4.2 Context

The data derived from a previous study by Appel, Robbins, Moré and Mullen (2012). They took a cognitivist perspective on spoken interaction and used a quantitative analysis of turn-taking and student questionnaires, in order to explore how different navigation features of the Tandem tool (Appel, Nic Giolla Mhichíl, Jager & Prizel-Kania, 2014) influenced learning strategies and TL use in tasks. The results showed that learners engaged in different

activities depending on the various technologies used to do the tasks. One format allowing for easy access to content prior to the task led most learners to prepare or script their interaction, with a considerable amount of preparation for the task but little spontaneous conversation during it. On the other hand, when students had had no prior access to the contents, the task yielded natural spontaneous speech with a higher rate of turn-taking. The current study uses a qualitative approach from a sociocultural perspective in order to gain insight into learning processes.

Four dyads participated in this study: two from one interface version and two from another. Both versions included the same text-based instructions and photo for partners A and B, as well as navigation buttons or hyperlinks. Each dyad had to collaborate to complete two out of four tasks on the topic of travelling. The first was an information-gap task (spot-the-difference) and the second was an opinion-sharing task. Both tasks incorporated the same photo of a London street. Learners had four differences to find: the number of streetlights; the number of windows in a building; the colour of a shop's awnings; and the colour of the sky. The second task used the same photo, accompanied by an open question: "What kind of activities can people do in a holiday destination like this?" Students received instructions and guidelines and carried out the tasks as compulsory course assignments. There was no time limitation for tasks and task engagement took place in unknown locations, although typically it was completed in learners' homes.

The data consists of recorded spoken conversations between four dyads, approximately 23 minutes in total. Recordings were captured using a plug-in for Skype, a free video and audio conferencing tool, and started with the first task and lasted until the end of the second. Conversations were transcribed and converted to a text document, along with researcher notes about learner choices and actions, to form written data.

In terms of instruments, the Analytical Framework of Peer Group Interaction by Kumpulainen and Mutanen (1999) was used to analyse the interactions. It supported a microanalysis of evolving peer interactions, focusing on three analytical dimensions: the functions of verbal interaction, cognitive processing, and social processing. The functional analysis supported investigation of what learners are "doing" with language, and incorporates Halliday's language functions (Halliday & Hasan, 1989) using codes such as Informative, Expositional, and Organisational. The analyses of cognitive and social processing focused on interactive dynamics as they occurred across the participants: cognitive processing focused on ways in which students approached and processed learning tasks, highlighting working strategies and situated positions towards knowledge, learning and themselves as problem solvers (e.g. exploratory speech or procedural speech); social processing characterised the social relationship and types of participation in peer groups (e.g. collaborative, individualistic).

4.3 Procedure

The study used a *sociocultural* discourse analysis approach concerned with how agency through "content, function, and the ways shared understanding is developed, in social context, over time" (Mercer, 2010: 9). This is a departure from *linguistic* discourse analysis approaches more commonly used in SLA, which are concerned with the organisational structure of spoken language. It also adopted a qualitative approach for data collection and analysis. Time spent in interaction in the TL is included as an important result. Where new

language functions were identified, they were added to the original coding system. After the data had been attributed to the sub-sections within the analytic dimensions and subsequently coded, two other researchers checked the results. Because we know that the learners in cases 2, 3 and 4 had looked at the answers and scripted or prepared their interaction, we did not fully code within the cognitive processing dimension. The speech units were identified on an utterance basis (Kumpulainen & Mutanen, 1999). The unit of analysis was each dyad and the individuals within that dyad.

5 Results and discussion

This section describes the results, followed by the presentation of a framework for types of agency identified in the data and how they pertain to productive and passive/active types of agency.

RQ 1. How does learner agency manifest in a synchronous online spoken interaction event?

Learner agency manifested in two ways: (a) physically through touch, intersecting with technological task features; and (b) through learner speech and spoken interaction, intersecting with methodological features. Learners' relationship with the methodological and technological features of the two tasks influenced the type of agency they could exercise and therefore task features became a specific focus during analysis.

Learner agency as physical interaction with technological task features

We consider learners' choices and physical moves made in relation to technological task features of the Tandem tool to be the first type of agency. Although physical in nature, it also implies a spoken or written aspect accompanying or preceding it, necessary for decision-making. The choice and physical moves to navigate (with a button or hyperlink), check or submit answers individually or collectively, using non-device-related technological features, we call "directional agency". Directional agency emerges from the learners' relationship with technological features and affects both task outcomes and processes, specifically the time interacting in the TL and whether the type of spoken interaction is recursive or not, as shown in Table 1.

Case 1 followed task-as-workplan, looking at answers as a checking mechanism after finding their own. Cases 2, 3 and 4 looked at the answers before engaging in interaction in the TL and scripted or pre-prepared what to say before recording, appearing to complete the task.

Table 1 *The effect of directional agency on learners' spoken interaction*

	Use of agency to view answers	Spoken interaction time in the TL			Interaction type
		Total	Information gap	Opinion sharing	
Case 1	Answers not seen	11'41"+0'2" in L1	9'15"	2'28"	Recursive
Case 2	Answers seen	5'7"	2'18"	2'49"	Semi-recursive
Case 3	Answers seen	2'27"	1'38"	0'49"	Semi-recursive
Case 4	Answers seen	4'33"	3'34"	0'59"	Semi-recursive

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

Cases 2, 3 and 4 also used an uncommon word (*awnings*), confirming they had found the meaning before recording. The different choices and moves made by learners, as part of learners' directional agency, led to recursive or semi-recursive interaction. This "split" occurred because case 1 carried out both cognitive (problem solving) and social processing (collaboration) spontaneously during the task. Cases 2, 3 and 4, negated the cognitive dimension by looking at the answers, so social processing consisted not of interacting in the TL to solve a problem but rather interacting/performing the task in the TL as if they had solved it. Case 1 was successful because their choice and subsequent moves resulted in an increased quantity of spoken interaction in the TL, yet despite extensive collaboration they were unable to find all the differences. The other cases, however, appear successful at task completion.

Both quantity and quality of interaction is affected if learners use their directional agency to look at answers before starting the task. Spoken interaction time in the TL is shorter and lacks the recursive quality at both cognitive and social levels. This result highlights the importance of task processes over task completion, as learners who completed the task "correctly" did not engage in spontaneous, recursive interaction.

Agency manifest through learner speech and spoken interaction

After analysing learners' relationship with the technological features, we now describe the relationship between learners and methodological task features. Alongside the closed question (a feature of the information-gap task) and the open question (a feature of the opinion-sharing task), the photo was identified as affecting the types of agency learners could exercise. Learners' choices and their ability to act through speech were filtered, channelled and influenced by methodological task features which led to the emergence of "organisational agency", "strategic agency" and "representational agency", which we subsequently illustrate. These types of agency are speech-related in nature and, due to learners looking at answers and preparing, resulted in a splilt into either "productive" or "passive/active" sub-types.

RQ2. How does learner agency manifest in an information-gap task and an opinion-sharing task at task management level?

Information-gap task

Agency in the information-gap task manifested at the level of speech, characterised by the use of language functions for organisational purposes, coded as "OR". When combined together, learner turns formed what we call organisational "moves", or organisational agency. These moves were either: (a) collaborative (COLL); (b) individualistically executed, some of which may have been pre-decided collaboratively before recording (IND/COLL); or (c) individually expressed as self-talk (ST) or intrapersonal speech (e.g. reviewing task requirements). Although all cases demonstrated organisational agency, only case 1 used collaborative moves as shown in Example 2, with one learner in case 1 also using self-talk to organise as shown in Example 1. Cases 2, 3 and 4 mainly used individualistic moves.

Example 1: Individual move as self-talk (ST) (case 1)

H. OK… (mumbles reading the exact instructions given in the task)… you can see the same picture. There are four differences…

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

Example 2: Collaborative move (COLL) (case 1)
M. ¿Pues empezamos en inglés? (trans. So shall we start in English?)
H. ok. I'm ready to start in English
M. ok. Me too
H. um er. Who a start? You or me?
M. You can start if you want
H. ok

Case 1 demonstrated a greater range of organisational moves, number of turns to make a move, and more time spent in negotiating for organisational purposes than other dyads. Case 1 also codeswitches between Spanish and the TL as shown in Example 2, negotiating when to start speaking in the TL, a move absent in other cases. The use of the learners' shared L1 supported case 1's ability to organise and start the task in the L2, enabling organisational agency to occur across different language codes. This highlighted code change as a natural expression of learner agency (García, 2009).

In cases 2, 3 and 4, organisational agency is manifest at both social and individual levels but it has little purpose as most organisational decisions have been pre-decided. Individual learners in cases 2 and 3, for example, initiate talk but continue without negotiation (agreement/disagreement) of the move with their partner. Cases 3 and 4 announce their roles individually without negotiating them in the TL. These results suggest that learners' looking at answers, as part of their directional agency, detrimentally affected their organisational agency with regard to the range and quantity of organisational moves they could negotiate. This resulted in a passive/active sub-type of organisational agency emerging, characterised by short, semi-recursive interaction with little or no negotiation of organisational moves in the TL.

Table 2 summarises each organisational move and whether it was collaboratively negotiated in each dyad (COLL), individually expressed as self-talk (ST) or individualistically executed (IND). "No" is used when the move is absent.

Opinion-sharing task

The opinion-sharing task followed the information-gap task so the purpose of organisational moves was different (i.e., supporting task transition). However, learners' organisational agency was still evident in the form of collaborative, individual (self-talk) and individua-

Table 2 *Organisational moves in the information gap task*

Learner 'move'	Case 1	Case 2	Case 3	Case 4
Choosing when to change to TL	COLL	no	no	no
Choosing when to start	COLL	IND	IND	no
Clarification of what next task involves	ST	no	no	IND
Re-capping what needs to be done for task completion	ST	no	no	no
Choosing sequence of speakers	COLL	no	no	no
Choosing picture, role A or B	–	–	IND*	IND*

* choosing roles – feature of html version only

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

Table 3 *Organisational moves in the opinion-sharing task*

Learner move	Case 1	Case 2	Case 3	Case 4
Prompt for next task	COLL	no	IND	no
Clarification of what next task involves	ST	no	no	IND
Choosing when to start	no	IND	no	no
Choosing sequence of speakers	no	COLL	no	no
Choosing when to finish	COLL	COLL	no (recording cut)	COLL

listically executed moves. Cases 2, 3 and 4 continued to have a smaller range of organisational moves than case 1 and were less collaborative in the TL. Examples include learner initiation of an organisational move but executing it on behalf of the dyad or instructing their partner to start, as shown in Examples 3 and 4, resulting in passive/active organisational agency. A summary of moves is presented in Table 3.

Example 3: Individualistic move (IND) (case 4)

A. and then we have to talk about activities that people do when they are in holidays in London and when I am there I always go to shopping because there are a lot of flea markets and I love markets such as Camden Market and Notting Hill as well

B. so I like to go to museums to theatres and take a lot of pictures

Example 4: Individualistic move (IND) (case 2)

D. Now if you want we can start with task number two so you can start

J. OK. About task 2 I want to say that I would like to travel to London…

Example 5: Individual move as self-talk (ST) (case 1)

M. yes ok what is next task? (very low voice) Ok. next task (raised voice) Yes, so now we have to discuss

C. about

In both tasks learners could select to speak and sequence the talk (van Lier, 2008) but could not allocate the speaker roles (A or B) as these were distributed to them via the Tandem tool.

RQ3. How does learner agency manifest in an information-gap task and an opinion-sharing task at topic level?

Information-gap task

Two factors intersected with learner agency at topic level. The first was the methodological task features that channelled learner agency into interaction for strategic purposes. The second was how the physical move of looking at answers impacted on spoken interaction.

At topic level, case 1 used language function combinations as a strategy to solve a problem, which we call strategic agency. Cases 2, 3 and 4 used combinations to appear to

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

solve it, using passive/active strategic agency. The information-gap task ensured quantity of interaction (case 1) rather than supporting meaning making derived from the topic. The closed question affected the type of agency exercised because learners could not discuss the topic of "travelling" or implied subtopics from the photo (e.g. "London" or "a busy city street") so did not reflect choices related to "topic work" (van Lier, 2008). Instead, their agency was channelled towards strategy use to solve the problem, revealing the deterministic nature of the task. This task, with a closed question and hidden information, supported strategic agency. Strategic agency was jointly constructed by dyads using simple to complex combinations of language functions in attempts to find the differences which is shown in Table 4. Authentic attempts were made to find each difference (case 1) or appearing to attempt to find them (cases 2, 3 and 4). Table 4 illustrates this process and also indicates if cases were successful in spotting a difference (hit) or unsuccessful (miss) and the total number of attempts. Misses and hits were determined when dyads started describing a new object in the photo.

Out of the four cases, case 1 made many attempts, including many unsuccessful ones. They also demonstrated the widest range of strategy use (language function combinations) resulting in more interaction time in the TL. While case 1 demonstrated exploratory interaction at cognitive level (making attempts by using complex language function combinations), cases 2, 3 and 4 engaged in cognitive processing, appearing to explore. However, because the problem-solving element of the original task had been removed, cases 2, 3 and 4 engaged in passive/active strategy use characterised by: minimal hits/lack of attempts beyond the number of differences (four); reduced complexity of language function combinations; a limited range of language function use (predominantly information-based swapping strategy use, e.g. I+I); and fewer instances of using language functions for collaborative problem solving (e.g., question/answers and/or agreement/disagreement). The dyad's strategic agency resulted in productive or passive/active agency sub-types and these were determined by learners looking (or not) at the answers, using their directional agency in the first place.

Opinion-sharing task

The opinion-sharing task resulted in diverse learner interpretations and responses to the topic both across and within the dyads. The photo of a London street combined with an open question channelled learners' engagement into personal meaning making. Learners expressed feelings and/or related their experiences "to personalise and otherwise enrich what is to be learned", an example of agentic engagement (Reeve & Tseng, 2011: 258). Cases 2, 3 and 4 connected their experiences with the photo (focusing on London as the topic), situated themselves in the past (recounting past experiences of London) or the future (desire to go to London), expressed their feelings about London, or reasoned why it was good to go there. This highlighted how individual students approached the same task differently (Wang, 1996; Roebuck, 2000) and how the task type permitted cases 2, 3 and 4 to be "imagined agents" (Anderson, 1983) or real agents who are living/re-living the experience as speakers of English, with personal meanings and social purpose in a place in which their TL predominates. Learners could construct "multiple identities involved in the process of learning and using an L2" (Swain & Deters, 2007: 821) through the perceived topic. This possibility is "filtered" (Luckin, 2010) out in the information-gap task. In all instances, learners personalised the topic through the selection, control and representation of personal meaning with respect to

Table 4 *Language function combination for strategy use*

	Language function combinations	Breakdown of attempts: Hits (H) and Misses (M)	Total attempts
Case 1	(I + AF) + (I + RE) + (Ja/Jd) + I + Ja	M	10
	I + (I + Jd) + I + I + I + (I + Jd) + I + Q + A	H (number of street lights)	
	(I + Q) + strategy interrupted because of a technical problem + I + I + Ja + I	M (car sign)	
	(Q + I) + (Ja + I) + Ja + I + Ja + I + Ja + I + Ja + I	H (building colour)	
	(Ja + I) + (Ja + I) + Ja + I + Ja	M (metro signs)	
	I + I + Ja + I + (Ja + Jd + I) + (Jd + I) + I + I + Jd + RE + Ja	H (building/windows)	
	I + I + I + Q + A + Ja + Q + Cl + I + Ja + I + Q + Cl + (RP + Q) + Q + Ja + A + (Ja + I) + RE + AF	H (number of windows)	
	I + (RP + I) + I + I + (Ja + I)	M (rows of windows)	
	(I + Q) + Ja + I + (RP + Jd) + RE + RE + RE + AF + (RE/OR)	H (awnings)	
	Q + I + Ja + I + RP + I + Ja + I + Q + I	M did not find last difference (sky)	
Case 2	I + (I + RE) + (RE + I) + RE + Ja	H (sky)	4
	I + (RP + Q + Q) + A + (I + RE + Sum)	H (number of windows)	
	I + (I + RE) + Ja	H (awnings)	
	(RE + I) + I + (RE + Sum)	H (street lights)	
Case 3	I + (Ja + Sum)	H (street lights)	4
	I + (Ja + Sum)	H (number of windows)	
	(I + Sum)	H (sky)	
	(I + Q) + I	H (awnings)	
Case 4	I + I + RE + Ja	not exploratory – describing	4
	I + I + (RE + Sum)	H (street lights)	
	(I + Q) + (A + I) + I + I + Q + A	not exploratory – describing	
	I + I + (I + Sum)	H (awnings)	
	(I + Q) + (A + I) + Sum	H (sky)	
	Q + A + I/Q + Jd + (RE + Sum) + Ja	H (number of windows)	

Key to language function codes: providing information (I); expression of personal feelings (AF); reasoning in oral language (RE); answering questions (Q); reproducing spoken language (RP); answering questions (A); organising behaviour (OR); summarising (Sum). Functions in brackets indicate the combination of language functions used in 1 learner utterance; + without brackets indicates the next speaker.
Codes from Kumpulainen and Muntanen (1999) with the exception of "Sum".

their own experiences, likes, interests, lack of interest or desires. We call this representational agency.

Despite learners' personalisation of the task, cases 2, 3 and 4's interaction was mainly individualistic, not taken up by their peers, resulting in semi-recursive interaction (see Example 6). Passivity by partners was evident until their turn (silent, no interruptions, no questions, uptake of ideas or acknowledgement of ideas without listening). Contributions were characterised by a lack of cohesion in ideas and different foci within the topic,

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

resulting in the interaction as a whole not making sense. On occasions, speakers did not share the floor more equally or share being the authority figure – usual features associated with peer-to peer interaction (Ortega, 1997). We call this type of interaction passive/active representational agency. This individualistic delivery could be explained by one or more factors: learner avoidance, communication anxiety, individuals preparing the answers differently (with agreed topic but without agreed shared orientation), or having different things to share as individuals.

Example 6: case 2

D. now if you want we can start with task number two so you can start
J. ok er about the task two um I want to say that I would like travel London er it's a special city with beautiful place and monuments there mixture of human race and is one of the most important cities of the world. I would like to go London for learn English. I think that this is good reason for visit London. Also in London you can do many things for example you can learn English, meet new people or friends, walk for several parks or see alone the Thames River in a boat. Also you can show clothes and souvenirs, visit the London Tower and the British Museum and if you like sports er you can see a football match and after in the evening you can drink a delicious beer in a typical English pub. What do you think?
D. yes I totally agree with you Joel. I think that London is a very cosmopolitan place.
J. uhuh
D. It has a lot of places to visit like Big Ben… in Buckingham palace
J. uhuh
D. and I also guess it must be a nice place for going out for a drink with many nightclubs it would be nice to have a pint of Tetleys
J. uhuh
D. and London also have many places to go shopping like Harrods.
J. uhuh ok
D. About the idea of going to go a football camp to watch a football match. I would like to visit the Arsenal stadium, which is my favorite football team.
J. ok
D. um Also it would be nice to visit Wimbledon tennis courts
J. ok
D. it must be a nice place where Rafa Nadal is winning every year.
J. ok. I agree

In contrast, case 1 (see Example 7), do not agree a topic of talk as they move between discussing "a place" to "shopping". Partner M shares geographical and cultural information unique to her through focusing on shopping but partner H appears uninterested in both the place and his partner's talk of shopping. Partners appear to interpret the open question differently: one as a problem like the information-gap task that preceded it, and the other as a discussion point, highlighting differences in task perception and orientation (Coughlan & Duff, 1994). Their recursiveness is short-lived; possible explanations include lack of motivation, shared interest or knowledge of the topic, tiredness or different interpretations of task requirements.

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

Example 7: case 1

H. maybe make or doing Tai chi
M. what
H. take the metro the underground to go to some place some beautiful place to make Tai Chi I don't know what can you do in a place like that
M. After you know that yesterday was the black Friday it's a very big shopping day here
H. ah yeah
M. so I can only think about going shopping
H. yes it's the only thing you can do. Yes I don't know
M. I don't know I guess a place like that that you can go with your friends or your family and then
H. ah ok and then you can go to the pub

Recursive interaction in tasks with open questions might only be able to be maintained by natural drivers. Interaction time in the TL is less across all dyads in this task compared to the information gap.

Table 5 summarises the types of agency identified in the data and sub-types as productive and passive/active, taken from Schwartz and Okita (2009).

6 Conclusions

Results suggest that learners can exercise their agency through speech, using language as an action (languaging) or through physical moves. These two natures of agency were combined during task processes to carry out learner intentions. Whereas the physical moves were related to technological features, learner acts using speech were related to the learners' relationship with the methodological task features and the need for task management. The learners collaborated using speech to organise themselves (organisational), solve a problem (strategic) or represent themselves (representational), all of which had intentionality. This suggests that agency is not a single, monolithic factor (Mercer, 2011) but rather non-monolithic, multi-natured and complex (e.g. types of agency can occur simultaneously or sequentially).

In addition, the results highlight the importance of how both technological and methodological features of tasks can shape learners' spoken and physical acts during interaction but can also be shaped by learners in the mediation process. Learners' relationship with features can filter, channel and influence the types of agency that they can enact. A physical learner move involving technology was detrimental to time spent in the TL, indicating that if interaction time in the TL is the objective, complete learner control in relation to technology is not always desirable. The importance of a dual-focused application of agency in research, which is both causal-focused and rights-focused, is therefore important. The former relating to "protecting or enabling people's access to a particular form or expression of learning" and the latter "concerns what conditions foster learning, and not what rights are at play" (Schwartz & Okita, 2009: 7).

7 Implications of the study

Digital environments may expand the types of agency that can be exercised. How learners exercise these types may or may not support spontaneous, recursive, spoken interaction,

https://doi.org/10.1017/S095834401700009X Published online by Cambridge University Press

Table 5 *Types and sub-types of agency*

Type and nature of agency	Sub-type	Definition	Characteristics
Directional agency Physical interaction with technology accompanied by spoken interaction	none	Choices preceding and accompanying physical moves made by learners to e.g. navigate, check or submit answers either individually or collectively using non-device related technological features	**Individual (physical) interaction** Joint negotiation (speech/written)
Organisational agency Spoken	Productive	Negotiating organisational moves prior, during and/or at the end of a task	**Recursive and collaborative** A wide range of negotiated moves relating to task organisation Evidence of intrapersonal speech
	Passive/active	Performing organisational moves that have been pre-decided in the L1 and not negotiated in the TL	**Semi or non-recursive** Individualistic delivery Limited range of or absence of necessary organisational moves
Strategic agency Spoken	Productive	The use of language function combinations to solve a problem collaboratively	**Recursive and collaborative** Wide range of language function combinations, especially questions Expressions about psychological and emotional state i.e. doubt, tiredness and task difficulty
	Passive/active	The use of language functions to appear to solve a problem	**Semi-recursive** Limited range of language functions used Absence of doubt, tiredness and task difficulty
Representational agency Spoken	Productive	Selection, control and representation of personal meaning in relation to topic in which ideas and/or information is taken up by their peer	**Recursive** Shared information with ideas taken up Language functions relate to experience, (dis)interest, likes and desires in relation to topic
	Passive/active	Selection, control and representation of personal meaning in relation to topic	**Semi-recursive** Individualistic delivery Language functions relate to learner experience, (dis)interest, likes and desires in relation to topic

important for SLA and for the realisation of learners' assumed life goal of learning a language. The role of new types of agency and their relationship with language learning is yet to be determined. Whereas interaction as strategic agency may sustain learners in extended interaction, interaction as representational agency may support other learning benefits such as task personalisation or enhancing motivation.

Furthermore, if network-based learning scenarios are characterised by an expanded range of semiotic resources across multiple sites and time frames, typical spoken interaction tasks may not fit. In addition, assessment of task performance as "process" rather than "outcome" (Skehan, 1996) appears an important focus for online tasks because interaction cannot be assumed to be recursive and spontaneous in the TL. The need for conceptual models, based on empirical work, is needed to support design processes and analysis of learning activity in digital spaces for further enhancements (Blin & Jalkanen, 2014).

The study highlights the potential transferability of the results to other tasks and contexts with similar characteristics as a future potential research area. Further research is needed to confirm if new interaction types (i.e. passive/active) are occurring in other online tasks. We hope that the framework presented may be useful in identifying the characteristics of interaction thought to lead to optimal gains in SLA – that is to say shared, negotiated and recursive.

References

Ahearn, L. M. (2001) Language and agency. *Annual Review of Anthropology*, **30**: 109–137.

Anderson, B. (1983) *Imagined communities: Reflections on the origin and spread of nationalism*. New York: Verso.

Appel, C., Nic Giolla Mhichíl, M., Jager, S. and Prizel-Kania, A. (2014) SpeakApps 2: Speaking practice in a foreign language through ICT tools. In: Jager, S., Bradley, L., Meima, E. J. and Thouësny, S. (eds.), *CALL Design: Principles and Practice*. Dublin: Research-publishing.net, 12–17. doi:10.14705/rpnet.2014.000187

Appel, C., Robbins, J., Moré, J. and Mullen, T. (2012) Task and tool interface design for L2 speaking interaction online. In: Bradley, L. and Thouësny, S. (eds.), *CALL: Using, Learning, Knowing*. Dublin: Research-publishing.net, 15. doi:10.14705/rpnet.2012.9781908416032

Blin, F. and Jalkanen, J. (2014) Designing for language learning: Agency and languaging in hybrid environments. *Apples – Journal of Applied Language Studies*, **8**: 147–170.

Breen, M. (1987) Learner contributions to task design. *Language Learning Tasks*, **7**: 23–46.

Coughlan, P. and Duff, P. A. (1994) Same task, different activities: Analysis of a SLA task from an activity theory perspective. In: Lantolf, J. and Appel, G. (eds.), *Vygotskian approaches to second language research*. Norwood, NJ: Ablex, 157–172.

Council of Europe (2001) *Common European framework of reference for languages: Learning, teaching, assessment*. Strasbourg: Language Policy Unit.

de la Colina, A. A. and García Mayo, M. P. (2007) Attention to form across collaborative tasks by low-proficiency learners in an EFL setting. In: García Mayo, M. P. (ed.), *Investigating tasks in formal language learning*. Clevedon: Multilingual Matters, 91–116.

Deters, P., Gao, X., Miller, E. and Vitanova, G. (eds.) (2015) *Theorizing and analyzing agency in second language learning*. Clevedon: Multilingual Matters.

Dewaele, J. (2009) Individual differences in second language acquisition. In: Ritchie, W. C. and Bhatia, T. K. (eds.), *The new handbook of second language acquisition*. Bingley, UK: Emerald Group Publishing, 623–646.

Dooley, M. (2011) Divergent perceptions of telecollaborative language learning tasks: Task-as-workplan vs. task-as-process. *Language Learning & Technology*, **15**(2): 69–91.

Dörnyei, Z. and Ushioda, E. (2009) Motivation, language identities and the L2 self: Future research directions. In: Dörnyei, Z. and Ushioda, E. (eds.), *Motivation, language identity and the L2 self*. Clevedon: Multilingual Matters, 350–356.

Doughty, C. J. and Long, M. H. (2003) Optimal psycholinguistic environments for distance foreign language learning. *Language Learning & Technology*, **7**(3): 50–80.

Ellis, R. (2000) Task-based research and language pedagogy. *Language Teaching Research*, **4**(3): 193–220.

Foster, P. and Ohta, A. S. (2005) Negotiation for meaning and peer assistance in second language classrooms. *Applied linguistics*, **26**(3): 402–430.

García, O. (2009) Education, multilingualism and translanguaging in the 21st century. In Mohanty, A. K., Panday, M., Phillipson, R. and Skutnabb-Kangas, T. (eds.), *Multilingual education for social justice: Globalising the local*. New Delhi: Orient BlackSwan, 140–158.

Gass, S. M. and Mackey, A. (2006) Input, interaction and output: An overview. *AILA Review*, **19**: 3–17.

Halliday, M. A. K. and Hasan, R. (1989) *Language, context, and text*. London: Oxford University Press.

Kumpulainen, K. and Mutanen, M. (1999) The situated dynamics of peer group interaction: An introduction to an analytic framework. *Learning and Instruction*, **9**(5): 449–473.

Lafford, P. A. and Lafford, B. A. (2005) CMC technologies for teaching foreign languages: What's on the horizon? *CALICO Journal*, **22**(3): 679–709.

Lai, C. and Li, G. (2011) Technology and task-based language teaching: A critical review. *CALICO Journal*, **28**(2): 498–521.

Lamy, M.-N. (2006) Interactive task design: Metachat and the whole learner. In: García Mayo, P. (ed.), *Investigating tasks in formal language learning*. Clevedon: Multilingual Matters, 242–264.

Lantolf, J. (ed.) (2000) *Sociocultural theory and second language learning*. Oxford: Oxford University Press.

Luckin, R. (2010) *Re-designing learning contexts: Technology-rich, learner-centred ecologies*. Abingdon: Routledge.

Martin, J. (2004) Self-regulated learning, social cognitive theory, and agency. *Educational Psychologist*, **39**(2): 135–145.

Mercer, N. (2010) The analysis of classroom talk: Methods and methodologies. *British Journal of Educational Psychology*, **80**(1): 1–14.

Mercer, S. (2011) Understanding learner agency as a complex dynamic system. *System*, **39**(4): 427–436.

Miller, E. (2012, Sep 2) Chapter proposals: Agency and SLA. http://linguistlist.org/issues/23/23-3666.html

Novick, D. G. and Sutton, S. (1997) What is mixed-initiative interaction? In Haller, S. and McRoy, S. (eds.), *Proceedings of the AAAI Spring Symposium on Computational Models for Mixed Initiative Interaction*. AAAI/MIT Press, 114–116.

Ortega, L. (1997) Processes and outcomes in networked classroom interaction: Defining the research agenda for L2 computer-assisted classroom discussion. *Language Learning & Technology*, **1**(1): 82–93.

Pavlenko, A. and Lantolf, J. (2000) Second language learning as participation and the (re)construction of selves. In: Lantolf, J. (ed.), *Sociocultural theory and second language learning*. Oxford: Oxford University Press, 155–177.

Reeve, J. and Tseng, C. (2011) Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology*, **36**(4): 257–267.

Roebuck, R. (2000) Subjects speak out: How learners position themselves in a psycholinguistic task. In Lantolf, J. P. (ed.), *Sociocultural theory and second language learning*. Oxford: Oxford University Press, 79–95.

Samuda, V. and Bygate, M. (2008) *Tasks in second language learning*. Basingstoke: Palgrave Macmillan.

Schwartz, D. and Okita, S. (2009) The productive agency in learning by teaching. Unpublished manuscript. http://aaalab.stanford.edu/papers/Productive_Agency_in_Learning_by_Teaching.pdf

Skehan, P. (1996) Second language acquisition research and task-based instruction. In: Willis, J. and Willis, D. (eds.), *Challenge and change in language teaching*. Oxford: Heinemann, 17–30.

Swain, M. (2006) Languaging, agency and collaboration in advanced second language proficiency. In: Byrnes, H. (ed.), *Advanced language learning: The contribution of Halliday and Vygotsky*. London: Continuum, 95–108.

Swain, M. and Deters, P. (2007) 'New' mainstream SLA theory: Expanded and enriched. *The Modern Language Journal*, **91**(s1): 820–836.

van Lier, L. (2008) Agency in the classroom. In: Lantolf, J. and Poehner, M. (eds.), *Sociocultural theory and the teaching of second languages*. London: Equinox, 163–186.

Wang, J. (1996) Same task: different activities. Unpublished research report. Pittsburgh, PA: University of Pittsburgh.

Xiao, J. (2014) Learner agency in language learning: The story of a distance learner of EFL in China. *Distance Education*, **35**(1): 4–17.

Yim, Y. K. K. (2011) Second language students' discourse socialization in academic online communities. *Canadian Modern Language Review*, **67**(1): 1–27.

Zhang, J. (2010) Learner agency, motive and self-regulated learning in an online ESL writing Class. *IALLT Journal*, **43**(2): 57–81.