Article

Exploring the Effects of Teaching Students Dynamic Assessment for Appropriation in Group Learner-Learner English Discussion

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Abstract

In conversational interaction for language learning, dynamic assessment involves an expert's strategic use of feedback and assessment with the goal of mediating a learner's autonomous development. Traditionally a trained teacher's tool, dynamic assessment was taught to Japanese university students for use in learner-learner group conversational interaction in pursuit of two main goals: to describe the occurrence rate of learner implemented dynamic assessment and to describe usage in relation to mediation and scaffolding. Quantitative results show that, following instruction, learners did not often use dynamic assessment for the purpose of mediation. Analysis of transcripts suggests that learners used dynamic assessment to scaffold task resolution rather than mediating development. Together these results shed light on the extent to which dynamic assessment can be effectively taught to and appropriated by learners for the purposes of scaffolding and mediation.

Keywords

Sociocultural theory, dynamic assessment, classroom research, scaffolding, mediation

1 Introduction

Learner-learner interaction has garnered much attention in the field of second language acquisition, particularly those working from a sociocultural theory (SCT) framework (Antón & DiCamilla, 1998; Donato, 1994, 2000; Ohta, 2000; Swain, 2000, 2001; Swain & Lapkin, 1995, 1998). While it is demonstrated that feedback plays a vital role in learner development (Aljafreh & Lantolf, 1994), and some have observed how learners naturally use negative feedback with each other (Donato, 1994; Ohta, 2000), research on what happens when feedback strategies are taught to learners is limited (Davin & Donato, 2013; Sato & Ballinger, 2012).

Aljafreeh and Lantolf (1994) showed that negative feedback most effectively regulates learner development when starting with implicit feedback then graduating to explicit feedback, and this most effectively occurs in communicative interaction. This leads to the principles of dynamic assessment, a

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procedure in which an expert actively assesses developmental level and provides appropriated negative feedback (Lantolf & Poehner, 2004). Studies of learner-learner dyads conclude that learner fronted implementation of dynamic assessment varies in effectiveness, creating need for an expert to raise awareness of and teach effective feedback strategies (Aljafreeh & Lantolf, 1994; Dontato, 1994; Ohta, 2000, Ellis, 2009; Oskov, 2009). Vital to the results of this study, Davin and Donato (2013) found that although learners *scaffolded* effectively (assisting task completion) they did not demonstrate *mediation* (assisting cognitive development). No major study in the field of language learning concerns the explicit teaching of dynamic assessment feedback strategies to learners for the purpose of appropriation in learner-learner communicative interaction.

Thus, the present study used a quan—QUAL mixed methods approach (qualitatively driven sequential design – Schoonenboom and Johnson, 2017) to explore the effects of teaching 32 Japanese learners of academic English discussion feedback strategies for dynamic assessment in group learner-learner communicative interaction. The substantive qualitative analysis of transcripts, which explores how learners implemented dynamic assessment strategies, was first framed by a quantitative analysis of the occurrence rates of differing learner implemented dynamic assessment feedback strategies. Results show that learners rarely used feedback strategies in agreement with dynamic assessment after receiving explicit instruction, and qualitative analysis of transcripts suggests that learners appear to have used these strategies for the purpose of scaffolding rather than mediation. These findings suggest that learners in the context of this study may not have used feedback strategies for the purpose of cognitive development, even when explicitly taught for that purpose.

2 Literature Review

2.1 Sociocultural theory and the ZPD

SCT differs from cognitive approaches in claiming that learning first occurs in dialogic interaction between a novice and an expert who uses physical and symbolic tools to mediate learner development (Lantolf, 2011). The role of the expert in a given task is to guide a learner from other-regulation, relying on the assistance of others, to self-regulation, relying on one's own knowledge. In this way, learning begins on the social plane and progresses toward the autonomous plane, a developmental process coined ontogenesis. While ontogenesis occurs over an extended period of time, microgenesis describes intermittent and short-term progress. The distance between what a learner cannot do alone and what the learner can do alone is the zone of proximal development (ZPD), the zone wherein a learner most requires mediational assistance by a social other (Lantolf, 2011). Or as Vygotsky (1978) defined it: 'the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (p.86). Conceptually, the autonomous plane (independent problem solving) is on the bottom of the developmental spectrum while the social plane (social guidance) is on the top, with the ZPD between, thus ontogenesis and microgenesis are downward movements. This idea led to an increased focus on scaffolding and mediational feedback strategies in the language teaching context (Guk & Kellog, 2007, Oskov, 2009). With traditional SCT -influenced feedback, an expert begins with explicit forms of assistance and slowly reduces assistance as the learner progresses downward in the ZPD toward the autonomous plane. The potential drawback to providing explicit assistance at the onset of interaction is that this resolves an issue for the learner rather than with the learner, and without knowing if the learner can resolve an issue with less assistance (Aljafreeh & Lantolf, 1994). Additionally, it may not be possible to know a learner's actual developmental level as capability varies with context, rendering mediational assistance a complex task as the expert must assess developmental level and make informed choices on the type of assistance needed based on that assessment. Such dynamic assessment and adjusted feedback functions to regulate learner development in the ZPD (Aljafreeh & Lantolf,

1994). For language learning context, this poses a unique challenge to experts tasked with regulating development in conversational interaction.

2.2 Scaffolding, mediation, and dynamic assessment

In second-language communicative interaction, SCT-guided researchers look to language related episodes (LRE) to define and describe the mechanisms involved with how experts provide feedback and how learners make preferred adjustments (Lantolf, 2011). LREs can be described as 'any part of the dialogue where learners talk about the language they produced, and reflect on their language use' (Swain & Lapkin, 2002, p. 292). An effective tool an expert uses in LREs is negative feedback, which indicates a problem explicitly or implicitly (Ellis, 2009). Determining which feedback type to use for a given learner requires a theoretically grounded and strategic approach to intervention.

Dynamic assessment involves the strategic use of feedback by an expert in dialogic interaction with a learner who assesses learner developmental level contingent on the learner's performance and provides appropriately adjusted feedback based on that assessment (Lantolf & Pohener, 2014). Laying the foundations for this approach, Aljafreeh and Lantolf (1994) proposed three components for effective mediation in the ZPD: dialogic, contingent, and graduated. First, expert intervention should occur in dialogic interaction, defined as the necessity of interaction between capable and less capable individuals. Intervention should also be *contingent* – the expert's ability to determine whether or not assistance is actually needed, to determine the appropriate type of assistance, and to determine the appropriate time assistance is needed. Graduated intervention holds that feedback should begin on the bottom of the ZPD near the autonomous plane, where at the onset of an LRE an expert offers implicit fronted feedback with the goal of assessing what the learner is or is not capable of doing alone. After determining the learner's ZPD position, the expert graduates feedback toward the social plane for the purpose of furthering cognitive development. Conversely, using explicit feedback at the onset of an LRE may be providing more assistance than necessary as it begins toward the social plane and hinders opportunity for autonomous resolution. Together the three components underpin the dynamic assessment strategies an expert uses to mediate a learner's shifting autonomous development in the ZPD.

This study further distinguishes LREs into three subtypes to achieve its purposes in relation to the implementation of dynamic assessment feedback strategies:

- · explicit fronted feedback LRE: providing explicit feedback at the onset of an LRE
- · implicit fronted feedback LRE: providing implicit feedback at the onset of an LRE
- · graduated feedback LRE: when the expert provides implicit feedback and graduates to explicit feedback following assessment of learner adjustment

Although explicit fronted and implicit fronted feedback LREs may contain aspects of dialogic interaction and contingent assessment, only a graduated feedback LRE contains all three components of dynamic assessment for mediating cognitive development. This distinction allows the study to classify the quality of LREs.

While mediational feedback works to regulate autonomous development in the ZPD, dynamic assessment strategies may also be used to assist task completion (Pohener, 2008). Davin and Donato (2013) make an important distinction in showing that *mediation* assists the development of cognitive functions while *scaffolding* assists the completion of a given task (e.g. using feedback strategies only for the purpose of resolving an LRE and reentering conversational flow rather than extensively developing conceptual understanding of a given lexical item). Thus, if feedback functions to assist task completion it is deemed by the present study as scaffolding.

2.3 Learner-learner assistance and the ZPD

Concerning the type of feedback learners use in learner-learner interaction, while teachers tend to provide explicit assistance, younger learners tend to use implicit assistance (Guk & Kellog, 2007, Morris, 2005). Adult learners, however, use a balance of explicit and implicit feedback (Antón & DiCamilla, 1998; Oskov, 2009; Pellettieri, 2000; Sotillo, 2005). Donato (1994) observed that the expert role need not be an 'expert' but can also be a 'more capable other' in a given task where expert-novice roles change with the context. Additionally, the ZPD need not be limited to a dyad but can exist as an inter-mental and collaborative function in a group (Donato, 1994; Guk & Kellog, 2007; van Lier, 2000). Guk and Kellog (2007) also found that learners value the completion of a task over accuracy. However, learner fronted feedback is not always accurate, and there may be missed opportunity for development, while the ability to provide effective feedback and a variety of feedback types may be limited to the learner's background knowledge and developmental level (Oskov, 2009; Storch, 2002).

In a group context, students engage in *collaboration*, when students work together to achieve a common goal, and rather than one learner benefitting from collaboration all members present may benefit through *collective scaffolding* (Donato, 1994), and this facilitates an 'intermental development zone' that supports group problem solving strategies (Rojas-Drummond, Gómez, & Vélez, 2008). Learners often use repetition to draw attention to an error, or attempt at a shared understanding of a concept (Antón, 2009; Poehner, 2008, 2009). Scaffolding or mediation in the ZPD need not always constitute two or more members, as a dialogic mechanism can be achieved through self-scaffolding, when a learner uses previously internalized knowledge to converse with and mediate new knowledge (Swain et al, 2009). For instance, Knouzi et al (2010) showed that *languaging*, the act of talking to oneself out loud, can help a learner discover new meaning and improve understanding of a concept. Languaging will be an important feature in the interpretation of the present study's data for describing a learner's attempt to use circumlocution as a means to explain and exemplify the meaning of an L1 concept in English.

Concerning the direct teaching of feedback strategies, Sato and Ballinger (2012) looked at the effects of teaching learners prompts (clarification requests) and recasts, finding that learners used these corrective feedback strategies more frequently and developed higher accuracy. Most relevant to the present study, Davin and Donato (2013) looked at how students appropriated dynamic assessment strategies previously implemented by a teacher. While not a direct teaching of dynamic assessment, they found that although learners scaffolded task completion effectively they did not demonstrate mediation of cognitive development. Interestingly, Davin, Jose, and Sagre (2016) looked at the effects of teaching instructors dynamic assessment and found that even teachers may struggle to appropriate dynamic assessment, although with extended training and careful planning teacher performance improved. The implications among the three studies are that learners with limited background knowledge may not be capable of mediating development to the extent of trained teachers – that the feedback moves available in dynamic assessment may be most useful to learners as task completion tools.

Dynamic assessment principles hold that explicit and implicit feedback types play a role in supporting development at different levels in the ZPD when graduated and offered contingently in dialogic interaction. Studies of learner implemented dynamic assessment showed effective scaffolding but no strong evidence of feedback used for the purpose of mediation. The present study works through the SCT framework by raising learner awareness of feedback approaches involved with dynamic assessment and describes appropriation in relation to scaffolding and mediation. This entails the following two questions:

(a) When learners are taught dynamic assessment strategies, how often do explicit fronted, implicit fronted, and graduated feedback episodes occur in group learner-learner communicative interaction? (b) With respect to scaffolding and mediation, how do learners appropriate explicit fronted, implicit fronted, and graduated feedback, and how might this explain the occurrence rates?

3 Methodology

3.1 Participants and Japanese context

Japanese university EFL is widespread with most universities mandating academic and communicative English courses, usually for first and second year students (see Hino, 2018; Vitta, Jost, & Pusina, 2019). In this study, four classes of first-year Japanese students enrolled in a private university in Japan and allocated to the Level C tier (a TOEIC band of 480-679) were selected. Ages ranged from 18-19 years old. The course is academic English discussion, focused on improving communicative competence and critical thinking skills through content-based English discussion. Students typically performed discussion in two groups of three, four, and sometimes five. For each class, two discussions were performed in two different groups following target language presentation and practice stages.

3.2 Tasks

In the first lesson of the course, learners were taught how to request assistance, referred to as Asking for Help. This typically took the form of a request for translation of a lexical phrase, primarily with the question 'How do you say (*Japanese L1 item*) in English?' In discussion, learners assume listener roles (react and pose questions) and speaker roles (give ideas and answer listener questions), and take turns in each role. Asking for Help is typically used in the listener role, and speakers answers with an English approximate. This type of LRE was chosen for the present study due to the highly explicit nature of providing an answer, which the researcher saw as a suitable platform for moving away from explicitness. Helping the Speaker was introduced, which involved feedback strategies in response to Asking for Help, as seen in Table 1 below. Target language as presented to students can be found in Appendix B.

Table 1
Helping the Speaker: Target Language for Learner Implemented Dynamic Assessment

Target Language	Phrases	
Asking for Help Request for Assistance	How do you say (<i>L1 item</i>) in English?	
Indirect Help	What do you mean?	(clarification request)
Implicit assistance	Can you tell me more?	(clarification request)
(prompts)	Can you give me an example? (clarification request)	
Direct Help	Do you mean?	(explicit recast)
Explicit assistance	You can say	(explicit correction)
Finding the Answer	I mean	
Speaker autonomous	For example,	
resolution via languaging	If	

The researcher presented Helping the Speaker with the goal of raising awareness of when, how, and why to use this target language. First, the researcher presented Direct Help as direct translation in the form of explicit recast and explicit correction, which equates to explicit fronted feedback. Second,

Indirect Help was presented as clarification requests, which performs the function of implicit fronted feedback. The speaker uses Finding the Answer to perform languaging (circumlocution) in response. Finally, the researcher demonstrated how to begin with Indirect Help and graduate to Direct Help. While this strategy was not assigned a title in order to reduce complexity for students, it is reflective of graduated feedback. Helping the Speaker was designed to represent dynamic assessment in a form comprehendible to the students, encouraging *graduated* and *contingent* use in a *dialogic* setting. A dialogue comparison (Appendix A) and a controlled practice activity (Appendix B) supplemented by teacher-explanation was used to assist presentation.

Following the presentation of Helping the Speaker, learners moved into a semi-controlled practice stage and discussed questions relevant to the lesson topic. Learners were not required to request assistance but were encouraged to do so when they felt necessary. After the practice stages, the instructor provided appropriate feedback on implementation of Helping the Speaker. Last, learners engaged in group discussions.

In subsequent lessons, the researcher provided periodic feedback on Helping the Speaker when appropriate. While the researcher encouraged Indirect Help on the onset of an LRE in order to reflect dynamic assessment, learners were given the freedom to choose Indirect Help or Direct Help in response to requests for assistance.

3.3 Data collection

Group discussions in each lesson were audio-recorded for data collection. The researcher identified, transcribed, and coded all lexical LREs. All four classes followed an identical curriculum and classroom procedure. Recorded lessons and interaction time varied due to scheduling difficulties and varying group discussion sizes, as reflected in Table 2:

Table 2
Groups, Recorded Lessons, and Recorded Minutes

Group	Total Recorded Lessons	Recorded Minutes
Group A	5	130
Group B	7	182
Group C	7	182
Group D	5	130
Total	24	624

4 Results

4.1 Occurrence rates of LRE types

The first research question asked: if learners are taught dynamic assessment strategies, how often do occurrence of explicit fronted, implicit fronted, and graduated feedback episodes occur in group learner-learner communicative interaction? In response to this question, a total of 167 LREs were identified

in 624 minutes of recorded interaction. The proportion of LRE subtype occurrences was the same for each group where explicit fronted feedback > implicated fronted feedback > graduated feedback > unidentifiable. Therefore, Table 3 presents LRE occurrences with groups conflated into a single category to facilitate parsimony:

Table 3

Occurrence Rates of LRE Types

Total LRE	Explicit Fronted	Implicit Fronted	Graduated	Unidentifiable
167	66.46 (111)	20.12 (34)	10.36 (17)	3.04 (5)

Of all LREs, 66.46% were explicit fronted feedback. Implicit fronted feedback occurred at 20.12%, and graduated feedback occurred at 10.36%. An "unidentifiable" category signifies feedback patterns not described in the literature, which occurred 5 times at 3.04%. These episodes will be described in the next section. Overall, in LREs involving requests for lexical items in group English discussion, learners resorted to explicit fronted feedback at a consistently high rate, and implicit fronted and graduated feedback LREs were limited.

4.2 Transcript analysis of learner implemented dynamic assessment

The second research questions asked: with respect to scaffolding and mediation, how do learners appropriate explicit fronted, implicit fronted, and graduated feedback, and how might this explain the occurrence rates? Accordingly, this section presents LREs in the transcripts and describes explicit fronted feedback, implicit fronted feedback, and graduated feedback episodes in relation scaffolding and mediation in a group ZPD. Feedback patterns unique to group learner-learner interaction are also described. Interlocutors in the transcripts are identified as speaker (S) and listener (L) given their roles at the onset of an LRE. The first listener to respond to a request for assistance (RA) is labeled L1, the second to respond L2, and so on. This method proved most efficient for the researcher due to the difficulty in identifying participants in a group based on audio alone.

4.2.1 Explicit fronted feedback LREs

Extract 1 below demonstrates a common explicit fronted feedback episode, where L1 provides a solution in turn 2, to which speaker and other listeners confirm:

Extract 1
Explicit-Fronted Feedback

1 S	online activity is good for society. Mainly becauseehuh I koukoku koukoku [広告: advertisement]	RA
2 L1	advertisement	Explicit
3 L2	advertisement	Explicit ²
4 S	advertisement is society influence society	C
5 L1	Oh	C
6 L2	Ah	C

This episode is typical in the data, and appears to demonstrate the habit of quickly resolving an LRE and reentering conversational flow. In this way the task of resolving the LRE is fulfilled with a quick and explicit feedback move. Collective scaffolding can be observed with L2's echoing of L1's proposed solution, and with confirmations from both listeners. Sometimes explicit feedback was rejected (REJ) by the speaker, as in Extract 2:

Extract 2
Rejection Followed by Languaging

1 S	Oh yes uh eh wearing the clothes is goodbut it is soeh mendoku-sai, mendoku-sai [面倒くさい: troublesome]	RA
2 L1	crazy	Explicit
3 S	crazy	C
4 L2	crazy?	REJ
5 L1	crazy?	REJ
6 S	not not crazy not crazywaste of time, waste of time	REJ/LANG
7 L2	(laughter)	C
8 S	going to shopping, chose the clothes is a waste of time	LANG

In this case rejection prompts the speaker into languaging (LANG) in turn 6, which is confirmed by laughter. The Speaker then reentered conversational flow in turn 8. Whether or not this languaging in response to a rejected solution is learned from the presentation activity is unclear due to a lack of clear 'Finding the Answer' marker. Given that learners reenter conversational flow immediately following confirmation, this episode also appears focused on the task of resolving the LRE rather than mediating the speaker's conceptual development of the lexical item. Collective scaffolding may be evident in the repetition of 'crazy' by all members as confirmations and rejections, given that all three members collectively indicated that the solution needed adjustment:

4.2.2 Implicit fronted feedback LREs

Although explicit fronted feedback episodes dominated the data, learners sometimes employed implicit fronted feedback and graduated feedback. Extract 3 demonstrates a typical implicit fronted feedback:

Extract 3
Implicit Fronted Feedback Prompting Languaging

1 S	so nan nandaro [what what is it] how do you say ai-satsu	RA
	[挨拶 : greeting] in English?	
2 L1	ai-satsu!	echo
3 S	difficult	RA^2
4 L1	can you tell me more?	Implicit
5 S	uh some customer buy buy things so someone say things to the	LANG
	customer	
6 L1	mmm yea, I understand	C
7 S	I think this is a good custom for other countries	

In turn 4, although the speaker indicates that an item is 'difficult' to explain, L1 used implicit fronted feedback by clarification request to prompt an attempt at autonomous resolution. In response, the speaker used languaging in turn 5 and listener reconfirmed understanding in turn 6. The speaker then reentered conversational flow in turn 7. Although this is a single-feedback episode, it appears to satisfy two components of dynamic assessment in that it is *dialogic* and the feedback appears to be *contingent* insofar as assessing if the speaker could coherently language the concept of the requested item. The lack of a subsequent feedback move suggests learners were more concerned with the task of resolving the LRE and reentering conversational flow.

4.2.3 Graduated feedback LREs

In cases where learners seemed to struggle with languaging following implicit-fronted feedback, learners graduated feedback to more explicit moves. Perhaps the most exemplary graduated feedback LRE is presented below in Extract 4:

Extract 4

Graduated Feedback

1 S	so I think nearby nature and something quiet is umm someplace	RA
	you can how do you say	
	ochi-tsuku [落ち着く : to calm down] in English?	
2 L1	(ah ochi-tsuku)	
3 L2	(ah ochi-tsuku)	
4 L1	Can you can you explain?	Implicit
5 S	I don't know, I'm asking you	RA^2
6 L1	eh ochi-tsuku	
7 L2	(feel better? Feel comfortable?)	Explicit
8 L3	(Like Feel relaxed?)	Explicit
9 S	Ah ok. Feel relaxed	C
10 L2	(Ah. Relaxed. Yea)	C
11 L1	(Yea)	C
12 S	Yeah. So live close by nature and it's quiet so feel relaxed and	C
	comfortable	

Here, the speaker rejected implicit feedback by stating 'I don't know. I'm asking you' in turn 5. The listeners are then prompted to co-construct a solution, seemingly speaking over each other but rather speaking with each other in turns 7 and 8, to which the speaker accepted the solution in turn 9. Again, the listeners echoed the requested item, a repetition strategy, perhaps because they were considering an explicit solution. However, when L1 prompted the speaker to language, this fulfilled the beginning of the assessment criteria or dynamic assessment. The speaker's indication of an inability to language the concept enhances the assessment as a clear indication that more explicit assistance is needed. The listeners then graduated feedback to provide explicit assistance in turns 7 and 8, thus it appears that all three components of mediation in the ZPD are present as the *graduated* feedback occurring in *dialogic* interaction was *contingent* on the assessment of the speaker's ability to language the requested item

Another way listeners noticed that speakers needed more explicit assistance is when a speaker struggles to language, as seen in Extract 5:

Extract 5

Graduated Feedback Prompted by Languaging Assessment

1 S	it's mainly because uh face to face communication and face to face	RA
	information uh How do you say watasi-no jika mawari kinjyou	
	[私の実家周り近状 : conditions around my home].	
2 L1	can you give me more?	Implicit
3 L2	can you give me more?	Implicit ²
4 S	ah uh mmm Uh	LANG
5 L1	near	Explicit
6 L2	around?	Explicit ²
7 S	around near around	C
8 L1	yea, yea	C
9 S	my around information	C
10 L2	(ok I understand)	C
11 L1	(yes, yes)	C
12 S	Ok, we can get information easily	

An inability to language is noticed in turn 4, after which L1 and L2 offer two possible solutions in line 5 and 6. The speaker repeated both items in line 7 and modified further in line 8, to which L1 and L2 confirmed. As with Extract 4 above, it appears that multiple learners in dialogic interaction assessed the speaker's ability with prompts, and following further assessment of the speaker's languaging provided graduated assistance through collaborative offerings of solutions and confirmations:

Listeners also used graduated feedback although it appeared that listeners understood the speaker's languaging, as presented in Extract 6:

Extract 6
Graduated Feedback Following Languaging

1 S	but I think I think how do you say bai-ni-yotte1	RA
	[倍によって : depends on the situation]?	
2 L1	bai-ni-yotte-wa [so it's depends on the situation]	
3 S	yea	
4 L1	uh can you tell me more?	Implicit
5 S	for example, uh mm asking my family for money, face-to-face	LANG
	communication is better but breaking up with someone is better	
6 L1	you mean in case	Explicit
7 S	in case	
8 L1	bai-ni-yotte-wa case-by-case	Explicit ²
9 L2	oh	C
10 L1	yea maybe you mean	C
11 S	ok. Case-by-case it is better to communicate	C

This may be because L1 was unsure of an accurate solution until the speaker described the concept in turn 5, which in turn appears to assist L1's lexical recall in turn 8. This is then followed by an alternate rendition of the item in turn 8.

It is unclear why the listeners chose to graduate feedback following what appeared to be comprehendible languaging, but if it was intentional, then Extract 6 may be most akin to the mediational principles of dynamic assessment in that the listeners are appear to be aiming to further the conceptual development of the requested item, in this case a more refined expression of the lexical concept of the Japanese expression. If it was not intentional, that the listeners simply recalled the item after hearing the speaker language, then this episode leans toward the focus of task resolution – to achieve mutual understanding and reenter into conversational flow. Given the habit of the learners to echo the requested item, such as in turn 2, and a preference for explicit feedback, the overall pattern would suggest that the listeners intended to scaffold LRE resolution not just for the speaker but also for themselves. The same may be true of Extracts 4 and 5.

4.2.4 Other types of LREs observed

If feedback can be graduated, this categorically infers the possibility of descended feedback, a shift from explicit to implicit. Such non-linear or non-graduated movement is described by Davin and Donato (2013) as 'haphazard,' which implies that descended feedback undermines ontogenetic and microgenetic development in the ZPD. In this study, descended feedback was identified in the transcripts three times (in the 'other' category in Table 3). Extra 7 demonstrates a descended feedback LRE:

Extract 7

Descended Feedback Following Rejection

1 S	For example, hair artist, they should go to vocational school. But someone who who has not how do you say <i>meikaku</i> (明確: clear)	RA
2 L1	meikakumeikaku clearly	Explicit
3 S	clearly?	REJ
4 L2	Can you tell me more?	Implicit
5 S	Uh Uh Eh? More? Not clear. Yea, someone who does not	LANG
	have clear dreams	
6 L1	Mmm	C
7 S	they should go university	
8 L1	Mmm	C

Here, a solution is provided by L1 in turn 2 but the speaker rejected the solution in turn 3. Noticing this, L2 descended to implicit feedback in turn 4, which prompts lexical recall of a more preferred approximate. The second feedback move is provided by a different listener, indicating a shift in the expert role. L2 appears to be prompting further investigation of the word form (*clear* rather than *clearly*), by both the speaker and L1, after assessing that the solution was not completely accepted. The choice to use implicit feedback reflects this contingent choice:

The learners in the expert role seemed to notice that further assessment was required not only of the learner in the novice role but of the whole group, as the whole group needed to reestablish what they knew about lexical the item in question. This may explain the choice to shift from explicit to implicit following rejection.

Another emergent group dynamic was a multi-directional feedback lineage in the ZPD, where learners changed direction in the ZPD more than once, as demonstrated below:

Extract 8

Multi-Directionality

1 S	I I'm eh how do you say siri-tagari	RA
	[知りたがり : want to know]?	
2 L1	em match	Explicit
3 S	Many kinds?	REJ
4 L1	Ah. Sorry. Can you tell me more?	Implicit
5 S	Um. Many topics	LANG-
6 L2	You want to know	Explicit
7 S	Yeah. I want to know. Do you understand?	C, CC
8 L1	Yes, yes, yes	C
9 S	I want to know the information quickly	

In Extract 8 learners reversed feedback in the ZPD twice, first descending and then graduating, resembling the following pattern: $explicit \rightarrow implicit \rightarrow explicit$. This occurred only twice in the data in the 'other' category. In the above case, explicit fronted feedback was rejected in turn 3 when the speaker proposed a solution, prompting L1 to descend to implicit feedback in turn 4, to which the speaker attempted to resolve in turn 5, prompting graduation by L2 with explicit feedback in turn 6.

It is again apparent that when explicit feedback was rejected the group reassess through implicit feedback. In the case of Extract 8, the speaker indicated challenges with languauging, thus L2 assumed the expert role to graduate to explicit feedback. What these non-linear episodes confirm is that a collective scaffolding functions not for an individual learner in the novice role but for all participants. L1's feedback moves above did not appear to effectively scaffold the resolution of the LRE, revealing that L1's position in the ZPD regarding this lexical concept was underdeveloped and in need of higher social assistance. Further, the speaker demonstrated similar underdevelopment when the speaker struggled to language the concept. Consequently, L2 assumed the expert role and provided swift explicit assistance. L2 is thus assisting both the speaker and L1 in a collaborative act of collective scaffolding.

5 Discussion

5.1 Learner reliance on explicit fronted feedback

The results addressing the first research question point to learners relying mostly on explicit fronted feedback, a strategy in disagreement with the basic tenants of dynamic assessment – to assess learner capability with implicit fronted feedback in dialogic interaction, and to graduate feedback contingent on the learner's developmental level in the ZPD. The strong reliance on explicit fronted feedback is in alignment with the observation that learners use a limited range of feedback types (Oskov, 2009; Storch, 2002). However, this finding does not align with past studies which indicate a learner preference for implicit feedback (Guk & Kellog, 2007; Morris, 2005). While past study observed that adult learners use a mix of explicit and implicit types (Oskov, 2009; Pellettieri, 2000; Sotillo, 2005), this is not strongly reflected in this study of first year university students given the disproportionate reliance on explicit feedback. The implications of these results are that first year Japanese university English language

learners in group academic discussion rely on explicit fronted feedback when encountering LREs involving requests for translation, despite explicit teaching of dynamic assessment strategies which encouraged implicit fronted and graduated feedback (strategies that more effectively afford development in the ZPD). The reasons for this reliance on explicit fronted feedback and low occurrence of dynamic assessment strategies are further discussed in the next section.

5.2 Learner scaffolding rather than learner mediation

Results addressing the second research question suggest that learners tend to provide feedback for the purpose of scaffolding task completion (Davin & Doanto, 2013; Guk & Kellog, 2007). As the overall task of the discussion activity in the present study is to produce ideas on a topic within a given time limit, when LREs occur learners enter the subtask of resolving the LRE and reentering the discussion. The quickest way to do so is by providing an explicit solution on the onset. This result concurs with Guk and Kellog (2007), who showed that learners valued task completion over linguistic accuracy. Learners in this course are encouraged to value meaningful production of ideas over the accuracy of their utterances, which may further explain the reliance on explicit feedback in this context. Even when learners provided implicit fronted feedback, learners reentered conversational flow after confirming understanding, and rarely followed up with graduated feedback. Although implicit fronted feedback fulfills two basic tenets of dynamic assessment, in that it functions to prompt autonomous resolution and provides opportunity for contingent assessment, the choice not to further conceptual development of the lexical item by providing graduated feedback supports the conclusion that learner implemented feedback functioned to scaffold the task of resolving a given LRE and reentering conversational flow. While learners sometimes engaged in graduated feedback, and this appeared to fulfill the components of dialogic interaction, contingency, and graduation, these episodes were rare. Furthermore, in some instances it seemed learners in the expert roles graduated feedback only because the speaker's languaging assisted the production of an explicit solution, and the learners in the expert roles often indicated a solution was unavailable at the onset of the LRE. That is, learners appeared to consider a solution, indicated that they could not recall a solution, resorted to implicit feedback, then provided explicit feedback when languaging assisted recall of the solution. While this occurrence benefited LRE resolution by confirming understanding of the lexical item in question and reentering conversational flow, the degree to which learners appropriated the dynamic assessment strategies for the purpose of mediating conceptual development in the ZPD, either for an individual learner or the whole group, appears to be limited.

This finding suggests agreement with Davin and Donato (2013), who observed that '[dynamic assessment] and scaffolding task completion are not two mutually exclusive activities and should not be understood as dichotomous, and that 'scaffolding a learner into participation in a situated practice begins the process of [dynamic assessment] by allowing the mediator to assess the learner's ZPD and provide mediation where needed' (p. 18). In this way, present study's results suggest that there is value in teaching learners strategies for dynamic assessment with the expectation that learners can effectively assess developmental level in their respective ZPDs and use various feedback strategies to scaffold the resolution of lexical LREs – but not with the expectation that they will use the strategies for mediating further conceptual development of a given lexical item. For instance, when explicit fronted feedback was rejected, learners looked to the alternate strategies made available to them in the Helping the Speaker presentation. This was evident in the transcripts as speaker languaging when an explicit solution was rejected, or engaging in non-linear patterns, such as descended and multidirectional feedback. As observed in previous study, learners in this study also used repetition to indicate errors (such as errant solutions) and to appeal for further assistance (Antón, 2009, Poehner, 2008, 2009). In terms of Aljafreeh and Lantolf's (1994) regulatory components, the learners of this study engaged in *dialogic* interaction, and assessed their respective positions in a group ZPD contingent on the degree to which their feedback assisted in resolving an LRE and reentering conversational flow. Learner implementation of feedback

may not be akin to the calculated and linear direction of a trained teacher's regulatory feedback (Davin, Jose, and Sagre, 2016), but providing various feedback strategies to learners can be a useful tool for effective performance in classroom tasks, and for the teacher to observe learner developmental levels and make subsequent informed decisions for further mediation (Davin & Doanto, 2013; Guk & Kellog, 2007; Rojas-Drummond, Gómez, & Vélez, 2008).

Several other factors may further explain why learners did not provide graduated feedback for the explicit purpose of mediating development in the ZPD. First, low occurrence of implicit fronted or graduated feedback appropriation aligns with previous findings on how limited background knowledge hinders a learner's ability to apply feedback strategies reliably (Storch, 2002; Oskov, 2009). As even trained teachers struggle to apply dynamic assessment consistently, this is an unsurprising conclusion (Davin, Jose, and Sagre, 2016). Second is the presentation of dynamic assessment in the classroom task (Appendix A and B). In light of the analysis of the results, the presentation of dynamic assessment may have encouraged the idea that it was not always necessary to graduate feedback. The material only demonstrates graduated feedback when a learner struggles to language a concept. In this way the presentation also seems to focus on task resolution over a focus on conceptual development.

Learners in this study scaffolded task resolution not only for an individual learner but for all members in the group, aligning with Donato's (1994) concepts of collaboration and collective scaffolding. The result showed that when explicit fronted feedback was rejected, implicit feedback seemed to function as a last resort. It may be that when learners were confident in a solution they were eager to provide it, and chose implicit feedback when lacking a solution. This reflects collective scaffolding in the sense that when explicit fronted feedback appeared insufficient or was rejected the learner in the expert role, or a replacement expert, reestablished LRE with a new feedback move, as evident in the non-linear descended movement and multi-directional episodes.

In a sense, the collective and competing ZPD of all learners, or intermental development zone (Rojas-Drummond, Gómez, & Vélez, 2008), afforded these non-linear feedback moves, and likewise afforded the relinquishing and replacement of the expert role. Even when a learner provided feedback in the expert role, the act of providing feedback can reveal that learner's developmental level in the ZPD for a given LRE. For instance, rejection of explicit feedback may cause learners to resort to alternate feedback strategies, and/or prompt other members to assume the expert role. As observed in previous study on group learner-learner contexts, expert-novice roles shift among all members and the rejection of feedback may prompt these shifts (Donato, 1994; Oskov, 2009; Storch, 2002). Once learners exit the expert role, they assume novice roles and can benefit from the subsequent expert-novice interaction of the other members (Donato, 1994). While non-linear episodes provide interesting insight into collective scaffolding and shifting expert/novice roles, these were rare occurrences. That said, all episodes of explicit fronted feedback, implicit fronted feedback, and graduated feedback contained aspects of collective scaffolding, such as when more than one learner confirmed understanding, listeners and speakers co-constructed the speaker's attempted languaging, and listeners offered multiple solutions or echoed solutions (Donato, 1994). These collective scaffolding features appeared to be effective tools for achieving mutual understanding of lexical items in question and reentering conversational flow.

The high occurrence of explicit fronted feedback episodes suggests that learners do not use dynamic assessment for the purpose of mediating autonomous development in the ZPD, even when following explicit instruction of dynamic assessment strategies. This is largely due to the observation that learners instead use dynamic assessment feedback strategies to collectively scaffold the task of resolving a given LRE and reentering conversational flow. Low engagement with mediational assistance may also be due to a lack of background knowledge, the nature of the request for lexical assistance LREs, pressure to reenter the main task of discussion, and the presentation methodology. These results support past observations that the way learners appropriate feedback strategies, both with and without instructional guidance, differs in fundamentally important ways from extensively trained experts. However, the results support teaching learners feedback strategies for scaffolding task resolution.

6 Conclusion

Learners in this study were taught a comprehendible form of dynamic assessment, and the researcher observed implementation in group learner-learner discussion. The goals were to describe the occurrence rates of learner-implemented feedback strategies (explicit fronted, implicit fronted, and graduated feedback), and to describe how learners appropriated these feedback moves in relation to scaffolding and mediation, and how these descriptions might explain the occurrence rates of the particular feedback strategies.

Results show that learners used explicit fronted feedback most often and rarely used implicit fronted and graduated feedback. Moreover, when learners engaged in implicit fronted and graduated feedback for resolving LREs, they focused more on scaffolding the task of resolving LREs and showed limited focus on mediating conceptual development of the requested lexical items. This may explain the frequent use of explicit fronted feedback at the onset of an LRE. The infrequent usage of implicit fronted and graduated feedback strategies suggests that the application of dynamic assessment for the purpose of mediating development in the ZPD may be beyond the ability of these students. The implication is that dynamic assessment for the purpose of regulation and conceptual mediation in conversational interaction remains the specialized tool of am extensively trained expert, though there is value in raising awareness of the various feedback strategies available to learners for assessing each other's abilities and scaffolding task resolution in group communicative contexts — in this case resolving LREs and continuing conversational flow.

Future study on teaching learners feedback strategies such as dynamic assessment can benefit from a survey on learner attitudes, which may shed light on why learners appropriate dynamic assessment strategies for scaffolding task completion. Following this vein, if such strategies are best used in the manner of scaffolding, future research might inquire into the most effective approaches to enhancing this aspect of learner implemented feedback. If future study should decide to incorporate the teaching of dynamic assessment, special attention should be given to presentation of the scaffolding/mediation distinction and the task in which the strategies are used. Also, an example of learners graduating feedback even when mutual understanding is achieved may help to instill an extended focus on conceptual development through continued assessment and graduated feedback.

The nature of the discussion activity may have limited the opportunities for LRE engagement due to time constraints. This study did not consider the learners' attitudes toward the Helping the Speaker strategies provided in the presentation stage, which could shed more light on why learners seldom engaged in dynamic assessment. As noted earlier, the design of the Helping the Speaker presentation may have encouraged a focus on scaffolding task resolution over conceptual mediation. This study was a descriptive inquiry bound to a single context thus the quantitative data presented here does not generalize to other populations. More formal experimental and quasi-experimental designs with control/comparison groups replicating this study are needed to substantiate the results presented here.

Appendix A

Dialogue Comparison

Read the dialogue with a partner. Next, answer the questions below.

Dialogue 1

Eri: In my opinion, if I donate my clothes to natural disaster victims, umm... how do you say *mottainai* in English?

Jun: You can say... umm... I don't know.

Aki: Maybe... umm... sad?

Ryo: Sad? Umm. Yea sad. Maybe.

Eri: So, I will feel sad about my clothes? Right?

Jun: Maybe. I understand mottainai.

Eri: Ok. So, I will feel, umm... mottainai if I donate my clothes.

Questions

Did Jun and Ryo give a good answer for *mottainai*? Yes/No
 Did Eri find a good English answer for *mottainai*? Yes/No

3. How can Jun and Ryo help Eri find a better answer?

Read the dialogue with a partner. Next, answer the questions below.

Dialogue 2

Eri: In my opinion, if I sell my car, umm...how do you say mottainai in English?

Jun: Can you give me an example?

Eri: Well, for example, if I sell my car, I will be sad. Is that clear?

Aki: A little. Can you tell me more?

Eri: I mean, I want to keep my car, but if I sell my car, I will feel sad, and I will feel

regret.

Ryo: I understand better now.

Questions

Did Jun and Ryo give an answer for *mottainai*? Yes/No
 Did Eri find a good answer for *mottainai*? Yes/No

- 3. How did Jun and Ryo help Eri find an answer?
 - a. They gave the answer. b. They helped the speaker find the answer.
- 4. Which is better: giving an answer (direct help), or helping the speaker find an answer (indirect help)?

Appendix B

Target Language for Helping the Speaker

Listener
Indirect Help
Can you give me an example?
Can you tell me more?
What do you mean?
Direct Help
Do you mean [answer]?
You can say [answer]?

•	
Finding the Answer	
I mean	
For instance/example	
If	

Speaker

Use the Helping the Speaker phrases to complete the dialogues below.

TD 4.0	
UNGOTION	
Practice	
1 I WCUICC	

Eri:	I would say we can't help some people in natural disaster, so ummhow do you say syogan	
	in English?	
Aki:	?	
Eri:	sometimes we can't help them. Is that clear?	
Aki:	?	
Eri:	if they are in a dangerous place, for example Mt. Everest, there is nothing we can do.	
Practi Eri:	ice 2 From my perspective, a good way to help people in natural disasters is umm how do you say	
L 111.	kifu-wo-suru in English?	
Aki:	?	
Eri:	It is difficult to give an example. Umm I don't know an example.	
Aki:	donate money?	
Eri:	Yes! I mean <i>donate money</i> . From my perspective, money is dangerous.	

References

- Aljafreeh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. Modern Language Review, 78, 465-483. http://doi.org/10.1111/ j.1540-4781.1994.tb02064.x
- Antón, M., & DiCamilla, F. (1998). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. The Canadian Modern Language Review, 54, 314-342. Retrieved from http://www. redalyc.org/pdf/3057/305726659007
- Anton, Marta. Dynamic assessment of advanced second language learners. Foreign Language Annals 42.3 (2009): 576-598. https://doi.org/10.1111/j.1944-9720.2009.01030.x
- Davin, K. J., & Donato, R. (2013). Student collaboration and teacher-directed classroom dynamic assessment: A complementary pairing. Foreign Language Annals, 46(1), 5-22. https://doi. org/10.1111/flan.12012

- Davin, K, Herazo, J.D., and Sagre, A. (2016). Learning to Mediate: Teacher Appropriation of Dynamic Assessment. *Language Teaching Research*, 1-20, 2016. Retrieved from http://dx.doi.org/10.1177/1362168816654309
- Davin, K. J., Herazo, J. D., & Sagre, A. (2017). Learning to mediate: Teacher appropriation of dynamic assessment. *Language Teaching Research*, 21(5), 632-651. https://doi.org/10.1177/1362168816654309
- Donato, R. (1994). Collective scaffolding on second language learning. In J. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 33-56). Westport, CT: Ablex.
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. Lantolf (Ed.), *Sociocultural theory and second language acquisition* (pp. 27-50). Oxford: Oxford University Press.
- Ellis, R. (2009). Corrective feedback and teacher development. *L2 journal*, 1, 3-18. Retrieved from http://escholarship.org/uc/item/2504d6w3
- Guk, I., & Kellogg, D., (2007). The ZPD and whole class teaching: Teacher-led and student-led interactional mediation of tasks. *Language Teaching and Research*. 11 (4), 281-299. https://doi.org/10.1177/1362168807077561
- Hino, N. (2018). English as an international language for Japan: historical contexts and future prospects. *Asian Englishes*, 20(1), 27-40.
- Knouzi, I., Swain, M., Lapkin, S., & Brooks, L., (2010). Self-scaffolding mediated by languaging: Microgenetic analysis of high and low performers. *International Journal of Applied Linguistics*. 20 (1), 23-49. https://doi.org/10.3138/cmlr.64.4.605
- Lantolf, J. P., & Poehner, M. E. (2004). Dynamic assessment of L2 development: Bringing the past into the future. Journal of Applied Linguistics, 1, 49–72. 10.1558/japl.v1.i1.49
- Lantolf, J.P., (2011). The Sociocultural Approach to Second Language Acquisition. In D. Atkinson (Ed.), *Alternative Approaches to Second Language Acquisition* (pp. 24-47). New York: Routledge.
- Morris, F. (2005). Chil-to-child interaction and corrective feedback in a computer mediated L2 class. Language Learning and Technology, 9 (1), 29-45. Retrieved from http://llt.msu.edu/vol1num1/morris/
- Ohta, A. (2000). Rethinking interaction in SLA: Developmentally appropriate assistance in the zone of proximal development and the acquisition of L2 grammar. In J. Lantolf (Ed.), *Sociocultural theory and second language acquisition* (pp. 51-78). Oxford: Oxford University Press.
- Oliver, R. (2000). Age differences in negotiation and feedback in classroom and pairwork. *Language Learning*, 50, 119-151. https://doi.org/10.1111/0023-8333.00113
- Oskov, A. (2009). Learners' feedback in online chats: what does it reveal about students' learning? *CALICO Journal*, 27, 48-68. Retrieved from http://www.jstor.org/stable/calicojournal.27.1.48
- Pellettieri, J. (2000). Negotiation in cyberspace: The role of chatting in the development of grammatical competence. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 59-86). Cambridge: Cambridge University Press
- Poehner, M. E. (2008). Dynamic assessment: A Vygotskian approach to understanding and promoting L2 development. Berlin, DE: Springer.
- Poehner, M. E. (2009). Group dynamic assessment: Mediation for the L2 classroom. *tesol Quarterly*, 43(3), 471-491. https://doi.org/10.1002/j.1545-7249.2009.tb00245.x
- Rojas-Drummond, S., Gómez, L., & Vélez, M. (2008). Dialogue for reasoning: Promoting exploratory talk and problem solving in the primary classroom.
- Sato, M., Ballinger, S. (2012). Raising language awareness in peer interaction: a cross-context, cross-

methodology examination. *Language Awareness*, 21, 157-179. https://doi.org/10.1080/09658416.20 11.639884

- Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. *Kolner Zeitschrift für Soziologie und Sozialpsychologie*, 69 (Suppl 2), 107–131. https://doi.org/10.1007/s11577-017-0454-1
- Sotillo, S. (2005). Corrective feedback via instant messenger learning activities in NS-NNS dyads. *CALICO Journal*, 22, 467-496. Retrieved from http://www.jstor.org/stable/24147934
- Storch, N. (2002). Patterns of interaction in ESL pair work. *Language Learning*, *52*, 119-158. https://doi.org/10.1111/1467-9922.00179
- Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, 16, 371-391. https://doi.org/10.1093/applin/16.3.371
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *Modern Language Journal*, 82, 320-37. https://doi.org/10.1111/j.1540-4781.1998.tb01209.x
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. *Sociocultural theory and second language learning*, 97, 114.
- Swain, M. (2001). Examining dialogue: Another approach to content specification and to validating inferences drawn from test scores. *Language testing*, 18(3), 275-302. https://doi.org/10.1177/026553220101800302
- Swain, M. & Lapkin, S. (2001). Examining dialogue: Another approach to content specication and to validating inferences drawn from test scores. *Language Testing*, 18, 275-302. https://doi.org/10.1177/026553220101800302
- Swain, M. (2006) Languaging, agency and collaboration in advanced second language proficiency. In H. Byrnes (ed.), *Advanced language learning: the contribution of Halliday and Vygotsky*. London: Continuum. 95–108.
- Swain, M. (2007) Talking-it-through: languaging as a source of learning. Plenary paper presented at the Socio-Cognitive Aspects of Second Language Learning and Teaching Conference, April, University of Auckland, New Zealand.
- Swain, M., Lapkin, S., Knouzi, I., Suzuki, W., and Brooks, L. (2009) Languaging: university students learn the grammatical concept of voice in French. *Modern Language Journal* 93: 6–30. https://doi.org/10.1111/j.1540-4781.2009.00825.x
- Van Lier, L. (2000). 11 From input to affordance: Social-interactive learning from an ecological perspective. *Sociocultural theory and second language learning*, 78(4), 245.
- Van Lier, L. (2004). *The Ecology and Semiotics of Language Learning: A Sociocultural Perspective*. Boston: Kluwer Academic.
- Vitta, J. P., Jost, D., & Pusina, A. (2019). A case study inquiry into the efficacy of four east Asian EAP writing programmes: Presenting the emergent themes. *RELC Journal*, 50(1), 71–85. http://doi.org/10.1177/0033688217730145
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: The MIT Press.
- Vygotsky, L. (1981). The genesis of higher mental functions. In J. V. Werstch (Ed.), *The concept of activity in Soviet psychology* (pp. 143-184). Armonk, NY: M. E. Sharpe.
- Vygostky, L. (1986). *Thought and language*. Cambridge, MA: The MIT Press.

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