Cross-theoretical Explorations of Interlocutors and their Individual Differences

Edited by
Laura Gurzynski-Weiss

John Benjamins Publishing Company

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Volume 53

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Indiana University

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For Vesper, and her dazzling inspiration
to live Faith over fear

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Introductory material

Introducing cross-theoretical explorations of interlocutors and their individual differences

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Introduction to the volume

Research on second language acquisition (SLA) has become increasingly contextualized following social (e.g., Atkinson, 2011; Block, 2003; Douglas Fir Group, 2016; Firth & Wagner, 1997; Han, 2016; Hulstijn et al., 2014), dynamic (e.g., Ellis & Larsen-Freeman, 2006; Larsen-Freeman, 2015), and bi/multilingual (e.g., Cook, 1999; Ortega, 2013) turns. Complementing this desire for research to better reflect the multi-faceted and complex environments in which second and foreign (L2) languages are learned is a trend for cross-theoretical approaches to investigating SLA in general (e.g., Atkinson, 2011; Hulstijn et al., 2014; Ortega, 2014), and in relation to specific topics, such as task-based language teaching (e.g., Gurzynski-Weiss, Long, & Solon, 2017; Jackson & Burch, 2017).

This edited volume brings together these current trends in SLA by examining interlocutors (in their many forms and roles) and their individual differences from four theoretical lenses. While many frameworks require interlocutors for SLA to occur – whether the interlocutor is a peer or more proficient learner, an instructor, researcher, member of a host family, cultural tutor, etc. – few have considered these individuals theoretically, empirically, or methodologically. The individual differences (IDs) of non-learner interlocutors have seldom been explored (for exceptions see Gurzynski-Weiss, 2017a, 2017b, 2017c), particularly in comparison to the extensive research that has examined learner IDs (e.g., Arabski & Wojtaszek, 2011; Dörnyei & Ryan, 2015; Pawlak, 2012, 2017; Robinson, 2002; Sheen, 2011, etc.). The aforementioned exceptions that have examined non-learner IDs have not done so cohesively across SLA theories. The current volume begins to address this gap in the field.

Specifically, this volume identifies and examines interlocutor(s) via four theoretical frameworks – the cognitive-interactionist approach (Gass, 2003; Gass & Mackey, 2007; Hatch, 1978; Long, 1996, 2006; Philp & Gurzynski-Weiss, this

volume; Pica, 1994; Schmidt, 1990, 2001; Swain, 1995, 2005), sociocultural theory (Frawley & Lantolf, 1985; Lantolf, 2011, this volume; Vygotsky, 1978), the variationist approach (Bayley & Preston, 1996; Geeslin, 2000, 2003, 2011, this volume), and complex dynamic systems theory (Larsen-Freeman, 1997, 2007, 2011, 2015, this volume) – exploring what role(s) these individuals have within each approach, assessing how their theorized IDs may influence L2 learning opportunities and/ or SLA processes, and providing empirical examples of how such research may be robustly undertaken within each framework. Finally, the volume concludes with a synthesis, connections, and future directions chapter which explicitly reiterates the common ground between approaches as well as where there are clear differences (e.g., how each approach contributes to a common body of knowledge despite differences), and then outlines a program for future research based on what we do, and do not, know. Collectively, the chapters in this edited volume provide an opportunity to address the relationship(s) between interaction among interlocutors (however theorized), and to shed light on how these individuals have the potential to impact the central concern of SLA, L2 development.

Interlocutors across SLA theories

Language is, by definition, for communication – that is, mutual attempts for understanding between two or more individuals. When it comes to SLA, learners do not develop the target language in isolation. Most theories maintain that learners together will not develop the L2 unless one of them has more proficiency, and theories conceptualize this difference in experience and/or knowledge as a gap/ hole (Schmidt & Frota, 1986; Swain, 1995) or as a zone of proximal development (Vygotsky, 1978; Lantolf & Aljaafreh, 1995; Lantolf & Thorne, 2006), among other constructs. This other person – whether they are a more capable peer or another interlocutor such as a language teacher or a native speaker (NS) of the target language – serves as a catalyst: for target-like (variable) input (Gurzynski-Weiss et al., 2018); for regulation (Lantolf & Thorne, 2006; Lantolf, Thorne, & Poehner, 2015); for negotiation for meaning (Long, 1996; Mackey, 2012); for co-adaption (Larsen-Freeman & Cameron, 2008); and for alignment (Atkinson, 2011). Importantly, the SLA theories that are reflected in this volume, along with others, all posit theoretical role(s) for interlocutors. For example, *language socialization* approaches view social interaction with more proficient members of a particular community as mediating the development of the communicative competence and knowledge of values, practices, identities, and ideologies of the community. In turn, the more proficient interlocutors are socialized by the novice members into their 'expert'

role. In this bidirectional process, the learner is also an agent of socialization. Duff (2007) states the following:

> Experts or more proficient members of a group play a very important role in socializing novices and implicitly or explicitly teaching them to think, feel, and act in accordance with the values, ideologies, and traditions of the group. However, novices also 'teach' or convey to their more proficient interlocutors what their communicative needs are, and the process of socialization is therefore seen to be bidirectional – or multidirectional if multiple models of expertise co-exist.
>
> (p. 311)

Conversation analysis views L2 learning as a social activity, particularly the interactional moments where participants make learning the focal concern of their interaction. Kasper and Wagner (2011) highlight the interlocutor in their definition of conversation analysis in SLA as describing "the resources that L2 speakers, jointly with their interlocutors, draw upon to keep the interaction going" (p. 129). This is also seen in Drew's (2005) definition of the aims of conversation analysis research, which is stated as aiming to "discover and explicate the practices through which interactants produce and understand conduct in interaction" (p. 75). In *sociocognitive approaches*, alignment (i.e., across tutor and tutee, as well as environmental affordances) is a necessary condition for SLA. Atkinson (2011) states, "the term *sociocognitive* signifies a perspective that emphasizes functional unities *across* 'interactants,' both human and nonhuman, in a complex ecological system, and by doing so tries to blur the conventional boundaries separating them" (p. 162). For nativist theories of SLA such as *Universal Grammar* (White, 1989, 2000, 2015), learners construct grammars on the basis of the input, together with the internal linguistic device (i.e., which contains the set of linguistic principles hypothesized to provide the structure for human language). The interlocutor is the one who provides the input L2 learners need to set parameters. While input does not drive acquisition and the input a learner receives from interlocutors is deficient (i.e., contains false starts, slips and fragments, ungrammatical utterances, etc.), Universal Grammar scholars argue that interlocutor-provided input is still necessary for SLA to occur.

As previously mentioned, this volume focuses on four approaches where interlocutors have perhaps the most significant role in opportunities for language learning. The following sections briefly review each of the four included theories in turn and provide overviews of how the theoretical and empirical chapters in this volume will examine interlocutor IDs within each approach.

Cognitive-interactionist approach (Chapters 2 and 3)

In the interaction approach, the importance of the interlocutor cannot be understated. In Long's (1996) interaction hypothesis, he states that, "negotiation for meaning, and especially negotiation work that triggers interactional adjustments by the NS or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities (particularly selective attention), and output in productive ways" (pp. 451–452). This NS or more competent interlocutor is the impetus for providing critical opportunities for L2 learners to notice the gap between their interlanguage and the target language (Schmidt, 1990, 2001), to receive negative feedback (Long, 1996), to test out their hypotheses via (modified) output (Swain, 1995, 2005), and to receive additional information on form during meaning-based interaction (Mackey, 1999).

In **Chapter 2**, Jenefer Philp and Laura Gurzynski-Weiss explore, within a cognitive-interactionist framework, the role(s) of the interlocutor and their IDs and how they may influence L2 learning outcomes, both in face-to-face and computer-mediated interaction. They begin with an overview of this framework followed by an examination into how interlocutors have been considered historically within the approach. Philp and Gurzynski-Weiss then provide the reader with a detailed account of how individual differences as well as social relations can have an impact on learners' interaction and opportunities for L2 development. Finally, the authors conclude with a series of suggestions for researchers and considerations for teachers and students. Their theoretical overview is followed by a novel empirical study by Mirosław Pawlak in **Chapter 3**, who investigates the mediating impact of learner IDs of gender, learning style, and proficiency on the nature of negotiated interaction and output modifications occurring in two learner-learner dyadic communicative tasks. Pawlak's empirical study finds effects for learners' gender and learning style on the occurrence of negotiation, but no effects for proficiency. All three learner ID variables are moderated by task type (spot-the-difference as compared to information-gap).

Sociocultural theory (Chapters 4 and 5)

In sociocultural theory (Frawley & Lantolf, 1985; Lantolf, 2011), the interlocutor is part of the zone of proximal development (ZPD) (Vygotsky, 1978). According to Lantolf (2011), the ZPD "is the activity in which instruction (i.e., socialization at home and formal teaching at school) and development 'are interrelated from the child's very first day of life'" (p. 29). In the first language (L1), adults and older peers serve as models for imitation; in SLA, these individuals are usually more proficient in the target language. However, Lantolf and Pavlenko (1995) specify the following:

> The construction of a ZPD does not require the presence of expertise. Individuals, even when none of whom qualifies as an expert, can often come together in a collaborative posture and jointly construct a ZPD in which each person contributes something to and takes something away from the interaction… sociocultural theory situates the locus of learning in the dialogic interactions that arise between socially constituted individuals engaged in activities which are co-constructed with other individuals rather than in the heads of solipsistic beings.   (p. 116)

James P. Lantolf examines this collaborative learning in **Chapter 4**, rejecting the notion that all of the interesting and relevant processes of linguistic development occur within the head of the learner. Focusing on the social relationships between learners and their interlocutors in both classroom and non-classroom learning, Lantolf fleshes out the theoretical argument underlying the hidden, or, as he refers to them, "fetishized" others, and considers the implications of this stance for L2 development. Michele Back follows with an empirical study in **Chapter 5**, using videotaped peer tutoring sessions in Spanish to examine language-related episodes where claims to knowledge are negotiated, contested, and rejected through the lens of different types of interlocutors, or "social others." These interlocutors include peers, physically present as well as those not, and even inanimate social others such as written texts including class notes and textbooks. Back finds that peer tutors use many tools in their knowledge building and that they also frequently reaffirm, question, and challenge their own and others' expertise.

Variationist approach (Chapters 6 and 7)

The variationist (also referred to by some as a sociolinguistic) approach to SLA (Bayley & Preston, 1996; Geeslin, 2000, 2003; Tarone, 2007) examines how learners' L2 development is conditioned by linguistic and extralinguistic factors (including social context) and how this variation changes as SLA progresses. L2 speakers are recognized to have social dialects just like L1 speakers. As a result, L2 speakers also show accommodation to their interlocutor. Learners must display a range of accommodation strategies for different interactional contexts. Thus, in this approach, the interlocutor is part of the social context that shapes linguistic variation. As Geeslin and Long (2014) highlight, "although most second language studies generally begin with 'task' as the primary independent variable, the explanations for differences found across tasks are often couched in terms of the characteristics of the setting or the interlocutor" (p. 151).

In her theoretical examination in **Chapter 6**, Kimberly L. Geeslin situates the interlocutor within the variationist perspective, demonstrating that, while this tradition empirically examines language use that takes into account the interactional setting, the characteristics of the speaker, and linguistic elements in the discourse

and surrounding context, it has neglected to update theoretical models to include the interlocutor and their reciprocal interaction with the learner and context. Following her critique, Geeslin provides both an updated model as well as specific needs for future research examining interlocutors and their IDs. In **Chapter 7**, Avizia Y. Long and Kimberly L. Geeslin offer an investigation of the role of instructor L1 (English or Spanish) in relation to instructors' subject expression use in Spanish in learner-directed university-level classroom speech. Analyzing instructor speech from vocabulary-focused lessons reveals that, although the interlocutor ID of instructor L1 did not mediate their rate of subject forms provided orally to L2 learners in the classroom setting, there were significant differences regarding the constraints governing the use of these subject forms according to instructor L1.

Complex dynamic systems theory (Chapters 8 and 9)

Complex dynamic systems theory (Larsen-Freeman, 1997, 2007, 2011, 2015, 2017; Larsen-Freeman & Cameron, 2008) views language as emerging from interactions of multiple agents in speech communities, with interlanguage systems emerging from use. The L2 learner interacts with an interlocutor and with her environment and, in doing so, "tune[s] into and imitate[s] frequently occurring patterns" that suit her communicative needs (Larsen-Freeman, 2011, p. 49). These patterns become part of the learner's L2 resources, which are available for further use and modification. In this way, if language emerges out of the patterns in the input, it is the interlocutor, through interaction, who provides the frequent patterns that inform the regularities that the learner internalizes. As Larsen-Freeman (2011) specifies:

> Language development itself occurs in social context. From a complexity theory perspective, such context contributes significantly to language development by affording possibilities for co-adaptation between interlocutors. As a learner interacts with another individual, their language resources are dynamically altered, as each adapts to the other – a mimetic process." (p. 54)

The interlocutor's role is therefore essential in providing patterns for the learner's emerging language via social co-construction.

In the final theoretical contribution to the volume, in **Chapter 8**, Diane Larsen-Freeman asserts the centrality of interlocutor IDs for complex dynamic systems theorists who study L2 development from an ecological systems perspective. Highlighting the importance of relationships and how navigating IDs are at the heart of relations, Larsen-Freeman discusses how interlocutor IDs may influence both L2 development opportunities and affordances for learning. Next, in **Chapter 9**, Ellen J. Serafini provides a cutting-edge example of how complex dynamic systems theory

research can be a lens with which to investigate the temporal and contextual dynamics of how learner possible selves emerge in relation to their interlocutors during a two-week intensive experience abroad. In her study, learner-identified interlocutors of influence (host family members, university professors, program coordinators, university student peers, and an excursion guide) completed a questionnaire measuring six IDs (age, gender, language-related training and background, familiarity with learners' L1 and culture, experience working with learners of the target language, and attitudes towards L2/heritage learners), while learners completed daily, weekly, and monthly questionnaires targeting their L2 possible selves as well as daily journal entries and excursion reflections to elucidate factors influencing patterns of change in self-perception over time. Serafini's findings reveal that interlocutors play a critically important role in shaping learners' developing sense of self. Further, she argues that learners' subjective perception of interlocutor IDs may play a key role in mediating processes of co-adaptation and alignment.

Intended audience and organization of the volume

As is evident by the overview provided in this introduction, the interlocutor plays a pivotal role in many research traditions within SLA theories. Thus, the primary audience for this volume is SLA researchers and advanced graduate students in theoretical and applied linguistics. Given that L2 teachers also serve as a primary interlocutor in instructed contexts (Gurzynski-Weiss, 2013, 2017a, 2017c), they may also find the edited volume useful in considering their role(s) within instructed L2 contexts, how their behaviors shape critical learning opportunities, and how their IDs may influence these behaviors and opportunities.

To maximize readability and impact, the theoretical overview to each approach is written by a preeminent scholar in the framework and centers on common organizing questions, including: Who are the interlocutors in this framework? What are their roles? Have they been empirically considered? If so, how? Would we presume the IDs of these interlocutors to influence learning opportunities? If so, which IDs? Which learning opportunities?

Additionally, and as mentioned previously, each theoretical overview is followed by an empirical study that demonstrates how interlocutor IDs can be robustly researched within that framework. Organizing questions for the empirical studies include: What can we discover about interlocutors and their IDs within this framework? How may this shape our knowledge of SLA? How can we use this information to further research in this area? Finally, in the concluding chapter, **Chapter 10**, Laura Gurzynski-Weiss synthesizes the theoretical overviews and

empirical studies, highlighting connections across theories and outlining robust steps for future research.

This volume builds on momentum within the larger SLA community for a push for increased contextuality that is interdisciplinary and cross-theoretical. Uniting preeminent as well as junior scholars from multiple frameworks, the collection capitalizes on the work by the International Association of Applied Linguistics Research Network Group on Interlocutor IDs,[1] particularly the Interlocutor Symposium[2] held at Indiana University in the fall of 2015. Taken together, the ten chapters of the current volume initiate a cohesive discussion of the theoretical role(s) of the interlocutor within each approach; hypothesize how the IDs of the interlocutor in each perspective influence L2 opportunities and/or SLA processes; present original and robust empirical research on interlocutor IDs from each theoretical approach; provide theoretical, empirical, and methodological guidance, including specific research questions for future research on the interlocutor in its various forms; and accomplish these aims using language and organization that makes the information accessible to researchers and language teachers alike, irrespective of their theoretical and empirical training.

Volume matrix

To facilitate expedient reference of the content within each theoretical and empirical chapter, a matrix (Table 1) of the interlocutors and themes can be found below. The top row lists the chapter numbers, while the left-hand column lists the relevant factors examined in each chapter (excluding this introduction, **Chapter 1**, as well as the synthesis, **Chapter 10**).

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1.   The International Association of Applied Linguistics (AILA) Research Network (ReN) on Interlocutor and Instructor IDs in Cognition and SLA was founded in 2012 and is convened by the volume Editor. More information can be found at <www.individualdifferencesinsla.com>.

2.   Earlier drafts of all of the chapters included in this volume were delivered at the aforementioned Symposium held in Bloomington, Indiana, USA.

Table 1. Volume reference matrix

	2	3	4	5	6	7	8	9
Interlocutors								
Learners	+	+	+		+			+
Instructors	+		+	+	+	+		+
Native and non-native speakers					+		+	
Peer tutors/interlocutors	+		+	+				
Social others			+	+				
Written texts			+	+				
Parents			+					
Instructional materials (e.g., computers, libraries, laboratories, etc.)			+					
Non-peer tutors					+			
Instructors interacting with learners other than their own					+			
Program coordinators								+
Non-learner peers/friends					+			+
Non-teacher/non-peer interlocutors (cab drivers, waiters, maids, tour guides, etc.)								+
Host family	+							+
Interlocutor IDs								
Age					+		+	+
Experience							+	
Gender		+			+		+	+
Proficiency	+	+			+			+
Learning styles		+						
Role in task							+	
Identity					+		+	
Race/ethnicity					+		+	
Knowledge				+				+
Language history				+				+
Beliefs				+				
First language			+		+	+	+	+
Dynamic motivation							+	+
Possible selves								+
Experience with learners of L2								+
Attitude toward L2/Heritage learners	+							+
Working memory	+							
Anxiety	+							
Engagement	+							
Willingness to communicate	+							
Personality	+							
Motivation	+							

(*continued*)

Table 1. (*continued*)

	2	3	4	5	6	7	8	9
Variables studied in relationship to interlocutor IDs								
Demands of task							+	
Epistemic search sequences				+				
Epistemic stance				+				
Interaction							+	
Feedback	+						+	
Convergence/alignment							+	+
Co-adaptation							+	+
Pronunciation							+	
Subject expression					+	+		
Negotiated interaction		+						
Task		+						
Manner and motion verbs			+					
Communicative development			+					
Psychological development			+					
Study abroad								+
Stylistic variants					+			
Cultural empathy					+			
Context					+			
Regional variants					+			
Length of period of acquisition					+			
Social relations	+							
Personal investment	+							
Power relationships	+							
Role of the interlocutor	+							

References

Arabski, J., & Wojtaszek, A. (Eds.). (2011). *Aspects of culture in second language acquisition and foreign language learning*. New York, NY: Springer Science & Business Media. https://doi.org/10.1007/978-3-642-20201-8

Atkinson, D. (2011). A sociocognitive approach to second language acquisition: How mind, body, and world work together in learning additional languages. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 143–166). New York, NY: Routledge.

Bayley, R., & Preston, D. (Eds.). (1996). *Second language acquisition and linguistic variation*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/sibil.10

Block, D. (2003). *The social turn in second language acquisition*. Washington, DC: Georgetown University Press.

Cook, V. (1999). Going beyond the native speaker in language teaching. *TESOL Quarterly*, 33(2), 185–209. https://doi.org/10.2307/3587717

Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. New York, NY: Routledge. https://doi.org/10.4324/9781315779553

Douglas Fir Group. (2016). A transdisciplinary framework for SLA in a multilingual world. *Modern Language Journal*, 100(Supplement 2016), 19–47. https://doi.org/10.1111/modl.12301

Drew, P. (2005). Conversation analysis. In K. Fitch & R. Sanders (Eds.), *Handbook of language and social interaction* (pp. 71–102). New York, NY: Taylor & Francis.

Duff, P. A. (2007). Second language socialization as sociocultural theory: Insights and issues. *Language Teaching*, 40(4), 309–319. https://doi.org/10.1017/S0261444807004508

Ellis, N. C., & Larsen-Freeman, D. (2006). Language emergence: Implications for applied linguistics. *Applied Linguistics*, 27, 558–589. https://doi.org/10.1093/applin/aml028

Firth, A., & Wagner, J. (1997). On discourse, communication, and (some) fundamental concepts in SLA research. *Modern Language Journal*, 81(3), 285–300. https://doi.org/10.1111/j.1540-4781.1997.tb05480.x

Frawley, W., & Lantolf, J. (1985). Second-language discourse: A Vygotskyan perspective. *Applied Linguistics*, 61, 19–44. https://doi.org/10.1093/applin/6.1.19

Gass, S. M. (2003). Input and interaction. In C. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 224–225). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9780470756492.ch9

Gass, S. M., & Mackey, A. (2007). Input, interaction, and output in second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (pp. 175–199). New York, NY: Routledge.

Geeslin, K. L. (2000). A new approach to the study of the SLA of copula choice. In R. Leow & C. Sanz (Eds.), *Spanish applied linguistics at the turn of the millennium* (pp. 50–66). Medford, MA: Cascadilla Press.

Geeslin, K. L. (2003). A comparison of copula choice in advanced and native Spanish. *Language Learning*, 53(4), 703–764. https://doi.org/10.1046/j.1467-9922.2003.00240.x

Geeslin, K. L. (2011). Variation in L2 Spanish: The state of the discipline. *Studies in Hispanic and Lusophone Linguistics*, 4(2), 461–518. https://doi.org/10.1515/shll-2011-1110

Geeslin, K. L., & Long, A. Y. (2014). *Sociolinguistics and second language acquisition: Learning to use language in context*. New York, NY: Routledge.

Gurzynski-Weiss, L. (2013). Instructor characteristics and classroom-based SLA of Spanish. In K. L. Geeslin (Ed.), *The handbook of Spanish second language acquisition* (pp. 530–546). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781118584347.ch30

Gurzynski-Weiss, L. (2017a). L2 instructor individual characteristics. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 451–467). New York, NY: Routledge.

Gurzynski-Weiss, L. (Ed.). (2017b). *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16

Gurzynski-Weiss, L. (2017c). Instructor individual characteristics and L2 interaction. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 151–172). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.07gur

Gurzynski-Weiss, L., Geeslin, K. L., Daidone, D., Linford, B., Long, A. Y., Michalski, I., & Solon, M. (2018). L2 classrooms as multifaceted sources of input: The synergy of variationist and usage-based approaches (pp. 293–313). In A. Tyler, L. Ortega, M. Uno, & H. I. Park (Eds.), *Usage-inspired L2 instruction: Researched pedagogy*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.49.13gur

Gurzynski-Weiss, L., Long, A. Y., & Solon, M. (Eds.) (2017). TBLT and L2 pronunciation: Do the benefits of tasks extend beyond grammar and lexis? [Special issue]. *Studies in Second Language Acquisition*, 39(2). https://doi.org/10.1017/S0272263117000080

Han, Z. (2016). A "reimagined SLA" or an expanded SLA? A rejoinder to The Douglas Fir Group. *Modern Language Journal*, 100(4), 736–740. https://doi.org/10.1111/modl.12378

Hatch, E. M. (1978). *Second language acquisition*. Rowley, MA: Newbury House.

Hulstijn, J. H., Young, R. F., Ortega, L., Bigelow, M., DeKeyser, R., Ellis, N. C., & Talmy, S. (2014). Bridging the gap: Cognitive and social approaches to research in second language learning and teaching. *Studies in Second Language Acquisition*, 36(3), 361–421. https://doi.org/10.1017/S0272263114000035

Jackson, D. O., & Burch, A. R. (Eds.) (2017). Complementary perspectives on task-based classroom realities [Special issue]. *TESOL Quarterly*, 51(3). https://doi.org/10.1002/tesq.393

Kasper, G., & Wagner, J. (2011). A conversation-analytic approach to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 117–142). New York, NY: Routledge.

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, NY: Routledge.

Lantolf, J. P., & Aljaafreh, A. (1995). Second language learning in the zone of proximal development: A revolutionary experience. *International Journal of Educational Research*, 23(7), 619–632. https://doi.org/10.1016/0883-0355(96)80441-1

Lantolf, J. P., & Pavlenko, A. (1995). Sociocultural theory and second language acquisition. *Annual Review of Applied Linguistics*, 15, 108–124. https://doi.org/10.1017/S0267190500002646

Lantolf, J., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford, UK: Oxford University Press.

Lantolf, J., Thorne, S. L., & Poehner, M. E. (2015). Sociocultural theory and SLA. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (pp. 207–226). New York, NY: Routledge.

Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18(2), 141–165. https://doi.org/10.1093/applin/18.2.141

Larsen-Freeman, D. (2007). On the complementarity of chaos/complexity theory and dynamic systems theory in understanding the second language acquisition process. *Bilingualism: Language and Cognition*, 10(1), 35–37. https://doi.org/10.1017/S136672890600277X

Larsen-Freeman, D. (2011). A complexity theory approach to second language development/acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 48–72). New York, NY: Routledge.

Larsen-Freeman, D. (2015). Complexity Theory. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 227–244). New York, NY: Routledge.

Larsen-Freeman, D. (2017). Complexity Theory: The lessons continue. In L. Ortega & Z.-H. Han (Eds.), *Complexity theory in language development: In celebration of Diane Larsen-Freeman* (pp. 11–50). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.48.02lar

Larsen-Freeman, D., & Cameron, L. (2008). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of language acquisition* (pp. 413–468). San Diego, CA: Academic Press.

Long, M. H. (2006). *Problems in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates.

Mackey, A. (1999). Input, interaction, and second language development: An empirical study of question formation in ESL. *Studies in Second Language Acquisition*, 21(4), 557–87. https://doi.org/10.1017/S0272263199004027

Mackey, A. (2012). *Input, interaction, and corrective feedback in L2 learning*. Oxford, UK: Oxford University Press.

Ortega, L. (2013). SLA for the 21st century: Disciplinary progress, transdisciplinary relevance, and the bi/multilingual turn. *Language Learning*, 63(s1), 1–24. https://doi.org/10.1111/j.1467-9922.2012.00735.x

Ortega, L. (2014). Trying out theories on interlanguage: Description and explanation over 40 years of L2 negation research. In Z. Han & E. Tarone (Eds.), *Interlanguage: Forty years later* (pp. 173–202). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.39.10ch8

Pawlak, M. (Ed.). (2012). *New perspectives on individual differences in language learning and teaching*. New York, NY: Springer. https://doi.org/10.1007/978-3-642-20850-8

Pawlak, M. (2017). Overview of learner individual differences and their mediating effects on the process and outcome of L2 interaction. In L. Gurzynski-Weiss (Ed.), *Expanding individual differences in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 19–40). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.02paw

Pica, T. (1994). Research on negotiation: What does it reveal about second language learning conditions, processes, and outcomes? *Language Learning*, 44(3), 493–527. https://doi.org/10.1111/j.1467-1770.1994.tb01115.x

Robinson, P. (Ed.). (2002). *Individual differences and instructed language learning*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.2

Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11(2), 129–158. https://doi.org/10.1093/applin/11.2.129

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3–32). Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9781139524780.003

Schmidt, R., & Frota, S. (1986). Developing basic conversational ability in a second language: A case study of an adult learner of Portuguese. In R. Day (Ed), *Talking to learn: Conversation in second language acquisition* (pp. 237–326). Rowley, MA: Newbury House.

Sheen, Y. (2011). *Corrective feedback, individual differences and second language learning*. New York, NY: Springer. https://doi.org/10.1007/978-94-007-0548-7

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principles and practice in the study of language: Studies in honor of H. G. Widdowson* (pp. 125–44). Oxford, UK: Oxford University Press.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook on research in second language teaching and learning* (pp. 471–84). Mahwah, NJ: Lawrence Erlbaum Associates.

Tarone, E. (2007). Sociolinguistic approaches to second language acquisition research 1997–2007. *Modern Language Journal*, 91, 837–848. https://doi.org/10.1111/j.1540-4781.2007.00672.x

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

White, L. (1989). *Universal grammar and second language acquisition*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lald.1

White, L. (2000). *Second language acquisition and universal grammar*. Cambridge, UK: Cambridge University Press.

White, L. (2015). Linguistic theory, Universal Grammar, and second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (pp. 34–53). New York, NY: Routledge.

Cognitive-interactionist approach

On the role of the interlocutor in second language development

A cognitive-interactionist approach

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In this chapter we examine the role of the interlocutor in second language (L2) learning and use from a cognitive-interactionist perspective, concentrating on oral interaction in face-to-face and (written and/or video) chat-based contexts. We center our discussion on the ways relationship, status, proficiency, or familiarity between interlocutors impact L2 interaction and opportunities for development, as well as how interlocutor individual differences play a part in the interaction. Finally, we outline ways to continue this line of work, including suggestions for researchers, teachers, and students alike.

Keywords: cognitive-interactionist approach, instructors, learners, L2 interaction, L2 development

Introduction

In this chapter, we examine the contribution of the cognitive-interactionist approach to understanding the role of the interlocutor in second and additional language (L2) use and learning. Before we dive into this topic, we briefly define the domain in which we will operate. First, given that this perspective complements and often overlaps with insights gained from more socially oriented perspectives (e.g., Philp & Mackey, 2010), at times we intentionally cross into a more socio-cognitive framework. Additionally, to coincide with the foci in the other chapters (most notably Pawlak, Chapter 3; Lantolf, Chapter 4; Geeslin, Chapter 6; Larsen-Freeman, Chapter 8), we have chosen to focus principally on interaction occurring in face-to-face or chat-based contexts.

In this chapter, and indeed, within this approach, 'interlocutors' refer to those individuals involved in communicating with each other. The interlocutors may vary in degree of similarity to their communicative partner, whether in regard to

relationship, status and degree of familiarity (e.g., a fellow student as compared to one's teacher), and level of proficiency. Interlocutors may differ with respect to their individual differences (e.g., variation in motivation, L2 proficiency, gender, age). All of these considerations may play a role in the L2 interaction and resulting opportunities for learning. In this chapter, we consider these aspects as they relate to the role of the interlocutor during interaction taking place in the context of instructed learning settings, whether it be via pairs, small groups, or at the classroom level. Our examination of these issues is organized by the following two research questions:

1.   How may the social relations (teacher-student vs. student-student), or differences and similarities between interlocutors' proficiency, age, or gender impact L2 interaction and opportunities for learning?
2.   In what ways do interlocutor individual differences (IDs) (e.g., willingness to communicate, anxiety, motivation) influence one's own contribution to the interaction and opportunities for L2 development?

In exploring answers to these questions from a cognitive-interactionist approach, it is helpful to start at the roots of the perspective.

The origins of the cognitive-interactionist approach

Language acquisition research often highlights the language environment as central (see, for example, additional theoretical examples outside of a cognitive-interactionist approach in Lantolf, Chapter 4; Geeslin, Chapter 6; Larsen-Freeman, Chapter 8). In doing so, it identifies the interlocutor as playing a role in influencing language use and learning opportunities in both first language (L1) and additional languages (L2s). In L1 research, this is evident in examinations of "caretaker talk," in which caregivers adjust their speech when talking to infants and young children, for example, through varying pitch, use of diminutives, and negotiated as well as simplified speech. In this considerable line of work, researchers have investigated the effect of the interlocutor (parents and other caretakers) on speech directed to a baby or young child. The common finding was that caretakers simplified their speech and provided considerable repetition of target structures to assist children with their L1 acquisition (e.g., Klink & Klink, 1990). This phenomenon was also found to be present in second language acquisition (SLA): Researchers in the 70s analysed "foreigner talk" to explore whether and how interlocutors outside classroom contexts (i.e., non-teachers, non-students) modified language in an effort to make it more comprehensible to their L2 communicative partners (Ferguson, 1971, 1975; Long, 1981). Subsequent research began to extend the ideas of foreigner talk by detailing a similar technique dubbed "teacher talk" to describe how teachers modified input

with the classroom setting to support comprehension by the (student) interlocutors, which included both simplification (Ferguson, 1971, 1975) and elaboration (Chaudron, 1982). Inspired by the aforementioned L1 acquisition research, the initial emphasis in the cognitive-interactionist approach was on the speech, roles, and techniques that the more competent interlocutor employed in the interaction (see overview by Gurzynski-Weiss, 2017). Research by Long (1983), for example, compared interaction between L1 and L2 speakers. Long and Porter's (1985) research on small group work recognized the benefits of peer interlocutors, too, in providing greater opportunities for practice and building greater communicative competence, because "learners can offer each other genuine communicative practice, including the negotiation for meaning" (p. 217).

Four hypotheses are pivotal to the interactionist approach. Krashen's (1977, 1980, 1985) input hypothesis posited the necessity of comprehensible input for L2 acquisition. Swain's (1985, 1995, 2005) comprehensible output hypothesis recognized the necessity of opportunities for learners to make use of the language themselves. In making themselves understood, learners are forced to go beyond passive comprehension to productive use. Pushing the learner to produce output that is beyond their current level can lead learners to process input more efficiently, thus inducing greater L2 development (Izumi, 2002; Swain, 1985). This can provide the catalyst for learners to notice less salient yet vital features of the language, as they negotiate what they mean to say (e.g., Gass, 1997). In classroom environments, teachers play a key role in supporting learning as interlocutors who are able to draw attention to learners' errors through corrective feedback or modelling (Lyster & Ranta, 1997). Schmidt's noticing hypothesis (1990, 1993) posits the importance of these varied opportunities because of the ways in which the interlocutor may draw the speaker's attention to particular language features. Finally, Long's updated (1996) interactionist hypothesis emphasizes the importance of the interlocutor's responses to perceived difficulties in comprehension. For example, recasts in response to an unclear, inappropriate, or erroneous utterance may include repetition, rephrasing, comprehension checks, and clarification requests made in order to facilitate comprehension, while also providing additional positive and negative evidence (see Ellis, 2016, for a review of these types of feedback).

The interlocutor at the heart of the cognitive-interactionist approach

The aforementioned four hypotheses have formed the theoretical foundation for decades of cognitive-interactionist research, much of which has involved the interlocutor (e.g., Mackey, Abbuhl, & Gass, 2012). Specifically, Krashen's input hypothesis (1977, onward) claimed that language acquisition necessitates input that is

comprehensible yet just above being easily understood (interlanguage +1). It is the learner's struggle to understand the interlocutor, and resolutions gained through the interlocutor's responsive use of repetition, modifications, gesture, context, and other means that help to build comprehension of the language. Such modifications have the potential to draw learners' attention to non-salient and/or redundant features, such as 3rd person singular -s, plural -s, or article use in English. Swain's output hypothesis (1985, 1988) addresses the insufficiency of input alone and identifies the learner's own attempt to communicate through the target language as vital. Swain argues that passive understanding of input (be it listening or reading) is important, yet insufficient for acquisition: Where there are sufficient clues from the environment, language may be comprehensible. Yet, for this reason, non-salient or redundant features are likely to go unnoticed and thus unacquired (Schmidt, 2001). Evidence for this is seen in results of Canadian longitudinal research, comparing regular classes with guided instruction to experimental classes (Lightbown, Halter, White, & Horst, 2002). The latter consisted of input-rich comprehension-based English as a second language (ESL) classes that involved regular listening to books alongside the printed texts (grades 4–5, followed up in grades 7–8). In other words, over six years of language learning, learners' experience was one of rich input yet without an in-person interlocutor. The results of this longitudinal work provide evidence that rich and interesting input alone was insufficient to develop productive abilities; an interlocutor was needed to draw learners' attention to language within the exclusively meaning-based exposure to comprehensible input (Lightbown et al., 2002; Swain, 1997). Providing an overview to this research in the Canadian context, Swain (1997) notes "the general conclusion is that the receptive skills of immersion students are stronger than their production skills, with grammatical accuracy and precise vocabulary use being particular problems" (p. 263). This was not so in the writing of those who had received guided instruction in person, including explicit teaching of grammatical features (Lightbown et al., 2002). Swain argues that it is when communicative problems arise between interlocutors that a catalyst for learning appears, because it requires attention – whether this leads to adoption of new vocabulary, resolution of misunderstandings, and crucially, starting to notice how form and meaning connect (Schmidt, 1990, 2001; VanPatten, 1996). Importantly, while the presence of an interlocutor does not guarantee a focus on language, without an interlocutor there is simply not an opportunity for this type of focus to occur.

The role of the interlocutor in providing feedback specifically is a key aspect of the interactionist perspective. The need to communicate can push learners to produce more complex or accurate language forms, and it is corrective feedback, such as recasts or prompts, that makes such forms more salient. Crucially, it is this salience that may draw learners to "notice the gap" between their nontargetlike production and the targetlike use of the interlocutor (e.g., Gass, 1997, 2017; Gass &

Varonis, 1994; Long, 1996; Mackey; 2007; Pica, 1992; Schmidt, 1990, 2001; Spinner, Behney, & Gass, 2017; Swain, 2005). Research on the use of corrective feedback emphasizes the necessity for learners to notice features in the target language in order to then be able to assimilate that language for use (e.g., Ellis, Loewen, & Erlam, 2006; Lyster & Mori, 2006; Nicolas, Lightbown, & Spada, 2001). Schmidt's noticing hypothesis (1990, 2001) further helps us to understand the vital role the interlocutor can play, whether that interlocutor is a teacher (e.g., Lyster & Mori, 2006) or peer (e.g., Adams, 2007), adult or child (e.g., Oliver & Grote, 2010). For Schmidt, opportunities for learning take place during noticing, when learners register the gap between their knowledge and the target language.

Long's (1996) interaction hypothesis brings all of these components together and makes explicit the central role of the interlocutor in providing feedback, particularly recasts, which provide a reformulation of the nontarget feature. Indeed, Long emphasized negotiation of meaning between learner and interlocutor as the catalyst for interlanguage change. In his oft-cited hypothesis, Long highlights adjustments by "the native speaker or more competent interlocutor" (pp. 451–452) but, as we will argue here, researchers have begun to move beyond this hierarchy, recognizing roles for a range of interlocutors and that the benefits of interaction extend beyond comprehension.[1] For example, while early cognitive-interactionist research tended to focus on the feedback provided by the "native" interlocutor (e.g., Pica, 1998), more recent classroom-based research has demonstrated that interlocutor teachers (in some cases possessing both 'native' and 'expert' characterizations, in others one of these characteristics and, in the case of novice teachers, sometimes neither; Gurzynski-Weiss, 2016, 2017; Lyster, 2002), may vary greatly in experience, expertise, and language background. In contrast to the teacher as interlocutor, peers offer a different kind of context as interlocutors (Philp, Adams, & Iwashita, 2014), as described further below.

Amidst the growing interest in extending research beyond classroom interlocutors, we also find investigations dealing with how interlocutor researchers (Gurzynski-Weiss & Plonsky, 2017), host families (Serafini, Chapter 9, this volume), and even texts themselves or interlocutors not physically present (see Back, Chapter 5, this volume) may play a role in making language form more salient.

In the following section, we address our first organizing question in which we explore aspects of social relations (teacher vs. student as well as higher vs. lower motivational groups) as well as relative proficiency, age, and gender between peers as part of the underlying setting for interactions and opportunities for learning and L2 use. First, we consider how social relations may impact the quality and quantity

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1.   This argument of the importance of considering all interlocutors is not unique to the cognitive-interactionist perspective, as seen throughout the volume and as summarized in Chapter 10.

of interaction in terms of corrective feedback, modified output, and various nego-tiation moves when learners are grouped with a teacher or proficient interlocutor, in contrast to grouping with learner(s) as interlocutor(s). We then discuss learner proficiency and gender, relative to their interlocutor, as factors that are likely to impact the quality, quantity, and potential for L2 use and development. Throughout the chapter, our review is intentionally illustrative rather than exhaustive in nature. Despite the impressive quantity of research undertaken to date on interlocutors from a cognitive-interactionist approach, much work remains, particularly in con-sidering nonlearner interlocutors and how interlocutor IDs affect each other within a given interaction (more on this in *Future directions).*

Interlocutor social relations and L2 opportunities

> *Research question 1: How may (i) the social relations (teacher vs. student as well as high vs. lower motivational groups), or (ii) differences or similarities between interlocutors' proficiency, age, or gender impact L2 interaction and opportunities for learning?*

Interlocutors vary in their potential for supporting (or hindering) L2 learning op-portunities, oftentimes according to their relationship to their partner. Borrowing from Laursen's (2010) work in developmental psychology that relates to adolescent friend relationships, we describe social relations and experiences in class as "mod-erators," that is, as "settings that accelerate or impede outcomes, rather than as predictors that have direct effects on outcomes" (p. 898). When we think about L2 instructional settings, the participants involved, each with their own experiences, abilities, and preferences, we find this a useful way of considering the complexity of relations and expectations among classroom interlocutors.

Social relations: Comparing teacher and student interactions

Firstly, with regard to social relations, past histories and experiences within the class may contribute to how classroom participants perceive themselves and others, and the choices they make regarding, for example, response to corrective feedback, (un)willingness to provide feedback to a peer, or a decision to communicate with a peer interlocutor (or not). For example, in a university French class, Philp, Walter, and Basturkmen (2010) found some more advanced learners were unwilling to correct their peers, not wishing to be positioned as teacher, while others habitu-ally helped particular struggling students who they had previously paired with in former classes. Philp et. al. found that relations between students were crucial in

providing a context in which students were willing to take risks, to help or accept help, and to provide correction.

Lambert, Philp, and Nakamura (2017) compared engagement in learner-generated and teacher-generated tasks. Two problem-solving and two story-telling tasks were completed by 32 Japanese university students under two conditions: learner-generated and teacher-generated tasks; each were paired with unfamiliar interlocutors. Lambert et al. found a significant relationship between engagement and learner-generated content, irrespective of proficiency in both tasks. For our purposes, what is of particular interest is evidence of engagement by the interlocutor as seen in backchannels and negotiation of meaning. The researchers noted that, in response to personal stories, for example, there was greater use of backchannels and questions from the interlocutor, and these in turn led to greater embellishment and negotiation of meaning from the story teller. As seen below, Example (1), a segment of the story from Lambert et al. (2017), illustrates how the responsiveness of the interlocutor (I) to the narrator's (N) personal story encourages more talk, negotiation of difficult vocabulary, and embellishment, pushing the speaker to work harder to make her story clear to her interested partner, a good example of Swain's 'pushed output'.

Albeit nontargetlike, this interaction between peer interlocutors provided a context for puzzling over mistakes, for trying again, and for noticing gaps in their knowledge.

Example 1. Story of recovering from a dangerous bicycle accident (from Lambert, Philp, & Nakamura, 2017), additional comments are marked by an asterisk

```
N:   I I totally forgot how to walk. Because I I I I I had I did not
     use the my leg leg for about one month.
I:   So how did you walk for a while? ← I asks a further question*
N:   I tried to use … I couldn't. My my ankle was baby's like baby's
     neck. Do you know what I mean?    ← comprehension check
I:   Baby's (laughs)                ← I's laugh prompts N to
     explain further*
N:   It's it's like this and I … I I couldn't walk but because … But
     you know know when I was rush like I was up at for example when I
     was about to late to the class I could run (laughs). So I think
     it was ok (laughs).
I:   Do you have any scar on your leg? ← I asks further question*
N:   what?               ← clarification request leads to extended
     negotiation*
I:   Scar
N:   Scar?
I:   Like… um get..ah…
N:   Sca ha ha ha
I:   Kega kega
N:   Ah you mean… no no no I I Had my hurt my leg leg legaments leg
     legaments? (laughs) I forgot name but I didn't break my ah bones
     so it was okay.        ← clarification by N in response to I*
```

In Example (1), the partner was instructed to simply listen to the story and to ask at least one question at the end. However, rather than a monologue, we see a continual back and forth between narrator (N) and interlocutor (I), as the latter's interest draws out further details of the injury. This interest, expressed through questions, confirmation checks, and clarification requests, spurs the narrator on to say more of her experience: how it felt, what it looked like physically, and further details of the injury. In other words, the partner's interest motivates the narrator to elaborate on the initial details and, in doing so, to push her language production. Similarly, the interlocutor asks new questions, providing a context for negotiation of unclear terms that are not understood. The term "scar" takes several turns to negotiate, eventually 'resolved' through the shared L1.

Lambert et al. report that "the stories were often punctuated by backchannels, expressions of interest, and commentary" (2017, p. 675), suggesting careful listening. They found that, although not instructed to do so, 56% of the speakers' personal stories, regardless of proficiency level, became an extended story. These were often reciprocated by the interlocutor, who responded with a related story of their own. From an interactionist perspective, such conversations are vital in drawing attention to forms that are problematic. These exchanges entail greater effort from the narrator to find ways to communicate more clearly. Such exchange also suggests high engagement in the sharing of personal stories, potentially strengthening peer affiliation. In these instances, we see a greater willingness to communicate, high instances of back-channels, negotiation, and more examples of pushed input between partners, because they genuinely want to tell/hear the story. This trend of greater negotiation for meaning in pair work has been echoed elsewhere and compared to teacher-student interactions (e.g., Oliver & Grote, 2010).

Power relationships between interlocutors

It is evident that teacher-student interaction differs from student-student interaction, both in status and relative expertise of the participants. Drawing from Cao's rich classroom data of an English for Academic Purposes (EAP) pathway class for international students in New Zealand (see Cao, 2009, 2014), Batstone and Philp (2013) argue that each type of interaction offers unique learning opportunities. They identified different yet complementary roles played by teacher and peers. Students relied on their peers not only for practice, but also as opportunities for trial and error of new language, whispering questions and explanations to one another regarding the teacher's input. Importantly these asides to peers often led to a context for noticing gaps in their understanding of specific language forms.

In contrast, once students noticed the gap, they could depend upon the expertise of the teacher as model and consultant. In the following examples, drawn from week 17 of Cao's EAP classroom data set, we see differences between conversation among peers in pair/group work in Example (2) and teacher-fronted work seen in Example (3).

In Example (2) we see the students struggling somewhat as they work through incorrectly written sentences they had been given to correct for homework. They puzzle over their attempts as they compare answers. This provides a potential catalyst for noticing and may mean the students are more likely to notice solutions when they arise in the teacher-fronted section in Example (3).

Example 2. Pair work

```
SL: [reading]° usually have a large amount of material to be studied
    and understood that it seems impossible to learn it (..) in a week
    only. ° (…) °°° usually have a large amount of material to be
    studied and understood, that it seems impossible to learn (.) °°°
    um them
C:  'Them' because this is large amount of?
SL:       Yeah material, courses
C:  To learn it
SL: For some woman, it is hard ← sequence of language related episodes
    (LRE) on singular and plural forms*
C:  Women
SL: Woman?
C:  Women
SL: Woman is
C:  Some is (.) women
SL: Women, this one is woman, is there a problem? Yeah
C:  So is "are"?
SL: No no no, for some woman it is hard to combine        ← negotiating
    over "is" vs "are"
C:  "are", is hard to combine
SL: Efficiently the house work with a job, because many of of them,
    them are pressure for time. Because many of them are pressure,
    maybe pressured for time. I didn't get it.
C:  What's that?
SL: Why is it? Because many of them are pressured for time. Many of
    them, I don't got I don't, are pressured for time.   ← still
    puzzling*
```

In Example (3), with the teachers input, the authority of the teacher interlocutor is evident as he guides their language, exemplifies targetlike use, and offers a variety of alternatives. With the support of the teacher, we see students trying to work out sentences and finally start to use more targetlike versions, repeating quietly to themselves the teacher's examples.

Example 3. Teacher-fronted activity: Correcting complex sentences

```
SU:  Er from the beginning (10 sec pause) it is it is hard to combine
     it is hard to combine (…) efficiently the house work with a job
     for some woman
T2:  We can put "for some women" at the beginning.     ← reformulation*
((T2 boards up and reads: For some women, it seems difficult to learn
     English.)) ← oral + written input*
     [over another 11 turns — students each attempt to modify their
      sentences]
T2:  OK SU do you want to carry on with the second half of the
     sentence, from because?
          ← Teacher gives SU another chance to amend her sentence (line 1)
SU:  Because (…) becau:::se ((sighs)) (at least 10 seconds pause) some
     of them er because the time (.) pressure um
SL:  No worries be happy ((humming))              ← others reformulate*
X:   Can we say um because there are many time pre er sorry because
     there are many time pressures for the woman (women) for the women.
SL:  °°° Many women are pressured at all. °°°                ← SL recasts*
X:   Are under
R:   °°° Because women °°°
T2:       Yeah because there are many time pressures on them     ←
     teacher restates*
X:   On
R:   Becau= because many of them are pressured °° maybe °° because of time.
T2:       Are pressured for time.                  ← teacher restates
C:   ° Pressured for time. °                           ← C repeats
SL:       So you can say are pressured for time.
T2:       Yes, or are under time pressure.         ← teacher recasts
C:   ° Are under time pressure. °                  ← C repeats teacher
SL:       °° Pressured for time °°                      ← SL repeats
C:   °° Are under time pressure °°                  ← student recasts
```

These contrasting examples highlight the complementary nature of interlocutors in peer work and teacher-fronted work (Philp, Adams, & Iwashita, 2014): Peer work provides a context for trial and error, leading to noticing of a gap (without necessarily understanding yet or having the ability to use the target form). Teacher-fronted work builds on the students' experience of trying to correct their errors; the teacher draws further attention to features of the target form and provides additional examples. For this reason, Batstone and Philp's (2013) description of teacher-student discourse in Cao's EAP dataset likens classroom discourse to layers of input and understandings that arise over varied experiences, both teacher-fronted and among students (see also Back, Chapter 4, and Geeslin & Long, Chapter 7, for examples of teacher influence).

Social relations: Interplay between individual and group motivation

In an example demonstrating the interrelatedness of individual and group IDs and resulting effects on the interaction, Poupore (2018) examined both group motivation as well as the motivation of a single participant, Mina. Comparing Mina's work when she was involved in two different groups – one categorized as very successful and the other as not very successful – based on the Group Work Dynamic Scale – Poupore found work in the first group started off with higher levels of motivation, which led to greater engagement and more positive interaction between members, while the second group began with lower levels of motivation, and then had less engagement and less positive interaction between members. Looking at Mina individually, her emotional state and motivation were much higher during work with the first, more motivated group. Poupore identified the following IDs as the "key initial conditions" for good group work interactions: high motivation, positive emotional state, and low perceived difficulty, along with active engagement and positive remarks (pp. 364–365).

Exploring motivation and willingness to communicate in undergraduate French and Spanish foreign language classrooms, Sulis, Michel, and Davidson (in press) tracked motivating and demotivating points in lessons through use of motivation charts. Students completed and reflected on these charts while watching a replay of the lesson. Based on interviews, questionnaires, motivation charts, and classroom observation, Sulis et al. reported that, among other factors, students identified that their motivation and involvement was strongly encouraged during pair and group work. For example, Zoe, a student of Spanish, reflected that in her classes, she felt most motivated by group work:

> I like us doing the talking and, you know, being involved in sort of interactive things (…) we might have a little bit of a class discussion and then move into groups and that always is the most motivating factor for me is getting to, in a group, with like friends and getting to talk to them, I always feel more motivated to talk than in a full class discussion […] if it's more enjoyable it's more motivating, if it's less enjoyable, I'll still pay attention, but I don't necessarily want to.

Similarly, others found the ability to speak in the language motivating. For instance, Amy, a student in French, said, "where it's not me, like, actively taking part, then I tend to just be a little less motivated." Charlie, in Spanish class, reported he dropped in motivation in listening activities when he didn't have to talk: "There's not enough for me to do and I'll just sit there and sit back and do nothing." This suggests the motivational strength of interaction with peers (see also Philp, Adams, & Iwashita, 2014; for this theme echoed outside of this approach, see Serafini, Chapter 9).

Role of interlocutor and proficiency

Different roles and types of tasks suggest different parts to play in supporting L2 learning, as we noted earlier in contrasting teacher and peer interaction (Batstone & Philp, 2014; Philp, Adams, & Iwashita, 2014). We saw that the effects of interlocutor proficiency play out differently according to the participants themselves and the ways in which they work together. Storch's (2002) description of ways in which interlocutors work together, based on Damon and Phelps (1989), draw attention to critical features of productive versus unproductive ways of working in pair and group work. Storch articulates how we can examine interaction based on degrees of equality – in regard to whether direction in the activity is balanced or dominated to a degree by particular member(s) – and in regard to mutuality, considering the extent to which participants are respectful and trusting of one another. That is, each member recognizes the contribution of the other(s) as of equal worth and importance. Sato and Ballinger's (2012) term "collaborative mindset" describes this well.

Storch's operationalization of social relations in pair and group work is particularly useful when considered as a moderating variable in relation to research on proficiency because it provides a more complex picture. For example, Leeser's (2004) work, examining the proficiency of 42 Spanish learners, compared resolution of language related episodes (LREs) in dictogloss tasks by matched pairs of high-high, low-low, and low-high pairs (all were mixed-gender pairs). High proficiency pairs were able to resolve a high percentage of all LREs, but in high-low pairs, the lower proficiency learner resolved very few, and only vocabulary-focused LREs. This is consistent with Williams's (1999, 2001) investigation of proficiency level and LREs in classroom interaction. Similarly, high proficiency learners resolve most LREs, whereas low proficiency learners had greater unresolved LREs and, when resolved, LREs tended to be lexical.

In contrast to the asymmetric nature of teacher-learner relationship, peer interaction is typically more symmetric in terms of participant contributions because of the relative equality between learners in relation to age, authority, and proficiency. This is particularly the case for younger learners and adolescents (e.g., Laursen & Hartup, 2002), whose relative equality is in contrast to mature adults – that is, in school settings, the teacher (Philp & Duchesne, 2008); see the separate discussion on *Age*. This equality allows for the possibility of exploring and experimenting, for trial and error, because the other participants may not know better. They may be able to help, but crucially it is because their contribution remains refutable, malleable, and open for co-construction that it is most useful: Conflict in understanding provides a catalyst for change (De Lisi & Golbeck, 1999; see also Philp, Adams, & Iwashita, 2014; see also Larsen-Freeman, Chapter 8, and Back, Chapter 5, for

additional examples of this). Training peers to be effective interlocutors is often necessary, particularly when asking learners to provide peer feedback (Sato, 2013).

L2 proficiency and peer focus on form

Research has examined a potential link between learner proficiency and focus on form (as operationalized by LREs). Earlier work by Williams (1999, 2001), comparing classroom interaction in four classes, recognized the variation between learners ranging from low to high proficiency. Higher proficiency students produced more LREs and more grammatical LREs than intermediate and lower proficiency learners. Experimental research among mixed proficiency pairs similarly suggests that, in task-based interaction or interaction that occurs during a dictogloss completion, for example, having high proficiency students can be beneficial to lower proficiency partners (e.g., Iwashita, 2004; Kim & McDonough, 2008). For example, Kim and McDonough (2008) found that proficiency, including perceived proficiency, may mediate patterns of interaction such that low proficiency learners exhibit more lexical LREs and more correctly resolved LREs when with a higher proficiency learner.

Importantly, this beneficial relationship is not just unidirectional: Heritage speakers also benefit from being paired with less proficient language learner colleagues. For example, Bowles (2011) found that university-level Spanish language heritage speakers benefitted from interaction with their classmates. Sixty-seven percent of LREs related to spelling were initiated by heritage speakers and their L2 partners were able to resolve the questions 94% of the time. In contrast, 74% of LREs related to vocabulary were initiated by L2 learners, whose heritage partners were able to resolve the question 88% of the time. Bowles, Adams, and Toth (2014) found significantly more communication in the target language when heritage and L2 speakers were paired together. Critically, in both studies, heritage and L2 learners alike felt more confident in their own abilities following interaction with their peers of differing proficiency level. For an empirical example exploring relationships between negotiation of meaning, gender, and proficiency, see Pawlak, Chapter 3.

Interaction with learners of the same or differing gender

While not researched much recently, especially in comparison to other characteristics, gender was one of the earliest IDs considered in the interactionist approach and as such warrants mentioning. Early work demonstrated that male/female pairs produced greater negotiation than male/male and female/female pairs (Gass & Varonis, 1986). Gender effects were also found in relationship to signaling

misunderstanding. For example, Pica, Holliday, Lewis, Berducci, and Newman (1991) found female nonnative speakers to signal more misunderstanding to female native speakers in comparison to male native speakers; this gender difference was not found when females interacted with their male nonnative speaker counterparts. More recently, Ross-Feldman (2007) found no significant differences in interaction between males and females but did show that male-initiated LREs were significantly more likely to be resolved than female-initiated ones. In this volume, Pawlak (Chapter 3), finds differences related to learner gender in paired interaction.

Summary: Interlocutor social relations and L2 opportunities

We began this chapter with a review of the central role(s) of the interlocutor within a cognitive-interactionist framework. Through carefully chosen empirical examples we have demonstrated how interlocutors and their IDs mediate opportunities for L2 use and development in complex ways. In this section, we have examined how the varied IDs of multiple individuals can impact interactional variables, during dyadic or class-level (Poupore, 2018) interaction. In the next section, we will focus on how this occurs when considering an individual teacher or learner's ID in relationship to their contribution to L2 interaction, for example in their feedback provision (Ziegler & Smith, 2017; teacher's working memory) and use (Rassaei, 2015; learners' field dependency or independency).

Interlocutor individual differences in interaction

> *Research question 2: In what ways do interlocutor IDs (e.g., working memory, anxiety, motivation) play a part in interlocutors' contribution to the interaction and opportunities for L2 development?*

To provide insight into this question, we will provide illustrative examples of some of the principal IDs that have been investigated in relationship to one's own contributions to meaning-based interaction, including boosting language production, encouraging task engagement, and providing corrective feedback. Whenever possible, we will also expand on how these IDs have been examined in relation to one's attention to and use of the production of their communicative partner, that is, the input and feedback.

Anxiety

Whether operationalized as state, trait, situational, or even particular to foreign language, (Ellis, 2008, p. 691), anxiety is an ID posited to influence learners' ability to process input and feedback as well as their production of output during meaning-based interaction. The hypothesis echoed throughout the literature (e.g., Kern, 1995; MacIntyre & Gardner, 1994; Phillips, 1992; Sheen, 2008) has been that learners with higher anxiety levels (however operationalized) will experience more difficulty attending to and using input and feedback, and will be less likely to produce output and/or will produce output that is less complex, accurate, or fluent (Kormos & Trebits, 2012), ultimately reducing their opportunities for interaction and learning (MacIntyre & Gardner, 1994).

The findings from research on foreign language anxiety (FLA) have been found to relate to students' beliefs about the effectiveness and preference for certain types of feedback (Martin & Valdivia, 2017). Perhaps expectedly, learners with higher foreign language anxiety rated comparatively less obtrusive (and very often missed; see Lyster & Ranta, 1997; Sheen, 2006) recasts as their most preferred type of feedback; this was followed by a preference for metalinguistic feedback. While the study did not examine whether or not learners differentially noticed or used feedback based on their anxiety, the link between feedback preference and anxiety provides a starting point for additional research. Interestingly, there has been a paucity of studies examining nonlearner interlocutors' anxiety levels, most notably teachers. Given the findings that newer teachers focus on their own command of teaching (Basturkmen, Loewen, & Ellis, 2004) and, in the case of teachers who are nonnative L2 users, their own L2 competence (Gurzynski-Weiss, 2016), language teacher anxiety in relation to interaction-based learning opportunities is a much-needed area for future study.

A considerable amount of the existing literature exploring potential links between anxiety and interaction has compared written and/or video synchronous computer mediated communication (SCMC) interaction with the face-to-face (FTF) mode. This research has been motivated by the idea that the SCMC could lead to reduced pressure to produce on the spot as compared to FTF interaction (e.g., Satar & Özdener, 2008). Others have hypothesized that the lasting record of SCMC could potentially increase anxiety and reduce interaction-based learning opportunities. Findings comparing FTF and SCMC thus far have echoed these mixed predictions. For example, while Yanguas and Navarro (2014) found state anxiety to differ according to mode, Baralt and Gurzynski-Weiss (2011) did not find anxiety and mode of interaction to be related. Additionally, even in studies where anxiety has interacted with mode (for example, in Yanguas & Navarro's study, where learner interlocutors were more anxious in video/oral SCMC and FTF as compared to written SCMC), these differences did not correspond to reduced learning opportunities;

on the contrary in the aforementioned study, learners reported higher anxiety in the video/oral modes and also produced more words and took more turns. Thus, even in these few examples, it is clear that anxiety may have a positive or negative influence on L2 use.

Engagement

In this chapter, we maintain that engagement can be conceptualized as both an interaction feature (discussed earlier in the first research question) and as an ID (discussed within this research question). In other words, one may be a "more" or "less" engaged learner overall (trait ID), however level of engagement or state of readiness will differ according to situations and moments (state ID) and is continuously impacted by and, in turn, impacts, the interaction (see Figure 1, Chapter 10, for an attempt at depicting this reciprocal relationship; see Lantolf, Chapter 4; Geeslin, Chapter 6; and Larsen-Freeman, Chapter 8 for additional discussions on considering the reciprocal influence of IDs). This is particularly important given the ongoing discussion regarding the dynamic nature of IDs (Dörnyei & Ryan, 2015; Gurzynski-Weiss, forthcoming) and indeed the nature of engagement (for a book-length volume exploring engagement, see Hiver, Mercer, & Al-Hoorie, forthcoming).

Baralt, Gurzynski-Weiss, and Kim (2016) examined potential relationships between learners' engagement and a specific aspect of the interaction: learners' production of LREs. Operationalizing engagement as cognitive, affective, and social following Svalberg (2009), Baralt et al., (2016) explored if one or more components of learners' engagement could explain why task complexity may not heighten learners' attention to form (LREs) in SCMC as it has been found to do so in FTF (Baralt, 2013, 2014). Forty Spanish learners performed a dyadic task in their usual classroom- half of them in traditional (FTF) and half in online (SCMC) contexts. Twenty learners performed a simple version of a task while the other 20 performed a more complex version. Learners demonstrated more engagement and LREs in the FTF mode regardless of task complexity. Notably lower engagement was observed and no LREs were produced in the SCMC mode. The authors noted that learners' social engagement mediated their cognitive and affective engagement, which related directly to learners' noticing and commenting on form (LREs). Specifically, FTF learners' existing relationships with their classmates made them feel as if their contributions were valued in the dyadic work and motivated them to work harder and as a team. SCMC learners, on the other hand, approached the task individually and saw their partner as an obstacle to quickly finishing the task, rather than as a teammate or potential information source.

Learners' engagement has also been examined in relationship to language learning. Specifically, Storch (2008) found that when both learners in dyadic interaction contributed to the LRE (referred to as "elaborated" engagement) this led to more evidence of consolidation and learning than when only one learner focused on form (referred to as "limited" engagement).

Willingness to communicate

As the name suggests, willingness to communicate (WTC) is believed to primarily influence interlocutors' production. Much research conducted on WTC examines learners' propensity to engage in conversation, that is participate. This is most often conceived as *initiating* (rather than simply responding). Like anxiety, WTC is considered to be both a state and a trait ID. Cao and Philp (2006) has been one of the few studies to measure WTC as both a state and trait ID in relationship to learners' perception and participation, and they did so via examining both pair and group work. While they did not find either type of WTC to relate to learners' participation, differences were identified relating WTC to the type of participatory context, which are discussed under the first research question.

Recent research has explored WTC as a dynamic state ID that is influenced by the topic, other interlocutors, and types of interactions (S. J. Kang, 2005; D. M. Kang, 2014). Additionally, considering study abroad experience, Kang (2014) found WTC (volunteering an answer, asking or choosing a question, guessing a meaning, trying out a difficult form, presenting one's own opinions, etc.) to be related to learners' study abroad experience during whole-class interaction only, not when in pair or small-group work (for an additional discussion of learners' motivation to interact in study abroad settings, see Serafini, Chapter 9). Research by Freiermuth and Jarrell (2006) found that learners' state WTC (measured indirectly as task employment and positive evaluations) was higher in SCMC, where students experienced reduced anxiety as compared to FTF. As a result, individual students produced more output and more equitable amounts of output in the SCMC mode than in the FTF mode (where WTC influenced whether or not learners as a group produced output). In other words, Freiermuth and Jarrell found the SCMC mode to reduce the relationship found between learners' WTC and language production that they found in FTF interaction.

Examining the relationship between trait WTC and number of turns (as well as attitudes towards the course, task, and self-confidence), Dörnyei and Kormos (2000) found WTC to play a role only when learners were highly engaged, as measured by positive attitudes towards the target language course and task. Specifically, for learners with positive attitudes, the researchers found WTC to strongly correlate

with the number of words and turns produced. This relationship was not found for learners with less positive attitudes; for these learners, WTC did not relate to production.

WTC may also be increased or diminished according to the type of feedback that learners are provided during interaction. For example, Tavakoli and Zarrindabi (2016) explored the effect of implicit feedback, operationalized as recasts, and explicit feedback, operationalized as explicit and metalinguistic correction on WTC, over a 10-week period. The researchers found that the teacher's explicit feedback increased WTC while implicit did not. Students stated that they felt more confident after receiving explicit correction, and they also reported feeling that they learned more from this type of correction.

Personality

While WTC is limited to the desire to interact with others, personality is seen as a more stable description of underlying character traits that often result in observable behavioral differences. Comparisons of personality traits, most often contrasting learners who are different in terms of extroversion, have typically been examined in relationship to speech production (output). Specifically, these studies have usually compared extroverts, those who get energy from others, and introverts, those who get energy from being alone (for example, as determined by the Eysenck Personality Inventory; Eysenck & Eysenck, 1964). In a study of 25 Flemish university students aged 18–21, Dewaele and Furnham (2000) found extroverts to have more fluent speech rates and to produce longer utterances when compared to introverts in formal situations, which are generally considered to be more stressful than informal interactions. Dewaele (2004) also found extroverts to produce more colloquial words than introverts, believing this to be the case due to extroverts' greater propensity for higher risk-taking tendencies and lower anxiety. The 2004 findings were based on two studies: the first analyzing French conversations between 29 Dutch L1 speakers and researchers; the second analyzing speech from a corpus of individual conversations between the researcher and 62 L1 and L2 speakers of French. In these two studies, interlocutors' use of colloquial vocabulary was linked to extroversion and frequency of contact with French. If extroverts are, as Dewaele argues, more prone to risk-taking and less anxious language users, these may be linked to interactional opportunities with native speakers or role model L2 users, and perhaps even a greater incorporation of the L2 as part of one's ideal self (see *Motivation*).

However, personality may not always be linked to production, and differences may be mediated by the cultural context. For example, on data collected via observations of a Japanese FL classroom, Wakamoto (2009) found extroverts to have

a natural preference to seek stimuli from outside sources and to try to increase interactional opportunities with other people. Interestingly, even when there are no differences with respect to accuracy or fluency in production, extroversion of Japanese speakers of English, measured by the Maudsley Personality Inventory, has been found to correlate strongly with trained raters' impressionistic judgments of oral proficiency (Oya, Manalo, & Greenwood, 2004). Thus, even when not correlated to production data, the confidence that extroverts often display when communicating may be enough to provide favorable evaluation.

The benefits of feedback may also be influenced by field dependence or independence. Those identified as field independent readily perceive details and quickly separate out relevant features from the general context. In contrast, field dependent learners are more likely to see the overall picture or context but find it difficult to separate component parts or independent features (according to the Group Embedded Figures Test). Rassaei (2015) found field independent learners to benefit significantly from recasts, whereas field dependent learners benefitted considerably less from recasts. Given the centrality of recasts used in both experimental research and natural classrooms, if IDs may potentially mediate or eliminate the benefits of feedback, this is a critical area of future research.

Attitudes

Attitudes are often considered to be both a necessary precursor for observable behavior as well as a powerful explanation behind (at times unexpected) results. In the aforementioned Dörnyei and Kormos (2000) study of an argumentative task in both L1 (Hungarian) and L2 (English) in Hungary, a range of social and attitudinal variables towards interaction and their impact on task behavior were considered. The researchers found the number of words produced in the task to correlate with learners' attitudes towards their L2 English course, their linguistic self-confidence, and their attitudes towards the task. Learners' number of turns correlated with WTC, attitudes towards the L2 English course, and their attitudes towards the task. The researchers also split learners into two groups based on attitudes towards task (low/high). For learners characterized by highly favorable attitudes, as mentioned earlier, WTC correlated strongly with the number of words and turns produced. For low attitude learners, only the variable attitudes towards their L2 English class correlated significantly with number of words or turns. This study is an ideal example of how IDs cannot be easily separated from context nor context from IDs.

Motivation

Motivation is one of the most researched IDs in the L2 literature (see review by Csizér, 2017; Dörnyei & Ryan, 2015), and it has been studied with a number of different terms (intrinsic vs. extrinsic; integrative vs. instrumental). As argued by Dörnyei (2002) and colleagues (Csizér, 2017; Dörnyei & Ryan, 2015), these approaches are overall complementary, reflecting differences in research priorities of scholars rather than separate lines of inquiry (2002, p. 46–47). Integrative motivation refers to learners' desire to learn the target language for enjoyment and become acquainted with, or form a part of, the target language culture, whereas instrumental motivation refers to learners being extrinsically encouraged to learn a language because it will assist them in achieving something, such as obtaining a better job. Intrinsic motivation has been found to be most predictive of learners seeking out opportunities to be exposed to the L2 (e.g., Hernández, 2006), to interact with L2 speakers (Hernández, 2010), and to produce more L2 (Dörnyei, 2002). Instrumental motivation, on the other hand, has been found to be more amenable to external influence (Vallerand, 1997). More recent research has explored learners' motivation as more dynamic in nature (Henry, Davydenko, & Dörnyei, 2015), changing even within a given task (MacIntyre & Serroul, 2015), two-week study abroad program (Serafini, Chapter 9, this volume), course of a semester (Serafini, 2017), or even over the course of a year (Gardner et al., 2004). These changes in motivation are often found to be related, directly and/or indirectly, to the interlocutors (and their IDs) with whom the learners interact (for one example, see Serafini, Chapter 9).

Age

Age has also been investigated as an ID affecting interaction. Oliver (2000, 2002) found that interactional structure is different according to the age of the interlocutors. Comparing adult learner/teacher interactions with child/teacher interactions, Oliver (2000) found children to produce more correct initial turns than their adult counterparts. This finding is not always consistent, however. In a follow-up study, Oliver (2002) found proficiency to matter more than age. Controlling for age and context, García-Mayo and Lázaro Ibarrola (2015) compared the negotiation for meaning and L1 use of 8–9 year olds and 10–11 year olds in both content-integrated and English as a foreign language (EFL) classes. Like Oliver (2000), the researchers found younger children to negotiate more than their slightly older counterparts. Also like Oliver, García-Mayo and Lázaro Ibarrola found another variable to influence frequency of negotiation even more: the context of instruction. Learners

in content-integrated contexts negotiated more than their EFL counterparts. In contrast to these aforementioned findings, Oliver, Philp, and Duchesne (2017) compared dyadic interaction of 5–7 year olds and 11–12 year olds for differences in interactional moves as well as affiliation and social goals. In their study, the older pairs were more collaborative than their younger counterparts and produced more indications of reciprocity. However, the older learners also used more repetitive patterns, which the researchers interpreted as a lack of engagement (comparatively speaking); in contrast, the younger dyads tended to be more aware of their language use.

Examining how learners' age might affect the quantity of feedback and overall input opportunities, Oliver and Grote (2010) found child English L2 learners to receive more feedback (specifically, recasts in addition to direct instruction) than their adult counterparts. This study also compared how type of grouping (whole class versus dyad including comparisons of teacher-student and student-student) affected the amount of feedback and input, with dyadic interaction leading to considerably more feedback and input in general than whole class exchanges.

Working memory

Working memory (WM) is seen as a critical gatekeeper to the processing of input, inarguably a central component to language learning, as is language aptitude overall (e.g., Doughty, 2018). The part of memory that engages directly with input before it is stored in long-term memory, WM allows attention to parsing, storage, and retrieval of input, and thus determines what is available for future use (Baddeley, 2000; Juffs & Harrington, 2011). WM is implicated in VanPatten's (2004) model of input processing, with an integral role in converting input into intake. In the cognitive-interactionist approach, input processing is commonly investigated around the noticing and incorporation of corrective feedback (e.g., Yilmaz, 2013). Higher WM has been linked to more L2 development during treatment tasks (Mackey & Sachs, 2012), and the efficacy of different types of corrective feedback is also mediated by WM (e.g., Révész, 2012; Sagarra, 2007).

With respect to feedback *provision*, Ziegler and Smith (2017) posited that teachers' WM could have an effect on the amount of feedback provided, speculating that teachers with higher WM would be able to provide more feedback. Concretely, the researchers cited the psycholinguistic process of storing an erroneous utterance while simultaneously attending to meaning and retrieving the correct structure as support for their ideas, in addition to research finding teachers to weigh a number of factors when deciding whether or not to correct a student, as well as when and how (Gurzynski-Weiss, 2016). Ziegler and Smith's hypotheses were not borne

out, however, in their sample of 12 teacher-learner dyads. While there was a wide range (8% to 53%) of errors corrected, there was no relationship between amount of feedback and teachers' WM. Nonetheless, given that the dyads interacted via SCMC, it is possible that the communication mode mediated the effect of WM between participants. Ziegler and Smith concluded their study with a call for more research into how instructor interlocutors' cognitive abilities may mediate features of meaningful interaction.

WM has also been examined in relationship to learners' ability to notice and benefit *from* feedback, at least when considering recasts (e.g., Mackey, Philp, Egi, Fujii, & Tatsumi, 2002; Trofimovich, Ammar, & Gatbonton, 2007). The relationship between different types of feedback and WM capacity has not been widely researched. Notable exceptions include Goo (2012), who found that WM was related to L2 development for recasts but not for prompts, and Yilmaz (2012), who found that WM was related only to L2 development on two structures in Turkish for explicit feedback and not implicit feedback (recasts). Trofimovich et al. (2007) is another exception. Based on a battery of cognitive tests, including phonological memory, working memory, analytical ability, and attentional control, from 32 Francophone learners of ESL, Trofimovich and colleagues found a correlational relationship between attentional control and learners' accuracy of production on pre-, post- and delayed post-tests, although no correlations were found between WM and noticing of feedback.

In relation to learner production, WM has been linked to a variety of measurements, including L2 fluency (e.g., O'Brien, Segalowitz, Freed, & Collentine, 2007), production of modified output (e.g., Mackey, Adams, Stafford, & Winke, 2010), and overall benefits from interaction (Payne & Whitney, 2002). For example, Payne and Whitney (2002) found that learners with low WM capacity were able to benefit from interaction in the SCMC mode to the point that both high and low WM groups improved in oral proficiency as compared to the control group, something that is usually not found in FTF, where WM differences often influence learners' development during interaction-based treatments. Within the interactionist framework, modified output has been linked to L2 development (e.g., Loewen, 2005; McDonough, 2005), and Mackey et al. (2010) found that WM explained a significant amount of variation in the production of modified output (between 17 and 18%).

Summary: Interlocutor individual differences in interaction

In this section, we discussed research examining individuals' IDs and how they may contribute or influence response to the L2 interaction, including the type and amount of input sought, the feedback given or used, the opportunities to produce

L2 output, and, in some cases, even L2 development. In the next and final section we outline several points of departure from which future studies may continue this important line of research.

Future research directions

First, there is opportunity to consider that the effect(s) of ID variables such as proficiency or anxiety is likely mediated by social factors, including the history of one's relationships with fellow learners or teachers in a given learning context. Oftentimes in studies researchers are eager to categorize learners by their IDs but leave out the critical components such as one learner not getting along with their partner. Thus, the result that little feedback was provided may not be a matter of proficiency or gender, for example, but rather from a past history of a given learning context.

Next, and as echoed elsewhere in this volume (Chapter 4, Lantolf; Chapter 5, Back; Chapter 6, Geeslin; Chapter 8, Larsen-Freeman; Chapter 9; Serafini), we must study the interrelated effects of IDs. Research must go beyond focusing only on the ID(s) of the principal or secondary interlocutor and thoroughly examine the dynamics of how the IDs of each interact and work together to create and influence L2 interaction-based learning opportunities. For example, WTC and motivation undoubtedly relate to each other, particularly when one considers how impactful certain moments are during learners' L2 acquisition (see Serafini, Chapter 9). In this regard, it is useful to recall Laursen's (2010), description of the social relations and experiences in classrooms as "moderators," and recognise the multiple IDs within an individual as well as across individuals (i.e., how one's WTC and motivation influence each other within a learner *as well as* how the WTC and motivation of one learner impact their partner).

Similarly, there is need to research the influence of interlocutor IDs beyond a single task or lesson. Despite its challenges and investment of time, future research should take care to collect data diachronically; this is a necessary step for us to understand and situate the contribution of interlocutors and their IDs within L2 learning. As Serafini (Chapter 9) demonstrates, learner motivation changed notably within a two-week study abroad program. Cognitive-interactionists may look to complex dynamic systems theory (see Larsen-Freeman, Chapter 8; Serafini, Chapter 9) for additional methodological inspiration, in addition to the research conducted by Lambert et al. (2017) described in the current chapter. Examining how IDs change over time, and what motivates this change, is a necessary step for understanding the nature of IDs and their impact in L2 interaction and development (see extended discussion of this in Gurzynski-Weiss, forthcoming).

This leads well into our final call, for interdisciplinarity and cross-theoretical explorations- a call set forth by and initiated in work in this current volume (Chapter 1). Researchers need to go beyond a single perspective to provide greater scope and think in ways that can account for the multidimensional impact of interlocutors and their IDs. In this cognitive-interactionist chapter, for example, we have argued for greater inclusion of social factors, for a dynamic consideration of IDs, and for measurements that reflect these expanded conceptualizations. We conclude this chapter optimistic for the future of ID research within and beyond a cognitive-interactionist approach and believe that exploring these characteristics holistically and within context will provide greater insight into the nature of L2 learning.

References

Adams, R. (2007). Do second language learners benefit from interacting with each other? In A. Mackey (Ed.), *Conversational interaction in second language acquisition* (pp. 29–52). Oxford, UK: Oxford University Press.

Back, M. (this volume). Sociocultural empirical: Interlocutor differences and the role of social others. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 99–123). Amsterdam, Netherlands: John Benjamins.

Baddeley, A. (2000). The episodic buffer: A new component of working memory? *Trends in cognitive sciences*, 4, 417–423. https://doi.org/10.1016/S1364-6613(00)01538-2

Baralt, M. (2013). The impact of cognitive complexity on feedback efficacy during online versus face-to-face interactive tasks. *Studies in Second Language Acquisition*, 35, 689–725. https://doi.org/10.1017/S0272263113000429

Baralt, M., & Gurzynski-Weiss, L. (2011). Comparing learners' state anxiety during task-based interaction in computer-mediated and face-to-face communication. *Language Teaching Research*, 15, 201–229. https://doi.org/10.1177/0265532210388717

Baralt, M., Gurzynski-Weiss, L., & Kim, Y. (2016). Engagement with the language: How examining learners' affective and social engagement explains successful learner generated attention to form. In M. Sato & S. Ballinger (Eds.), *Peer interaction and L2 learning* (pp. 209–239). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.45.09bar

Baralt, M. (2014). Task sequencing and task complexity in traditional versus online classes. In M. Baralt, R. Gilabert, & P. Robinson (Eds.), *Task sequencing and instructed second language learning* (pp. 95–122). London, UK: Bloomsbury.

Basturkmen, H., Loewen, S., & Ellis, R. (2004). Teachers' stated beliefs about incidental focus on form and their classroom practices. *Applied Linguistics*, 25, 243–272. https://doi.org/10.1093/applin/25.2.243

Batstone, R., & Philp, J. (2013). Classroom interaction and learning opportunities across time and space. In K. McDonough & A. Mackey (Eds.), *Second language interaction in diverse educational contexts (pp. 109–125)*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.34.09ch6

Bowles, M. A. (2011). Exploring the role of modality: L2-heritage learner interactions in the Spanish language classroom. *Heritage Language Journal*, 8, 30–65.

Bowles, M. A., Adams, R. J., & Toth, P. D. (2014). A comparison of L2–L2 and L2-Heritage learner interactions in Spanish language classrooms. *Modern Language Journal*, 98, 497–517. https://doi.org/10.1111/modl.12086

Cao, Y. (2009). Understanding the notion of interdependence, and the dynamics of willingness to communicate (Unpublished doctoral dissertation). University of Auckland.

Cao, Y. (2014). A sociocognitive perspective on second language classroom willingness to communicate. *TESOL Quarterly*, 48, 789–814. https://doi.org/10.1002/tesq.155

Cao, Y., & Philp, J. (2006). Interactional context and willingness to communicate: A comparison of behavior in whole class, group and dyadic interaction. *System*, 34, 480–493. https://doi.org/10.1016/j.system.2006.05.002

Chaudron, C. (1982). Vocabulary elaboration in L2 teachers' speech to L2 learners. *Studies in Second Language Acquisition*, 4, 170–180. https://doi.org/10.1017/S027226310000440X

Csizér, K. (2017). Motivation in the L2 classroom. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 418–432). New York, NY: Routledge.

Damon, W., & Phelps, E. (1989). Critical distinctions among three approaches to peer education. *International Journal of Educational Research*, 13, 9–19. https://doi.org/10.1016/0883-0355(89)90013-X

De Lisi, R., & Golbeck, S. L. (1999). Implications of Piagetian theory for peer learning. In A. M. O'Donnell & A. King (Eds.), *The Rutgers Invitational Symposium on Education Series: Cognitive perspectives on peer learning* (pp. 3–37). Mahwah, NJ: Lawrence Erlbaum Associates.

Dewaele, J. M. (2004). The emotional force of swearwords and taboo words in the speech of multilinguals. *Journal of Multilingual and Multicultural Development*, 25, 204–222. https://doi.org/10.1080/01434630408666529

Dewaele, J. M., & Furnham, A. (2000). Personality and speech production: A pilot study of second language learners. *Personality and Individual Differences*, 28, 355–365. https://doi.org/10.1016/S0191-8869(99)00106-3

Dörnyei, Z. (2002). The motivational basis of language learning tasks. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 137–158). Amsterdam, Netherlands: John Benjamins. Reprinted in K. Van den Branden, M. Bygate, & J. M. Norris (Eds.), *Task-based language teaching: A reader* (pp. 357–377). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.2.10dor

Dörnyei, Z., & Kormos, J. (2000). The role of individual and social variables in oral task performance. *Language Teaching Research*, 4, 275–300. https://doi.org/10.1177/136216880000400305

Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. New York, NY: Routledge. https://doi.org/10.4324/9781315779553

Doughty, C. (2018). Cognitive language aptitude. *Language Learning*, 69, 101–126.

Ellis, R. (2008). *The study of second language acquisition*. Oxford, UK: Oxford University Press.

Ellis, R. (2016). Focus on form: A critical review. *Language Teaching Research*, 20, 405–428. https://doi.org/10.1177/1362168816628627

Ellis, R., Loewen, S., & Erlam, R. (2006). Implicit and explicit corrective feedback and the acquisition of L2 grammar. *Studies in Second Language Acquisition*, 28, 339–368. https://doi.org/10.1017/S0272263106060141

Eysenck, H. J., & Eysenck, S. B. G. (1964). *Manual of the Eysenck Personality Inventory: By HJ Eysenck and Sybil BG Eysenck*. London, UK: University of London Press.

Ferguson, C. (1971). Absence of copula and the notion of simplicity: A study of normal speech, baby talk, foreigner talk, and pidgins. In D. Hymes (Ed.), *Pidginization and creolization of languages* (pp. 141–150). Cambridge, UK: Cambridge University Press.

Ferguson, C. (1975). Towards a characterization of English foreigner talk. *Anthropological Linguistics*, 17, 1–14.

Freiermuth, M., & Jarrell, D. (2006). Willingness to communicate: Can online chat help? *International Journal of Applied Linguistics*, 16, 189–212. https://doi.org/10.1111/j.1473-4192.2006.00113.x

García-Mayo, M., & Lázaro Ibarrola, A. (2015). Do children negotiate for meaning in task-based interaction? Evidence from CLIL and EFL settings. *System*, 54, 40–54. https://doi.org/10.1016/j.system.2014.12.001

Gardner, R. C., Masgoret, A. M., Tennant, J., & Mihic, L. (2004). Integrative motivation: Changes during a year-long intermediate-level language course. *Language Learning*, 54, 1–34. https://doi.org/10.1111/j.1467-9922.2004.00247.x

Gass, S. M. (1997). *Input, interaction, and the second language learner*. New York, NY: Routledge.

Gass, S. M., & Varonis, E. (1986). Sex differences in NNS/NNS Interactions. In R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp. 327–351). Rowley, MA: Newbury House.

Gass, S. M., & Varonis, E. M. (1994). Input, interaction, and second language production. *Studies in Second Language Acquisition*, 16, 282–302. https://doi.org/10.1017/S0272263100013097

Goo, J. (2012). Corrective feedback and working memory capacity in interaction-driven L2 learning. *Studies in Second Language Acquisition*, 34, 445–474. https://doi.org/10.1017/S0272263112000149

Gurzynski-Weiss, L. (2016). Factors influencing Spanish instructors' in-class feedback decisions. *Modern Language Journal*, 100, 255–275. https://doi.org/10.1111/modl.12314

Gurzynski-Weiss, L. (Ed.). (forthcoming). Investigating the dynamic nature of learner individual differences in second language learning. Invited special issue of *Studies in Second Language Learning and Language Teaching*.

Gurzynski-Weiss, L. (Ed.). (2017). *Expanding individual differences research in the interaction approach: Investigation learners, instructors, and other interlocutors*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16

Gurzynski-Weiss, L., & Plonsky, L. (2017). Look who's interacting: A scoping review of research involving non-teacher/non-peer interlocutors. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 305–324). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.13gur

Henry, A., Davydenko, S., & Dörnyei, Z. (2015). The anatomy of directed motivational currents: Exploring intense and enduring periods of L2 motivation. *Modern Language Journal*, 99, 329–345. https://doi.org/10.1111/modl.12214

Hernández, T. (2006). Integrative motivation as a predictor of success in the intermediate foreign language classroom. *Foreign Language Annals*, 39, 605–617. https://doi.org/10.1111/j.1944-9720.2006.tb02279.x

Hernández, T. A. (2010). Promoting speaking proficiency through motivation and interaction: The study abroad and classroom learning contexts. *Foreign Language Annals*, 43, 650–670. https://doi.org/10.1111/j.1944-9720.2010.01107.x

Hiver, P., Mercer, S. & Al-Hoorie, A. (Eds.). (forthcoming). *Engagement in the second language classroom*. Bristol, UK: Multilingual Matters.

Iwashita, N. (2004). The role of conversation in SLA: Review of studies on negative feedback and directions of future research. *Acquisition of Japanese as a Second Language*, 7, 163–185.

Izumi, S. (2002). Output, input enhancement, and the noticing hypothesis: An experimental study on ESL relativization. *Studies in Second Language Acquisition*, 24, 541–577. https://doi.org/10.1017/S0272263102004023

Juffs, A., & Harrington, M. (2011). Aspects of working memory in L2 learning. *Language Teaching*, 44, 137–166. https://doi.org/10.1017/S0261444810000509

Kang, D.-M. (2014). The effects of study-abroad experiences on EFL learners' willingness to communicate, speaking abilities, and participation in classroom interaction. *System*, 42, 319–332. https://doi.org/10.1016/j.system.2013.12.025

Kang, S.-J. (2005). Dynamic emergence of situational willingness to communicate in a second language. *System*, 33, 277–292. https://doi.org/10.1016/j.system.2004.10.004

Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *Modern Language Journal*, 79, 457–476. https://doi.org/10.1111/j.1540-4781.1995.tb05445.x

Kim, Y., & McDonough, K. (2008). The effect of interlocutor proficiency on the collaborative dialogue between Korean as a second language learners. *Language Teaching Research*, 12, 211–234. https://doi.org/10.1177/1362168807086288

Klink, M., & Klink, W. (1990). The influence of father caretaker speech on early language development: A case study. *Early Child Development and Care*, 62, 7–22. https://doi.org/10.1080/0300443900620102

Kormos, J., & Trebits, A. (2012). The role of task complexity, modality, and aptitude in narrative task performance. *Language Learning*, 62, 439–472. https://doi.org/10.1111/j.1467-9922.2012.00695.x

Krashen, S. (1977). Some issues relating to the monitor model. In H. Brown, C. Yorio & R. Crymes (Eds.), *On Tesol '77* (pp. 144–158). Washington, DC: TESOL.

Krashen, S. (1980). The theoretical and practical relevance of simple codes in second language acquisition. In R. Scarcella & S. Krashen (Eds.), *Research in second language acquisition: Selected papers of the Los Angeles Second Language Acquisition Research Forum* (pp. 7–18). Rowley, MA: Newbury House.

Krashen, S. (1985). *The Input Hypothesis: Issues and implications*. London, UK: Longman.

Lambert, C., Philp, J., & Nakamura, S. (2017). Learner generated content and engagement in second language task performance. *Language Teaching Research*, 21, 665–680. https://doi.org/10.1177/1362168816683559

Laursen, B. (2010). Capturing the peer context: The paradox of progress. *Journal of Adolescence*, 33, 897–902. https://doi.org/10.1016/j.adolescence.2010.08.008

Laursen, B., & Hartup, W. W. (2002). The origins of reciprocity and social exchange in friendships. *New Directions for Child and Adolescent Development*, 95, 27–40. https://doi.org/10.1002/cd.35

Leeser, M. J. (2004). Learner proficiency and focus on form during collaborative dialogue. *Language Teaching Research*, 8, 55–81. https://doi.org/10.1191/1362168804lr1340a

Lightbown, P. M., Halter, R. H., White, J., & Horst, M. (2002). Comprehension-based learning: The limits of "do it yourself." *Canadian Modern Language Review*, 58, 427–464. https://doi.org/10.3138/cmlr.58.3.427

Loewen, S. (2005). Incidental focus on form and second language learning. *Studies in Second Language Acquisition*, 27, 361–386. https://doi.org/10.1017/S0272263105050163

Long, M. H. (1981). Input, interaction, and second language acquisition. In H. Winitz (Ed.), *Native language and foreign language acquisition* (pp. 259–278), New York, NY: The New York Academy of Sciences.

Long, M. H. (1983). Native speaker and non/native speaker conversation and the negotiation of comprehensible input. *Applied Linguistics*, 4, 125–141. https://doi.org/10.1093/applin/4.2.126

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–468). New York, NY: Academic Press.

Long, M. H., & Porter, P. A. (1985). Group work, interlanguage talk, and second language acquisition. *TESOL Quarterly*, 19, 207–228. https://doi.org/10.2307/3586827

Lyster, R. (2002). Negotiation in immersion teacher–student interaction. *International Journal of Educational Research*, 37, 237–253. https://doi.org/10.1016/S0883-0355(03)00003-X

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake. *Studies in Second Language Acquisition*, 19, 37–66.

Lyster, R., & Mori, H. (2006). Interactional feedback and instructional counterbalance. *Studies in Second Language Acquisition*, 28, 269–300. https://doi.org/10.1017/S0272263106060128

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37–66. https://doi.org/10.1017/S0272263197001034

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44, 283–305. https://doi.org/10.1111/j.1467-1770.1994.tb01103.x

MacIntyre, P. D., & Serroul, A. (2015). Motivation on a per-second timescale: Examining approach-avoidance motivation during L2 task performance. In Z. Dörnyei, P. D. MacIntyre, & A. Henrys (Eds.), *Motivational dynamics in language learning* (pp. 109–138). Bristol, UK: Multilingual Matters.

Mackey, A. (Ed.) (2007). *Conversational interaction in second language acquisition: A series of empirical studies*. Oxford, UK: Oxford University Press.

Mackey, A., Philp, J., Egi, T., Fujii, A., & Tatsumi, T. (2002). Individual differences in working memory, noticing of interactional feedback and L2 development. In P. Robinson (Ed.), *Individual differences in instructed language learning* (pp. 181–209). Amsterdam: John Benjamins. https://doi.org/10.1075/lllt.2.12mac

Mackey, A., & Sachs, R. (2012). Older learners in SLA research: A first look at working memory, feedback, and L2 development. *Language Learning*, 62, 704–740. https://doi.org/10.1111/j.1467-9922.2011.00649.x

Mackey, A., Abbuhl, R., & Gass, S. M. (2012). Interactionist approach. In S. Gass & A. Mackey (Eds.), *The Routledge handbook of second language acquisition* (pp. 7–23). New York, NY: Routledge.

Mackey, A., Adams, R., Stafford, C., & Winke, P. (2010). Exploring the relationship between modified output and working memory capacity. *Language Learning*, 60, 501–533. https://doi.org/10.1111/j.1467-9922.2010.00565.x

Martin, S., & Valdivia, I. M. A. (2017). Students' feedback beliefs and anxiety in online foreign language oral tasks. *International Journal of Educational Technology in Higher Education*, 14. https://doi.org/>10.1186/s41239-017-0056-z>

McDonough, K. (2005). Identifying the impact of negative feedback and learners' responses on ESL question development. *Studies in Second Language Acquisition*, 27, 79–103. https://doi.org/10.1017/S0272263105050047

Nicholas, H., Lightbown, P. M., & Spada, N. (2001). Recasts as feedback to language learners. *Language Learning*, 51, 719–758. https://doi.org/10.1111/0023-8333.00172

O'Brien, I., Segalowitz, N., Freed, B., & Collentine, J. (2007). Phonological memory predicts second language oral fluency gains in adults. *Studies in Second Language Acquisition*, 29, 557–582. https://doi.org/10+10170S027226310707043X

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

Oliver, R. (2002). The patterns of negotiation for meaning in child interactions. *Modern Language Journal*, 86, 97–111. https://doi.org/10.1111/1540-4781.00138

Oliver, R., & Grote, E. (2010). The provision and uptake of different types of recasts in child and adult ESL learners. *Australian Review of Applied Linguistics*, 33, 26–41. https://doi.org/10.2104/aral1026

Oliver, R., Philp, J., & Duchesne, S. (2017). Children working it out together: A comparison of younger and older learners collaborating in task-based interaction. *System*, 69, 1–14. https://doi.org/10.1016/j.system.2017.08.001

Oya, T., Manalo, E., & Greenwood, J. (2004). The influence of personality and anxiety on the oral performance of Japanese speakers of English. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, 18, 841–855. https://doi.org/10.1002/acp.1063

Payne, J. S., & Whitney, P. J. (2002). Developing L2 oral proficiency through synchronous CMC: Output, working memory, and interlanguage development. *CALICO Journal*, 20, 7–32.

Phillips, E. M. (1992). The effects of language anxiety on students' oral test performance and attitudes. *Modern Language Journal*, 76, 14–26. https://doi.org/10.1111/j.1540-4781.1992.tb02573.x

Philp, J. & Mackey, A. (2010). Interaction research: What can socially informed approaches offer to cognitivists (and vice versa)? In Batstone, R. (Ed.), *Sociocognitive perspectives on language use and language learning* (pp. 210–228). Oxford, UK: Oxford University Press.

Philp, J., & Duchesne, S. (2008). When the gate opens: The interaction between social and linguistic goals. In J. Philp, R. Oliver, & A. Mackey (Eds.), *Second language acquisition and the younger learner: Child's play?* (pp. 83–104) Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.23.07phi

Philp, J., Adams, R., & Iwashita, N. (2014). *Peer interaction and second language learning*. New York, NY: Routledge. https://doi.org/10.4324/9780203551349

Philp, J., Walter, S., & Basturkmen, H. (2010). Peer interaction in the foreign language classroom: What factors foster a focus on form? *Language Awareness*, 19, 261–79. https://doi.org/10.1080/09658416.2010.516831

Pica, T. (1992). The textual outcomes of native speaker-non-native speaker negotiation: What do they reveal about second language learning? *Proceedings from Text and Context: Cross-Disciplinary Perspectives on Language Study*, 198–237.

Pica, T. (1998). Interlanguage adjustments as an outcome of NS-NNS Negotiated Interaction. *Language Learning*, 38, 45–73. https://doi.org/10.1111/j.1467-1770.1988.tb00401.x

Pica, T., Holliday, L., Lewis, N., Berducci, D., & Newman, J. (1991). Language learning through interaction: What role does gender play? *Studies in Second Language Acquisition*, 13, 343–376. https://doi.org/10.1017/S0272263100010020

Poupore, G. (2018). A complex systems investigation of group work dynamics in L2 interactive tasks. *Modern Language Journal*, 102, 350–370. https://doi.org/10.1111/modl.12467

Rassaei, E. (2015). Recasts, field dependence-independence cognitive style, and L2 development. *Language Teaching Research*, 19, 499–518. https://doi.org/10.1177/1362168814541713

Révész, A. (2012). Working memory and the observed effectiveness of recasts on different L2 outcome measures. *Language Learning*, 62, 93–132. https://doi.org/10.1111/j.1467-9922.2011.00690.x

Ross-Feldman, L. (2007). Interaction in the L2 classroom: Does gender influence learning opportunities? In A. Mackey, *Conversational interaction in second language acquisition: A collection of empirical studies* (pp. 53–77). New York, NY: Routledge.

Sagarra, N. (2007). From CALL to face-to-face interaction: The effect of computer-delivered recasts and working memory on L2 development. In A. Mackey (Ed.) *Conversational interaction in second language acquisition*, (pp. 229–248). Oxford, UK: Oxford University Press.

Satar, H. M., & Özdener, N. (2008). The effects of synchronous CMC on speaking proficiency and anxiety: Text versus voice chat. *Modern Language Journal*, 92, 595–613. https://doi.org/10.1111/j.1540-4781.2008.00789.x

Sato, M. (2013). Beliefs about peer interaction and peer corrective feedback: Efficacy of classroom intervention. *Modern Language Journal*, 97, 611–633. https://doi.org/10.1111/j.1540-4781.2013.12035.x

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/10.1080/09658416.2011.639884

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129–158. https://doi.org/10.1093/applin/11.2.129

Schmidt, R. (1993). Consciousness, learning and interlanguage pragmatics. In G. Kasper & S. Blum-Kulka (Eds.), *Interlanguage pragmatics* (pp. 2–31). Oxford, UK: Oxford University Press.

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3–32). Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9781139524780.003

Serafini, E. J. (this volume). Exploring the dynamics of interlocutor IDs and language learner selves during a short-term experience abroad. In L. Gurzynski-Weiss (Ed). *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 209–243). Amsterdam, Netherlands: John Benjamins.

Serafini, E. J. (2017). Exploring the dynamic long-term interaction between cognitive and psychosocial resources in adult second language development at varying proficiency. *Modern Language Journal*, 101, 369–390. https://doi.org/10.1111/modl.12400

Sheen, Y. (2006). Exploring the relationship between characteristics of recasts and learner uptake. *Language Teaching Research*, 10, 361–392. https://doi.org/10.1191/1362168806lr203oa

Sheen, Y. (2008). Recasts, language anxiety, modified output, and L2 learning. *Language Learning*, 58, 835–874. https://doi.org/10.1111/j.1467-9922.2008.00480.x

Spinner, P., Behney, J. & Gass, S. M. (2017). Afterword. The role of salience in second language acquisition. In S. M. Gass, P. Spinner, & J. Behney (Eds.), *Salience in second language acquisition* (pp. 291–297). New York, NY: Routledge.

Storch, N. (2002). Patterns of interaction in ESL pair work. *Language Learning*, 52, 119–158. https://doi.org/10.1111/1467-9922.00179

Storch, N. (2008). Metatalk in a pair work activity: Level of engagement and implications for language development. *Language Awareness*, 17, 95–114. https://doi.org/10.1080/09658410802146644

Sulis, G., Michel, M., & Davidson, J. (in press). Dynamic changes in motivation and willingness to communicate in the second language classroom: A multiple case study. In W. Lowie, M. Michel, A. Rousse-Malpat, A. Keijzer, & S. Rasmus (Eds.), *Usage-based dynamics in second language development*. Bristol, UK: Multilingual Matters.

Svalberg, A. M.-L. (2009). Engagement with language: Interrogating a construct. *Language Awareness*, 18, 242–258. https://doi.org/10.1080/09658410903197264

Swain, M. (1985). Communicative competence: Some roles of comprehensive input and comprehensible output in its development, In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235–256). Cambridge, MA: Newbury House.

Swain, M. (1988). Manipulating and complementing content teaching to maximize second language learning. *TESL Canada Journal/Revue TESL du Canada*, 6, 68–83. https://doi.org/10.18806/tesl.v6i1.542

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principles and practice in applied linguistics: Studies in honour of H.G. Widdowson* (pp. 125–144). New York, NY: Oxford University Press.

Swain, M. (1997). Immersion programs in Canada. In J. Cumins & D. Corson (Eds.) *Encyclopedia of language and education* (Vol 5, pp. 261–269). Dordrecht: Kluwer.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook on research in second language teaching and learning* (pp. 471–484). Mahwah, NJ: Lawrence Erlbaum Associates.

Tavakoli, M., & Zarrindabi, N. (2016). Differential effects of explicit and implicit corrective feedback on EFL learners' willingness to communicate. *Innovation in Language Learning and Teaching*, 3, 247–259.

Trofimovich, P., Ammar, A., & Gatbonton, E. (2007). How effective are recasts? The role of attention, memory, and analytical ability. In A. Mackey (Ed.) *Conversational interaction in second language acquisition*, (pp. 171–195). Oxford, UK: Oxford University Press.

Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. *Advances in Experimental Social Psychology*, 29, 271–360. https://doi.org/10.1016/S0065-2601(08)60019-2

VanPatten, B. (1996). *Input processing and grammar instruction: Theory and research*. Norwood, NJ: Ablex.

VanPatten, B. (2004). Input processing in SLA. In B. VanPatten (Eds.), *Processing instruction: Theory, research, and commentary* (pp. 5–32). Mahwah, NJ: Lawrence Erlbaum Associates.

Wakamoto, N. (2009). *Extroversion/Introversion in foreign language learning: Interactions with learner strategy use*. Bern, Switzerland: Peter Lang.

Williams, J. (1999). Learner-generated attention to form. *Language Learning*, 49, 583–625. https://doi.org/10.1111/0023-8333.00103

Williams, J. (2001). The effectiveness of spontaneous attention to form. *System*, 29, 325–340. https://doi.org/10.1016/S0346-251X(01)00022-7

Yanguas, I., & Navarro, G. (2014). Learners' anxiety in L2 interaction: Video, chat, or face-to-face? *European Journal of Applied Linguistics and TEFL*, 3, 5–23.

Yilmaz, Y. (2012). Relative effects of explicit and implicit feedback: The role of working memory capacity and language analytic ability. *Applied Linguistics*, 34, 344–368. https://doi.org/10.1093/applin/ams044

Yilmaz, Y. (2013). The relative effectiveness of mixed, explicit and implicit feedback in the acquisition of English articles. *System*, 41, 691–705. https://doi.org/10.1016/j.system.2013.07.020

Ziegler, N., & Smith, G. (2017). Teachers' provision of feedback in L2 text-chat: Cognitive, contextual and affective factors. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach* (pp. 255–280). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.11zie

The effect of proficiency, gender, and learning style on the occurrence of negotiated interaction in communicative task performance

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Apart from positive evidence, or information about what is possible in the target language (TL), second language learners also need negative evidence, or information about what is not possible in the TL, and opportunities to engage in output production (Gass, 2003). As postulated by the cognitive-interactionist approach, these conditions can be met through opportunities for negotiated interaction. Building on previous research (e.g., Gass & Varonis, 1986; Iwashita, 2001; Porter, 1996; Rassaei, 2015), this study investigated the impact of English learners' proficiency, gender, and learning style on the occurrence, nature, and outcomes of negotiation in two tasks, which differed with respect to the presence of information gap. Results provide some evidence for the mediating role of gender and learning style but not proficiency, with task type being an important mediating variable.

Keywords: gender, learning style, L2 task-based interaction, negotiation, proficiency

Introduction

Gass (2003) argues that success in second or foreign language (L2) learning, however defined, is a function of an adequate quantity and quality of exposure. This exposure can take the form of positive evidence, or information about what is possible in the target language (TL), composed of both authentic and modified (i.e., simplified or elaborate) language samples. It can also consist of negative evidence, or information about what is not allowed in the TL, which can involve the provision of rules or corrective feedback (CF; see Long & Robinson, 1998). Despite

Krashen's (1985, p. 2) controversial claim that "speaking is a result of acquisition and not its cause," yet another crucial condition for successful acquisition is interaction with others, be they native speakers, people who have achieved a high level of TL proficiency, such as L2 teachers, or fellow learners. In fact, according to the cognitive-interactionist approach, participation in negotiated interaction may ensure simultaneous presence of all of these conditions because, as Gass and Mackey (2015) illuminate, "it attempts to account for learning through the learners' exposure to language, production of language, and feedback on that production" (p. 181). More specifically, drawing upon the noticing hypothesis (Schmidt, 1990, 2001), the original and updated versions of the interaction hypothesis (Long, 1981, 1983, 1996), as well as the output hypothesis (Swain, 1985, 2005), the approach posits that interactive work between interlocutors resulting from a genuine lack of understanding (i.e., negotiation of meaning) or the occurrence of an error (i.e., negotiation of form) increases the amount of input, enhances its quality, triggers CF, and offers opportunities for adjustments to the erroneous output (see review in Philp & Gurzynski-Weiss, Chapter 2). These assumptions have inspired a flurry of empirical investigations which have evolved from examining the occurrence of negotiated sequences in different contexts, through determining the extent to which they contribute to comprehension and acquisition, to the role of focus on form, understood as "(…) brief attention, either planned or incidental, to problematic language items within a larger communicative context" (Loewen, 2011, p. 579). Focus on form, which has been the main focus of recent studies, can be *extensive* or *intensive*, depending on whether a variety of linguistic features or just one are targeted. It can also be *proactive* or *reactive*, depending on whether a given form is addressed before or after the occurrence of an error, with the vast majority of studies conducted currently focusing on various aspects of feedback (Loewen, 2011, 2015).[1] Whatever form negotiated interaction takes, its effect on L2 learning is mediated by linguistic, contextual, and individual difference (ID) factors, which in turn determine the presence and nature of learner engagement (see Ellis, 2010; Pawlak, 2014, 2017a; Philp & Gurzynski-Weiss, Chapter 2). Research into such moderating variables is still scarce, and this is particularly evident in the case of ID factors, which is disconcerting as such factors are bound to determine the process and product of language learning, irrespective of the context in which it takes place or the instruction options employed (Cohen, 2010; Pawlak, 2012, 2017a, 2017b;

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1.   The occurrence of particular types of focus on form is mediated by the setting in which interaction occurs. For example, Toth (2008) found that extensive focus on form predominates in peer-peer interaction, which may have a bearing on the contribution of such interaction to language learning (cf. Adams, Nuevo, & Egi, 2011).

Roberts & Moyer, 2012). The present chapter aims to fill this gap by reporting the results of a study which examined the mediating role of proficiency, gender, and learning style for the occurrence, nature, and effects of negotiated interaction.

Literature review: ID factors and negotiated interaction

As superbly demonstrated in state-of-the-art overviews (e.g., Gass & Mackey, 2015; Kim, 2017; Mackey, 2007; Mackey, Abbuhl, & Gass, 2014; Philp, 2009), research conducted within the cognitive-interactionist approach has greatly evolved since the emergence of its theoretical foundations. Early studies were predominantly descriptive, and they were mainly concerned with: (1) determining the frequency of different types of interactional adjustments in conversations between native speakers and learners or between learners themselves, (2) gauging the extent to which such negotiation of meaning facilitates comprehension and thus, logically, fosters L2 acquisition, and (3) investigating the differential effects of pre-modified and interactionally-modified input in this respect (e.g., Gass & Varonis, 1985; Loschky, 1994; Pica, Young, & Doughty, 1987). In the next phase, researchers shifted their attention to establishing a causal link between interaction and L2 acquisition, focusing in particular on the role of immediate and long-term CF in communicative activities (i.e., reactive focus on form) and demonstrating its beneficial effects on a range of TL features in different contexts and languages (e.g., Ammar, 2008; Ellis, Loewen, & Erlam, 2006; Sheen, 2006). However, when discussing the core issues in present-day interactionist research, Mackey et al. (2014) point out that:

> The current research agenda has moved away from investigating *whether* interaction impacts L2 outcomes to determining: (a) which aspects of the L2 benefit the most from interaction; (b) how individual difference variables mediate the relationship between interaction and L2 development; and (c) what forms of interaction (and in particular what types of feedback) are the most beneficial for L2 learners (how various types of interactional feedback differentially impact various L2 forms). (p. 10)

These three lines of inquiry figure prominently in a recent overview undertaken by Kim (2017), who discusses the existing empirical evidence with respect to native speaker-learner interaction (i.e., features of CF), learner-learner interaction in classroom contexts (i.e., task design as well as implementation features), and technology-mediated interaction (i.e., synchronous computer-mediated communication or SCMC; see Philp and Gurzynski-Weiss, Chapter 2, for a review of the second line of inquiry).

Despite the undeniable advances that have been made in the last three decades, which have considerably expanded our understanding of variables that affect the contribution of interaction to the acquisition of different aspects of the TL, there is a striking lack of balance in the research conducted to date. On the one hand, there is copious empirical evidence about the differential effects of various types of focus on form, especially CF moves (e.g., recasts and prompts). There has been a growing focus on the interplay between instructional options and the nature of the TL feature, and considerable attention has also been given to the role of the diverse contexts in which interaction occurs (e.g., Brown, 2016; Li, 2010; Lyster & Sato, 2010; Lyster, Saito, & Sato, 2013; McDonough & Mackey, 2013). On the other hand, much less is known about the mediating role of ID factors in shaping the character and effects of negotiated interaction. The need for more research in this area is emphasized by Mackey (2012), who comments, "One important next move is to empirically investigate the connections between socio-affective factors and cognitive processing in the context of interaction-driven L2 learning" (p. 142). Mackey et al. (2014) point out that, "It is also of crucial importance to explore the many individual difference variables that mediate the relationship between interaction and learning" (p. 16). Pawlak (2017b) adds that "(…) researchers have only begun to scratch the surface with respect to exploring the moderating effects of learner-internal factors, often concentrating on those that may not be of immediate relevance to practitioners" (p. 29). He refers to the fact that the bulk of interactionist research has focused on working memory (WM), the measurement of which requires considerable expertise, and which is not easily catered to in the classroom, while at the same time neglecting IDs which lend themselves to manipulation, such as motivation, willingness to communicate, learning styles, or communication strategies. Given such cognizance of the importance of ID factors, it is quite surprising that the discussion of these issues is extremely scant, constituting a fraction of the text in cutting-edge syntheses of interactionist research (e.g., Mackey, 2012; Mackey et al., 2014; Nassaji, 2015; Philp, 2009), and absent from the most recent consideration of future research directions within the cognitive-interactionist approach (Kim, 2017). What follows is a brief overview of studies that have examined the effects of ID factors on negotiated interaction, with the main emphasis on variables that are the focus of the study reported below (i.e., proficiency, gender, and learning styles).

The ID factor that has received the most attention is working memory (WM), operationalized as phonological short-term memory, listening and reading span, or results of verbal span tests. WM in its different guises has been shown to exert a beneficial effect on the occurrence of output modifications, as well as the noticing, processing, and instructional effects of CF, particularly recasts (e.g., Kim, Payant, & Pearson, 2015; Mackey, Adams, Stafford, & Winke, 2010; Sagarra & Abbuhl, 2013; see Li, 2017a, for an overview). Based on such findings, Mackey et al. (2014)

commented that, "(…) WM may play an important role in the processing of recasts by L2 learners, but clearly more research is warranted in this area" (p. 11). There is also some evidence that aptitude, defined as analytical ability, may mediate the effects of CF, but the results are inconclusive, with its contribution being moderated by the linguistic target and the explicitness of the corrective moves (e.g., Li, 2013, 2017b; Sheen, 2007). Empirical investigations of other ID variables are scarce and usually limited to just one or two studies. With respect to age, Oliver (2000) reported that adults are more likely to be provided with interactional feedback than children, a finding corroborated by Mackey, Oliver, and Leeman (2003), who also revealed that children produced more modified output. A negative effect of anxiety on the processing of CF was reported by Sheen (2008), whereas Baralt and Gurzynski-Weiss (2011) failed to find a difference in levels of anxiety between SCMC and face-to-face interaction. In another study, Sheen (2007) showed that positive attitudes predicted gains resulting from metacognitive CF. Researchers have also examined the role of willingness to communicate (WTC), with Pawlak (2015) reporting that output-promoting but not input-providing CF was positively correlated to WTC, and Tavakoli and Zarrinabadi (2016) demonstrating that readiness to speak was likely to rise when explicit feedback was supplied.

Moving on to the variables examined in the present study, empirical evidence is the most abundant in the case of proficiency, operationalized in diverse ways as developmental readiness, test scores, or results of standardized examinations. Since developmental readiness, or reaching the requisite stage in the acquisition of a given TL feature, is as much a matter of individual variation as the nature of that feature, suffice it to say here that CF may be ineffective when learners are not ready to process a particular structure, although the type of feedback also plays a part (e.g., Ammar, 2008; Loewen & Erlam, 2006; Philp, 2003). Two early laboratory studies exploring the role of proficiency were undertaken by Porter (1986) and Yule and McDonald (1990). The former compared interactions in pairs of learners at the same and different levels as well as a native speaker and found that although the three conditions were similar in terms of the frequency of errors, appropriate CF occurred only in mixed-proficiency dyads, which benefitted both weaker and more advanced learners. Yule and McDonald (1990) showed that a greater number of longer instances of negotiation of meaning were likely to occur when lower-proficiency learners played an active role in interaction by holding the key information, as, otherwise, more advanced learners tended to dominate, leaving little room for interactional modifications.

More recently, Iwashita (2001) reported more frequent use of interactional moves by Japanese learners of English in mixed-level dyads than in same-level dyads, which, however, did not translate into the greatest amount of modified output. Leeser (2004) demonstrated that pairs comprising more advanced learners of L2

Spanish working on a dictogloss task produced language-related episodes (LREs) more often than other pairings, focused on grammar more, and were more likely to resolve the problems encountered. Kim and McDonough (2008) explored the effect of proficiency on the dynamics of dyadic interaction of learners of Korean. They found that, in mixed-proficiency pairings, weaker learners tended to assume the more passive role of a novice, and they were more willing to cooperate with their interlocutors at the same level, with the caveat that the roles of novices and experts were subject to negotiation. Storch and Aldosari (2013) investigated the interaction of learners of English as a foreign language from Saudi Arabia who completed a short composition in same-proficiency pairs (i.e., either high or low) and in mixed-proficiency dyads. They found that emphasis on accuracy, understood as overt focus on the TL, was the most likely to occur in interactions between advanced learners, while fluency suffered the most when lower proficiency learners worked with more advanced peers. The researchers concluded that the goals of the activity may supersede other factors and that the relationship between students plays a more important role than proficiency level. Storch and Aldosari also revealed in an earlier study (2010) that, apart from task type (i.e., a form-focused task was more conducive to first language [L1] use than a meaning-focused task), lower proficiency accounted for greater reliance on L1 in classroom interaction. The impact of TL level was also investigated by Li (2014), as well as Shin, Lidster, Sabra, and Yeager (2015). Li (2014) operationalized proficiency as scores on a standardized test and revealed that this variable interacted with both the type of CF (i.e., recasts and metalinguistic feedback) and the TL feature (i.e., the perfective and classifiers in Chinese). Explicit CF turned out to work better than implicit for lower-level learners, but both types of CF were efficacious for higher-level learners. Shin et al. (2015) showed that mixed proficiency levels, established on the basis of an in-house exam, benefitted the most from a collaborative text reconstruction task in relation to idea units, although considerable variation was observed. Also worth mentioning is the study by Pawlak (2006) in the Polish educational context, the same context as the present study. He analyzed 112 instances of pair- and group-work tasks (e.g., information gap, dictogloss, role play, problem-solving) conducted during secondary school English classes and concluded that proficiency had no influence on negotiated interaction.

The empirical evidence is much more tenuous in the case of the remaining two variables, namely, gender and learning style, and thus it makes sense to look at studies that have investigated not only peer interactions but also interactions between learners and native speakers as well as teachers. With respect to gender, typically operationalized, as is the case in the present investigation, in terms of biological sex, Gass and Varonis (1986) found in an early study that negotiation of meaning was more likely to occur in male-female dyads than in male-male ones,

with females or males being more likely to signal lack of understanding depending on the task (i.e., picture description vs. conversation). Pica, Holliday, Lewis, and Mergenthaler (1989), in turn, demonstrated that, in interactions between native speakers and non-native speakers during the performance of two communication tasks (i.e., an information gap and a jigsaw), males benefitted more from clarification requests than females, but this did not lead to increased output modifications. More recently, Oliver (2002) explored interactions between children working on one-way and two-way tasks in relation to the effect of nativeness, proficiency, age, and gender, finding that gender did not have an impact on the occurrence of negotiation for meaning. The same conclusion was reached by Pawlak (2006) in his study of interaction in pairs and small groups mentioned above. On the other hand, Ross-Feldman (2007) reported that although there were no differences between females and males with respect to the number, nature, and resolution of LREs in a picture differences and picture placement task, they differed along these criteria on a picture story task. Finally, Nakatsukasa (2017) looked into the mediating role of gender in the case of verbal recasts and gesture-enhanced recasts provided in response to errors in English locatives in the performance of two focused-communication tasks. While gender did not have an effect for verbal CF, females benefitted more in the long run from the provision of gesture-enhanced recasts. The least is known about the role of learning style in shaping the nature and effects of negotiated interaction. To the best knowledge of the author, the only studies investigating this issue were carried out by Rassaei (2015) and Kim and Nassaji (2017). Rassaei (2015) examined the efficacy of recasts as a function of the cognitive styles of learners' field-dependence and field-independence. He found that it was field-independence that was most likely to predict the positive effects of implicit CF on the use of articles in a writing task and a picture-description task on both immediate and delayed posttests. Kim and Nassaji (2017) explored the impact of learners' extraversion and introversion on the effects of incidental focus on form in classes taught to advanced and upper-intermediate learners of English. They reported that, while extraverted learners engaged more often in form-focused episodes, introverted ones were more likely to produce successful uptake, with TL level mediating the effects of learning style.

While the studies reported above have shed some light on the role of proficiency, gender, and learning style in determining the occurrence, nature, and effects of negotiated interaction, the results are far from conclusive, as there are grounds to assume that the contribution of each factor is moderated by task type, the nature of pedagogic intervention, and/or the properties of the TL feature. Moreover, no study conducted to date has investigated the combined effect of these three variables in the performance of different types of communication tasks. It is gaps such as these in the literature that the current empirical investigation was intended to fill.

The present study

Aims and research questions

The study reported in the present chapter aimed to investigate the impact of proficiency level, gender (understood as biological sex), and learning style on the occurrence, character, and outcomes (i.e., in terms of modified output) of negotiated interaction in the performance of two communication tasks. The following research questions were posed:

1. What is the frequency, nature, and outcome of negotiated interaction in the two tasks?
2. What is the impact of proficiency, gender, and learning style on the incidence, nature, and outcomes of negotiated interaction?
3. Is there evidence for interaction between the three variables as well as task type with respect to the occurrence, nature, and outcomes of negotiated interaction?

In accordance with Ellis (1997), negotiated interaction (NI) is understood here as "the conversational exchanges that arise when interlocutors seek to prevent a communicative impasse occurring or to remedy an actual impasse that has arisen" (p. 3). More specifically, the concept includes both negotiation of meaning (NM) (i.e., conversational focus on form, when a real communication breakdown occurs) and negotiation of form (NF) (i.e., didactic focus on form or CF, when the message is understandable but the interlocutor, in this case a peer, wishes to address a problem with accurate, appropriate, or precise use of the TL). Output modifications (OM) are defined as changes to the original utterances brought about by different forms of NI in response to the signals provided by interlocutors, in this case fellow learners.

Method

Participants

The participants were 12 English majors, 6 females and 6 males, enrolled in the last year of a three-year Bachelor of Arts program at a Polish university. As is typical for programs of this kind, the students were required to attend an intensive course in English, spanning three years and divided into classes focusing on grammar, conversation, pronunciation, academic writing, and integrated skills, mandatory content classes devoted to linguistics, applied linguistics, language teaching methodology, literature, culture, and history, and some electives such as diploma

seminars. The mean experience in learning English amounted to 11.75 years with a range of 2, which indicates that the participants were largely homogenous in this respect. When it comes to their proficiency, they could be described as falling between the B2 and C1 levels, as defined in the *Common European Framework* (Council of Europe, 2001), but there was much individual variation. To adopt a more tangible point of reference, the mean grade on the final examination in English, administered at the end of the second year, was 3.57 on a scale of 2 (lowest) to 5 (highest), with males doing considerably better than females (3.83 vs. 3.25). Particularly relevant to this study is that the mean grade in the conversation class, constituting an integral part of the intensive course in English, equaled 3.86, with males clearly outperforming females (4.21 vs. 3.42). Grades on the final examination and in the conversation class were taken into account (in addition to course teachers' opinions) when dividing learners into those representing low and high proficiency levels (2 or 3 vs. 4 and 5 in both cases, respectively). Although most participants had access to the TL outside of their classes, it mainly consisted of contact with the media, and only in a few cases did it involve direct face-to-face or online interaction with native speakers or other proficient users of the TL. All students agreed to participate in the investigation and in return were awarded an additional credit in their foreign language methodology class.

Materials

The data were collected through audio recordings of the participants' interaction during the performance of two communicative tasks, which differed in the requirement for the exchange of information. The first one was a decision-making task, which involved optional information exchange in the sense that not all of the students had to participate for the solution to be reached. This was a desert dilemma task, in which participants had to decide what things left after a plane crash they should take with them to be able to survive in the desert. The second one was a spot-the-difference task with a built-in requirement for information exchange, in which the students were requested to find 12 differences between pictures without seeing each other's handouts. An additional data collection instrument was the *Learning Style Survey* (LSS, Cohen, Oxford, & Chi, 2001), where participants had to respond to five-point Likert-scale items on a scale from 0 (never), through 1 (rarely), 2 (sometimes) and 3 (often), to 4 (always) in relation to 11 learning style dimensions. The dimensions were as follows: (1) using physical senses (i.e., visual, auditory, tactile/kinesthetic), (2) exposure to learning situations (i.e., extroverted vs. introverted), (3) handling possibilities (i.e., random-intuitive vs. concrete-sequential), (4) dealing with ambiguity and deadlines (i.e., closure-oriented vs. open), (5) receiving information

(i.e., global vs. particular), (6) further processing of information (i.e., synthesizing vs. analytic), (7) committing material to memory (i.e., sharpener vs. leveler), (8) dealing with language rules (i.e., deductive vs. inductive), (9) dealing with multiple inputs (i.e., field-independent vs. field-dependent), (10) dealing with response time (i.e., impulsive vs. reflective), and (11) perception of reality (i.e., metaphoric vs. literal). Within each dimension, totals were tabulated for each style so that the dominant style preference could be established.

Procedure

The students formed six pairs that were initially matched for proficiency, so that three of the dyads were comprised of participants at the same level and three at different levels of proficiency, established on the basis of examination and course grades as well as course teachers' opinions. In each case, the participants were also matched for gender, with the effect that female-female, male-male, and female-male pairings were created. The students were asked to work on the decision-making task and subsequently the spot-the-difference task for a period of 10 minutes each, and they managed to do so by switching to a different topic when they had run out of ideas or speculating about the picture when they had identified all the differences. Participants were given five minutes to prepare for each task by examining the materials and generating ideas, but no assistance with respect to the TL was offered. The tasks were performed outside of regular class time, with all students being placed in distant parts of a large room and the interactions in each pair being audio-recorded by means of dictaphones and then transcribed. On completion of the tasks, the participants were also requested to fill out the English version of the LSS as their TL proficiency was deemed adequate to understand the statements and instructions.

Analyses

The collected data in the form of recordings, transcripts, and responses to the LSS were analyzed quantitatively and qualitatively. Quantitative analysis involved: (1) tabulating instances of NI for each pair and task and then further breaking them down into those representing NM and NF, (2) calculating instances of OM for each pair and each task, with a further breakdown into those that followed NM or NF (the researcher initially planned to tabulate the instances of successful and unsuccessful OM, but this was later abandoned due to extremely low incidence of output adjustments), (3) tabulating instances of NI, NM, NF, and OM for different

pairs in terms of proficiency and gender, and (4) adding up the responses for statements comprising the 11 different dimensions of the LSS to determine the learning style profiles of the students. In view of the small number of participants and instances of NI, a decision was made to rely on exclusively descriptive statistics in order to calculate the totals and percentages. Qualitative analysis was employed to examine the nature of NI (e.g., contexts in which it transpired, the nature of responses, etc.) and the role of learning style preferences in this respect. It should be noted at this juncture that, due to space limitations, the analysis of the link of learning styles to NI will be confined to two pairs which performed different tasks and represented different arrangements in terms of proficiency and gender (i.e., same vs. different).

Results

Table 1 presents the results of the quantitative analysis of the interactions that took place in the six dyads as the students were performing the two tasks, focusing on the raw numbers of instances of NI, NM, NF, and OM. Figure 1 provides a graphic illustration of the relationship between NI and OM and proficiency, by comparing the scores of same- and mixed-gender pairings for the two tasks separately as well as in total, while Figure 2 does the same for gender. One is immediately struck by the extremely low frequency of the phenomena under investigation. There were just 21 instances of NI and 18 cases of OM across the two tasks, which translates into 1.75 and 1.5 instances per pair, respectively (for comparison sake, Foster [1998] reported from 2 to 16 NI moves and from zero to three instances of OM in similar tasks). It is also obvious from the analysis that, when NI did occur, it tended to take the form of NM, where the message being conveyed was clarified, rather than NF, where the negotiated sequence was prompted by corrective response to an error (18 vs. 3 instances). The students modified their output a total of 18 times, which constitutes 85.7% of all the cases of NI. While there were considerably more instances of OM when the exchange was triggered by message conveyance rather than an error (16 vs. 2), making comparisons does not make much sense in view of the fact that only three instances of NF were observed in the data. It is also evident from Table 1 that it was the spot-the-difference task with its requirement for an exchange of information that generated substantially more cases of NI than the decision-making task (15 vs. 6), more instances of NM and NF (12 vs. 6 and 3 vs. 0), and more situations in which the initial utterance was subject to modification.

Table 1. Instances of negotiated interaction (NI), negotiation of meaning (NM), negotiation of form (NF), and output modifications (OM) in the two tasks (*P* stands for *pair,* *F* and *M* stand for *female* and *male*)

Category	Task 1 (decision-making)						Task 2 (spot-the-difference)					
	Similar level			Different level			Similar level			Different level		
	P1 M-M	**P2** F-M	**P3** F-F	**P4** M-M	**P5** F-M	**P6** F-F	**P1** M-M	**P2** F-M	**P3** F-F	**P4** M-M	**P5** F-M	**P6** F-F
Pair scores												
NI (OM)	1 (0)	1 (1)	2 (2)	1 (0)	0 (0)	1 (1)	5 (4)	0 (0)	2 (2)	4 (4)	1 (1)	3 (3)
NM (OM)	1 (0)	1 (1)	2 (2)	1 (0)	0 (0)	1 (1)	4 (4)	0 (0)	1 (1)	3 (3)	1 (1)	3 (3)
NF (OM)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)	1 (1)	1 (1)	0 (0)	0 (0)
Pair totals												
NI (OM)	4 (3)			2 (1)			7 (6)			8 (8)		
NM (OM)	4 (3)			2 (1)			5 (5)			7 (7)		
NF (OM)	0 (0)			0 (0)			2 (1)			1 (1)		
Task totals												
NI			6						15			
NM (OM)			6 (4)						12 (12)			
NF (OM)			0 (0)						3 (2)			

As can be seen from Table 1 and Figure 1, the differences between pairings comprised of students representing similar and different proficiency levels were minute, and comparisons are compounded by very low incidences of NI and its realizations. On the whole, NI occurred more often when learners were matched for proficiency than when interlocutors of different levels talked to each other, but the difference involved just once instance of NI (11 vs. 10). No differences were observed between the two types of pairings for NM (9 in both conditions), and the disparity in the case of NF was yet again minimal (2 vs. 1). Similar- and mixed-level dyads were equally likely to modify their output as a consequence of NI (9 instances in both types of pairings). It should be pointed out that the effect of TL level was mediated by the type of task since, while similar-level dyads engaged in NI and OM more than different-level dyads during the decision-making task (4 vs. 2 for NI and 3 vs. 1 for OM), the opposite was true for the spot-the-difference task (7 vs. 8 for NI and 6 vs. 8 for OM). Given the small numbers of NI and OM overall, it is difficult to talk about any clear-cut patterns that would allow making claims about causality.

The situation is different in the case of gender because more consistent trends could be detected. As demonstrated in Table 1 and Figure 2, when the combined results for the two tasks are considered, the most instances of NI and OM were identified in male-male dyads (11 and 8), followed by female-female pairs (8 and
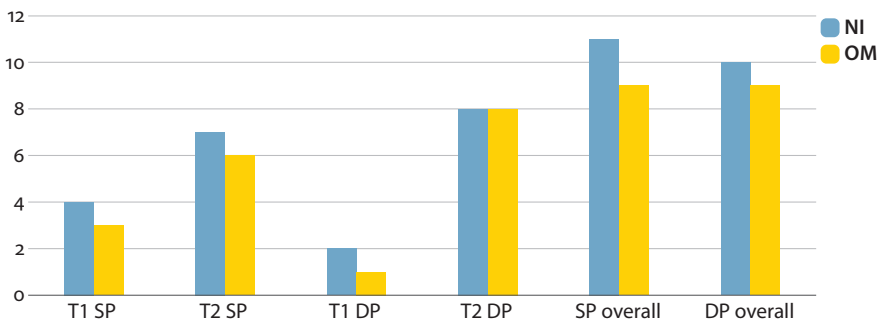
Figure 1. The occurrence of negotiated interaction and output modifications as a function of proficiency (*T1* and *T2* indicate *Task 1* and *Task 2*; *SP* and *DP* indicate *similar proficiency* and *different proficiency*)

8), and female-male dyads (2 and 2), which may speak to the superiority of the same-gender arrangements in the current study which produced over 90% and 75% of all instances of NI and OM, respectively. A similar trend is visible in the case of NM, with 9 such instances for M-M, 7 for F-F, and just 2 for F-M, as well as NF, with the respective values equaling 2, 1, and 0. Also in this case the mediating effect of task type could be observed since, for example, the majority of instances of NI and OM for same-gender pairings occurred during the completion of the spot-the-differences task (9 instances of NI and 8 of OM for M-M dyads, and 5 instances of NI and 5 of OM for F-F pairs). In addition, when completing the decision-making task, females interacting with each other generated more instances of NI and OM than males (3 and 3 vs. 2 and 0, respectively),
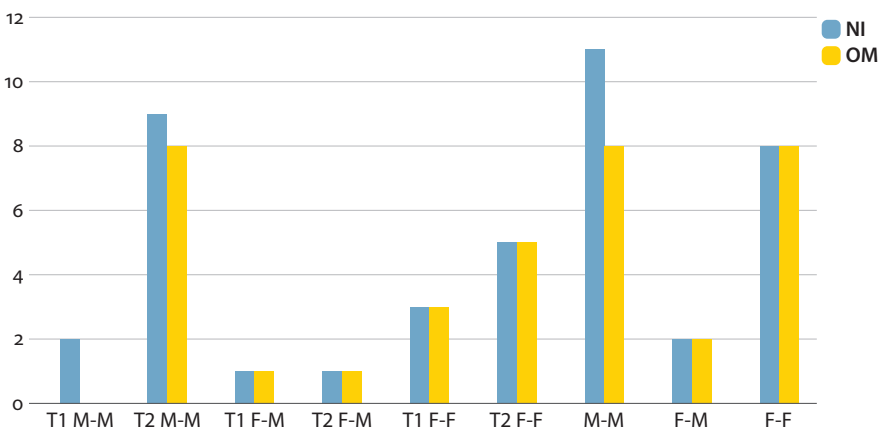

Figure 2. The occurrence of negotiated interaction and output modifications as a function of gender (*T1* and *T2* represent *Task 1* and *Task 2*; *F* and *M* refer to *females* and *males*)

while the frequency of NI remained stable, albeit low, in the tasks performed by mixed-gender pairings. Although the caveat related to the limited numbers of NI also applies in this case, the revealed tendencies are undoubtedly more pronounced than was the case with the role of proficiency.

As was elucidated above, limitations of space preclude examination of all the dyads with respect to learning style preferences and their potential link with the occurrence and effects of NI. Thus, Table 2 presents learning style profiles based on the responses to the LSS of four students comprising two pairs performing the decision-making (Pair 2) task and the spot-the-difference (Pair 4) task. The two pairs were selected because of the disparity in the frequency of NI and OM, as well as their composition in terms of proficiency and gender, with the effect that the two variables could be controlled for. It is also important to point out that the nature of the LSS allows situations when no clear-cut learning style preference can be identified, which is why the word *both* sometimes was included in the table to describe the learning style dimensions of some participants. While caution has to be exercised when interpreting data gleaned from four participants, an attempt can still be made to determine a constellation of learning style preferences that is likely to enhance NI. When the differences between the two pairs are examined, it turns out that both students in Pair 4, where more NI took place, were auditory, field-dependent, and introverted, and one of them was characterized by the open style, whereas participants in Pair 2 were both field-independent, closure-oriented,

Table 2. The learning styles of students in two pairs with high and low frequency of NI (*SP* and *DP* indicate *similar proficiency* and *different proficiency*; *F* and *M* refer to *females* and *males; bold type is used to highlight the key differences in terms of learning styles between the two pairs*)

Pair 2 SP F-M Task 1 (decision-making) NI (OM) – 1 (1)		Pair 4 DP M-M Task 2 (spot-the-difference) NI (OM) – 4 (4)	
Student 1	*Student 2*	*Student 1*	*Student 2*
tactile	auditory	*auditory*	*auditory*
extraverted	introverted	*introverted*	*introverted*
random/intuitive	both	both	random/intuitive
closure-oriented	*closure-oriented*	*open*	both
particular	global	global	both
analytic	synthesizing	synthesizing	synthesizing
leveler	sharpener	leveler	sharpener
both	inductive	deductive	inductive
field-independent	*field-independent*	*field-dependent*	*field-dependent*
both	impulsive	reflective	impulsive
metaphoric	*metaphoric*	literal	both

and metaphoric. Similar to proficiency and gender, it can be assumed that task type also played a major role in shaping the way in which learning styles contributed to a greater amount of NI.

While the *quantity* of NI, which was adopted as a point of reference in the analyses presented thus far is revealing, much more important is in fact the *quality* of NI, as its occurrence *per se* does not guarantee beneficial effects on L2 acquisition. With this in mind, several important observations should be made on the nature of the student-student interactions that emanated from qualitative analysis. First, generally speaking, there were major differences in the amount of the TL used in the decision-making and spot-the-difference tasks, with the former generating more interaction consisting of longer turns, and the latter being characterized by less L2 use and the predominance of very short turns, often comprising single words (e.g., *yes* uttered in response to a sentence about the picture) or fixed phrases (e.g., *there is, I have*). Second, concern with the goals of the tasks was clearly visible, and at times one can hardly avoid the impression that the participants were simply going through the motions, promptly commenting on the utility of the tools that could help them survive in the desert (decision-making task) or mentioning elements of the pictures one by one to identify the differences (spot-the-difference task). Third, irrespective of the task, the students manifested little creativity in their interactions, seldom going beyond the material in hand, expanding on their ideas or those of their interlocutors, or commenting on the pictures. Fourth, there were numerous cases of avoidance where participants gave up on ideas they had difficulty in expressing or switched to a different element of the pictures when they realized that they lacked requisite lexis. Fifth, the students' mother tongue was used on some occasions, particularly to refer to procedural issues related to task completion. Sixth, there were serious problems with pragmatics (e.g., in terms of appropriate use of the TL), especially with respect to expressing agreement or disagreement, and discourse structure, particularly with respect to turn-taking, as transitions deviated a lot from what transpires in naturalistic discourse. Seventh, even though different types of errors occurred frequently during the interactions, they were typically ignored as participants did not seem to be overly concerned with accuracy. Finally, and most relevant to the focus of this study, when instances of NI did occur, they were usually very limited in scope. Output modifications often consisted of mere repetitions of what was said previously without an attempt to elaborate on the message or improve upon the TL used and, in the two cases where NF led to a change of the original utterance, the error was not eliminated and the interlocutor did not try to follow up. All of this shows that the presence of NI may have been somewhat irrelevant as it did not substantially contribute to successful execution of the tasks, whether or not it was moderated by the ID factors under investigation.

Discussion

Based on the findings reported above, an attempt to respond to the research questions formulated will be made in this section, and the limitations of the study will also be addressed. For the sake of clarity, each issue will be discussed in a separate subsection.

Frequency, nature, and outcome of negotiated interaction

Instances of NI were very rare, with an average of 1.75 per task. This value is much lower than in many similar recent research projects (e.g., Solon, 2017), but it is still higher than in the study conducted by Pawlak (2006), who reported the frequency of NI of merely 0.66 per task. On the whole, however, the findings can be said to mirror those of several other studies that have shown a paucity of NI in different contexts (e.g., Eckerth, 2009; Foster, 1998; Foster & Ohta, 2005; Pica, 2002). Even though the interactions abounded in various types of errors, the majority of negotiated sequences were motivated by a misunderstanding, taking the form of NM. NI led to OM 85.7% of the time, which again is higher than the 51.4% that Pawlak (2006) reported for naturally-occurring classes in a Polish secondary school. Similar to the results of many previous studies (e.g., Doughty & Pica, 1986; Eckerth, 2009; Foster, 1998; Pawlak, 2006), the required information exchange task (i.e., spot-the-difference) was found to result in a substantially greater amount of NI and OM than the optional information exchange task (i.e., decision-making). The sheer number of instances of NI notwithstanding, the quality of the TL produced was low, at the levels of accuracy, appropriateness, and discourse structure, some cases of L1 use were detected, and the participants exhibited little creativity, confining themselves to the attainment of the goals planned for each task. When instances of NI occurred, they were limited and superficial, and the OM they triggered often constituted repetitions of what was said before, in many cases containing inaccurate language. In consequence, it is difficult to see how NI of this kind could have contributed either to task completion or TL development.

In light of the fact that the participants were English majors in the last year of a three-year BA program, such findings are surprising. At first blush, one would be tempted to speculate that the tasks the students completed were not captivating enough or were simply too easy for that level, which led to boredom, lack of motivation, and little engagement in the execution of the activities. This explanation could perhaps be seen as cogent, convincing, and sufficient were it not for the fact that the students were visibly involved in the tasks and commented later that they wished such activities were included more often in their conversation classes. What is more, if the tasks did not pose an adequate challenge, this might only explain the nature

of interaction and the low incidence of NI, but surely not the low quality of the TL. Thus, it might be speculated that participants' TL proficiency was not as high as could have been assumed given the level in the program, which was acutely visible in the case of turn-taking and pragmatic features. Even if we assume that the nature of the interaction was a corollary of the requirements of the two tasks (cf. Philp, Adams, & Iwashita, 2013), English majors can surely be expected to use the TL more creatively, in ways that are more accurate, appropriate, and context-sensitive. This does not reflect well on the instruction that students had received in the intensive English course and appears to suggest that changes are needed in terms of its foci, implementation, and assessment procedures.

The relationship between proficiency, gender, and learning style, and negotiated interaction

In view of the above, any claims about the relationship between the ID factors under investigation and the occurrence, nature, and outcomes of NI must be taken with circumspection, a problem that is exacerbated by the fact that the interaction of only six pairs of learners was investigated and that the constellation of variables was slightly different in each case. Although there were more instances of NI in similar-level dyads than mixed-level pairs, the difference was almost negligible, with the amount of NM and OM being exactly the same. This is consistent with the results reported by Pawlak (2006), but stands in contrast to the outcomes of other studies referred to earlier (e.g., Leeser, 2004; Kim & McDonough, 2008; Porter, 1986; Shin et al., 2015) as they showed an array of benefits of mixed-proficiency groupings in NI. One reason for the discrepancy could be that the differences in the level of TL proficiency of the participants were not pronounced enough, which is related to the fact that all of them were English majors just about to graduate from the BA program. In other words, although there were surely more and less proficient students in the third year, as demonstrated by grades on the final exam and in the conversation class, their overall level was still rather high, in all likelihood sufficient to successfully complete the two tasks, although the quality of TL use may have left much to be desired. This is a crucial consideration that should be heeded in similar research projects in the future. The evidence for the mediating role of gender was more compelling, with mixed-gender dyads producing the overwhelming majority of both NI and OM (over 90% and 75%, respectively), and male-male pairings also being effective in this respect. These findings run counter to at least some of the results reported by Gass and Varonis (1986), Pica et al. (1989), Ross-Feldman (2007), and Nakatsukasa (2017), but they are consistent with those obtained by Oliver (2002) and Pawlak (2006). Yet again, the results can be the corollary of the context in which the study was conducted (a Bachelor of Arts program in English),

which is quite different from the settings in which other studies took place, although it cannot be ruled out that other ID variables that were not explored in this study could have come into play as well. Empirical evidence is the most tenuous in the case of the impact of learning styles as it is based on the analysis of LSS-based profiles of students in just two pairs completing different tasks. Although extreme caution has to be exercised when interpreting the obtained data, it was found that a situation in which both students are auditory, field-dependent, and introverted, and one of them is characterized by an open style, leads to a higher incidence of NI. While the importance of field-dependence for the effects of CF was also recognized by Rassaei (2015) and the positive role of auditory and open styles for interaction is unsurprising, the presence of introversion in the myriad of factors conducive to NI is surely unexpected. This is because extraversion has been found to correlate with superior fluency (Dewaele & Turnham, 1999) and it is also likely to lead to more instances of incidental focus on form (Kim & Nassaji, 2017). On the other hand, NI may also benefit from a degree of controlled processing and the ability to engage in independent analysis typical of introversion, particularly with respect to activities that call for considerable focus on details, as was the case with the spot-the-difference task. This last point brings to the fore the role of the interaction of ID variables with task type and also with each other, which was the focus of the third research question.

Interaction between proficiency, gender, learning style, and task type

Looking at the results of the study, it is possible to identify combinations of ID factors and task-related variables that are the most and the least conducive to NI, although it has to be kept in mind that, due to the limited data, any tendencies in this respect have to be viewed as tentative. When it comes to arrangements most likely to trigger instances of NI and OM, these were pairs composed of students of the same gender, particularly males, representing similar or different levels of TL proficiency, and being characterized by auditory, field-dependent, introverted, and open learning styles. The least conducive to the occurrence of NI and OM was an arrangement in which closure-oriented, field-independent students, who clashed on some other learning style dimensions (e.g., tactile vs. auditory or introverted vs. extraverted), worked on task completion in mixed-gender dyads, with proficiency being largely irrelevant. Additionally, there was much individual variation between the pairs, which might indicate that the most favorable conditions for the occurrence of NI extended beyond the impact of the variables investigated in this study. However, the effect of ID variables and constellations thereof was trumped by task type, since the benefits of any specific arrangement were visible only in the

required information exchange task, which is by and large in line with findings of previous research (e.g., Doughty & Pica, 1986; Eckerth, 2009; Foster, 1998; Pawlak, 2006). Finally, it should be emphasized that the identification of arrangements most likely to spark NI may be of little relevance if such sequences cannot be shown to aid task execution and L2 acquisition, as was the case in this study.

Limitations

As pointed out on several occasions above, the findings of the study have to be interpreted with caution as they suffer from some important limitations. First, both the number of participants (12) and the number of dyads they created (6) was small, with the effect that conclusions about the role of specific arrangements in generating NI sometimes had to be made on the basis of a single source of data (e.g., mixed-gender pairs of similar proficiency on the spot-the difference task). Second, the overall numbers of NI, NM, NF, and OM were very low, which made it exceedingly difficult to gain insights into the mediating effect of the ID variables in question. Third, closely related to the previous point, the tasks chosen for the purpose of the study may not have been demanding enough, which may have obviated the need for NI and largely canceled out the effect of differences in proficiency. Fourth, while the LSS (Cohen et al., 2001) is without doubt a useful tool for investigating learning style preferences, the data it produced was too multidimensional given the small number or participants and contexts, which precluded observations concerning a more generalized impact of learning style on NI. In retrospect, it would have made more sense to tap into learning styles before the tasks were performed so that participants could be matched in this respect. Finally, this was a laboratory study, the results of which may not translate into classroom interaction (Foster, 1998; Lyster & Saito, 2010), although it is difficult to see how combinations of the factors in question could be profitably investigated in naturally-occurring classroom discourse. Such weaknesses should without doubt be taken into consideration when conducting future studies.

Conclusion

The study reported in the present chapter attempted to contribute to the scant body of research on the mediating effect of ID variables on the process and product of interaction by looking into the impact of proficiency, gender, and learning styles in this respect. Even though the shortfalls of the research project do not allow for making definitive claims, there is some evidence that the occurrence, nature, and

outcomes of negotiated interaction were to some extent mediated by gender and learning styles, which interacted with each other as well as task type. Obviously, the empirical evidence obtained in the course of the study constitutes just one piece of the puzzle with respect to the moderating role of ID factors, particularly in the case of English majors in Poland, where such research has not been conducted thus far. For this reason, there is an urgent need for more studies that would address the contribution of proficiency, gender, and learning style but also other ID variables that have been neglected by specialists, such as motivation, WTC, anxiety or communication strategies, also taking account of different task variables (e.g., other types of tasks, planning, the learning environment). In light of the limited occurrence of negotiated interaction reported in this study and its overall low quality, the role of engagement (e.g., cognitive, affective, or social, cf. Baralt, Gurzynski-Weiss, & Kim, 2016) on task performance and its interaction with ID variables should also be considered. Finally, an interesting line of inquiry would be the examination of the mediating effects of ID factors on training students in initiating and reacting to negotiated sequences, including different types of CF (e.g., Sato & Lyster, 2012). The findings of the study are also valuable from a purely pedagogical perspective as they suggest that the intensive language instruction that the English majors receive could be flawed and may be in need of modification. In particular, it seems that it should focus to a greater extent on everyday conversations in different contexts, laying greater store by sociocultural and pragmatic issues, and, possibly, training students in how to make the most of negotiated interaction and CF. The role of future research is, among others, to facilitate the handling of these educational challenges by offering insights into how ID variables can mediate the effects of such pedagogic interventions.

References

Adams, R., Nuevo, A. M., & Egi, T. (2011). Explicit and implicit feedback, modified output, and SLA: Does explicit and implicit feedback promote learning and learner-learner interactions? *Modern Language Journal*, 95, 42–63. https://doi.org/10.1111/j.1540-4781.2011.01242.x

Ammar, A. (2008). Prompts and recasts: Differential effects on second language morphosyntax. *Language Teaching Research*, 12, 183–210. https://doi.org/10.1177/1362168807086287

Baralt, M., & Gurzynski-Weiss, L. (2011). Comparing learners' state anxiety during task-based interaction in computer-mediated and face-to-face communication. *Language Teaching Research*, 15, 201–229. https://doi.org/10.1177/0265532210388717

Baralt, M., Gurzynski-Weiss, L., & Kim, Y. (2016). Engagement with the language: How examining learners' affective and social engagement explains successful learner-generated attention to form. In M. Sato & S. Ballinger (Eds.), *Peer interaction and second language learning: Pedagogical potential and research agenda* (pp. 209–240). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.45.09bar

Brown, D. (2016). The type and linguistic foci of oral corrective feedback in the L2 classroom: A meta-analysis. *Language Teaching Research*, 20, 436–458. https://doi.org/10.1177/1362168814563200

Cohen, A. D. (2010). Focus on the language learner: Styles, strategies and motivation. In N. Schmitt (Ed.), *An introduction to applied linguistics* (2nd ed., pp. 161–178). London, UK: Hodder Education.

Cohen, A. D., Oxford, R. L., & Chi, J. C. (2001). *Learning style survey*. Retrieved from <http://carla.umn.edu/maxsa/documents/LearningStyleSurvey_MAXSA_IG.pdf>

Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Cambridge, UK: Cambridge University Press.

Dewaele, J. M., & Furnham, A. (1999). Extraversion: The unloved variable in applied linguistic research. *Language Learning*, 43, 509–544. https://doi.org/10.1111/0023-8333.00098

Doughty, C., & Pica, T. (1996). "Information-gap" tasks: Do they facilitate second language acquisition? *TESOL Quarterly*, 20, 305–325. https://doi.org/10.2307/3586546

Eckerth, J. (2009). Negotiated interaction in the L2 classroom. *Language Teaching*, 42, 109–130. https://doi.org/10.1017/S0261444808005442

Ellis, R. (1997). Theoretical perspectives on interaction and language learning. In R. Ellis (Ed.), *Learning a second language through interaction* (pp. 3–32). Amsterdam, Netherlands: John Benjamins.

Ellis, R. (2010). Epilogue: A framework for investigating oral and written corrective feedback. *Studies in Second Language Acquisition*, 32, 335–349. https://doi.org/10.1017/S0272263109990544

Ellis, R., Loewen, S., & Erlam, R. (2006). Implicit and explicit corrective feedback and the acquisition of L2 grammar. *Studies in Second Language Acquisition*, 28, 339–368. https://doi.org/10.1017/S0272263106060141

Foster, P. (1998). A classroom perspective on the negotiation of meaning. *Applied Linguistics*, 19(1), 1–23. https://doi.org/10.1093/applin/19.1.1

Foster, P., & Ohta, A. (2005). Negotiation for meaning and peer assistance in second language acquisition. *Applied Linguistics*, 26(3), 402–430. https://doi.org/10.1093/applin/ami014

Gass, S. M. (2003). Input and interaction. In C. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 224–255). Oxford, UK: Blackwell. https://doi.org/10.1002/9780470756492.ch9

Gass, S. M., & Mackey, A. (2015). Input, interaction, and output in second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 175–199). Mahwah, NJ: Lawrence Erlbaum Associates.

Gass, S., & Varonis, E. (1985). Variation in native speaker speech modifications to non-native speakers. *Studies in Second Language Acquisition*, 7, 37–58. https://doi.org/10.1017/S0272263100005143

Gass, S., & Varonis, E. (1986). Sex differences in NNS/NNS interactions. In R. R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp. 327–351). Rowley, MA: Newbury House.

Iwashita, N. (2001). The effect of learner proficiency on interactional moves and modified output in nonnative-nonnative interaction in Japanese as a foreign language. *System*, 29, 267–287. https://doi.org/10.1016/S0346-251X(01)00015-X

Kim, J., & Nassaji, H. (2017). Incidental focus on form and the role of learner introversion. *Language Teaching Research*, 22(6), 698–718.

Kim, Y. (2017). Cognitive-interactionist approaches to L2 instruction. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 126–145). London, UK: Routledge.

Kim, Y., & McDonough, K. (2008). The effect of interlocutor proficiency on the collaborative dialogue between Korean as a second language learners. *Language Teaching Research*, 12, 211–234. https://doi.org/10.1177/1362168807086288

Kim, Y., Payant, C., & Pearson, P. (2015). The intersection of task-based interaction, task complexity, and working memory. *Studies in Second Language Acquisition*, 37, 549–581. https://doi.org/10.1017/S0272263114000618

Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. London, UK: Longman.

Leeser, M. J. (2004). Learner proficiency and focus on form during collaborative dialogue. *Language Teaching Research*, 8(1), 55–81. https://doi.org/10.1191/1362168804lr1340a

Li, S. (2010). The effectiveness of corrective feedback in SLA: A meta-analysis. *Language Learning*, 60, 634–654. https://doi.org/10.1111/j.1467-9922.2010.00561.x

Li, S. (2013). The interactions between the effects of implicit and explicit feedback, and individual differences in language analytic ability and working memory. *Modern Language Journal*, 97, 634–654. https://doi.org/10.1111/j.1540-4781.2013.12030.x

Li, S. (2017a). Cognitive differences and ISLA. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 396–417). London, UK: Routledge.

Li, S. (2017b). The effects of cognitive aptitudes on the process and product of L2 interaction: A synthetic review. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference Research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 41–70). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.03li

Loewen, S. (2011). Focus on form. In E. Hinkel (Ed.), *Handbook of research in second language learning and teaching* (Vol. 2, pp. 576–592). London, UK: Routledge.

Loewen, S. (2015). *Instructed second language acquisition*. New York, NY: Routledge.

Loewen, S., & Erlam, R. M. (2006). Corrective feedback in the chatroom: An experimental study. *Computer Assisted Language Learning*, 19(1), 1–14. https://doi.org/10.1080/09588220600803311

Long, M. H. (1981). Input, interaction, and second language acquisition. In H. Winitz (Ed.), *Native language and foreign language acquisition* (pp. 250–278). New York, NY: Annals of the New York Academy of Sciences.

Long, M. H. (1983). Linguistic and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition*, 5, 177–193. https://doi.org/10.1017/S0272263100004848

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of research on second language acquisition* (pp. 413–468). New York, NY: Academic Press.

Long, M. H., & Robinson, P. (1998). Focus on form: Theory, research and practice. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 15–41). Cambridge, UK: Cambridge University Press.

Loschky, L. (1994). Comprehensible input and second language acquisition. What is the relationship? *Studies in Second Language Acquisition*, 16, 303–323. https://doi.org/10.1017/S0272263100013103

Lyster, R., & Saito, K. (2010). Oral feedback in classroom SLA: A meta-analysis. *Studies in Second Language Acquisition* 32, 265–302. https://doi.org/10.1017/S0272263109990520

Lyster, R., Saito, K., & Sato, M. (2013). Oral corrective feedback in second language classrooms. *Language Teaching*, 46, 1–40. https://doi.org/10.1017/S0261444812000365

Mackey, A. (2007). Introduction: The role of conversational interaction in second language acquisition. In A. Mackey (Ed.), *Conversational interaction in second language acquisition* (pp. 1–26). Oxford, UK: Oxford University Press.

Mackey, A. (2012). *Input, interaction, and corrective feedback in L2 learning*. Oxford, UK: Oxford University Press.

Mackey, A., Abbuhl, R., & Gass, S. M. (2014). Interactionist approach. In S. M. Gass & A. Mackey (Eds.), *The Routledge handbook of second language acquisition* (pp. 7–23). London: Routledge.

Mackey, A., Adams, R. J., Stafford, C. A., & Winke, P. (2010). Exploring the relationship between modified output and working memory capacity. *Language Learning*, 60, 501–533. https://doi.org/10.1111/j.1467-9922.2010.00565.x

Mackey, A., Oliver, R., & Leeman, J. (2003). Interactional input and the incorporation of feedback: An exploration of NS-NNS and NNS-NNS adult and child dyads. *Language Learning*, 53, 35–66. https://doi.org/10.1111/1467-9922.00210

McDonough, K., & Mackey, A. (Eds.). (2013). *Second language interaction in diverse educational contexts*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.34

Nakatsukasa, K. (2017). Gender and recasts: Analysis of males' and females' L2 development following verbal and gesture-enhanced recasts. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach* (pp. 99–119). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.05nak

Nassaji, H. (2015). *The interactional feedback dimension instructed second language learning. Linking theory, research, and practice*. London, UK: Bloomsbury.

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

Oliver, R. (2002). The patterns of negotiation of meaning in child interactions. *Modern Language Journal*, 86, 97–111. https://doi.org/10.1111/1540-4781.00138

Pawlak, M. (2006). On the incidence and effect of negotiation of form and meaning in group work activities: Contrasting theoretical claims with classroom reality. *IATEFL Research News*, 18, 31–35.

Pawlak, M. (2012). Individual differences in language learning and teaching: Achievements, prospects and challenges. In M. Pawlak (Ed.), *New perspectives on individual differences in language learning and teaching* (pp. xix–xlvi). Heidelberg, Germany: Springer. https://doi.org/10.1007/978-3-642-20850-8

Pawlak, M. (2015, March 21–24). Willingness to communicate as a factor influencing the effectiveness of input-providing and output-prompting oral corrective feedback, presented at the annual conference of the American Association for Applied Linguistics, Toronto, Canada.

Pawlak, M. (2014). *Error correction in the foreign language classroom: Reconsidering the issues*. Heidelberg, Germany: Springer. https://doi.org/10.1007/978-3-642-38436-3

Pawlak, M. (2017a). Individual difference variables as mediating influences on success or failure in form-focused instruction. In E. Piechurska-Kuciel, E. Szymańska-Czaplak, & M. Szyszka (Eds.), *At the crossroads: Challenges of foreign language learning* (pp. 75–92). Heidelberg, Germany: Springer Nature. https://doi.org/10.1007/978-3-319-55155-5_5

Pawlak, M. (2017b). Overview of learner individual differences and their mediating effects on the process and outcome of interaction. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference Research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 19–40). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.02paw

Philp, J. (2003). Constraints on "noticing the gap": Nonnative speakers' noticing of recasts in NS-NNS interaction. *Studies in Second Language Acquisition*, 25, 99–126. https://doi.org/10.1017/S0272263103000044

Philp, J. (2009). Epilogue: Exploring the intricacies of interaction and language development. In A. Mackey & C. Polio (Eds.), *Multiple perspectives on interaction. Second language research in honor of Susan M. Gass* (pp. 254–273). New York, NY: Routledge.

Philp, J., Adams, R., & Iwashita, N. (2013). *Peer interaction and second language learning*. London, UK: Routledge. https://doi.org/10.4324/9780203551349

Philp, J., & Gurzynski-Weiss, L. (this volume). On the role of the interlocutor in second language development: A cognitive-interactionist approach. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 19–50). Amsterdam, Netherlands: John Benjamins.

Pica, T. (2002). Subject-matter content: How does it assist the interactional and linguistic needs of classroom second language learners? *Modern Language Journal*, 86, 1–19. https://doi.org/10.1111/1540-4781.00133

Pica, T., Holliday, L., Lewis, N., & Morgenthaller, L. (1989). Comprehensible output as an outcome of linguistic demands on the learner. *Studies in Second Language Acquisition*, 11, 63–90. https://doi.org/10.1017/S027226310000783X

Pica, T., Young, R., & Doughty, C. (1987). The impact of interaction on comprehension. *TESOL Quarterly*, 21, 737–758. https://doi.org/10.2307/3586992

Porter, P. (1986). How learners talk to each other: Input and interaction in task-centered discussions. In R. R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp. 200–222). Rowley, MA: Newbury House.

Rassaei, E. (2015). Recasts, field dependence-independence cognitive style, and L2 development. *Language Teaching Research*, 19, 499–518. https://doi.org/10.1177/1362168814541713

Roberts, L., & Meyer, A. (2012). Individual differences in second language learning: Introduction. *Language Learning, 62 (Supplement 2: Individual differences in second language learning)*, 1–4.

Ross-Feldman, L. (2007). Interaction in the L2 classroom: Does gender influence learning opportunities? In A. Mackey (Ed.), *Conversational interaction in second language acquisition* (pp. 53–77). Oxford, UK: Oxford University Press.

Sagarra, N., & Abbuhl, R. (2013). Optimizing the noticing of recasts via computer-delivered feedback: Evidence that oral input enhancement and working memory help second language learning. *Modern Language Journal*, 97, 196–216. https://doi.org/10.1111/j.1540-4781.2013.01427.x

Sato, M., & Lyster, R. (2012). Peer interaction and corrective feedback for accuracy and fluency development: Monitoring, practice, and proceduralization. *Studies in Second Language Acquisition*, 34, 591–626. https://doi.org/10.1017/S0272263112000356

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129–158. https://doi.org/10.1093/applin/11.2.129

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3–32). Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9781139524780.003

Sheen, Y. (2007). The effect of corrective feedback, language aptitude and learner attitudes on the acquisition of English articles. In A. Mackey (Ed.), *Conversational interaction in second language acquisition* (pp. 301–322). Oxford, UK: Oxford University Press.

Sheen, Y. (2006). Exploring the relationship between characteristics of recasts and learner uptake. *Language Teaching Research*, 10, 361–392. https://doi.org/10.1191/1362168806lr203oa

Sheen, Y. (2008). Recasts, language anxiety, modified output, and L2 learning. *Language Learning*, 58, 835–874. https://doi.org/10.1111/j.1467-9922.2008.00480.x

Sheen, Y. (2007). The effect of corrective feedback, language aptitude and learner attitudes on the acquisition of English articles. In A. Mackey (Ed.), *Conversational interaction in second language acquisition* (pp. 301–322). Oxford, UK: Oxford University Press.

Shin, S. Y., Lidster, R., Sabra, S., & Yeager, R. (2015). The effects of L2 proficiency differences in pairs on idea units in a collaborative text reconstruction task. *Language Teaching Research*, 20, 366–386. https://doi.org/10.1177/1362168814567888

Solon, M. (2017). Interaction and phonetic form in task completion: An examination of interlocutor effects in learner-learner and learner-heritage speaker interaction. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach. Investigating learners, instructors, and other interlocutors* (pp. 121–147). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.06sol

Storch, N., & Aldosari, A. (2010). Learners' use of first language (Arabic) in pair work in an EFL class. *Language Teaching Research*, 14, 355–375. https://doi.org/10.1177/1362168810375362

Storch, N., & Aldosari, A. (2013). Pairing learners in pair work activity. *Language Teaching Research*, 17, 355–375. https://doi.org/10.1177/1362168812457530

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 235–253). Rowley, MA: Newbury House.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 471–483). Mahwah, NJ: Lawrence Erlbaum Associates.

Tavakoli, M., & Zarrinabadi, N. (2016). Differential effects of explicit and implicit corrective feedback on EFL learners' willingness to communicate. *Innovation in Language Learning and Teaching*, 10, 30–45.

Toth, P. D. (2008). Teacher- and learner-based discourse in task-based grammar instruction: Providing procedural assistance for L2 morphosyntactic development. *Language Learning*, 58, 237–283. https://doi.org/10.1111/j.1467-9922.2008.00441.x

Yule, G., & McDonald, D. (1990). Resolving referential conflicts in L2 interaction: The effect of proficiency and interactive role. *Language Learning*, 40, 539–56. https://doi.org/10.1111/j.1467-1770.1990.tb00605.x

Sociocultural theory

I ~ You > I ~ Me

The hidden other in L2 development

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An often-unquestioned assumption regarding psychological and linguistic development is that the interesting and relevant processes occur inside the head of the individual. It is a position that "fetishizes" the fact that development necessarily entails social relations as a component. Vygotsky, on the other hand, proposes that uniquely human forms of mental behavior, including language development, arise as a result of social relations: "I relate to myself as others relate to me" (1997). In other words, "I ~ You" interactions become, over time, "I ~ Me" interactions in which the voices of others are appropriated and transformed into my voice. This paper fleshes out the theoretical argument underlying the hidden or "fetishized" social other and considers the implications of this stance for second language development.

Keywords: interaction, L2 development, social other, social relations

Introduction

In this chapter I discuss the central theoretical claim at the heart of L. S. Vygotsky's theory of general psychology along with its relevance for L2 research. The claim, to be fleshed out in the chapter, is that human mental behavior is *mediated* both in its development and in its functioning. What this means is that the primary mechanism of thinking and its development is situated not inside of the head (i.e., the brain) but in what Vygotsky (1994) referred to as the 'social situation of development'. In other words, development of mind and the capacity to think consciously emerges from the social interactions that occur between interlocutors. On this view, the mind/brain, frequently referenced as such in linguistics, psychology, and L2 literature, are not equivalent, nor can the mind be reduced to, and explained solely on the basis of, brain functions. Certainly, the brain is an indispensable organ for thinking, but so is the rest of our body and its activity in the world (Arievitch, 2017).

The mind encompasses the brain, but it alone is not sufficient to account for the formation and operation of the mind. Full explication of the mind/brain distinction is beyond the scope of this chapter as it would require an in-depth discussion of all of the concepts entailed in sociocultural theory. My intent, instead, is to focus on the central concept of mediation, its origins and what it means for the development of the capacity to create and express communicatively effective meaning through language, including any beyond the first. How the notion of mediation relates to the topic of the present volume will be made clear in the discussion that follows. For now, I will simply point out that mediation fundamentally arises in the dialogic interaction that transpires between individuals as they engage in goal-directed activity. In this view, there is no context independent of who is interacting. In other words, everything is about differences because interlocutors are always different either as individual people or as the same people at different points in time. Thus, in a sense, for sociocultural theory, individual difference is all there is.

The chapter first discusses briefly the theoretical principles and concepts of sociocultural theory as a dialectical rather than dualistic approach to psychological and psycholinguistic theorizing. It then focuses on the key concept of mediation, which assigns a central role to social interaction whereby interlocutors influence in a significant way our psychological and psycholinguistic development. How mediation through social interaction figures into L2 development is then considered with examples drawn from the writings of Eva Hoffman (1989) and from research on multilingual Deaf signers. Next, the chapter delves a bit deeper into the nature of the dialectical unity between social mediation and neural processes as reflected in the L2 research on gesture-speech interface inspired by the growth-point model proposed by David McNeill (1992, 2005). Finally, pedagogical implications of the perspective on the interlocutor developed in the chapter are offered. Specifically, it is argued that if instruction is properly organized it can serve a compensatory function for the role that other interlocutors play in the development of children into adult ways of thinking and speaking in their L1 and for L2 learners as they engage with other speakers of the language in everyday communicative activity.

Background

To appreciate Vygotsky's stance on mediation and its role in mental development, it is necessary to recognize the materialist foundation of his theoretical thinking. In his foundational manuscript, *The Historical Meaning of the Crisis in Psychology* (see Vygotsky, 1987), Vygotsky laid out the framework for a materialist psychology based on principles of Marxist theory, which, to put it perhaps somewhat

simplistically, brought Hegel's notion of dialectics into contact with Feuerbach's materialist philosophy – a philosophy that rejected the Cartesian spiritual/material dualism that dominated European thought and which is still alive and well in modern psychology and linguistics (see Chomsky, 1966). To make a long story short, materialism proposes that matter is the only reality that exists and that phenomena such as mind and consciousness result from interactions between different forms of matter. This includes practical goal-directed activity carried out by humans, one form of matter, operating on other forms of matters (e.g., wood, rocks, other animals, each other).

Peter (2017, p. 186) observes that Feuerbach's influence on Vygotsky's thinking can be found throughout a good many of his manuscripts, including several of his later works, and most notably his summative work, *Thinking and Speech*, where we read, at its conclusion, the following statement: "In consciousness, the word is what – in Feuerbach's words – is absolutely impossible for one person but possible for two. The word is the most direct manifestation of the historical nature of human consciousness" (Vygotsky, 1987, p. 285). The significance of this statement for Vygotsky's theory cannot be overstated. For one thing, it indicates the link he insisted on between thinking and speaking. For another it reveals the relevance of mediation, understood as the interaction between interlocutors, for the formation of consciousness. According to Peter (2017, p. 188), Feuerbach considered the unity of interlocutors as the key to understanding human nature: "The essence of man [*sic*] is contained only in the community, in the unity of man with man – a unity, however, which is based only on the reality of the distinction between I and thou" (Feuerbach, 1966, p. 71). In another work, Feuerbach (1854/1957, p. 72), again according to Peter (2017, p. 188), stressed the necessity of the other for the formation of the self: "the secret of communal and social life, the secret of the necessity of the 'thou' for an 'I.'"

What all of this means for sociocultural theory is that thinking develops as a consequence of the cultural meanings, or as Gibson (1979) might argue, affordances, made available and appropriated by children during the I ~ You dialogues they engage in with members of their culture. In these dialogues the agentive child (I) is symbolically regulated by, and in turn, regulates, representatives of the culture. In the early days of childhood these representatives are usually parents and other family members but eventually, as children grow, they encounter and interact with other interlocutors, such as playmates, teachers, co-workers, service people, institutional representatives, and the like, who also function as regulating others (i.e., 'Yous'). Their voices, at first overtly expressed in communicative interaction as a 'You' to 'I', provide us with new understandings, motives, ways of behaving, and of course, thinking and speaking.

Mediation

From the moment of birth, and some argue (e.g., Arievitch, 2017) that even prior to our appearance in the world, humans are immersed in a social world that shapes our behavior in a myriad of ways that we are at best only vaguely aware of. The behavior includes mental as well as physical activity. Early in the pre-linguistic period of our life, the influence of the social world largely occurs through the activities of our parents and other caregivers as they address our biological needs, including satisfying hunger and the need for emotional comfort and attachment. These needs are met through culturally sanctioned practices that at first are carried out through physical means (e.g., positioning of our bodies as we are fed, put to sleep, cuddled, played with). These practices in turn begin to shape our way of relating to, and participating in, the world and subsequently construct our individual psychology. As language enters the picture, many activities that were once carried out through physical means are achieved symbolically, as our parents, and other caregivers, talk to us and we to them, again in culturally sanctioned ways (Arievitch, 2017). This talk has even more profound consequences on the formation of our psychological functioning as we appropriate the meanings of our community and make them our own (Wertsch, 1991).

As we mature and integrate into our cultural communities, we appropriate and make our own, as Bakhtin suggests (Wertsch, 1991), the voices of the others, and what was originally an 'I' ~ 'You' external dialogue becomes an 'I' ~ 'Me' internal dialogue. As Vygotsky (1997, p. 103) wrote, "Initially, the sign is always a means of social connection, a means of affecting others, and only later does it become a means of affecting oneself." In the internal dialogue, the agentive 'I' which thinks, speaks, and acts, is changed as it interacts with the regulating 'Me', as happens in I ~ You interactions between self and others. However, the Me also adjusts to the I, as also happens in I ~ You interactions, as when parents, teachers, siblings, playmates, etc. adjust to the thinking, speaking, and acting I. Thus, I ~ Me "self-talk integrates individual and society into a unique *intertextuality* [italics in original] … the individual and the internalized other continue to exist in the subsequently changed self because it is a response to its predecessors (I & You) and retains elements of them as part of itself" (Vocate, 1994, p. 12). As a result, "the social environment is always present and has a role in any act of self-talk" (Vocate, 1994, p. 13). Thus, even though we seem to think and speak as individual 'I', the social dimension of our psychology is maintained, and for this reason, Vygotsky (1978, 1987) frequently referred to the 'quasi-social' nature of human mental activity. In essence, 'You' is also present.

If we overlook the history of the development (ontogenesis) of the individual and focus only on the person engaged in thinking, speaking, acting, the other (You) remains invisible, and consequently, its social foundation (I ~ You / I ~ Me)

is 'fetishized', a concept frequently used by Marx (see Harvey, 2010) to describe the illusion that some object or event is natural rather than arising from social processes (e.g., food sold in supermarkets, houses, automobiles, thinking, speaking, acting), thus alienating humans "both from the product of their activity and from their own creative powers" (Bakhurst, 1991, p. 193). It is interesting to point out that in a recently discovered document in the family archives, Vygotsky noted that linguistic theory converted language into a natural object that hides intrinsic social relations and the unity of thinking and speaking as a historically social act (Zavershneva, 2016). Indeed, Harris (2003) lays a good deal of the blame for the fetishization of language at Saussure's doorstep when, in his attempt to convert language into a natural object that could be studied in accordance with the methods of the natural sciences, he segregated language from its users, leaving what Agar (1994, p. 37) metaphorically describes as "a pure, clean, steel skyscraper rising above the chaos of the street" that could be studied for its structure with little concern for anything other than referential meaning.

Perhaps the most significant consequence of fetishizing language was to move dialogue to the shadows, if not off the stage completely, while throwing the spotlight on 'sentence' as the privileged unit of linguistic theorizing – the unit comprising a solipsistic, asocial, and monologic 'I.' According to Voloshinov (1973, p. 110), "as long as utterance [the I ~ You component of dialogue], in its wholeness, remains *terra incognita* [italics in original] for the linguist, it is out of the question to speak of a genuine, concrete, and not scholastic kind of understanding of syntactic forms." This leaves us with a linguistics of "stable and always self-equivalent" *signals* that are "internally fixed" and do not "stand for anything else, or reflect or refract anything" but instead serve as "a technical means for indicating this or that object or this or that action" (Voloshinov, 1973, p. 68). What is needed is a linguistics of *signs,* which are fundamentally social, "always changeable and adaptable" and manifest a "speaker's point of view" (Voloshinov, 1973, p. 68). Signals demand recognition of identity, such as in the colors of a traffic light, or the words and grammatical rules extracted from context (that is from utterances) that are offered students in many L2 classrooms, while signs must be understood, which requires detecting "novelty" in a "particular context" (Voloshinov, 1973, p. 69). This, of course, does not mean that recognition and signality do not figure into language; they do. It does mean, however, that understanding the novelty and mutability of signs constructed by interlocutors in dialogue is constitutive of language (p. 69).

What I think is a compelling example of the relevance of mediation by dialogic partners is found in Vygotsky's writings emanating from the clinical center he established to work with individuals exhibiting psychological problems (see Vygotsky, 1990). A pervasive problem at the time was characterized by Vygotsky as *primitiveness,* a condition afflicting abandoned children living without caregivers

on the streets of Moscow and defined as children who had "not completed cultural development" (Vygotsky, 1990, p. 43). He distinguished primitive children from mentally challenged children on the basis of their lack of a sufficiently rich language system, the absence of which restricts their abstract thinking ability and limits them consequently to practical knowledge of the world. Vygotsky documents a case addressed by one of his colleagues at the clinic who worked with a nine-year-old girl who spoke two languages simultaneously, Tatar and Russian, neither of which she had fully mastered (p. 44). The researcher suggested that there was a link between the child's language deficits and the development of mature, especially, abstract, thinking. When the researcher presented the following situation to the girl, "In one school some children write well, and some draw well" and then asked, "Do all the children in this school write and draw well?", the child responded "How should I know? What I haven't seen with my own eyes I cannot explain it as if I had seen with my own eyes" (p. 46).

The same researcher, working with a young street boy, asked the child to describe the difference between a tree and a log (p. 46), whereupon the boy responded, "I haven't seen a tree, I swear I haven't seen one" (p. 46). As it happened, right in front of the window where the interaction took place there was a linden tree to which the researcher pointed and asked the child "And what is this?" The answer was "It's a linden" (p. 46). Vygotsky (1990, p. 46) points out that "tree" was "too abstract for the concrete nature of the boy's mind" and reminds us that "the boy was correct: none of us has seen a tree. We've seen birches, willows, pines, and so forth, that is specific species of trees" (p. 46). This is because "tree" is not a natural kind but an abstract human creation that allows us to coalesce a group of seemingly similar objects into a specific category (see Danziger, 1997, on natural and human kinds).

The children, as Vygotsky (1990, p. 46) points out, are not incapable of communicating through language in order to explain what they see but they have "not mastered the use of words as tools for abstract thinking." In other words, the children manifested an "imperfect command of language" because they had not yet culturally developed to the point where they were able to use language as a psychological tool (Vygotsky, 1990, p. 44) – an ability that depends heavily on dialogic interaction with interlocutors. Without such interaction, which provides the models for the formation of an appropriate communicative system, development will be inhibited, as in the case of the children investigated in Vygotsky's clinic. Moreover, Vygotsky also suggested that, in the absence of an adult model in particular, development is likely to occur in "an extremely peculiar way" (Vygotsky, 1994, p. 350).

Implications of interlocutors for L2 development

In this section I will consider several examples in which the voice of interlocutors appears to play an essential role in the development of the ability to effectively use language not only to communicate but to think and to build a sense of identity. While the literature is replete with such examples (see also Geeslin, Chapter 6; Larsen-Freeman, Chapter 8; Serafini, Chapter 9), I believe that the examples I have selected nicely illustrate the relevance of interlocutors for the formation of language capacity (see also Philp & Gurzynski-Weiss, Chapter 2; Pawlak, Chapter 3; Serafini, Chapter 9). The first example is drawn from the well-known story of Eva Hoffman, who wrote about her transition from a young Polish-speaking child to a North-American English-speaking adult. The second example comes from research on Deaf children and the consequences of the multilingual environment in which these children frequently find themselves as they transition from home to school. It might be somewhat surprising to discover the inclusion of studies addressing the language and cognitive ability of Deaf children, but I nevertheless believe, as I hope will become clear, that research with Deaf children has implications for the compensatory role that formal education can take when interaction with interlocutors in everyday communication seems to be inadequate to promote language development (but see Geeslin, Chapter 6). The final example focuses on the study of a single adult learner of L2 English reported on by Stam (2015) in which the native Spanish speaker immersed herself in an English-speaking environment for more than a decade and yet had issues appropriating specific concepts relating to motion events. At first glance this research might appear unrelated to the research involving Deaf children; however, as I will argue, in at least one aspect, the relevance of formal education – a key activity for Vygotsky's psychological theory – they are related.

Rebuilding I ~ Me: The case of Eva Hoffman

Hoffman's family began their new life in a Canadian English-speaking community when she was approaching adolescence. As she transitioned from Polish to English, she regretted the loss of her ability to make sense of the daily events of her life, because she could no longer use Polish to organize the events into a coherent story: Polish "words don't apply to my new experiences, they're not coeval with any of the objects, or faces or the very air I breathe in the daytime" (Hoffman, 1989, p. 107). At the same time, English was limited to a referential function and did "not give off the radiating haze of connotation. It does not evoke" (Hoffman, 1989, p. 106).

In a very real sense Hoffman found herself suspended between two langua-cultures (see Agar, 1994) where her Polish "I ~ Me" dialogue no longer served to orient and regulate her thinking and she had yet to develop an equivalent inner dialogue in English: "I exist in the stasis of a perpetual present, that other side of 'living in the present', which is not eternity but a prison. I can't throw a bridge between the present and the past, and therefore I can't make time move" (Hoffman, 1989, p. 117). To make time move once again, Hoffman appropriated the voices of her new English-speaking interlocutors and made them her own, as the following excerpt powerfully attests:

> All around me, the Babel of American voices, hardy Midwestern voices, sassy New York voices, quick youthful voices, voices arching under the pressure of various crosscurrents. … Since I lack a voice of my own, the voices of others' invade me as if I were a silent ventriloquist. They ricochet within me, carrying on conversations, lending me their modulations, intonations, rhythms. I do not yet possess them; they possess me. But some of them satisfy a need; some of them stick to my ribs. … Eventually, the voices enter me; by assuming them, I gradually make them mine. I am being remade, fragment by fragment, like a patchwork quilt; there are more colors in the world than I ever knew.   (Hoffman, 1989, p. 219–220)

Hoffman's linguistic and psychological transformation from a Polish child to a North-American woman is complete as a new "I ~ Me" dialogue emerges from her "I ~ You" interactions: "at those moments when I am alone, walking or letting my thoughts meander before falling asleep, the internal dialogue proceeds in English. I no longer triangulate back to Polish as to an authentic criterion, no longer refer back to it as to a point of origin" (Hoffman, 1989, p. 272).

Multilingualism and Deaf education

Research that furthers the argument Vygotsky proposed regarding the relevance of dialogic interaction with other members of a community for development comes from contemporary work carried out with Deaf children who are either native or late users of sign language. Courtin (2000) examined the developmental consequences of educating Deaf children of hearing parents in schools where they were taught and compelled to use oral rather than sign language. Despite the presence of adults in the school, the children did not have full access to adult language because of their auditory difficulties. Compounding the situation was the fact that at home the children did not have full access to adult speech because the parents were hearing and, even if they used sign language, it was not as rich and as developed as would be the case with native Deaf parents. When the children communicated with each other through sign, the system was, according to Courtin (2000, p. 269), also

linguistically impoverished when compared to adult language. The Deaf children reared in the linguistic environment described by Courtin turned out to not only exhibit language difficulties, they also manifested cognitive problems on Theory of Mind (ToM; more detail below) tasks as well, when compared to signing children of Deaf or hearing parents and hearing children of hearing parents.

Research similar to Courtin's was more recently reported in a number of studies with Deaf children that has expanded even more our understanding of the importance of interlocutors for communicative and psychological development. I will briefly consider two of these studies here. Meristo et al. (2007) carried out two projects with Deaf children in school settings – one in Italy and the other in Estonia and Sweden. Similar to Courtin's study, the researchers were interested in the relationship between language and cognitive development. For present purposes my focus will be limited to the Estonian/Swedish component. Specifically, the students participating in the study were Deaf native signers of Deaf parents and Deaf late signers of hearing parents. However, the students attended very different kinds of schools. In one case the school was a bilingual school in which the communities' sign language was used, either Estonian or Swedish, along with the respective spoken language of each community. This meant that the children were able to interact with teachers and classmates in sign or spoken modalities. In Estonia, most of the classes were taught in Estonian Sign Language by Deaf instructors with only a few courses taught in the spoken language through a Deaf-hearing interpreter. In Sweden, both Swedish Sign Language and spoken Swedish are used in bilingual schools, which also provide instruction in sign for hearing parents and siblings of Deaf children as well as for hearing children of Deaf parents. Crucially, while the majority of the children in both countries attended bilingual schools, a portion of the native Deaf children attended what the researchers refer to as an "oralist" school, where Estonian was the only language of instruction. None of the late signers attended such a school in either country. The researchers did not use formal assessments of language proficiency and instead pointed out that all of the children in both countries used sign language "as their primary and preferred means for communication" (Meristo et al., 2007, p. 1163).

The children's performance on a series of ToM tasks was then compared with native and late sign use and school type as variables. These tasks usually entail children observing someone locating an object in one locale, which is then moved to another locale by someone else out of view of the first individual but not of the child observer. The participant is then asked where the first individual will look for the object if they want to retrieve it. The appropriate response would be where the object was originally located. Children who are unable to perform ToM tasks correctly would likely respond that the first individual would look at the new locale.

To summarize the findings of the project, it turned out that students in the bilingual schools outperformed students from the oralist school, even though those attending this school were native signers who came from a home environment with Deaf parents. Moreover, native and late signers in the bilingual schools performed as well as hearing children matched for age (Meristo et al., 2007, p. 1166). The researchers concluded that children forced to learn in a "'foreign' mode of communication, as is the case in an oralist school" (p. 1166), are at cognitive risk, even if they receive language support from adults and others in their home environment. Thus, constraining "full access to a conversational environment in their native language" (p. 1166) where academic communication and thinking occur is highly debilitating for the children. As Vygotsky (1987) pointed out, the languacultural experiences we are exposed to in the home are vastly different from what goes on in school, where we are provided with communicative instruction in systematic knowledge (see Serafini, Chapter 9; Philp & Gurzynski-Weiss, Chapter 2 with regard to heritage speakers).

Another study carried out with Italian Deaf children by Tomasuolo et al. (2013) suggests yet a further refinement of Vygotsky's original proposal regarding the importance of interaction with the other for development. In this study the Deaf children attended mainstream schools with hearing classmates. However, one cohort of children participated in a bilingual program where all subject matter instruction was translated into Italian sign language. A second cohort participated in a school with a teaching assistant (TA) who provided sign language interpretation and explanation for the children for only 20 hours per week. Although 23 of the 30 Deaf children participating in the study had hearing parents, only 8 of their families did not use Italian Sign Language in the home. As with the previous students mentioned here, the Deaf children were assessed on ToM tasks. However, unlike in the previous studies, their language ability was assessed by formal tests of comprehension (Italian version of the *Peabody Vocabulary Test-Revised* and production (*Boston Naming Test*). In addition, they were asked to produce a narrative based on the well-known *Frog, Where Are You* story (Mayer, 1969).

As it turned out, the Deaf children from the bilingual program outperformed the cohort from the school with the TA on the *Peabody* lexical comprehension test as well as on the *Boston Naming Test*, and they did better than their counterparts on the narration task as well, although this difference was not significant. On the cognitive tasks, the children from the bilingual school also outperformed the children from the school with a TA (Tomasuolo et al., 2013, p. 24). The most relevant finding from this study is that "school environment appears to be a critical factor," given that the children from the bilingual program did significantly better than the children from the school with a TA (Tomasuolo et al., 2013, p. 25), and irrespective of whether or not Italian Sign Language was the primary medium of communication in the home. Most importantly for our purposes is the researchers' suggestion that

"access to sign language in a bilingual environment may facilitate conversational exchanges that promote the expression of ToM by enabling children to monitor other's mental states effectively" (p. 25).

Thinking for speaking in an L2: The case of motion events

In what is generally assumed to be a less radical version of the Sapir-Whorf linguistic relativity hypothesis, Slobin (1996) proposed that the influence between speaking and thinking arises primarily when speakers engage in the activity of expressing their thinking through the medium of language. Slobin refers to this notion as "thinking for speaking." It is presumably less radical than the original hypothesis, which many, including linguists, have mistakenly assumed to operate categorically in the sense that even when members of a community are not engaged in linguistic communication their thinking and perspective of reality is still shaped by their language. Vygotsky's theory of mental function is sympathetic to the view that when thinking meets language during speaking and writing, the meanings carried by the language shape our thinking process. Slobin (1996, p. 89) suggests that as children enter more intensively and extensively into their speech community, the language they speak perhaps habituates their thinking and perception of the world and therefore it may well become more difficult to restructure thinking for speaking when an adult undertakes to learn a second language. Along similar lines, Agar (1994), also advocating for a less rigid version of the Sapir-Whorf hypothesis, suggests that our original languaculture may lay down furrows, as in a plowed field, that make it difficult to overcome when learning additional languages in adult life.

A robust amount of research addressing the thinking for speaking hypothesis has focused on how native and L2 users of a language communicate motion events. Talmy (2000) observed that languages more or less fall into two typological categories (while there are languages, such as Chinese, that occupy a middle ground, they are not relevant for the current discussion) based on if and how they encode path and manner of motion. Path of motion (i.e., the direction followed by a figure against a particular background) must be encoded in some way in order to express motion at all; but the manner (i.e., how a figure moves along a path) in which a figure moves against a ground is not always encoded, at least not in a fine-grained way in all languages.

Languages such as Spanish prefer to encode path of motion in verbs, such as *entrar* 'enter', *salir* 'leave', *subir* 'ascend' *bajar* 'descend', whereas English-like languages encode path in adverbial satellite phrases, as in *go in-to the house, go out of the house, go up the stairs, go down the stairs*. Indeed, a verb such as *climb* indicates path through satellites despite the fact that dictionaries assume that climb implies

upward direction: *climb up, climb down, climb over, climb through, climb under*. English, because of its romance-influenced history, also offers the option of expressing path through verbs such as ascend and descend, but these are infrequently used in everyday speech.

When it comes to expressing manner of motion, the English lexicon has a rich variety of verbs that express manner in subtle ways. Thus, the English verbal inventory not only includes basic manner verbs, such as *jump, run, walk, fly*, etc., it also contains verbs such as *trudge, skip, crawl, scamper, slog, zip,* etc. Languages such as Spanish generally rely on basic manner verbs and have very few more complex manner verbs in their lexical inventory. Consequently, English speakers, according to Slobin (2006), are far more likely to express manner in describing a motion event than are Spanish speakers.

McNeill (1992) shows that co-speech gesture must also be factored into any discussion of motion-event language. Spanish speakers, for example, do encode manner in a co-speech gesture even if it is not indicated in language when the manner of motion is particularly salient. This is an option not used in English. When manner is salient for an English speaker, it is coded with an appropriate manner verb along with a co-speech gesture. However, when manner is not particularly salient, English speakers can express manner of motion through a manner verb but in the absence of a co-speech gesture. This is referred to as manner modulation (McNeill, 2005).

To fully appreciate the significance of co-speech gesture for thinking for speaking and for the argument regarding 'I' ~ 'You' > 'I' ~ 'Me', we need to briefly consider the very attractive proposal laid out by McNeill (2016). Rather than present all of the complexities of McNeill's proposal, I will instead attempt to summarize it and focus on those aspects that I see as most relevant for purposes of the present chapter. Accordingly, McNeill (2016, p. 118) argues that because of "Mead's Loop", named after the pragmatist philosopher, George Herbert Mead, language, thinking, and gesture are uniquely interconnected in humans in a way that they are not in any other primate. Mead's Loop refers to an area of the anterior left hemisphere of the brain that includes Broca's Area and loops through "the prefrontal cortex, the right hemisphere and Wernicke's Area" (p. 118). In Broca's Area the mirror neurons, which humans share with other primates, become "inverted or twisted", a feature unique to the human brain, and instead of only firing when a primate, including humans, either acts or observes other primates engaged in the same action, they fire when the person engages in the action as if they were the other person. Thus, through typical primate mirror neuron activation "*The action of another is repeated and becomes one's own*" [italics in original] (McNeill, 2016, p. 118). This is what occurs in the case of pantomime – gesture that may occur with, but does not require, speech to convey meaning (e.g., holding one's hand up to the ear in the shape of a

telephone receiver to indicate a request to call or be called). However, as a result of the human mirror neuron twist, "*one's own gesture is responded to as by another*" [italics in original]; in other words, the gesture "evokes the same response in the one making it as it evokes in the one receiving it" (McNeill, 2016, p. 119). These gestures only co-occur with and depend on speech for their meaning. Together, the fact that humans not only respond to the gestures and actions of others, they also respond to their own gestures that co-occur with speech, as if they were made by others. In other words, 'I' ~ 'You' > 'I' ~ 'Me.' We not only produce gestures intended for others, as do other primates, but, uniquely, we respond to our own co-speech gestures. This, I believe is a way of showing what human thinking for speaking is all about. Without the co-speech gesture of other individuals, such mental functioning would not be possible.

Returning to the matter of L2 thinking for speaking, Stam (2015) carried out a longitudinal study of a Spanish L1 speaker, Rosa, immersed in an English-speaking environment in the US over a 14-year period. At the outset, when Rosa was a student enrolled in a university, her English thinking for speaking pattern for motion events reflected L1 Spanish. Over time Rosa began to manifest an English pattern, encoding path of motion on satellites rather than verbs and with appropriate co-speech gestures on the satellites. However, she continued to show the Spanish speech-gesture pattern for boundary crossing paths, using a new path verb each time a figure crossed a boundary, as in "the cat came of out the drainpipe, rolled down the street, and went into the bowling alley." English speakers prefer to accumulate path satellites with a single verb when describing such events – "the cat rolled out of the drainpipe, down the street and into the bowling alley."

Most important, for our purposes, after 14 years of living in the US, Rosa still avoided manner verbs with appropriate co-speech gestures in her English discourse, an indication that even though she used English communicatively, the data analyzed by Stam (2015) did not show any evidence of English patterning when it came to expressing manner of motion, a possible indication that her thinking for speaking had not yet completely shifted to the English pattern. Similar evidence was reported in Choi and Lantolf (2008) for Korean L1 speakers whose language parallels Spanish with regard to encoding of motion events. These researchers also investigated the motion event patterns of L1 English speakers who had resided in Korea for many years and while they were fluent in the L2, they continued to have difficulties describing motion events in the language, most especially when it came to manner of motion (see Larsen-Freeman, Chapter 8 and Serafini, Chapter 9, on the influence of L1). These speakers felt the need to simultaneously express manner in speech and in gesture when it was salient, but this is an option not readily available in Korean and they avoided the Korean (as in Spanish) option of marking manner through gesture only.

Developmental education: Compensation for missing 'You'

Even though Eva Hoffman writes about rebuilding her inner 'I' ~ 'Me' dialogue as a consequence of appropriating voices of others in her 'I' ~ 'You' dialogues with English speakers, she does not provide, and most likely could not have provided, detailed empirical evidence regarding the specifics of her L2 ability. The data from Stam's (2015) longitudinal study of Rosa, however, shows that while Rosa may have become a proficient speaker of English, she did not seem to have appropriated the full array of conceptual meanings from her English-speaking interlocutors, even after 14 years of residency in the US. The research with Deaf children, on the other hand, suggests the potential that formal education has to compensate for what may not be provided in daily interactions with interlocutors, even in the family where 'I' ~ 'You' dialogues should abound.

Several colleagues and I recently completed a study in which we undertook to explicitly teach adult L1 speakers of Spanish English motion verbs in order to determine if it would indeed be possible to intentionally design and implement an instructional program that would compensate for what L2 speakers do not seem to be able to obtain from daily exposure to English-speaking interlocutors. The study first reported on in Stam, Lantolf, Smotrova, and Buescher (2017) was carried out in a university setting with seven Spanish L1 volunteers residing in the US and enrolled in various programs at the university. None of the students specialized in linguistics. Following a pre-test comprised of free narrations of excerpts from the Tweety Bird cartoon used in much of the previous gesture research on thinking for speaking (see Choi & Lantolf, 2008; McNeill, 1992; Stam, 2015, among others), following principles of Concept-Based Language Instruction (see Lantolf & Poehner, 2014 for details) the participants were given one hour of instruction per week for a total of eight weeks on motion events and on English motion verbs which describe manner in various ways. Instruction was not provided on gesture. The assumption was that if the participants learned motion verbs in English they would be able to use appropriate co-speech gestures, as documented in McNeill's (1992, 2005) research. The participants were provided with examples of motion events illustrated in video clips from YouTube and other venues. They were shown clips of English speakers narrating the scenes that entailed use of various manner verbs. They then narrated motion-event scenes in English and in Spanish and compared the differences, but again, with no mention of gestures. The participants also received explicit instruction on the components of motion events, including figure, ground, motion, path, manner, and caused motion, accompanied by lists of English manner verbs that could be used to describe manner of motion.

Following instruction, the participants were given a post-test comprised of the same Tweety Bird scenes as used in the pre-test. They were also given a transfer

task where they were asked to narrate a scene from the movie *Mouse Trap,* which they had not previously viewed. The results showed that four of the participants manifested English thinking for speaking patterns, which entailed using English manner verbs and path satellites along with appropriate gestures, and they showed the ability to accumulate satellites, as in "Sylvester rolled out of the drainpipe, down the street and into the bowling alley." This ability also transferred to their narration of the new *Mouse Trap* episode. Thus, it seems likely that direct and systematically organized instruction can compensate for what learners are not able to obtain from their interactions with L2 interlocutors. Although other studies have been carried out showing the positive effects of Concept-Based Language Instruction (see Lantolf & Poehner, 2014, for an overview of this research), none of these studies has compared learning outcomes of everyday immersion learners with instructed learners for the same language concept. Even though the number of participants involved in Stam's (2015) research and in the Stam, Lantolf, Smotrova, and Buescher (2017), and Choi and Lantolf (2008) studies is small, the results, nevertheless, are promising.

Conclusion and implications

The theoretical argument proposed in this chapter based on the psychological theory of L. S. Vygotsky is that interlocutors are in a sense doubly important in the development of individuals. They play a central role in their language as well as in their cognitive development to the extent that 'I' ~ 'You' dialogues are the source of our thinking for speaking ability carried out through 'I' ~ 'Me' dialogue. Even though the 'You' may not be directly visible, looking back through the history of any individual's linguistic and psychological development we will uncover 'You', or perhaps, better said, multiple 'Yous'. This is what Vygotsky (1987) meant when he argued that psychological processes are always 'quasi-social'.

Through our lives we encounter others who have the potential to serve as a resource for altering our communicative and psychological activity. This, I believe, is documented in the story of Eva Hoffman. As she transformed herself from a Polish girl into a North American woman, she encountered multiple voices along the way, some of which she appropriated and some of which she did not. It is also important to recognize the impact that organized education can and should play in shaping our development, not only through the voices of interlocutors (teachers and other students) that we encounter in the educational process, but also through the systematic instruction that education provides. Earlier I suggested that instruction might be able to compensate for what interlocutors do not provide in everyday interactions, but we could also argue that through instructional materials, including texts (print and electronic), we are indeed interacting with other voices – voices

that may not be co-present but nevertheless make themselves available through the various artifacts' impact on our development. Interacting with texts is a social activity for sure. Indeed, it would not be too far-fetched to claim that interacting with material objects, such as lab equipment, computers, libraries, and the like are social acts where the agency and voices of others make contact with our own voices and agency and impact 'I' ~ 'Me' dialogues. Back (Chapter 5) in her analysis of peer tutoring in a university language program, makes this precise argument with regard to textbooks and dictionaries. Importantly, she also extends this notion of the invisible other beyond the immediate pedagogical materials used by the participants in the tutorial interactions analyzed in her chapter to include such entities as Google images and the images of commercial products.

Back's chapter also illustrates the necessity for anyone responsible for a pedagogical intervention of any kind to come to the intervention with high quality knowledge of the subject domain at issue. In the interactions between Spanish heritage speaking tutors and learners, one tutor had problems with their knowledge of a particular word 'cough syrup', which led to a good deal of uncertainty and confusion that was fortuitously resolved when one of the course instructors happened by the tutorial session. While this may be a trivial matter on its face, it brings to the fore an issue that we raised in Lantolf and Poehner (2014, Chapter 9) – the quality of explicit teacher knowledge of the language they are teaching. If education is to compensate for what learners are unable to obtain for whatever reason from their interactions with interlocutors, then instructor knowledge, as well as the knowledge provided by invisible others through the materials they produce must be high quality, and as we have argued in Lantolf and Poehner (2014), this not always the case. Language teacher education programs and materials developers have the responsibility to equip teachers with this knowledge.

The interlocutor plays an indispensable role in our mental and linguistic life. Without interaction with social others it would be impossible for humans to become thinking and speaking beings. While interlocutors are clearly visible in I ~ You conversations, these individuals potentially remain with us in the I ~ Me conversations we self-create as we engage in the thinking and speaking activities of our daily lives. However, we cannot lose sight of the fact that embedded within the 'Me' partner of these conversations, to recall Bakhtin's notion of appropriation, are the voices of 'You', the hidden interlocutor. With regard to second language development, systematically organized instruction can, from this perspective, be understood as a way of compensating for the absence of 'You' as those conversational partners that played the pivotal role in the development of our L1.

References

Agar, M. (1994). *Language shock. Understanding the culture of conversation*. New York, NY: Quill.

Arievitch, I. M. (2017). *Beyond the brain. An agentive activity perspective on mind, development, and learning*. Rotterdam, Netherlands: Sense Publishers.

Back, M. (this volume). Interlocutor differences and the role of social others in a Spanish peer tutoring context. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 99–123). Amsterdam, Netherlands: John Benjamins.

Bakhurst, D. (1991). *Consciousness and revolution in Soviet philosophy. From the Bolsheviks to Evald Ilyenkov*. Cambridge, UK: Cambridge University Press.
https://doi.org/10.1017/CBO9780511608940

Choi, S., & Lantolf, J. P. (2008). Representation and embodiment of meaning in L2 communication: Motion events in the speech and gesture of advanced L2 Korean and L2 English speakers. *Studies in Second Language Acquisition*, 30, 191–224.
https://doi.org/10.1017/S0272263108080315

Chomsky, N. (1966). *Cartesian linguistics. A chapter in the history of rationalist thought*. New York, NY: Harper & Row.

Courtin, C. (2000). The impact of sign language on the cognitive development of Deaf children. The case of theories of mind. *Journal of Deaf Studies and Deaf Education*, 5, 266–276.
https://doi.org/10.1093/deafed/5.3.266

Danziger, K. (1997). *Naming the mind. How psychology found its language*. London, UK: Sage.

Feuerbach, L. (1854/1957). *The Essence of Christianity / Translated from the German by George Eliot (Marian Evans)*. New York, NY: Harper & Row.

Feuerbach, L. (1966). *Principles of the philosophy of the future*. Translated, with an introduction, by Manfred H. Vogel. Indianapolis IN: The Bobbs-Merrill Company.

Geeslin, K. (this volume). Variationist perspective(s) on interlocutor individual differences. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 127–157). Amsterdam, Netherlands: John Benjamins.

Gibson, J. J. (1979). *The ecological approach to visual perception* (revised ed.). New York, NY: Houghton-Mifflin.

Harris, R. (2003). Critique of orthodox linguistics. In H. G. Davis & T. J. Taylor (Eds.), *Rethinking linguistics* (pp. 16–26). London, UK: Routledge.

Harvey, D. (2010). *A companion to Marx's Capital*. London: Verso.

Hoffman, E. (1989). *Lost in translation. A life in a new language*. New York, NY, Dutton.

Lantolf, J. P., & Poehner, M. E. (2014). *Sociocultural theory and the pedagogical imperative in L2 education: Vygotskian praxis and the research/practice divide*. New York, NY: Routledge.
https://doi.org/10.4324/9780203813850

Larsen-Freeman, D. (this volume). Complexity Theory: Relational systems in interaction and in interlocutor differences in second language development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 189–208). Amsterdam: John Benjamins.

Mayer, M. (1969). *Frog, where are you?* New York, NY: Dial Books.

McNeill, D. (1992). *Hand and mind. What gestures reveal about thought*. Chicago, IL: University of Chicago Press.

McNeill, D. (2005). *Gesture and thought*. Chicago, IL: University of Chicago Press.
https://doi.org/10.7208/chicago/9780226514642.001.0001

McNeill, D. (2016). *Why we gesture. The surprising role of hand movements in communication*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9781316480526

Meristo, M., Falkman, K. W., Hjelmquiest, E., Tedoldi, M., Surian, L., & Siegal, M. (2007). Language access and theory of mind reason: Evidence from deaf children in bilingual and oralist environments. *Developmental Psychology*, 43, 1156–1169. https://doi.org/10.1037/0012-1649.43.5.1156

Pawlak, M. (this volume). In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 51–75). Amsterdam, Netherlands: John Benjamins.

Peter, K. (2017). "What is absolutely impossible for *one* person, is possible for two" – A historical-methodological study concerning Feuerbachian elements in the later works of L. S. Vygotsky. *История российской психологии в лицах: Дайджест* [The History of Russian Psychology in Individuals: Digest], 3, 179–211.

Philp, J., & Gurzynski-Weiss, L. (this volume). On the role of the interlocutor in second language development: A cognitive-interactionist approach. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 19–50). Amsterdam, Netherlands: John Benjamins.

Serafini, E. J. (this volume). The impact of learner perceptions of interlocutor individual differences on learner possible selves during a short-term experience abroad. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 209–243). Amsterdam, Netherlands: John Benjamins.

Slobin, D. I. (1996). From "thought and language" to "thinking for speaking." In J. Gumperz & S. Levinson (Eds.), *Rethinking linguistic relativity* (pp. 70–96). Cambridge, UK: Cambridge University Press.

Slobin, D. I. (2006). What makes manner of motion salient? Explorations in linguistic typology, discourse, and cognition. In M. Hickmann & S. Robert (Eds.), *Space in language: Linguistic systems and cognitive categories* (pp. 59–81). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/tsl.66.05slo

Stam, G. (2015). Changes in thinking for speaking: A longitudinal case study. *Modern Language Journal*, 99, 83–99. https://doi.org/10.1111/j.1540-4781.2015.12180.x

Stam, G., Lantolf, J. P., Smotrova, T., & Buescher, K. (2017). Thinking for speaking CAN be explicitly taught in a second language. Presentation at the Annual Conference of the American Association for Applied Linguistics. Portland, OR. March 19.

Talmy, L. (2000). *Towards a cognitive semantics. Volume II: Typology and process in concept structuring*. Cambridge, MA: The MIT Press.

Tomasuolo, E., Valeri, G., Di Renzo, A., Pasqualetti, P., & Volterra, V. (2013). Deaf children attending different school environments: Sign language abilities and theory of mind. *Journal of Deaf Studies and Deaf Education*, 18, 12–29. https://doi.org/10.1093/deafed/ens035

Vocate, D. (1994). Self-talk and inner speech: Understanding the uniquely human aspects of intrapersonal communication. In D. Vocate (Ed.), *Intrapersonal communication. Different voices, different minds* (pp. 3–32). Hillsdale, NJ: Erlbaum.

Voloshinov, V. N. (1973). *Marxism and the philosophy of language*. New York, NY: Seminar Press.

Vygotsky, L. S. (1978). *Mind in society. The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1987). *The collected works of L. S. Vygotsky. Volume 1: Problems of general psychology, including the volume Thinking and speech*. New York, NY: Plenum.

Vygotsky, L. S. (1990). *The collected works of L. S. Vygotsky. Volume 2: The fundamentals of defectology*. New York, NY: Plenum.

Vygotsky, L. S. (1994). The problem of the environment. In R. van der Veer & J. Valsiner (Eds.), *The Vygotsky reader* (pp. 338–354). Oxford: Blackwell.

Vygotsky, L. S. (1997). *The collected works of L. S. Vygotsky. Volume 4: The history of the development of higher mental function*. New York, NY: Plenum.

Wertsch, J. M. (1991). *Voices of the mind. A sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.

Zavershneva, E. (2016). Vygtosky the unpublished: An overview of the personal archive (1912–1934). In A. Yasnitsky & R. van der Veer (Eds.), *Revisionist revolution in Vygotsky studies* (pp. 94–126). New York, NY: Routledge.

Interlocutor differences and the role of social others in a Spanish peer tutoring context

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Peer tutoring is a valuable component of additional language learning due to interactions with a knowledgeable interlocutor. Yet many are unaware of the role of what Lantolf (2015) termed "social others" on interlocutors' and learners' perceptions and constructions of the target language and culture. Social others include persons who interlocutors perceive as having equal, more, or less knowledge; written texts; and previous or potential selves. Social others do not have to be physically present for mediation on expertise to occur. In this chapter, I analyze video data from Spanish language peer tutoring sessions, triangulating with interview excerpts highlighting peer tutor knowledge and roles. I show how peer tutors mediated their ascribed epistemic stances of expert through social others and co-constructed their own knowledge with learners. These findings interrogate ways in which knowledge is traditionally perceived, highlighting the complex ideologies that surround knowledge of a target language and culture.

Keywords: epistemic incongruence, epistemic stance, interlocutor differences, peer tutoring, social others

Introduction

Peer tutoring has multiple benefits for a variety of subjects, including additional language learning. Constituted by interactions between one or more learners and an interlocutor who ostensibly possesses a higher level of expertise, peer tutoring can be collaborative in its construction of meaning through dialog, but also asymmetrical in terms of status and knowledge possession. Thus, peer tutoring is often defined as a form of cooperative learning, or "a set of processes which help people interact together in order to accomplish a specific goal" that is nevertheless more directive than collaborative learning (Panitz, 1999, p. 5). As such, negotiations around what is known and not known about the target language

and culture are key elements of peer tutoring interactions in a language learning context. Perhaps due to the perception of peer tutoring as directive and cooperative, previous literature has grouped interlocutors in peer tutoring settings under essentialist categories such as "native speaker." These categorizations can lead to an inability to fully analyze the unique types of knowledge that these interlocutors bring to each interaction, as well as how they negotiate new information during these interactions with their learners.

Moreover, the characterization of a peer tutor as what Huong (2007) termed the "more knowledgeable peer" implies a static view of knowledge, as well as a cognitivist view of the interlocutor – that is, that the peer tutor arrives at the tutoring session with a bucket of knowledge to be poured into the less knowledgeable learner. As Back has shown in previous works (2016a, 2016b), this is a common perception of learning by tutors and learners alike in second language learning situations. Even Vygotsky's (1978) notion of the More Knowledgeable Other (MKO) could be misinterpreted as referring to a static, hierarchical concept of knowledge.

Rather, a sociocultural view of learning positions the interlocutor as a contributor to Vygotsky's Zone of Proximal Development (ZPD), with the locus of learning situated in dialogic interaction (Lantolf & Pavlenko, 1995). In these contexts, peer tutors and learners co-construct meaning, drawing upon myriad sources to learn together about the subject matter. From a sociocultural standpoint, what is ostensibly a "static" amount of knowledge is in fact fluid, negotiable, and contested, as new sources of information permeate these interactions (Lantolf, Chapter 4). Participants orient to social others via negotiating the information presented and deciding whether or not it should be adopted. As a result of these negotiations, learning and knowledge can become more meaningful and memorable for peer tutors and learners alike. In a language learning context, this co-construction of target language knowledge is viewed as a "continuum of control" rather than dichotomous (Frawley & Lantolf, 1985).

In this chapter, I analyze video data from peer tutoring sessions in Spanish as a second language, using a close discourse analysis to demonstrate the role of social others on epistemics in interaction, or "how participants display, manage, and orient to their own and others' states of knowledge" (Jakonen & Morton, 2013, p. 1). I show how two peer tutors negotiated with a variety of present and absent social others, including texts, other peer tutors, and teachers, and how they incorporated or rejected the information presented by these social others. I triangulate these data with excerpts from interviews in which the peer tutors discussed their own knowledge bases and beliefs about peer tutoring. These findings interrogate the ways in which learning and expertise are traditionally perceived in peer tutoring and other additional language learning contexts, expand the analysis of artifacts

in sociocultural theory to include social others, and emphasize the need for training peer tutors in cooperative learning methods that capitalize upon mediation between their expertise and that of social others. I explore the implications of this analysis for developing successful world language peer tutoring programs and the role of social others on additional language development.

Peer tutoring, sociocultural theory, and epistemic stance

Despite an increasing body of literature that establishes language learning as a bi-directional social process (Baquedano-López, 2004; Lantolf, 2011), much of the research on peer tutoring continues to adhere to an interior/cognitivist view of peer tutors as de facto "experts" in the target language and culture who bestow this knowledge upon learners (e.g., Fernández-Dobao, 2012; Thonus, 2004). While this categorization owes a great deal to the tutors' ascribed identity by peer learners, research on peer tutoring has done little to explore the myriad ways in which peer tutors differ in terms of experience and knowledge, or how that knowledge can change in interaction. Whether categorized as "native speakers," with no critical exploration of this term, or simply positioned as experts in the variety and register of the language being taught, studies on peer tutoring say little about interlocutor experiences with the target language and culture. As Back (2016a) noted:

> This type of positioning not only fails to account for the differences in knowledge that impact the process of negotiating meaning, but also ignores the personal histories, symbols, and complexities that each speaker of a language brings to any given interaction. (p. 4)

Further complicating the issue is a lack of discussion in the literature on those factors outside peer tutor-learner discourse that impact language learning.

In contrast, sociocultural approaches outline how learning, and, by extension, knowledge, is achieved in interaction, noting that these activities are accomplished through discourses framed by sociopolitical, historical, and cultural contexts, rather than occult, abstract processes (Roebuck, 2000). Thus, an analysis of interlocutor discourse can reveal important aspects of peer tutor and learner knowledge, including how this knowledge is shaped by factors beyond interior cognition and negotiated moment-to-moment.

Lantolf (2015; Chapter 4) discussed how we can conceive of these outside factors as "social" or "fetishized" others. The notion of fetishization highlights "the illusion that some object or event is natural rather than arising from social processes" (Lantolf, Chapter 4, p. 83). As a result of this fetishization, others are internalized by those present in the interaction. These others, comprising not only persons,

but also inanimate objects such as written texts, constitute important components of the ZPD in their capacity to both increase assistance to the learner and confound traditional notions of interlocutor expertise. Yet rather than acknowledging these types of interactions as dialogues with myriad social others, too often social others are fetishized to the point of constituting an authority on the language; in Lantolf's words, turning this social other into a "solipsistic, asocial and monologic 'I'" (Chapter 4, p. 83)

Below, I offer two short examples of how written artifacts can become fetishized others in peer tutor-learner interaction. In Figure 1, peer tutor Roberto[1] begins a tutoring session by consulting the written instructions for the level of Spanish being taught. His rotating, scooping gestures suggested a physical internalization of the instructions, while his publicized private speech ("let's see, what is it telling me here") mirrored his search for information.

Figure 1. Roberto consults the instructions

```
Roberto: a ver, qué me dice aquí
         let's see, what is it telling me here
         ((makes rotating, scooping motions with hands))
```

In Figure 2, Roberto again dialogues gesturally and verbally with the text, moving the side of his hand down the paper. His statement about not liking the scheduled activities, though ostensibly addressed to his learners across the table, can be interpreted as self-talk given that his gaze is continuously focused on the text.

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1. Names of all participants are pseudonyms.
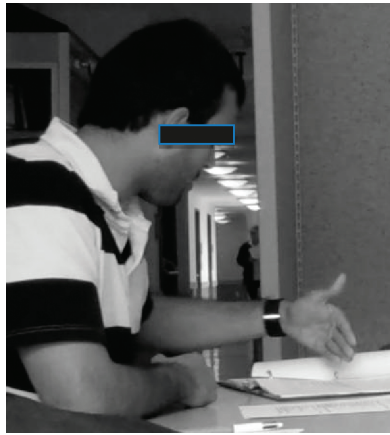
Figure 2. Roberto evaluates the schedule

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Roberto: Este programa no me gusta mucho pero, está bien.
         I don't like this schedule much, but that's fine.
         ((moves side of hand down paper))
```

Though these types of interactions are more observable for researchers than are traditional interior/cognitivist models of learning, methods of analysis for measuring shifts in knowledge during interaction are still problematic. Sociocultural theorists such as Thorne (2005) and van Compernolle (2014) have explored the links between sociocultural theory and micro-analytic approaches. This link is most apparent in the notion of the "microgenetic" timescale; "the development of complex structures and abstract concepts from moment to moment, during ongoing discourse, that can be traced within or at least reconstructed from a recorded text" (Widdowson, 2004, p. 8). It seems evident that an examination of this timescale could be taken up by micro-analytic approaches such as close discourse analysis, ethnomethodology, and/or conversation analysis (CA).

Additionally, the use of epistemic stance as a focal point can assist with a micro-analytic examination of shifts in knowledge. Rusk, Sahlström, and Pörn (2017) and Heritage (2012) discussed the differences between epistemic *stance* and epistemic *status*, with the former being an expressed reflection of the latter in interaction: "The epistemic stance is managed through the design of turns-at-talk, in which a participant can express a relatively "knowing" or a relatively "unknowing" stance" (Rusk et al., 2017, p. 57). The authors also stated that epistemic stance and status are normally congruent; that is, relative knowledge of a domain and the knowledge expressed in an interaction are generally consistent.

Rusk et al.'s (2017) article focused on known-answer questions, in which epistemic stance and status were deliberately incongruent on the part of the interlocutor.

Similarly, positioning of an interlocutor's superior epistemic status and subsequent interlocutor non-knowing epistemic stances can occur in the face of information presented by social others. In other words, epistemic incongruence can not only index a deliberate withholding of information by the interlocutor, but also index the role of social others in re-forming interlocutor expertise.

Thus, in this chapter I use a close discourse analysis to determine epistemic stance/status incongruence in two epistemic search sequences (ESSs). As described in Jakonen and Morton (2013), ESSs are collective resolutions of knowledge gaps. I limit my analysis to ESSs of lexical items because they are generally more easily resolved in language learning interactions, compared to morphological or syntactic items (e.g.,Jakonen & Morton, 2013; Rusk et al., 2017; Sert, 2013). For this reason, lexical ESSs unknown to the tutor could present more incongruence vis à vis a tutor's epistemic status, due to their inability to answer quickly regarding a known lexical item. Throughout this analysis, I also pinpoint how social others impacted this incongruence and whether or not this incongruence was resolved during the interaction. Before this, I provide additional information on the peer tutoring setting and the methods used for collecting and analyzing these data.

Setting and methods

The data for this study comes from a larger corpus of peer tutoring sessions that took place in the Spanish department of a mid-sized public university in southern California (referred to in this chapter as West Coast University). At the time of the study, nearly 30% of the undergraduate students at West Coast University identified as Hispanic or Latinx, and many of these students opted to major in Spanish. Given this rich group of advanced language speakers, combined with a lack of financial resources for a formal language laboratory, the department created a peer tutoring program for Spanish learners to practice their oral communication skills with "native" Spanish speakers, generally self-identified Hispanic/Latinx junior or senior year students majoring or minoring in the subject. I place "native" in quotes because although these tutors are ascribed native speaker status by the tutoring program organizer, many do not identify as native speakers in tutoring or other interactions.

Participation in the tutoring program was mandatory for learners in the first six quarters of Spanish language courses (Spanish 1–6). This series of courses constituted the first two years of Spanish at West Coast University, as the university was on a quarter schedule. Peer tutors were provided with binders containing written practice materials for each level of Spanish study; these materials consisted

of pronunciation exercises, fill-in-the-blank and true/false questions, open-ended questions, and conversation prompts. The binders remained in the tutoring area rather than being assigned to individual tutors.

With the assistance of several undergraduate student researchers, I collected video and audio data from 43 peer tutoring sessions held during the 2010–2011 academic year. These sessions averaged about 40 minutes in length and were composed of as little as two participants (peer tutor-learner dyads) and as many as six participants (five learners interacting with one tutor). The two sessions analyzed in this chapter come from these 43 sessions; each session had two learners interacting with one tutor.

After recording the sessions, another group of undergraduate students and I transcribed the audio and video data using CA transcription conventions (see Appendix 1 for a list of these conventions). I call this micro-analytic approach "close discourse analysis" because the approach subscribes to both the transcription conventions and emic approach of CA and includes ethnographic information not deemed relevant in "pure" or "traditional" CA. In this analysis I focused on the discursive features of epistemic stance; similar to Rusk et al. (2017), I analyzed these features in "the local context, the oriented-to content, and the actions that the participants […] accomplish in situations when the participants explicitly orient to L2 learning objects" and social others (p. 58). Video data were also transcribed and analyzed for multimodal expressions of alignment and interaction, including gesture, gaze, and the incorporation of artifacts such as written texts.

The close discourse analysis of the transcriptions was triangulated with data I collected from semi-structured interviews with the two focal peer tutor participants, Roberto and Tomás. I interviewed these participants after the respective quarters in which they engaged in peer tutoring, Roberto in the Fall quarter of 2010 and Tomás in the Spring quarter of 2011. In the section to follow, I outline these participants' language histories and beliefs about peer tutoring in order to illuminate both their perceptions of self and the epistemic stances to which they oriented when faced with information from social others, which frequently conflicted with their own knowledge.

Findings

Focal participant language histories and beliefs

Roberto and Tomás were seniors at West Coast University when they signed up to become peer tutors. Roberto, a neuroscience major and Spanish minor, grew up speaking and hearing Spanish at home and school until fifth grade, when he was placed in a transitional bilingual class. It is unclear whether or not Roberto was in a Spanish-speaking country until fifth grade; sensitivity about immigration status prevented me from asking the question. Roberto began English-only classes in sixth grade, and he struggled with the language for several years; *Las reglas se me hacían bien duras. Y ya hasta este día no sé todas las reglas muy bien, como me dice alguien que le explique algo de lenguaje inglés y le digo 'Mira, no sé'*, 'The rules [of English] were especially hard for me. And even today I don't know the rules very well, like if someone asks me to explain something about English and I say "Look, I don't know"' (Interview with Roberto, December 8, 2010).

Roberto's narrative of his difficulties with English closely paralleled the empathy he felt for learners of Spanish. He viewed his role as that of someone *con que los estudiantes pueden ir sin vergüenza […] porque a veces no quieren ir con los profesores, porque no se quieren mirar mal,* 'with whom students can go without shame […] because sometimes they don't want to go with the professors, because they don't want to look bad' (Interview with Roberto, December 8, 2010). He was especially sympathetic to those who wanted to speak Spanish but didn't have anyone with whom to practice, or who were made fun of when they attempted to speak it and connected these experiences to his desire to become a peer tutor.

> *Tengo muchos amigos que no hablan el español. Como que no lo entienden muy bien pero sí ponen el empeño para tratar de hablarlo, y a veces sí noto que cuando tratan, hay muchas personas que se burlan de cómo lo dicen […] yo hice esto con la intención de a lo menos tratar de facilitar que hablen español.*
>
> I have lots of friends who don't speak Spanish. Like, they don't understand it very well but they do make the effort to speak it, and sometimes I do notice that when they try, there are a lot of people who make fun of how they say it […] I did this [peer tutoring] with the intention to at least try to make it easier for them to speak Spanish. (Interview with Roberto, December 8, 2010)

Roberto's self-perceived role as easing Spanish learners into the language did not always extend to his being an expert in the language. For example, when discussing the types of questions that students asked him, he stated, *Por suerte no son de reglas. Sí me dicen como cosas muy fáciles, 'how do you say that or how do you get the two rs […]' y de allí les digo,* 'Luckily, they're not about rules. They do say,

like, really easy things, 'how do you say that or how do you get the two r's' […] and then I tell them.' (Interview with Roberto, December 8, 2010). For Roberto, his peer learners' simpler requests for clarification on lexical and pronunciation items corresponded with his own abilities, whereas more complex requests might have been more difficult.

Tomás was a major in Spanish literature at the time of the study. Born in the United States, Tomás spent his early childhood in Mexico and returned to the U.S. at the age of 8. Although he was immediately placed into English-only classes, he didn't remember much difficulty in learning the language. *Al principio fue un esfuerzo muy grande pero […] en tan poco tiempo [aprendí] como los niños aprenden muy rápido*, 'It was a big effort at first, but in a small amount of time I learned, since kids learn very quickly' (Interview with Tomás, May 25, 2011). Despite his early exposure to Spanish, he considered himself mostly self-taught in the language: *La mayoría del esfuerzo que sí he tenido ha sido propio ha sido leer muchos periódicos este revistas libros etcetera,* 'Most of the effort that I have made has been on my own, it's been reading newspapers, magazines, books, etcetera' (Interview with Tomás, May 25, 2011).

Similar to Roberto, Tomás also saw his role as that of an unthreatening conversation partner. Additionally, he was very observant of the differences in what he termed his "colloquialisms" versus the more standard Spanish that students were learning in the classroom. He viewed this as *un papel importante*, 'an important role':

> *[…] para que los estudiantes tengan otra avenida aparte de la instrucción formal […] para que vean en veces cómo se usa el idioma coloquialmente, ¿no? Yo les digo, eh, sabes que a este parte de México lo aprendí así no es todos lugares. Y en veces unos coloquialismos que yo sé no lo vayas a usar en el examen pero eso es lo que usamos.*
>
> […] so that students have another avenue besides formal instruction […] so they see sometimes how the language is used colloquially, right? I tell them, eh, "You know that I learned this in this part of Mexico, it's not the same in other places. And sometimes some colloquialisms that I know, don't use them in the exam, but this is what we use".   (Interview with Tomás, May 25, 2011)

In these brief interview excerpts we see a recognition of Roberto and Tomas's self-perceived boundaries with respect to their knowledge of Spanish; Roberto, when he stated that he felt "lucky" that students did not ask him complicated questions about rules, and Tomás with his portrayal of himself as an autodidact in the language. We also see how both peer tutors positioned themselves with respect to social others. Roberto, perceiving a hostile environment for Spanish learners in which they are often made fun of or reluctant to approach their professors, took on the role of laid-back conversationalist. Tomás, recognizing the differences in his Spanish relative to the varieties taught in class, saw his role as providing alternative

vocabulary that allowed students to view the language in different ways. As will be seen in the analysis of the peer tutoring sessions, these perceptions played a strong role in how both individuals negotiated with social others and shifted their epistemic stances during peer tutoring sessions.

Ways of saying cough syrup: Analysis of Roberto's peer tutoring session

The first focal session involved Roberto, who was working with two Spanish 3 (third quarter) students, Jackie and Marvin, on some fill-in-the-blank exercises pertaining to health vocabulary. Despite the existence of a word bank containing this vocabulary, both Jackie and Marvin expressed some dissatisfaction with *pastilla*, 'pill' as the answer for the phrase, *el tipo de medicina que se toma para una infección*, 'the type of medicine that you take for an infection.' The students began to discuss alternative remedies, with Marvin initiating an ESS by asking Jackie, then Roberto, for the Spanish equivalent of "(cough) syrup."

Excerpt 1. "La profesora usa otra palabra"[2]

```
57. MARVIN: wouldn't it be um ((to Jackie)) ˚how do you say
58. syrup, si:irup, sy:yrup˚=
59. JACKIE: =oh. to:os
                  cough
60. M: ((turns to Roberto)) tom- syrup? how do you say
61. like ((makes drinking motion with fingers)) syrup=
62. J: syrup. cough syrup=
63. ROBERTO: =se puede decir, mie-oh, pero son medicina,
              you can say, hon- oh, but they're medicine,
64. J: [to:os=]
        cough
65. M: [yo OD]IO
        I hate it!
66. R: =es, medicina para la tos,
        it's, medicine for coughs
67. J: no no. < they used ooh, hhHHH > la profesora
                                        the teacher
68. u:usa? otro ve- otro palabra. <
    uses another v- another word
69. R: >otra palabra< ((glances at worksheet))
        another word
```

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2. Numbered lines refer to the utterance's place in the transcript of the entire tutoring session.

Figure 3. Roberto glances at the worksheet while saying *otra palabra*

```
70. M: yeah, yo (olvido)
       yeah, I forget
71. R: sí
       yes
72. J: (sssveh) es, TOS- ((looks at her notebook))
                 it's cough-
73. tosino? tosino?
74. R: tosino. puede ser.
                 it could be
```

During this excerpt Roberto proposed one alternative, *medicina para la tos,* 'medi-cine for coughs' (line 69), which Jackie rejected by bringing in the course instructor as a social other who had used another word. Jackie then extended the search using repetitions of the stem *tos-*, 'cough,' and searching in her class notes, finally coming up with *tosino*, an invented word that incorporated the lexical item *tos* and is, most likely accidentally, a homonym of *tocino*, 'bacon.' There is a strong possibility that Jackie was referring to *Tossin*, a Spanish cough syrup – I discuss this possibility later on in the chapter.

After Jackie mentions the possibility of another word for cough syrup, Roberto glances down at the practice worksheet, as if searching for *otra palabra*, 'another word' (Figure 3). His statement *puede ser*, 'it could be,' allowed for the possibility of an alternative lexical item without committing completely to Jackie's suggestion. In this way, Roberto continued to maintain an epistemic stance of expert while potentially fetishizing several social others, including the absent instructor, Jackie's class notes, and Roberto's own copy of the practice materials. Marvin then brought his own class notes into the discussion as he and Jackie continued their ESS.

Excerpt 2. "Puede ser muchas cosas"

```
75. M: here, ((starts to dig in his backpack))
76. R: si, si lo tienes? me enseñas.
       if, if you have it? show me.
77. J: ((looks at Marvin)) tú tienes.
                           you have [it]
78. ((looks at paper again)) tos:sss=
79. R: =porque la respuesta para esta puede ser muchas cosas
        because the answer for this could be many things
        ((moves hands in rotating motion, palms down))
80. J: sí
       yes
81. ((Marvin pulls out and begins to peruse a spiral-bound notebook))
82. R: porque depende de qué esté enfermo uno
       because it depends on what ailment someone has
83. M: ((to Jackie)) °no but it was on that worksheet,
84. we didn't get it back yet.°
85. R: 'tá bien
       'sokay
86. M: yeah,
87. R: pero dijiste que es tosino, verdad?
       but you said it's tosino, right?
88. J: I think it's tosino, tosino.
89. R: < 'tá bien. Se puede usar este.
         'sokay.   you can use this
```

As Marvin attempted to find the word in his class notes, Roberto again indexed an epistemic stance as expert by stating his knowledge of the existence of alternative words for health remedies in lines 79 and 82. Even though Marvin was unable to find the word, his own incorporation of a fetishized social other in the form of an absent worksheet, combined with Jackie's repeated, yet hesitant suggestions that the word was, indeed, *tosino*, led Roberto to authorize its use as an alternative lexical item, even though Roberto gave no indication of being familiar with the word.

At this point in the session, Marvin and Jackie's instructor, who also happened to be the head teacher for the department's Spanish language classes, walked into the tutoring area. This was a highly unusual event, as instructors normally do not interact with the students during peer tutoring sessions. However, the instructor (Profesora Blanca) needed to obtain a binder that Roberto had borrowed from her at the beginning of the session. Profesora Blanca's sudden arrival shifted her position from absent to present social other, and the learners immediately involved her in the ESS.

Excerpt 3. "Jarabe"

```
((Profesora Blanca enters the tutoring area))
90. PROFESORA BLANCA: hola chicos!
                      hi guys!
91. J: cómo se dice cough syrup tossss:
       how do you say
```

```
 92. R: tosi:in,=
 93. PB: ((shakes head)) =jarabe.
                          syrup
 94. R: OH. ((snaps fingers, leans off camera))
 95. ((leans back towards Profesora Blanca)) qué?
                                             what?
```
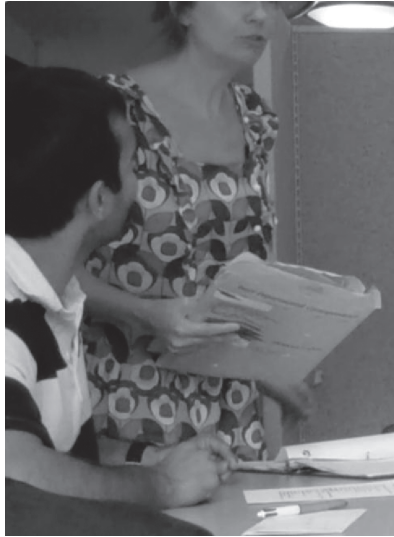

Figure 4. Roberto's movement and gaze towards Profesora Blanca

```
 96. J: tos-, no
 97. PB: to- what, cough?
 98. J: cough syrup.
 99. PB: ya, jarabe:
         right, syrup
100. R: jarabe? como (   )
         syrup?  like ((inaudible))
101. J: oh, tos jarabe, jarabe.
            cough syrup syrup
102. PB: jarabe
         syrup
```

With Profesora Blanca's arrival, Roberto's epistemic stance quickly shifted to less knowledgeable, which was incongruent to his ascribed epistemic status. This was evidenced by his elongation of the invented word *tosin(o)* and his question, *qué?*, 'what?' and upturned head as Profesora Blanca offered the lexical item *jarabe*, 'syrup' (see Figure 4). Similarly, Roberto's epistemic stance incorporated elements of a co-learner, as seen in line 100, where he consulted with Profesora Blanca on a possible association with *jarabe*. Although Roberto did shift back to a more knowledgeable epistemic stance when he co-constructed the spelling of *jarabe* for Jackie and Marvin (not transcribed here), Profesora Blanca's appearance as active social

other had the overall effect of repositioning Roberto's epistemic stance. This shift continued in the final part of the ESS, in which Roberto's facial expression and statements about having learned something further indexed an epistemic stance incongruent to his status as tutor.

Excerpt 4. "Todos aprendimos"

```
109. M: that doesn't sound familiar. there was another
110. word=
111. J: =sí, yeah=
               yes,
112. PB: =yeah, no, jarabe. es vocabulario.
                    syrup. it's vocabulary
113. palabra de vocabulario
     a vocabulary word
114. J: sí.
        yes.
115. PB: va a estar en muchos exámenes, so
         it's going to be on many tests,
116. escriban jarabe.
     write syrup.
117. ((to Roberto)) ya has terminado con esto?
                    did you finish with this?
                              ((motions to book))
118. R: Sí, gracias
        yes, thank you
119. ((Profesora Blanca leaves))
```


Figure 5. Roberto's facial expression towards Marvin after Profesora Blanca's exit

```
120. J: it was this word.
121. R: no sabía. también aprendí.
        I didn't know. I learned too.
122. J: it was that. tos jarabe. ((taps finger audibly
                      cough syrup
123. on her notebook pages))
124. M: oh, that, yeah, jarabe. yeah I was like h?
                          syrup.
125. R: así que todos aprendimos allí. está bien.
        so we all learned there. that's good.
                                ((gives thumbs-up sign))
```

Although Marvin was initially doubtful that *jarabe* was the lexical item being sought, Profesora Blanca's repeated confirmations of both the word and its importance for future exams, combined with Jackie's own affirmations after Profesora Blanca's departure, did convince Marvin by line 124. Meanwhile, as mentioned previously, Roberto's shift in epistemic stance is apparent in line 121 ('I didn't know. I learned too'), while his continued positioning as co-learner closed the interaction on this lexical item ('We all learned there. That's good.'). Roberto's "who knew?" facial expression after Profesora Blanca's departure also indexed these epistemic stances (Figure 5). Moreover, his positive assessment of this co-learning interaction corresponded closely with his beliefs about his role as easygoing conversation partner. Given this perceived role, his shifting epistemic stances in the presence or absence of social others did not appear to pose a threat to the interaction or his overall status of peer tutor. It did, however, lead to some incongruence between his epistemic stance and epistemic status during the session; however, this was quickly resolved when he continued on to another topic.

When physics aren't physical: Analysis of Tomás's peer tutoring session

Unlike Roberto's session, no instructors physically appeared during Tomás's peer tutoring session. However, this did not make social others less important, or less fetishized. The excerpts analyzed here begin with Tomás's reading of a series of true/false questions on school subjects to his Spanish 1 (first quarter) learners (Donna and Laurie) from the oral practice materials. When Tomás read the statement *la biología, la química y la física son ciencias*, 'biology, chemistry and physics are sciences,' neither Donna nor Laurie responded. As Tomás repeated the statement, Donna presented some contradicting information regarding the word "*física*," which led to an extended ESS.

Excerpt 5. "En este caso I believe it's physics"

```
1. Tomás: y:y, la FIsica, [son, CIEN]cias.
             and physics are sciences
             ((opens hands, points fingers outwards))
2. Donna:                   [   isn-uh]
3. isn't física like p e?
   ((brief glance to camera))
4. T: en este caso, it's uh >I believe it's physics.
      in this case
      ((gaze to text))      ((gaze to Donna, fingers out))
```
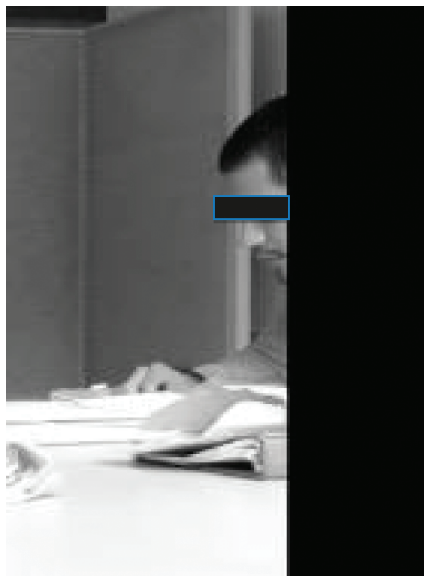

Figure 6. Tomás gazes at the practice materials

```
5. Laurie: um
6. Donna: [oh.  ]
7. Tomás: [yeah.]
```

Donna initiated the ESS in line 3 with the question, "Isn't *física* like P.E.?" (physical education). She also glanced briefly at the camera, perhaps incorporating the social other of the video's audience. Tomás's response fetishized the written practice materials through his gaze (see Figure 6), emphasizing that *en este caso*, 'in this case,' e.g., the case of the sentence in the text, his own belief was that *física* meant physics. Although Tomás's epistemic stance is maintained by both himself and the learners as more knowledgeable up to this point, his hedging ("I believe") and incorporation of the text showed both a reliance on social others and the beginning of a shift in epistemic stance.

Donna and Laurie introduced an additional social other – their previous peer tutor – immediately thereafter, as seen in Excerpt 6.

Excerpt 6. "They told us P.E. last time"

```
8. Donna and Laurie:[thhHHHHHHHhhhh ]
           ((Donna glances at Laurie, Laurie returns gaze))
9. Tomás:          [(it mighta been, it mighta been
10.          [( )           ]
           ((raises left hand slightly))
11. Donna:     [they thhold us] p e last timehh
12. Laurie: [hhHH]
13. Tomás:  [oh! ] then maybe, I dunno,
           ((eyes on text, turns palm of hand up))
```
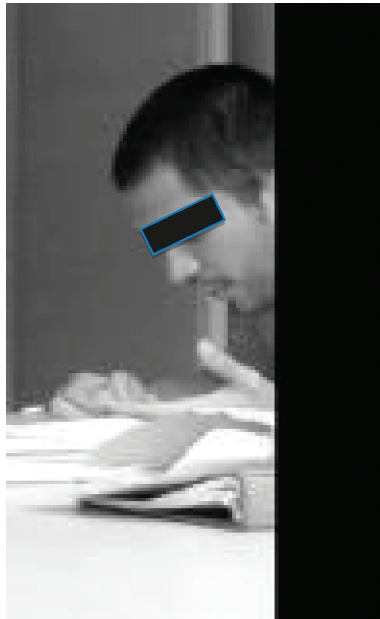

Figure 7. Tomás turns his palms up and reviews the text

```
14. Donna: [hhHHHHhhhh]
15. Tomás: [did he tell]-did he tell y-? oh.
                      ((gaze to Donna))
```

Donna and Laurie's laughter and mutual gaze initiated an additional turn on Tomás's part that indicated some doubt in his previous suggestion, although due to the students' laughter it was difficult to hear his utterance beyond "it mighta been." Tomás's utterance was cut off when Donna introduced information from the previous tutor, who, she reported, had said that *física* meant P.E. We note Tomás's disbelief in his repetition of "oh" and request for confirmation ("did he tell y-?")

directed at Donna in line 15. Tomás's surprise appeared to come from the information that another perceived expert had provided what Tomás viewed as erroneous information. Tomás again demonstrated some fetishizing of the written practice materials by disengaging from Donna and Laurie, returning his gaze back to the text in an attempt to puzzle out this new knowledge (Figure 7). Donna continued to recount her memory of Laurie's and her interaction with the previous peer tutor.

Excerpt 7. "I think he got it misunderstood"

```
16. Tomás: [s'guy-]
17. Donna: [that's] ↑what our tutor said last time
18. that-we said it was falso because it wa:as,
        ((Laurie gazes at Donna))
19. Tomás: nah I ↑think,
20. Donna: [Hhhh]
21. Tomás: [I th]ink he got it misunderstood. I-I believe
22. it's, ah, physics.
    ((gaze back to text))
    ((Laurie's gaze returns to Tomás))
23. Donna: ((inhales))
24. Tomás: yeah.
25. Donna and Laurie: hhHHHH
26. Tomás: es pe- <yeah I believe so>. °yeah.° (0.5)
27. but hey, we both could be ↑wrong↓ maybe it's not any
        ((gaze to Donna))
28.     of [the above, I don't  ]know.
29. Donna: [((shrugs shoulders))]
30. Laurie: hm,
31. Tomás: NO <I believe so. yeah. <have to look it up
            ((gaze back to text, reaches for pen))
32. though. °ye:eah, I'll write it down, just as a° (.) as a
33. note, but I'm pretty sure it is. (2.0)
                ((writing a note))
34. Donna: ((nods))
```

After Donna described the context that led to the association of *física* with "P.E." (the same true-or-false statements that Tomás was reviewing), Tomás began to re-negotiate epistemic congruence by first negating his fellow tutor's assertions ("nah") and re-asserting his own knowledge that *física* meant physics. His repeated engagement with the text appeared to confirm his own knowledge; however, this involved a nearly 15-second long turn that incorporated self-directed and other-directed talk. Both learners allowed him to hold the floor as he, at first, hedged on both his and the prior tutor's knowledge ("we both could be wrong"), then lay aside his doubts with an emphatic "no" (line 31). However, Tomás also wrote a note to himself while quietly saying he would look up the word, incorporating an additional social other of the dictionary. Note that throughout this negotiation Tomás never stated that only he could be wrong; either the previous tutor is wrong, or both tutors are wrong and *física* is neither physics nor P.E. This

approach may be due to Tomas's goal of providing alternate, colloquial terms as a peer tutor, as referenced in his interview. In this case, however, it appeared that there was no room for alternatives. Throughout this turn Donna and Laurie began to orient towards Tomás's own perception of the word *física* by nodding and using fillers such as "hm" (Laurie, line 30).

After this long stretch of self-talk, Tomás appeared to come to a final resolution on the word *física,* as seen in the final excerpt.

Excerpt 8. "Y a ese tutor que no les dije nada"

```
35. Tomás: enTONCES sí, no? [es este, física] es physics.
            so yes, right it's um physics is

36. Donna:                 (([tilts head    ])) ((nods))
37. Tomás: gr-y a ese tutor que no les dije nada.
    and [tell] that tutor that I didn't tell you anything.
                 ((lifts hands, moves fingers apart))
```


Figure 8. Tomás's hand movements during line 37

```
38. ((drops pen, moves hands apart))
39. Donna and Laurie: hH[HHhh].
40. Tomás:             [hhHH]
```

When Tomás oriented back towards the learners by asserting in line 35 that *física* was physics, Donna again aligned with this definition by nodding. Tomás then closed the interaction with a joke – and a possible strategy to avoid threatening the epistemic status of the previous tutor – by telling Laurie and Donna to keep the conversation a secret from the other tutor. His hand movements punctuated this joking warning by extending outward from the text and incorporating a finger-waving gesture typically accompanying a warning (Figure 8). Laurie and Donna aligned with the joking warning by laughing, and Tomás joined in on the laughter, supporting the learners' perception of the joke.

In this interaction with Tomás, we see how he used the information presented by the learners to first express doubt about his own knowledge, then to reassert that knowledge. The shifting epistemic incongruence was resolved through continued fetishizing of the written practice materials, which were incorporated into Tomás's knowledge through an extended turn of self-talk. At the same time, the incongruence between epistemic stance and status continued, as indexed by Tomás's stated plan to consult an additional social other (the dictionary) and joking warning at the end of the ESS.

Through the examples presented previously, we note the myriad roles that social others play in the negotiation of meaning, as well as their impact on shifts in epistemic stance and congruence. I discuss these roles in more detail, as well as providing some additional information on the initiated ESSs, in the following sections.

Discussion and implications

The data in this chapter suggest several findings regarding social others, epistemic stance, and epistemic incongruence. First, as outlined in Lantolf (2015), social others are various persons and non-persons that can be physically present or absent in peer tutor-learner interaction. These social others and the information they provide are incorporated into interlocutor-learner discourse and epistemic stance. Although some social others appear to be more powerful – for example, Profesora Blanca's physical presence and status as an instructor appeared to have a stronger impact in Roberto's session than the absent peer tutor brought forth in Tomás's session – all social others can have a profound effect on shifting epistemic stance and adding to epistemic incongruence, at least temporarily. As seen in the previous excerpts, learners take a key role in naming and incorporating social others into the learning process.

Second, written texts are frequently fetishized social others and reified as authorities by both tutors and learners. In the excerpts, peer tutors and learners alike used the strategy of engaging physically with the written practice materials through gaze and gesture. When the written texts did not produce sufficient evidence, peer tutors would either accept the knowledge given orally by learners or additional social others (Roberto), or would write down words to look up later, thus fetishizing the absent social other of the dictionary (Tomás). This fetishization also had the effect of increasing epistemic incongruence, as participants relied on and indexed these written texts to either confirm their own suspicions (Jackie's writing of *jarabe* and tapping her notebook paper) or search for alternative lexical possibilities (Roberto's search for *otra palabra*).

Lastly, there is, perhaps, a class of social other that is much less distinct, which I call the invisible social other. This refers to information possessed whose origin is unknown. For example, in the analysis of Roberto's session, I mentioned that *Tossin* was a brand name for a Spanish cough syrup. Jackie repeatedly uttered an approximation of this word (*tosino*), and Marvin also aligned with this moniker, yet neither of them could come up with the source of this information. It is possible that Profesora Blanca, a Spaniard, mentioned the brand name *Tossin* in class and then forgot about it when she interacted with the students during the session. Or, perhaps Jackie and Marvin saw an image of *Tossin* when they learned the word *jarabe*; *Tossin* is one Google Image result for the phrase *jarabe para la tos*, 'cough syrup' (Figure 9). Although it is not one of the first images to appear in this search, it is possible that Jackie and Marvin saw this image, especially if Profesora Blanca was teaching the class. This invisible social other, whether a Google Image, the absent worksheet mentioned by Marvin, or Profesora Blanca's knowledge, could explain the incongruence of the two claimed words for cough syrup (*tosino/Tossin* vs. *jarabe*), and it is difficult to determine why else Jackie and Marvin would have had this phonological association with this particular lexical item.

Figure 9. An image of Tossin as a result of a Google search for "jarabe para la tos" (Source: La Herboristería Online: <https://www.laherboristeriaonline.com/b2c/producto/D64MAS-0088/1/tossin-jarabe-para-la-tos-pharmadiet-150-ml->)

The mystery of *Tossin/tosino/jarabe* and invisible social others suggests that language learning researchers still have a long way to go in terms of our ability to measure and determine all areas of knowledge, even those discovered in interaction. While following up with this particular group may have resolved the mystery,

this would have depended upon several factors, including the return of the absent worksheet, whether or not *Tossin* had indeed appeared on the worksheet, and if Profesora Blanca had been probed for more information. For the moment, we must acknowledge that not even a comprehensive collection of data at the most micro level can account for all of the sources of knowledge that interlocutors and learners bring to a particular interaction; therefore, some explanations for additional language acquisition will similarly remain in the shadows.

However, there are several implications that we can draw from these findings, despite their limitation in scope. First of all, it is important that instructors, peer tutors, and researchers recognize and capitalize upon the crucial role that social others play in language learning. From a programmatic standpoint, peer tutor differences in language history and experiences should be celebrated and used as springboards for meaningful interaction in the target language, while peer tutors and learners should be taught how to determine the value of the information they gain from various social others, rather than fetishizing them as objective authorities. For example, peer tutors and learners could be taught to take a critical perspective on language variety, from more formally designated differences in Spain versus Latin American Spanish, to informal registers and brand names. Rather than determining one variety as "standard," meaningful language learning could take place through discussions about these distinctions and comparisons to similar items in the home language (e.g., the use of the word "Kleenex" for facial tissue in English). This is similar to the critical language pedagogy approach suggested by Leeman (2014) and others.

Second, researchers should dig more deeply into the diversity of interlocutor knowledge, the interactional manner in which this knowledge shifts over time, and the impact of fetishization of social others on both interlocutors' claims to knowledge and additional language acquisition. Determining abstract metrics of language learner success such as "knowledge" and "proficiency" may become messy, or even impossible, with a social-others approach to meaning-making, but it would allow researchers to look critically at why certain types of knowledge are taken up and reified, while others are cast aside. Like language learners, researchers would benefit greatly from a more critical, context-based approach to knowledge and language.

Finally, learners and interlocutors in peer tutoring settings would benefit from a further move from cooperation towards collaboration, in which interlocutors play the role of facilitators and mediators rather than instructors. When interlocutors are not fetishized as experts by learners, the potential for additional language acquisition through critical interaction increases substantially, similarly to what happens when social others are not fetishized by interlocutors as unquestionable authorities. Again, this movement may require a philosophical shift in how we perceive

knowledge, but the benefits would be to foster additional dialog and make issues such as the inevitable shifts in epistemic stance less threatening for interlocutors and learners alike.

Conclusion

In this study, I use a close discourse analytic approach triangulated with interview data to explore the myriad roles of social others on peer tutors' and learners' co-constructions of knowledge and epistemic stance. Findings demonstrate that social others, though they take many forms, have a profound effect on negotiations of meaning for peer tutors and their learners, as well as the stance of peer tutors as more or less knowledgeable. These findings challenge the traditional perception of the interlocutor as an undisputed source of information and suggest that a critical approach to knowledge, combined with more collaborative methods of peer tutoring, would more accurately reflect how learning and knowledge are shaped in interaction. It is hoped that future studies will implement some of these alternative methods in an attempt to alleviate the stigma of reduced epistemic stance, acknowledge and confront the knowledge presented by social others, and recognize the benefits of the ever-changing, diverse knowledge residing in all participants of language learning interactions.

References

Back, M. (2016a). Epistemics and expertise in peer tutoring interactions: Co-constructing knowledge of Spanish. *Modern Language Journal*, 100(2), 1–14. https://doi.org/10.1111/modl.12334

Back, M. (2016b). Symbolic competence in interaction: Mutuality, memory, and resistance in a peer tutoring context. *L2 Journal*, 8(3), 1–22.

Baquedano-López, P. (2004). Literacy practices across learning contexts. In A. Duranti (Ed.), *A companion to linguistic anthropology* (pp. 222–244). Oxford, UK: Blackwell. https://doi.org/10.1002/9780470996522.ch10

Fernández-Dobao, A. (2012). Collaborative dialogue in learner–learner and learner–native speaker interaction. *Applied Linguistics*, 33, 229–256. https://doi.org/10.1093/applin/ams002

Frawley, W., & Lantolf, J. P. (1985). Second language discourse: A Vygotskyan perspective. *Applied Linguistics*, 6(1), 19–44. https://doi.org/10.1093/applin/6.1.19

Heritage, J. (2012). Epistemics in action: Action formation and territories of knowledge. *Research on Language and Social Interaction*, 5, 1–29. https://doi.org/10.1080/08351813.2012.646684

Huong, L. P. H. (2007). The more knowledgeable peer, target language use, and group participation. *Canadian Modern Language Review/La Revue Canadienne des Langues Vivantes*, 64, 333–354. https://doi.org/10.3138/cmlr.64.2.329

Jakonen, T., & Morton, T. (2013). Epistemic search sequences in peer interaction in a content-based language classroom. *Applied Linguistics*, 36, 73–94. https://doi.org/10.1093/applin/amt031

Lantolf, J. (this volume). I ~ You > You ~ Me: The hidden other in L2 development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 79–97). Amsterdam, Netherlands: John Benjamins.

Lantolf, J. (2015, October). The role of the "social other" in sociocultural approaches to second language development. Symposium on Interlocutor Individual Differences in Cognition and SLA, Bloomington, IN.

Lantolf, J. P. (2011). The sociocultural approach to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 24–47). London, UK: Taylor & Francis.

Lantolf, J. P., & Pavlenko, A. (1995). Sociocultural theory and second language acquisition. *Annual Review of Applied Linguistics*, 15, 108–124. https://doi.org/10.1017/S0267190500002646

Leeman, J. (2014). Critical approaches to the teaching of Spanish as a local-foreign language. In M. Lacorte (Ed.), *The Handbook of Hispanic Applied Linguistics (275–292)*. New York, NY: Routledge.

Panitz, T. (1999). *Collaborative versus cooperative learning: A comparison of the two concepts which will help us understand the underlying nature of interactive learning.* ERIC Opinion Papers: Doc. # ED448443. Retrieved from <https://files.eric.ed.gov/fulltext/ED448443.pdf>

Roebuck, R. (2000). Subjects speak out: How learners position themselves in a psycholinguistic task. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 79–96). New York, NY: Oxford University Press.

Rusk, F., Sahlström, F., & Pörn, M. (2017). Initiating and carrying out L2 instruction by asking known-answer questions: Incongruent interrogative practices in bi- and multilingual peer interaction. *Linguistics and Education*, 38, 55–67. https://doi.org/10.1016/j.linged.2017.02.004

Thonus, T. (2004). What are the differences? Tutor interactions with first- and second-language writers. *Journal of Second Language Writing*, 13, 227–242. https://doi.org/10.1016/j.jslw.2004.04.012

Thorne, S. L. (2005). Epistemology, politics, and ethics in sociocultural theory. *Modern Language Journal*, 89, 393–409. https://doi.org/10.1111/j.1540-4781.2005.00313.x

Van Compernolle, R. A. (2014). *Sociocultural theory and L2 instructional pragmatics.* Bristol, UK: Multilingual Matters. https://doi.org/10.21832/9781783091409

Vygotsky, L. (1978). *Mind in society.* Cambridge, MA: Harvard University Press.

Widdowson, H. G. (2004). *Text, context, pretext: Critical issues in discourse analysis.* Malden, MA: Blackwell. https://doi.org/10.1002/9780470758427

Appendix. Transcription conventions

( )	inaudible utterance
(bueno)	transcriber's best estimation of nearly inaudible utterance
[	onset of overlap of utterances
]	end of overlap of utterances
=	utterances that have no discernable silence between them
(0.5)	silence represented in tenths of a second
(.)	"micropause," ordinarily less than 2/10 of a second
.	falling/final intonation
?	rising intonation
,	continuing intonation
:	prolongation or stretching of sound
-	cut-off or self-interruption
°	markedly quiet or soft talk
↑↓	sharp rise (up) or fall (down) in pitch
< >	rushed stretch of talk
> <	slow stretch of talk
<	talk starts with a rush
bueno, BUEno, BUEno	increased loudness
((cough))	transcriber description of events
hhHHH	aspiration or laughter

Accessed 12 January 2018 at
http://www.sscnet.ucla.edu/soc/faculty/schegloff/TranscriptionProject/. Adapted for the study.

Variationist perspective

CHAPTER 6

Variationist perspective(s) on interlocutor individual differences

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The variationist perspective provides tools for modeling language use in context by incorporating the influences of social and linguistic factors in the interactional setting. These influencing factors include speaker characteristics (age, regional origin), characteristics of the setting (formality), and characteristics of other participants in the interaction (Geeslin & Long, 2014). In second language research, these factors can describe change over time (i.e., development) and the acquisition of sociolinguistic competence (i.e., the ability to modify one's speech in socially acceptable ways across settings) (Canale & Swain, 1980; Tarone, 2007). While the variationist perspective is well equipped for addressing the role of the interlocutor, the potential of variationist tools has not been fully exploited. The present chapter reviews existing variationist research, provides a new model that includes these interlocutor-related factors, and proposes a research agenda for moving forward.

Keywords: individual differences, models of language use, second language variation, sociolinguistic competence, variation

Introduction

The current volume addresses the role of the interlocutor in second language acquisition and, more precisely, how the characteristics of interlocutors play a role in the development of second languages. The purpose of the current chapter is to explore the connections between variationist approaches and our growing understanding of the importance of the interlocutor. We begin with a brief overview of the basic principles of the variationist approach, focusing on how this view might account for facts about interlocutor individual differences. Specifically, we see how the interlocutor is identified and explore the role that the characteristics of the interlocutor might play in accounting for patterns of use in first and second languages. We also review empirical research conducted within the variationist

perspective on the influence interlocutors have on patterns of language use and how that body of knowledge has grown over time. Although the conversation about the variationist perspective begins by addressing what it offers to the field of researchers studying interlocutor individual differences, we conclude with a better understanding of how research on the interlocutor might help to develop insights within the variationist approach as well.

An overview of the variationist approach

The variationist approach is often characterized by the methods of analysis and research design it employs. Stemming from the traditions of inquiry in the field of sociolinguistics, this approach recognizes the inherent variability in patterns of language use. These patterns are viewed as systematic, but not categorical, and the research objective is to improve our understanding of this system. A speaker's (sub-conscious) choice between forms is conditioned by a host of linguistic, social, and situational factors, all of which operate in concert to influence the form produced or the interpretation gleaned from a given utterance. At the heart of this approach are several essential theoretical assumptions. For example, in sociolinguistics it is understood that linguistic competence is comprised not only of the categorical (invariant) properties of language, but rather also of those that vary according to the interactional context and to the norms of groups of speakers (Labov, 1972). Thus, knowing a language entails knowing how to use language across interactional contexts in appropriate ways. It has further been argued that the sociolinguistic variable is a theoretical construct, much like a phoneme, and it can be conceived of as a set of possible realizations of a given element of language, each of which is conditioned by the influencing factors present in the context in which it occurs (see for example, Chambers, 2009). These underlying assumptions mean that variationist researchers seek to identify the relevant constraining factors and to understand their relative influence on the patterns of use of a given form. To accomplish this goal, variationists employ robust statistical analyses of multiple factors in a single multivariate model. Another important characteristic of variationist analyses is the manner in which a token is identified. In research on phonetic variants, it is generally believed that the two or more forms in alternation express equivalent meaning, whereas for morphosyntactic variants, it is generally understood that the forms in alternation may not express equivalent meaning but fulfill the same function (Aaron, 2010; Lavandera, 1978; D. Sankoff, 1998; Schwenter & Torres-Cacoullos, 2008; Silva-Corvalán, 1997). In both cases, a token is identified by the meaning it expresses or the function it fulfills, rather than through accuracy or other categorical definitions of what prescriptive accounts would dictate is the "expected" form.

In addition to these characteristic methods of analysis, the focus on patterns of use has led variationist researchers to rely on particular approaches to data elicitation. For example, many studies employ interview tasks in which the objective is to put a speaker at ease and elicit natural, unmonitored speech to the extent possible. Likewise, written tasks tend to focus on contextualized samples of language that extend beyond the level of the sentence and that contain carefully-balanced combinations of the various categories of the independent factors known to influence use. Both the sophisticated statistical analyses and the standards for data elicitation contribute to the clarity with which variationist researchers can account for the role that linguistic, social, and situational factors play in determining a speaker's patterns of use.

Before we continue our discussion of the variationist approach and its application to interlocutor individual differences, I provide two examples to illustrate how these constraining factors operate. I offer an example of phonetic variation, /s/-reduction in Spanish, as in (1), as well as one of morphosyntactic variation, that of subject expression in Spanish, in (2). In the case of the former, each token is defined as a potential context for the phoneme /s/, and in the case of the latter, each token is defined as any instance where a verbal subject is expressed (albeit null).

(1) *¿Qué **vamoh**   a hacer luego? ¿**Quiereh**   ir al   centro?*
     what go-1PL.PRES to do   later? want-2SG.PRES go to-the center?
     'What are we going to do later? Do you want to go downtown?'

(2) No, **(nosotros)** no   tenemos, pero **(yo)** creo   que **ellos** sí
     NEG (we)   NEG have-1PL but   (I)   believe-1SG.PRES that they yes
     tenían   algunos el   otro día. ¿Por qué **(tú)**   no   se
     have-3PL.IMP some   the other day. why   (you) NEG them-IO
     los   pides   a ellos?
     them-DO ask-2SG.PRES to them
     'No, we don't have any, but I think they had some the other day. Why don't you ask them for some?'

In Example (1), we see that the first instance of /s/ occurs in word-final position and on a verb form, and it is produced as the aspirated variant. These two linguistic factors are both known to favor /s/-reduction (or aspiration). Likewise, the utterance is spoken by a younger male with a high school education. Again, these social factors are known to foster reduced or aspirated productions of /s/. It is through variationist research that we have come to identify these conditioning factors and also to understand the direction and strength of their effect on this particular phenomenon (for more detail, see Brown, 2009; File Muriel & Brown, 2011; Holmquist, 2011; Samper Padilla, 2011). In the morphosyntactic example, shown in (2), we see that of the four contexts where a verbal subject is expressed, only one of these

is realized as an overt form. The variationist approach allows us to examine both the rates of use of particular variants and the factors that predict their occurrence. In this particular example, we might note that the single overt pronominal form occurs with a verb form in a third person, imperfect verbal context in which the referent is not previously mentioned. Because this particular variable tends to be constrained by geographic rather than social factors, we might also note that the utterance was spoken by an individual from Spain (as opposed to the Dominican Republic, for example) and this may have contributed to the higher overall rate of null forms (for more detail, see Carvalho & Child, 2011; Carvalho, Orozco, & Shin, 2015; Erker & Guy, 2012; Mayol, 2012). The key point to be gleaned from these examples, and the prior research through which they are informed, is that variationist approaches have successfully identified several relevant factors that allow for the statistical modeling of the patterns of use that account for linguistic, social, and situational constraints.

Thus far I have referred to the variationist approach, rather than a variationist hypothesis, theory, or model (Long, 1990; VanPatten & Williams, 2014). It is clear that variationism provides a concrete approach to data analysis and allows us to describe patterns of use for an individual or a group of speakers. By definition, a theory must not only describe but rather it must also explain and predict these patterns, and to be sure, for some linguists the variationist paradigm is seen to accomplish this goal. In understanding the reach of the variationist approach, a further important distinction is that between theories of systems and theories of processes. The former refers to descriptions, explanations, and predictions of systems (of knowledge or any other construct), whereas the latter refers to processes through which such systems come to exist. Taking concrete examples, a theory of the linguistic system describes, explains, and predicts what is known by a given speaker about language, and a theory of the process of acquisition can describe, explain, and predict how that linguistic system came to develop into its current state. There are some theories of systems that are compatible with theories of processes, whereas others may address only one portion of that phenomenon. For example, the Connectionist approach models how language systems come to develop (i.e., through the establishment and strengthening of connections between elements that occur together) and also the manner in which knowledge is stored (i.e., as a series of connections) (Bates & MacWhinney, 1987; Fantuzzi, 1992; Gasser, 1990; MacWhinney, 2001, 2008). The most important insight here is that, at a minimum, the variationist approach provides effective tools for the description of linguistic knowledge and language use in which multiple features of the speaker and the interactional context play a role in the forms a speaker produces in a given instance. In this sense, variationism has quite a lot to offer to the study of the role of the interlocutor in the acquisition of second languages.

The variationist approach is characterized by several unifying concepts that comprise the basic understanding of the research goals under this framework, and the interpretation of the results gleaned using this approach. In the debate about whether second language acquisition researchers should focus on the role of social and contextual factors of language (e.g., Firth & Wagner, 1997; Geeslin & Long, 2014; Larsen-Freeman, 2007; Tarone, 2007), variationists provide an example of how social information can be incorporated into a model of linguistic knowledge. Tarone (2010) states that "Variationist SLA researchers study the systematic impact of contextual variables such as the identity and role of interlocutors, topic and task, as well as contextual linguistic forms, on the learner's perception, production, and acquisition of specific aspects of the L2 system" (p. 54). There are several assumptions inherent in this description, and the goal of the remainder of this section is to identify and describe these. The first of these assumptions is that context matters. Variationists believe that language is a reflection of the linguistic, social, and individual characteristics of the discourse context and the speakers involved in a given interaction. The implication of awarding importance to these contextual features is that language must be studied in the context in which it occurs (vs. in isolated units, for example). It further means that the object of study is the patterns of language use, rather than abstract or idealized knowledge. A second important understanding about language from the variationist perspective (and others) is that one must address both form and function. Variationists agree that multiple forms may be used to express a single function. Moreover, forms that fulfill the same linguistic function may also add social meaning to an utterance. This means, for example, that the /s/ in [tu.ˈði.seh] *tú dices* 'you say' and in [tu.ˈa.blah] *tú hablas* 'you speak' may express the same function (second person singular verbal person), but the aspirated variant can add social information (e.g., speaker gender, social class, or even the (in)formality of the interactional setting). The implication of this assumption is that if we limit our analysis to linguistic contextual factors alone, we may miss important facts about language use and linguistic knowledge. This insight extends to the characteristics of the speaker and the hearer as well.

A third assumption underlying the variationist approach is that the best way to study the "systematic impact" of multiple, simultaneous influences on patterns of language use is through sophisticated statistical modeling.[1] Variationists use multivariate statistical analyses to identify the role and the relative importance

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[1]. These models have evolved over time, and developments in statistics often lead to interesting conversations about the underlying assumptions in sociolinguistic research. For example, mixed-effects models can now account statistically for individual speakers (e.g., D. E. Johnson, 2009), but this is not universally agreed to be beneficial given the assumption that groups of speakers taken together represent social (rather than idiosyncratic) norms (see Bayley & Langman, 2004; Geeslin, Linford, Fafulas, Long, & Díaz-Campos, 2013, for discussion).

of the linguistic, social, and individual factors on the use of a particular form (or forms). The implication of the reliance on this type of probabilistic modeling is that native speaker patterns are not viewed as categorical rules but rather complex patterns of use that reflect the context (linguistic and social) in which the forms occur. For second language acquisition researchers this means that acquisition of the properties of an additional language is reflected through the range of forms employed, the rates with which they are used, and the factors that predict their use. For example, in the attributive context in second language Spanish (i.e., referent + copular verb + adjective), learners must acquire the full range of forms that can occur in this context (e.g., *ser* 'to be', *estar* 'to be', *parecer* 'to seem', *sentirse* 'to feel', etc.), the appropriate frequency of use for each, and the linguistic and social constraints on their use. This means that learners must gradually move away from the overgeneralized use of the form *ser* toward the use of forms such as *estar* in contexts where *estar* is used (variably) by native speakers, such as those of comparison or surprise (see Woolsey, 2008, for review).

Thus far we have seen that variationists are able to employ tools of data elicitation and analysis to identify and describe patterns of language use for native and non-native speakers. Critics of this approach claim that this focus on detailed, probabilistic description is the singular contribution of this approach. Nevertheless, it is also possible to use this approach to model cognitive grammars, either through a compatible approach (e.g., Connectionism) or through models such as Preston's (1996, 2000) psycholinguistic model, which was envisioned within the variationist approach (see also Geeslin, 2011a, 2011b; Gudmestad, 2013; Gudmestad & Geeslin, 2011; Preston, 1993, 1996, 2000, 2002, 2004). Preston's model captures the insights of the variationist paradigm, assigning levels to each of the types of influencing factors identified. Level I factors are social factors, such as age, gender, socioeconomic class, and the like. The influence of social factors has been attested for both native and second languages. For example, Adamson and Regan (1991) found that non-native English-speaking males used the variant "in" /ɪn/ (vs. "-ing" /ɪŋ/) at greater rates than their female counterparts. This pattern is consistent with native English speakers. However, the rates of the non-native males were actually higher than their male native speaker counterparts, showing that the non-native speakers had overshot the social norm for natives. In Preston's model, Level II factors correspond to linguistic factors, such as position in the word for /s/-weakening or person and number of the verbal subject for subject expression. There now exist multiple examples of studies that attest to the influence of linguistic factors on second language patterns of acquisition and use. To take a single example,[2] Geeslin

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2.   For more examples of the linguistic factors influencing non-native subject expression, see Blackwell and Quesada (2012), Geeslin and Linford (2012), Geeslin, Linford, and Fafulas (2015), Linford and Shin (2013), and Rothman (2007).

and Gudmestad (2011) showed that advanced non-native speakers of Spanish used more overt subject forms in contexts of switch reference than in contexts of same reference. Lastly, Preston's Level III factors are related to time, or as is the case for learners, proficiency as it relates to length of learning. For native speaker models, the time factor can be used to explain the process of language change, whereas for non-native speakers, this change over time occurs as proficiency increases within the individual or as level increases across groups of learners. Good examples of studies that incorporate social and linguistic influencing factors as well as the Level III time-related factors are those that compare students in a short-term study abroad program. These have shown that learners are able to modify their intonational patterns through changes in their final boundary tone inventory, select object pronouns in ways that approximate linguistic and geographic constraints, and adjust the time of event constraint on use of the present perfect, limiting these forms to hodiernal contexts and according to geographic norms (Geeslin, Fafulas, & Kanwit, 2013; Geeslin, García-Amaya, Hasler-Barker, Henriksen, & Killam, 2010, 2012; Henriksen, Geeslin, & Willis, 2010; Kanwit, Geeslin, & Fafulas, 2015; Salgado-Robles, 2011). From this brief discussion we see that Preston's model allows variationists to conceptualize mental grammars as probabilistic mechanisms that continuously (re-)calculate the likelihood of a given form in a given context, where context is inclusive of social, linguistic, and temporal factors that influence patterns of use.

We conclude this section with a summary of the basic assumptions held by the variationist perspective. Critically, we see that there is no single-factor explanation for patterns of language use. Instead, social and linguistic factors together exert simultaneous influence on language use and are connected to our understanding of how a given form or forms are used to fulfill a particular function (see Back, Chapter 5, and Larsen-Freeman, Chapter 8, for additional examples on multifaceted influences). Under this approach the task of the linguist is to identify the relevant predictive factors, explore the relationship of those factors to the patterns of use attested in the data, and predict as much of the variability as possible with increasingly accurate models. This increased accuracy results from improved operationalization of the influencing factors, increased detail about patterns of use across tasks and settings, and also improved accounts of the role of learner characteristics, interlocutor characteristics, and situational facts. We will turn our attention to this last area for the remainder of the chapter.

A focus on the interlocutor

As we explore how the variationist approach might account for the role of the interlocutor and the individual characteristics of that interlocutor on language acquisition, it is important to contextualize this discussion within the definition of interlocutor found more broadly in the second language literature. In fact, the term interlocutor is frequently invoked yet infrequently defined. For example, the definition of interlocutor is absent from VanPatten and Benati (2010), the introduction in Mackey (2012), the introduction and articles in the special issue of the *Modern Language Journal* on input and interaction in SLA (Gass, Mackey, & Pica, 1998), and even in classic works like Long (1996) where interlocutor is mentioned 30 times, but never defined. Interlocutor is merely glossed as "students" in Long and Porter (1985). Polio, Gass, and Chapin (2006) investigate perceptions of interlocutor without defining it. Gass, Behney, and Plonsky (2013) define the interlocutor as a person with whom one is speaking (p. 526). According to Gurzynski-Weiss (2013), "an interlocutor is one of the individuals involved in communication. More often, 'interlocutor' is used to describe the individual with more knowledge of the target language, who consequently is often in control of the communicative exchange" (p. 531). She further notes that the interlocutor provides the critical feedback that many theorize is essential for second language acquisition to occur (Gurzynski-Weiss, 2010, p. 4). Despite the paucity of definitions in the literature, there is ample evidence to support the conception that the interlocutor plays an integral role in the process of second language acquisition. We know, for example, that feedback is a crucial element in the acquisition of a second language, even though minimal attention has been paid to the feedback *provider* (referred to as the "source" or "interlocutor" of feedback in the literature) (Gurzynski-Weiss, 2010, p. 3).

For the purpose of the subsequent discussion, and consistent with the other papers in this volume, I define interlocutor as the input provider and the communicative partner of the learner. With this definition in mind, we can see that a variationist account of the role of the interlocutor raises interesting questions about the input a learner may receive from a particular interlocutor as well as the language a learner might produce with a given interlocutor. We will address each of these issues – learner-directed language and learner-produced language – briefly here before turning to the body of existing research on second language variation that may assist us in answering some of these questions. There is little disagreement across theories of acquisition that input is an essential ingredient for language development (Gass & Madden, 1985), and usage-based approaches are no exception (Geeslin & Long, 2014). Given the essential nature of input and the definition of interlocutor as input-provider, it is worthwhile to explore how the characteristics of

the interlocutor may influence the language to which a learner is exposed. Firstly, variationist sociolinguistics has carefully documented the ways in which speaker characteristics are communicated through the language a speaker produces. These characteristics may include age (e.g., Rickford & Price, 2013), gender (e.g., Eckert & McConnell-Ginet, 1992), level of education (e.g., Shin & Otheguy, 2013), and other social facts as well as situational information, such as the degree to which a speaker feels solidarity with the hearer (e.g., Kiesling, 2009), the speaker's perception of the formality of the situation (e.g., Labov, 1966, 1972), the gravity of the topic of conversation (e.g., Rickford & McNair-Knox, 1994), and a host of other interactional factors. In this sense, the input directed at a particular learner is a factor of the people with whom that learner interacts and the range of situations in which the learner is able to interact (see Lantolf, Chapter 4, for related themes from a sociocultural lens). A second important aspect to consider under a variationist account of learner-directed input is that speakers adjust their language in response to their own interlocutors (Bell, 1984). In this case, a speaker may modify the language directed toward a learner based on perceived characteristics of that learner, including but not limited to proficiency, social characteristics, and personality traits (e.g., Gass & Varonis, 1985). Thus, even when the input-provider is the same, the language that individual directs at different learners can vary. A careful account of input will include both of these types of variation.

We noted earlier that a variationist account of the interlocutor should also raise questions about learner-produced language. Just as with native speakers, the language a learner produces will come to reflect that individual's social characteristics as well as the characteristics of the interactional setting (e.g., formality, solidarity, etc.). Additionally, the language a learner is able to produce is a reflection of the input to which that individual learner has access, including the range of speakers and the range of interactional situations. We expect too that learners will come to reflect their own individual reactions to their input-providing interlocutors through variable elements in language, and this may come to shape the opportunities for subsequent learning to which an individual has access. Put simply, access to input is shaped by the characteristics of the learner and the interlocutor, and over time, this may ultimately limit or create new opportunities for interaction. A good model of the role of the interlocutor within a variationist perspective will further include the dynamic nature of these influences as they develop over time and throughout the learning process.

Empirical studies on interlocutors

We will return to the discussion of the variationist perspective and how we might account for the various influences related to the interlocutor. However, prior to doing so, it is important to understand the research insights available thus far, which may inform our understanding of these interactional relationships. We begin the current section with a brief overview of findings related to interlocutors in native language settings and then we turn our attention to the second language context. The field of variationist sociolinguistics is now well established and quite productive. Collectively, studies have shown the varying role that gender (Cameron, 2005; Eckert, 1989; Kiesling, 1998; Labov, 1990; Milroy, 1980), sexual orientation (Moonwomon-Baird, 1997; Podesva, 2007, 2008; Rogers, Smyth, & Jacobs, 2003; Smyth & Rogers, 2002), age of the speaker (Cameron, 2011; Eckert, 1997; Rickford & Price, 2013), ethnic identity and race (Fishman, 1997; Harris & Rampton, 2003), socioeconomic status (Labov, 2000; Zhang, 2005, 2008), and other social characteristics play in spoken interactions. While the most important finding of this research as a whole is that no single characteristic exhibits a monolithic effect across linguistic structures, speech communities, and contexts of interaction, there are some general tendencies that have proven important in understanding language change more broadly. For example, age patterns can sometimes tell us whether a change is taking place in a language or whether there is a prestige variant at work that is more likely associated with the professional workplace than with language change (for discussion see Cameron, 2011). Likewise, we know that some changes in language are led by innovators, often women and younger speakers, and speakers are generally aware of these changes (e.g., Holmquist, 1985; Milroy & Milroy, 1985), whereas other changes take place below the level of consciousness (e.g., Cedergren, 1973; Eckert, 1989; Labov, 1966) and are adopted first by the upper middle class and then spread to other speech communities (for discussion see Labov, 1990, 2000). With these findings alone, we corroborate the idea that the interlocutor with whom a learner interacts will produce speech that is a reflection of individual identity (Bucholtz & Hall, 2004; Norton, 2010) and, thus, by definition will vary from one interlocutor to another. In addition to the characteristics of the speaker, we further know that speech is variable from one domain to another (Fishman, 1972; Halliday & Hasan, 1976), as the topic of conversation varies (Ervin-Tripp, 1964; Lumley & O'Sullivan, 2005; Rickford & McNair-Knox, 1994), and depending on familiarity between speakers (Lumley & O'Sullivan, 2005; Poteau, 2011; Rickford & McNair-Knox, 1994), to name only a few situational variables. One well-known model that seeks to incorporate this is the Audience Design framework developed by Bell (1984, 2001, 2009). Under this approach, speech may vary according to factors related to the speaker, the hearer, and the situation in which the interaction

takes place (including who else might overhear the conversation). These factors have been addressed quite recently in research on style as well (Eckert, 2008, 2012). Taken together, these lines of research have led to the development of sophisticated models of multifactorial influence on speech patterns. Another, related line of research has shown that our knowledge of the social characteristics of a speaker can even shape our perception of language. For example, participants in Niedzielski (1999) perceived differences in the vowels they were asked to identify according to the geographic origin label on their answer sheet, and participants in Staum Casasanto (2008) were more likely to identify a speaker as African American when they heard a greater number of *t/d* deletion (see also Campbell-Kibler, 2007, 2008, 2009, 2010, 2011; Hay & Drager, 2010; Hay, Nolan, & Drager, 2006; Hay, Warren, & Drager, 2006; Levon, 2006, 2007, 2014; Levon & Buchstaller, 2015; Squires, 2013, 2014a, 2014b). In short, we know that speech (i.e., input) varies along many factors, and there are at least two important implications for second languages. The first is that second language learners must also acquire the ability to manage these tools in order to accurately interpret and express facts about their own identities, and the second is that the input to which learners have access is neither constant nor the same for all learners.

Existing research: Second languages

As we turn our attention to interlocutors and their role in second language acquisition and use, there is a more limited database upon which to draw. Nevertheless, several classic studies confirm the importance of the interlocutor in second language interactions, and we provide a brief review of these before identifying some promising new research on this topic. In Beebe's (1977) study of Chinese-Thai bilinguals who spoke Thai with two different interlocutors, one of whom was ethnically Thai and one of whom was ethnically Chinese, the bilinguals exhibited higher rates of phonetic Thai variants when speaking with Thai listeners and Chinese variants with Chinese listeners. Likewise, Beebe (1980) showed that the phonetic production of initial and final /r/ exhibited by Thai learners of English could be explained by stylistic variants in the first language (Thai) that indicated formality, even though this was not the case in the second language (English). Specifically, for final /r/, accuracy increased in the more formal task as was predicted, whereas for initial /r/, which is produced as [l] in formal contexts in Thai, accuracy decreased (i.e., use of the first language formal variant increased) in the more formal task. These and other findings led Beebe and Zuengler (1983) to conclude that the interlocutor, rather than the target culture, was a better indicator of the dynamics of social and psychological distance on the part of the second language learner. Berkowitz (1989) studied Dominican learners of English and found that perceptions of cultural

empathy were related to degree of target-like phonetic production. In other words, to some degree the amount to which the learner believed their interlocutor to be empathetic influenced the accuracy of their second language production. The relationship between cultural empathy and the linguistic variants examined was not uniform, showing a positive correlation in some cases (e.g., higher perceived cultural empathy led to greater accuracy on /r/) and a negative correlation in others (e.g., higher perceived cultural empathy led to lower accuracy rates for final clusters) (see Berkowitz, 1989, p. 111). Interestingly, perceptions of cultural empathy were also related to proficiency, length of residence in the US, and attitudes toward American culture. We see also the effect of the second language interlocutor on the native speaker. Gass and Varonis (1985) studied the English production of Spanish and Arabic native-speaking learners and found that the speech of native English speakers changed in terms of the amount of total speech, amount of negation, scope of repair, elaboration, and transparency as a function of the perceived proficiency of the second language interlocutor. Bayley (1994) looked at some of these same factors for Chinese learners of English and found that while linguistic factors were the greatest determinant of second language variation, social factors also played a role. For example, a speaker's social networks influenced the past tense forms produced, where learners with mixed social networks (native English speakers and native Chinese speakers) differed from those with monolithic social ties. Of interest for the current chapter is that Bayley also showed that the interviewer context, as determined by the number of interlocutors present, also influenced patterns of use. What these classic studies show is that the patterns of variation in learner language are systematic and can be influenced by a range of factors, including the number of hearers present and the social characteristics of those hearers. In sum, they show that interlocutors influence learner-produced language.

Moving to current research, we see detailed connections between this classic second language research, on the one hand, and developments in variationist sociolinguistics, on the other. The manner in which variationist sociolinguistics accounts for the influence of interactional context on language use has become increasingly sophisticated, shifting from a binary distinction between formal and informal (or monitored and unmonitored) speech to a multifaceted study of the many factors that are at play in a single interaction (Geeslin, 2011a, 2011b; Gudmestad, 2013; Gudmestad & Geeslin, 2011; Preston, 1993, 1996, 2000, 2002, 2004). For example, we know that features of the conversation itself, such as the topic of discussion, are important predictors of the variants produced by a speaker (Bell, 1984; Coupland, 1981; Ervin-Tripp, 1964; Lumley & O'Sullivan, 2005; Rickford & McNair-Knox, 1994; Schilling-Estes, 2004). For learners, a careful account of the context must also include details related to the task of measurement, the orientation of attentional resources and other factors as well (see Geeslin, 2006; In'nami & Koizumi,

2016; Tarone & Parrish, 1988). The tradition of documenting differences in learner language that occur from one pedagogical task to another is long-standing. Larsen-Freeman (1975) demonstrated differences across five different tasks in her classic study of second language English speakers, and this has fostered a robust body of research with increasing detail (see Larsen-Freeman, Chapter 8). We know, for example, that the type of narrative a learner produces (e.g., personal vs. third person impersonal) influences the production of past tense forms in second language Spanish (Liskin-Gasparro, 2000) and that pedagogical factors such as planning time, complexity of the task, order of the tasks, orientation (instructions) of the task, and learner characteristics such as working memory or anxiety influence task-based differences (Duff, 1993; Plough & Gass, 1993; Robinson, 1995, 2001, 2005, 2007, 2011; see also Philp & Gurzynski-Weiss, Chapter 2). There is evidence that the interactional context also influences the path of language acquisition within that context, such that different forms occur with different interlocutors or in different settings (Tarone & Liu, 1995). Recent studies have extended our understanding of the linguistic context and its influence on acquisition as well. Shea and Curtin (2011) showed that increasing proficiency correlates with the articulation of phonetic differences in places of articulation that are context-dependent. The implication is that acquisition is a context-dependent process. Leal, Slabakova, and Farmer (2017) showed that grammatical contexts can influence expectations with topicalized constructions as proficiency in second language learners increases. Additionally, Molnar, Ibáñez-Molina, and Carreira (2015) showed that interlocutors can function as cues or primes for language activation. In an audio-visual lexical decision task, their Spanish-Basque early bilingual participants responded faster to stimuli where the language of the auditory stimuli matched the language background of the speaker than where there was a mismatch or ambiguity. In each of these cases, this recent research demonstrates important facts about how the context itself must be incorporated into our accounts of second language acquisition. Taken in combination with the classic studies that show the important influence an interlocutor may have on learner-produced language, we see that an account of learner language that identifies and examines the interlocutor as one key factor in accounting for contextual influences stands to inform our current knowledge.

Perhaps even more important than understanding the role of interlocutors in learner-produced speech, is knowing more about how interlocutors influence learner-directed speech. Given the centrality of input as a driving force for acquisition, and our knowledge of how speaker characteristics are reflected in their own patterns of language use, we must also connect these facts to the experience of the second language learner. Put simply, learners rely on interlocutors for a good portion of the input they receive. The range of interlocutors and the quality and quantity of language they produce is of central importance to understanding

second language learning. At present there are a few empirical studies that employ the methods of variationist sociolinguistics to better understand the patterns of use of input-providers across instructional and non-instructional settings. Gurzynski-Weiss and colleagues (2017, 2018) provide an example of this type of work (see also Dracos, 2018). They examine the variable patterns of subject expression (i.e., the use of null, pronominal, or lexical noun phrases to mark verbal subjects) in Spanish by five native Spanish-speaking instructors across three tasks. They recorded an oral learner-directed classroom presentation (from 50-minute, in-class video recordings), used written materials created for learners in the classroom, and conducted a sociolinguistic interview with the instructor outside the language classroom setting. Their findings showed that there were similarities in the distributional hierarchies of subject forms across modes, but there were also subtle differences in frequency and constraints on the use of those subject forms. These findings are somewhat surprising given the stability in the constraints on use attested across geographic varieties in the Spanish speaking world (Cameron, 1995; Cameron & Flores-Ferrán, 2004; Travis, 2005, 2007), and they are significant for the study of language learning precisely because variation across individuals and contexts of interaction were attested. The importance of this line of work extends beyond a curiosity about patterns of variation. Instead, it is essential information about the input to which learners have access. In fact, several variationist studies have shown that classroom learners are exposed to more conservative norms and that this is ultimately reflected in their own patterns of use. For example, Mougeon, Nadasdi, and Rehner (2004) showed that French teachers in immersion classrooms used fewer markers of informality, and Li (2010, 2014) demonstrated that teachers of Chinese used greater numbers of optional markers, such as the particle DE and overt subject forms, than native speaker comparison groups in other contexts of interaction. The learners in both studies demonstrated patterns of use that converged on those of the instructors, rather than their own native-speaking peers. Because we know that input drives acquisition and that input (and all language) reflects facts about the situation and the identity of all participants, we need to understand exactly what resources are available to the language learner and how second language acquisition is affected by the range of situations and input-providing interlocutors to which a learner has access.

The research on input-providers demonstrates how the patterns of language use of an individual interlocutor may influence acquisition for a learner. One interesting dimension of the learner/interlocutor interaction is that the language learner is also an active participant. This fact is best documented in research on target selection. Many of the languages of the world are spoken in vastly different geographic and social settings, and thus, classroom learners in particular, are generally exposed to multiple varieties of the target language, including bilingual varieties spoken by

native speakers of the target language who are also speakers of the native language of the learner. The implication is that the goal for language learning is not to be a monolingual speaker of a language (Cook, 1992; Ortega, 2011, 2013) nor is it to be proficient in a single geographic or social variety of that language (Auger, 2002; Eisenstein, 1986; Geeslin & Long, 2014; Gutiérrez & Fairclough, 2006). Instead, learners must be able to manage the variation that exists in their learning context and beyond. These facts present an interesting contrast: learners must perceive and comprehend elements of the target language across speakers and contexts, but they may actively select the forms they use in the language they produce according to their own identities, attitudes, and relationships with other speakers. Recent research in the study abroad environment has shown that learners can acquire the patterns of frequency of use and the constraints on that use for a particular region in a relatively short period of time (see for example, research on intonation [Henriksen, Geeslin, & Willis, 2010], past-time marking in perfective contexts [Geeslin et al., 2012], object pronouns [Geeslin et al., 2010; Salgado-Robles, 2011, 2014, 2018], and on phonetic geographic variants [Bongiovanni, Long, Solon, & Willis, 2015; George, 2014; Knouse, 2013; Ringer-Hilfinger, 2012; Willis, Geeslin, & Henriksen, 2009]). Likewise, Regan, Howard, and Lemee (2009) tested Irish learners of French prior to and following study abroad in France and found that each of the learners in their study showed an increased use of markers of informality after time abroad. There is, however, also evidence that learners do not always choose to produce regional variants, nor do all learners respond to these variants in the same manner. For example, rates of use of /θ/ by study abroad learners in León, Spain differ across learners and are not a function of proficiency or study abroad experience alone (Willis, Geeslin, & Henriksen, 2009). Likewise, Knouse (2013) found that Spanish majors and minors are more likely to use /θ/ than those with other areas of study. Using a matched guise task, Ringer-Hilfinger (2012) showed that /θ/ use is less likely when a learner's friends are speakers of other varieties of Spanish. Finally, in recent research on language attitudes and dialect identification, Geeslin and Schmidt (2018) have shown that there are several predictors of learner attitudes toward the four varieties of Spanish they examined, and these include the geographic variant itself, the social characteristics of the learner, the experience abroad of the learner, and the learner's proficiency, to name only a few. The pedagogical implication of this variationist research is that we will profit from the careful study of the input to which learners have access, recognizing that if a range of variants are not generally present in classroom input, we must make strides toward ensuring that learners do have access to this variation (Auger, 2002; Geeslin & Long, 2014; Geeslin & Evans-Sago, 2018; Gutiérrez & Fairclough, 2006; Valdman, 1988, 2002). The implication for models of learning and for interaction between interlocutors, regardless of native-language status, is that our understanding of

language use must be situated (context-dependent), and it must be individualized to reflect the characteristics and attitudes of the speaker.[3]

There is one additional dimension that must be reflected in models of language learning and use, and this is most likely where the greatest challenges remain. There is some variationist work that has addressed a temporal dimension in the analysis. For example, Berdan (1996) showed that proficiency (operationalized as the length of period of acquisition) was an important factor in demonstrating acquisition in the use of negation in English by Schumann's (1976, 1978) Alberto. Likewise, the study abroad research mentioned above often has a pre/post-test design that incorporates a temporal dimension (see Geeslin et al., 2010, 2012, for studies with three measurement times). Nevertheless, changes in proficiency over relatively longer periods of time are only one type of dynamic relationship we might discover. We have noted that language attitudes and perceptions of speakers directly influence the language they produce. Nevertheless, these perceptions may change over the time course of a single interaction. For example, a speaker may assume (incorrectly) that a learner has a particular level of proficiency and then, upon interacting briefly, may adjust their speech to modify their initial judgment. This type of adjustment, at times referred to as accommodation or convergence (or divergence), is a naturally-occurring phenomenon in conversational interactions, but there is less empirical work available to address these changes from one moment to another in an interaction. One recent study that may hold promise for this line of research is Leal, Geeslin, and Escalona-Torres (2016), who examined the role of the geographic variety of the instructions in a self-paced reading test of processing time on items that included object pronoun forms associated with Spain in contrast with the forms used in those same accusative contexts in other Spanish-speaking regions. Of interest for the current topic is a learning effect that was discovered. When participants heard the instructions read by a speaker from Spain, they read the Spain-indexed forms more quickly than when the instructions were read by a speaker from Mexico (where the participants resided and the task was conducted). Nevertheless, all participants were able to adjust their expectations in a short period of time, and by the later portion of the experiment, even the participants who did not hear instructions by a speaker from Spain, were reading the Spain-indexed forms more quickly. This result is a demonstration of our ability to adjust expectations over a relatively short period of time and to show differences, in this case in language processing, relatively quickly. This type of adjustment is much like the example above, where a speaker adjusts according to perceived, and

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3.   This individualization has been facilitated by advances in statistical analysis. For example, mixed-effects regressions allow researchers to account for individual speakers. But, see also FN #1 for discussion about the theoretical implications of looking at groups versus individuals.

then modified, evaluations of a hearer's proficiency. The implication for acquisition is that input is not static, and interestingly, the learner herself may do things in an interaction to influence the input she receives in the future (even within the same conversation). The upshot for variationist models of the interlocutor is that the influences of speaker, hearer, and context are not static. Instead, they are adaptive, and they influence, and are influenced by, each other.

Moving forward

Thus far we have seen that there is a wealth of literature demonstrating, on the one hand, that input and interaction are crucial to second language development and, on the other hand, that the individual speakers (i.e., interlocutors) involved in that interaction exert their own influence on the speech to which a learner has access as well as the language that learner produces. We have further seen that the variationist approach takes an interest in the social and contextual features of an interaction, as well as the linguistic ones, and that together these multiple influences constrain the patterns attested in first and second languages. It would appear then that variationist accounts of interlanguage are well poised to address interlocutor individual differences. We return now to Preston's model of variation in an effort to show what a variationist model can offer to the present discussion and what must be further developed in order to do so completely.

As noted previously, Preston's model uses the concept of "levels" to distinguish between various types of influences on patterns of language use. He designates social factors (e.g., age or ethnicity) as Level I factors, linguistic factors (e.g., word position for a phonetic realization) as Level II factors, and Level III factors are those that address change over time. For native language models, Level III factors can account for diachronic change, and for learners, Level III factors may be used to show changes in proficiency over time. Figure 1 illustrates Preston's model, showing how various factors might influence the selection between two variants. These variants are named 'a' and 'b' in the model, and linguistic factors are represented by 'c,' whereas extralinguistic factors are denoted by 'd.' The reader will recall that two or more variants are possible, but for simplicity, only two are shown in the model (a and b). There are two additional concepts represented in the model. Firstly, the shading in grammars 1 and 2 is used to distinguish language that was acquired as the speaker's vernacular from language that is "post-vernacular." The latter is viewed as weaker or not as deeply embedded for a particular speaker and has darker shading. Secondly, the different grammars (grammar 1 and grammar 2) allow for a conceptualization of multiple languages, styles, and varieties that may also be selected as a result of context. In short, the two variable forms may exist in the
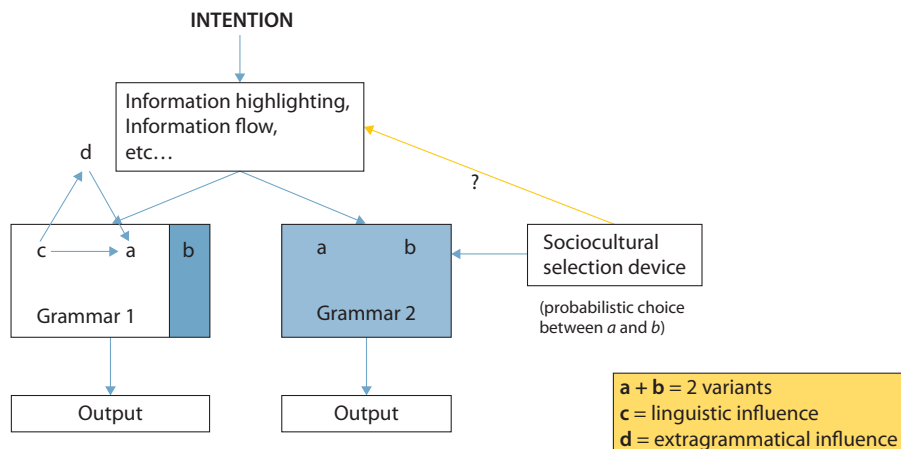
Figure 1. A level III psycholinguistic model (Preston, 2000)[4]

same grammar or they may be parts of two different styles. The key insight for the current discussion is that calculations of which variant to use are managed by the sociocultural selection device and reflect linguistic, extralinguistic, and temporal influences.

In the context of theories that focus exclusively on social or linguistic factors at the expense of the other, variationist models offer the important possibility of seeing these and other factors as simultaneously relevant in determining patterns of language use. Despite these advantages, however, this earlier model faces several challenges if it is to incorporate the empirical research reviewed in the previous section. Firstly, the Level I factors may refer to learner characteristics and to interlocutor characteristics, but there is no mechanism for distinguishing between speaker and hearer, or the interaction between the two. Secondly, when it is included in the model of language use, the interlocutor is generally treated as a single, situational variable. In other words, a particular interlocutor is designated as different from another, but the relationship between the social characteristics of the interlocutor and the learner cannot be addressed as a complex of individual traits. To provide a concrete example, it is possible to distinguish the patterns of language use and how they differ when the interlocutor is a native or a non-native speaker of the second language. It is not possible, however, to simultaneously model how nativeness of the interlocutor interacts with the age and level of education of the interlocutor, or the learner for that matter. A third challenge to this earlier variationist model is

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4.   This figure and naming conventions were created by Preston and, thus, have not been modified. Every effort has been made in the accompanying text in the current chapter to explain the figure as described in Preston's original work.

that there is no mechanism for measuring change across a situation as might occur as a result of real-time accommodation (or divergence) related to individual characteristics (e.g., proficiency) or changes in the interactional context (e.g., entrance of an additional hearer). To be fair, Preston's model was developed to demonstrate the nature of probabilistic language use, and statistical modeling has enabled us to examine many of these factors simultaneously and without overlooking statistical interactions. Nevertheless, our conceptualization of how language varies should seek to incorporate these additional issues, especially given the research that has been conducted since the time the model was initially conceived.

In order to model this complexity in the patterns of language use, in Figure 2 I offer a first pass at a model that builds on Preston's work but incorporates new mechanisms to reflect how our empirical database has grown in the past two decades.
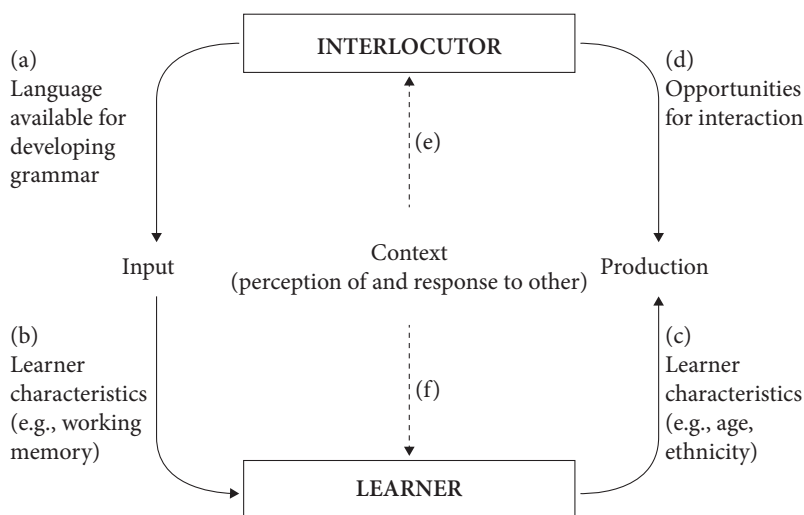
Figure 2. A variationist model of a learner/interlocutor interaction

In the preceding review, I identified several insights related to interlocutors that ought to be incorporated into variationist (and other) models of language learning and language use. These are summarized here and indicated in the model in Figure 2. Interlocutors with differing characteristics influence the language learners produce both as a reflection of their own (instructor) characteristics and in response to learners themselves. This relationship is demonstrated with arrows stemming from the interlocutor to input (a) and also to the opportunities for interaction (d) on the opposite side of the circular model. The right side of the model also represents the influence of the characteristics of the learner on those same opportunities for input (c) and incorporates the insight that learners are active

participants in aspects of language use such as target selection. Stemming from the input itself to the learner is an arrow representing the role of learner characteristics related to cognitive and experiential characteristics that influence how much of the input is processed and made available for development (b). These may include factors like working memory and also experiential characteristics such as experience abroad or years of study. In the center of the model, we see a representation of the context-dependent nature of interactions. Importantly, this arrow goes in both directions (toward the interlocutor (e) and toward the learner (f)) because both are actively involved in assessing and responding to the interactional context. Crucially, the dotted line represents that these characteristics are not static, but rather they are ever-changing during and between interactions. With this model, I hope to capture the multifaceted and dynamic nature of the role of the interlocutor under a variationist account.

Conclusion: Variationism and the interlocutor

We have seen that the variationist approach has long recognized the importance of the interlocutor and provides methods of elicitation and analysis that can help us to better understand the role of the interlocutor. These accounts must include linguistic, social, and contextual dimensions of the interactions. Existing benefits of this body of work are that it is compatible with recent models of language processing and that it can describe input and production in technically precise ways. I have also noted, however, that much work remains to be done, and some of these insights for improving variationist models stem directly from a careful examination of the role of the interlocutor. At present we might say that our empirical knowledge has outpaced our model-building. As we build our understanding of the variable nature of learner-directed speech across contexts, the variability in learner-produced language as it reflects social, situational, and acquisitional facts about the learner and the interaction, and the manner in which many of these factors change over time, we must also continue to incorporate these insights into a dynamic model of contextually-situated, co-constructed interactions between learners and interlocutors. In so doing, we stand to improve our knowledge of the role of the interlocutor in second language acquisition.

References

Aaron, J. E. (2010). Pushing the envelope: Looking beyond the variable context. *Language Variation and Change*, 22, 1–36. https://doi.org/10.1017/S0954394509990226

Adamson, H. D., & Regan, V. (1991). The acquisition of community speech norms by Asian immigrants learning English as a second language. *Studies in Second Language Acquisition*, 13, 1–22. https://doi.org/10.1017/S0272263100009694

Auger, J. (2002). French immersion in Montreal: Pedagogical norm and functional competence. In K. Bardovi-Harlig, S. Gass, S. Magnan, & J. Walz (Eds.), *Pedagogical norms for second and foreign language learning and teaching* (pp. 81–101). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.5.06aug

Back, M. (this volume). Interlocutor differences and the role of social others in a Spanish peer tutoring context. In L. Gurzynski-Weiss (Ed.), *Cross- theoretical explorations of interlocutors and their individual differences* (pp. 99–123). Amsterdam, Netherlands: John Benjamins.

Bates, E., & MacWhinney, B. (1987). Competition, variation, and language learning. In B. MacWhinney (Ed.), *Mechanisms of language acquisition*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Bayley, R. (1994). Interlanguage variation and the quantitative paradigm: Past-tense marking in Chinese-English. In E. Tarone, S. M. Gass, & A. Cohen (Eds.), *Research methodology in second language acquisition*, (pp. 157–181). Hillsdale, NJ: Lawrence Erlbaum Associates.

Bayley, R., & Langman, J. (2004). Variation in the group and the individual: Evidence from second language acquisition. *IRAL-International Review of Applied Linguistics in Language Teaching*, 42, 303–318. https://doi.org/10.1515/iral.2004.42.4.303

Beebe, L. M. (1977). The influence of the listener on code-switching. *Language Learning*, 27, 331–339. https://doi.org/10.1111/j.1467-1770.1977.tb00125.x

Beebe, L. M. (1980). Sociolinguistic variation and style shifting in second language acquisition. *Language Learning*, 30, 433–445. https://doi.org/10.1111/j.1467-1770.1980.tb00327.x

Beebe, L., & Zuengler, J. (1983). Accommodation theory: An explanation for style shifting in second language dialects. In N. Wolfson & E. Judd (Eds.), *Sociolinguistics and Language Acquisition* (pp. 195–213). Rowley, MA: Newbury House.

Bell, A. (1984). Language style as audience design. *Language in Society*, 13, 145–204. https://doi.org/10.1017/S004740450001037X

Bell, A. (2001). Back in style: Reworking audience design. In P. Eckert & J. Rickford (Eds.), *Style and sociolinguistic variation* (pp. 139–169). Cambridge, UK: Cambridge University Press.

Bell, A. (2009). Language style as audience design. In N. Coupland & A. Jaworski (Eds.), *The new sociolinguistics reader* (pp. 265–275). Houndmills, UK: Palgrave Macmillan. https://doi.org/10.1007/978-1-349-92299-4_18

Berdan, R. (1996). Disentangling language acquisition from language variation. In R. Bayley & D. Preston (Eds.), *Second language acquisition and linguistic variation* (pp. 203–244). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/sibil.10.09ber

Berkowitz, D. (1989). The effect of cultural empathy on second-language phonological production. In M. Einstein (Ed.), *The dynamic interlanguage* (pp. 101–114). New York, NY: Springer. https://doi.org/10.1007/978-1-4899-0900-8_7

Blackwell, S. E., & Quesada, M. L. (2012). Third-person subjects in native speakers' and L2 learners' narratives: Testing (and revising) the Givenness Hierarchy for Spanish. In K. Geeslin & M. Díaz-Campos (Eds.), *Selected proceedings of the 14th Hispanic Linguistics Symposium* (pp. 142–164). Somerville, MA: Cascadilla Proceedings Project.

Bongiovanni, S., Long, A. Y., Solon, M., & Willis, E. (2015). The effect of short-term study abroad on second language Spanish phonetic development. *Studies in Hispanic and Lusophone Linguistics*, 8, 243–283. https://doi.org/10.1515/shll-2015-0010

Brown, E. K. (2009). The relative importance of lexical frequency in syllable- and word-final /s/ reduction in Cali, Colombia. In J. Collentine, M. García, B. Lafford, & F. Marín, (Eds.), *Selected proceedings of the 11th Hispanic Linguistics Symposium* (pp. 165–178). Somerville, MA: Cascadilla Proceedings Project.

Bucholtz, M., & Hall, K. (2004). Theorizing identity in language and sexuality research. *Language in Society*, 33, 469–515. https://doi.org/10.1017/S0047404504334020

Cameron, R. (1995). The scope and limits of switch reference as a constraint on pronominal subject expression. *Hispanic Linguistics*, 6, 1–28.

Cameron, R. (2005). Aging and gendering. *Language in Society*, 34, 23–61. https://doi.org/10.1017/S0047404505050025

Cameron, R. (2011). Aging, age, and sociolinguistics. In M. Díaz-Campos (Ed.), *The handbook of Hispanic sociolinguistics* (pp. 207–229). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781444393446.ch10

Cameron, R., & Flores-Ferrán, N. (2004). Perseveration of subject expression across regional dialects of Spanish. *Spanish in Context*, 1, 41–65. https://doi.org/10.1075/sic.1.1.05cam

Campbell-Kibler, K. (2007). Accent, (ING) and the social logic of listener perceptions. *American Speech*, 82, 32–64. https://doi.org/10.1215/00031283-2007-002

Campbell-Kibler, K. (2008). I'll be the judge of that: Diversity in social perceptions of (ING). *Language in Society*, 37, 637–659. https://doi.org/10.1017/S0047404508080974

Campbell-Kibler, K. (2009). The nature of sociolinguistic perception. *Language Variation and Change*, 21, 135–156. https://doi.org/10.1017/S0954394509000052

Campbell-Kibler, K. (2010). The effect of speaker information on attitudes toward (ING). *Journal of Language and Social Psychology*, 29, 214–223. https://doi.org/10.1177/0261927X09359527

Campbell-Kibler, K. (2011). The sociolinguistic variant as a carrier of social meaning. *Language Variation and Change*, 22, 423–441. https://doi.org/10.1017/S0954394510000177

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1, 1–47. https://doi.org/10.1093/applin/1.1.1

Carvalho, A. M., & Child, M. (2011). Subject pronoun expression in a variety of Spanish in Contact with Portuguese. In J. Michnowicz & R. Dodsworth (Eds.), *Selected proceedings of the 5th Workshop on Spanish Sociolinguistics* (pp. 14–25). Somerville, MA: Cascadilla.

Carvalho, A. M., Orozco, R., & Shin, N. L. (2015). *Subject pronoun expression in Spanish: A cross-dialectal perspective*. Washington, DC: Georgetown University Press.

Cedergren, H. (1973). The interplay of social and linguistic factors in Panama (Unpublished doctoral dissertation). Cornell University, NY.

Chambers, J. (2009). *Sociolinguistic theory: Linguistic variation and its social significance*. Oxford, UK: Wiley-Blackwell.

Cook, V. (1992). Evidence for multicompetence. *Language Learning*, 42, 557–591. https://doi.org/10.1111/j.1467-1770.1992.tb01044.x

Coupland, N. (1981). The social differentiation of function language use: A sociolinguistic investigation of travel agency talk (Unpublished doctoral dissertation). Cardiff University, Wales, UK.

Dracos, M. (2018). Teacher talk and Spanish subject personal pronouns. *Journal of Spanish Language Teaching*, 5, 1–15. https://doi.org/10.1080/23247797.2018.1459276

Duff, P. (1993). Tasks and interlanguage performance: An SLA perspective. In G. Crookes & S. Gass (Eds.), *Tasks and language learning: Integrating theory and practice* (pp. 57–95). Clevedon, UK: Multilingual Matters.

Eckert, P. (1989). *Jocks and burnouts: Social categories and identity in the high school*. New York, NY: Teaching College.

Eckert, P. (1997). Age as a sociolinguistic variable. In F. Coulmas (Ed.), *Handbook of sociolinguistics* (pp. 151–167). Oxford, UK: Basil Blackwell.

Eckert, P. (2008). Variation and the indexical field. *Journal of Sociolinguistics*, 12, 453–476. https://doi.org/10.1111/j.1467-9841.2008.00374.x

Eckert, P. (2012). Three waves of variation study: The emergence of meaning in the study of sociolinguistic variation. *Annual Review of Anthropology*, 41, 87–100. https://doi.org/10.1146/annurev-anthro-092611-145828

Eckert, P., & McConnell-Ginet, S. (1992). Think practically and look locally: Language and gender as community-based practice. *Annual Review of Anthropology*, 21, 461–490. https://doi.org/10.1146/annurev.an.21.100192.002333

Eisenstein, M. (1986). Target language variation and second-language acquisition: Learning English in New York City. *World Englishes*, 5, 31–46. https://doi.org/10.1111/j.1467-971X.1986.tb00638.x

Erker, D., & Guy, G. R. (2012). The role of lexical frequency in syntactic variability: Variable subject personal pronoun expression in Spanish. *Language*, 88, 526–557. https://doi.org/10.1353/lan.2012.0050

Ervin-Tripp, S. (1964). An analysis of the interaction of language, topic, and listener. *American Anthropologist*, 66, 86–102. https://doi.org/10.1525/aa.1964.66.suppl_3.02a00050

Fantuzzi, C. (1992). Connectionism: Explanation or implementation? *Issues in Applied Linguistics*, 3, 319–340.

File-Muriel, R. J., & Brown, E. K. (2011). The gradient nature of s-lenition in Caleño Spanish. *Language Variation and Change*, 23, 223–243. https://doi.org/10.1017/S0954394511000056

Firth, A., & Wagner, J. (1997). On discourse, communication, and (some) fundamental concepts in SLA research. *Modern Language Journal*, 81, 285–300. https://doi.org/10.1111/j.1540-4781.1997.tb05480.x

Fishman, J. (1972). Domains and the relationship between micro- and macrosociolinguistics. In J. Gumperz & D. Hymes (Eds.), *Directions on sociolinguistics: The ethnography of communication* (pp. 435–453). New York, NY: Holt, Rinehart, & Winston.

Fishman, J. (1997). Language, ethnicity and racism. In N. Coupland & A. Jaworski (Eds.), *Sociolinguistics: A reader and coursebook* (pp. 329–340). New York, NY: St. Martin's. https://doi.org/10.1007/978-1-349-25582-5_26

Gass, S. M., Behney, J., & Plonsky, L. (2013). Looking at inter-language processing. In S. M. Gass, J. Behney, & L. Plonsky (Eds.), *Second language acquisition: An introductory course* (pp. 252–292). New York, NY: Routledge.

Gass, S., Mackey, A., & Pica, T. (1998). The role of input and interaction in second language acquisition: Introduction to the Special Issue. *Modern Language Journal*, 82, 299–305. https://doi.org/10.1111/j.1540-4781.1998.tb01206.x

Gass, S. M., & Madden, C. G. (Eds.) (1985). *Input in second language acquisition*. Rowley, MA: Newbury.

Gass, S. M., & Varonis, E. M. (1985). Variation in native speaker speech modification to nonnative speakers. *Studies in Second Language Acquisition*, 7, 283–302. https://doi.org/10.1017/S0272263100005143

Gasser, M. (1990). Connectionism and universals of second language acquisition. *Studies in Second Language Acquisition*, 12, 179–199. https://doi.org/10.1017/S0272263100009074

Geeslin, K. (2006). Task design, discourse context and variation in second language data elicitation. In C. Klee & T. Face (Eds.) *Selected proceedings of the 7th Conference on the Acquisition of Spanish and Portuguese as First and Second Languages* (pp. 74–85). Somerville, MA: Cascadilla Proceedings.

Geeslin, K. (2011a). Variation in L2 Spanish: The state of the discipline. *Studies in Hispanic and Lusophone Linguistics*, 4, 461–520. https://doi.org/10.1515/shll-2011-1110

Geeslin, K. (2011b). The acquisition of variation in second language Spanish: How to identify and catch a moving target. In M. Díaz-Campos (Ed.), *The handbook of Hispanic sociolinguistics* (pp. 303–319). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781444393446.ch15

Geeslin, K., & Evans-Sago, T. (2018). Lenguas en contacto. In J. Muñoz-Basols, E. Gironzetti & M. Lacorte (Eds.), *The Routledge handbook of Spanish language teaching: Metodologías, contextos y recursos para la enseñanza del español L2* (pp. 432–446). London, UK: Routledge.

Geeslin, K., Fafulas, S., & Kanwit, M. (2013). Acquiring geographically-variable norms of use: The case of the present perfect in Mexico and Spain. In C. Howe, S. E. Blackwell, & M. Lubbers Quesada et al. (Eds.), *Selected proceedings of the 15th Hispanic Linguistics Symposium* (pp. 205–220). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K. L., García-Amaya, L. J., Hasler-Barker, M., Henriksen, N. C., & Killam, J. (2010). The SLA of direct object pronouns in a study abroad immersion environment where use is variable. In C. Borgonovo, M. Español-Echevarría, & P. Prévost (Eds.), *Selected proceedings of the 12th Hispanic Linguistics Symposium* (pp. 246–259). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K. L., García-Amaya, L. J., Hasler-Barker, M., Henriksen, N. C., & Killam, J. (2012). The L2 acquisition of variable perfective past time reference in Spanish in an overseas immersion setting. In K. Geeslin & M. Díaz-Campos (Eds.), *Selected proceedings of the 14th Hispanic Linguistics Symposium* (pp. 197–213). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K. L., & Gudmestad, A. (2011). Using sociolinguistic analyses of discourse-level features to expand research on L2 variation: Native and non-native contrasts in forms of Spanish subject expression. In L. Plonsky & M. Schierloh (Eds.), *Selected proceedings of the Second Language Research Forum* (pp. 16–30). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K., & Linford, B. (2012, April). Cross-sectional study of the effects of discourse cohesiveness and perseveration on subject expression. Paper presented at *6th International Workshop on Spanish Sociolinguistics*. Tucson, AZ.

Geeslin, K., Linford, B., & Fafulas, S. (2015). Variable subject expression in second language Spanish: Uncovering the developmental sequence and predictive linguistic factors. In A. M. Carvalho, R. Orozco, & N. Lapidus Shin (Eds.), *Subject pronoun expression in Spanish: A cross-dialectal perspective* (pp. 191–209). Washington, DC: Georgetown University Press.

Geeslin, K., with Long, A. (2014). *Sociolinguistics and second language acquisition: Learning to use language in context*. New York, NY: Routledge.

Geeslin, K., & Schmidt, L. (2018). L2 learner sociolinguistic evaluations of regional varieties of Spanish. In A. Morales-Front & C. Sanz (Eds.), *The Routledge handbook of study abroad research and practice* (pp. 387–405). New York, NY: Routledge.

George, A. (2014). Study abroad in Central Spain: The development of regional phonological features. *Foreign Language Annals*, 47, 97–114. https://doi.org/10.1111/flan.12065

Gudmestad, A. (2013). Variationist approaches to second-language Spanish. In K. L. Geeslin (Ed.), *The handbook of Spanish second language acquisition* (pp. 80–95). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781118584347.ch5

Gudmestad, A., & Geeslin, K. L. (2011). Assessing the use of multiple forms in variable contexts: The relationship between linguistic factors and future-time reference in Spanish. *Studies in Hispanic and Lusophone Linguistics*, 4, 3–33. https://doi.org/10.1515/shll-2011-1089

Gurzynski-Weiss, L. (2010). Factors influencing oral corrective feedback provision in the Spanish foreign language classroom: Investigating instructor native/nonnative speaker status, second language acquisition education, and teaching experience. Unpublished doctoral dissertation. Georgetown University, Washington, DC.

Gurzynski-Weiss, L. (2013). Instructor characteristics and classroom-based second language acquisition of Spanish. In K. L. Geeslin (Ed.), *The handbook of Spanish second language acquisition* (pp. 530–546). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781118584347.ch30

Gurzynski-Weiss, L., Geeslin, K., Daidone, D., Linford, B., Long, A., Michalski, I., & M. Solon. (2018). L2 classrooms as multi-faceted sources of input: The synergy of variationist and usage-based approaches. In A. Tyler & L. Ortega (eds.), *Usage-based L2 instruction* (pp. 293–313). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.49.13gur

Gurzynski-Weiss, L., Geeslin, K. L., Long, A. Y.; Daidone, D. (2017). Linguistic variation in instructor provision of oral input. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 225–254). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.10gur

Gutiérrez, M., & Fairclough, M. (2006). Incorporating linguistic variation into the classroom. In R. Salaberry & B. Lafford (Eds.), *The art of teaching Spanish: Second language acquisition, from research to praxis* (pp. 173–192). Washington, DC: Georgetown University Press.

Halliday, M., & Hasan, R. (1976). *Cohesion in English*. London, UK: Longman.

Harris, R., & Rampton, B. (Eds.) (2003). *The language, ethnicity, and race reader*. New York, NY: Routledge.

Hay, J., & Drager, K. (2010). Stuffed toys and speech perception. *Linguistics*, 48(4), 865–892. https://doi.org/10.1515/ling.2010.027

Hay, J., Nolan, A., & Drager, K. (2006). From fush to feesh: Exemplar priming in speech perception. *Linguistic Review*, 23, 351–379. https://doi.org/10.1515/TLR.2006.014

Hay, J., Warren, P., & Drager, K. (2006). Factors influencing speech perception in the context of a merger-in-progress. *Journal of Phonetics*, 34, 458–484. https://doi.org/10.1016/j.wocn.2005.10.001

Henriksen, N. C., Geeslin, K. L., & Willis, E. W. (2010). The development of L2 Spanish intonation during a study abroad immersion program in León, Spain: Global contours and final boundary movements. *Studies in Hispanic and Lusophone Linguistics*, 3, 113–162. https://doi.org/10.1515/shll-2010-1067

Holmquist, J. (1985). Social correlates of a linguistic variable: A study in a Spanish village. *Language in Society*, 14, 191–203. https://doi.org/10.1017/S004740450001112X

Holmquist, J. (2011). Gender and variation: Word final /s/ in men's and women's speech in Puerto Rico's Western Highlands. In M. Díaz-Campos (Ed.), *The handbook of Hispanic sociolinguistics* (pp. 230–243). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781444393446.ch11

In'nami, Y., & Koizumi, R. (2016). Task and rater effects in L2 speaking and writing: A synthesis of generalizability studies. *Language Testing*, 33, 341–366. https://doi.org/10.1177/0265532215587390

Johnson, D. E. (2009). Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass*, 3, 359–383. https://doi.org/10.1111/j.1749-818X.2008.00108.x

Kanwit, M., Geeslin, K. & Fafulas, S. (2015). The role of geography in the SLA of variable structures: A look at the present perfect, the copula contrast, and the present progressive in Mexico and Spain. *Probus*, 27, 307–348. https://doi.org/10.1515/probus-2015-0004

Kiesling, S. F. (1998). Men's identities and sociolinguistic variation: The case of fraternity men. *Journal of Sociolinguistics*, 2, 69–99. https://doi.org/10.1111/1467-9481.00031

Kiesling, S. F. (2009). Style as stance: Stance as the explanation for patterns of sociolinguistic variation. In A. Jaffe (Ed.), *Stance: Sociolinguistic perspectives* (pp. 171–194). Oxford, UK: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195331646.003.0008

Knouse, S. M. (2013). The acquisition of dialectal phonemes in a study abroad context: The case of the Castilian theta. *Foreign Language Annals*, 45, 512–542. https://doi.org/10.1111/j.1944-9720.2013.12003.x

Labov, W. (1966). *The social stratification of English in New York City*. Washington, DC: Center for Applied Linguistics.

Labov, W. (1972). *Sociolinguistic patterns*. Philadelphia, PA: University of Pennsylvania.

Labov, W. (1990). The intersection of sex and social class in the course of linguistic change. *Language Variation and Change*, 2, 205–254. https://doi.org/10.1017/S0954394500000338

Labov, W. (2000). *Principles of linguistic change: Social factors*. Cambridge: Blackwell.

Lantolf, J. P. (this volume). I ~ You > You ~ Me: The hidden other in L2 development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 79–97). Amsterdam, Netherlands: John Benjamins.

Larsen-Freeman, D. (1975). The acquisition of grammatical morphemes by adult ESL students. *TESOL Quarterly*, 9, 409–419. https://doi.org/10.2307/3585625

Larsen-Freeman, D. (2007). Reflecting on the cognitive-social debate in second language acquisition. *Modern Language Journal*, 91, 773–787. https://doi.org/10.1111/j.1540-4781.2007.00668.x

Larsen-Freeman, D. (this volume). Complexity Theory: Relational systems in interaction and in interlocutor differences in second language development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 189–208). Amsterdam, Netherlands: John Benjamins.

Lavandera, B. (1978). Where does the sociolinguistic variable stop? *Language in Society*, 7, 171–182. https://doi.org/10.1017/S0047404500005510

Leal, T., Geeslin, K. L., & Escalona Torres, J. (2016, October). A María sí la ayudo pero a Jaime no puedo ayudarle más: Speaker expectations and the processing of geographically-variable structures. Paper presented at the 2016 Hispanic Linguistic Symposium. Georgetown University, Washington, D.C.

Leal, T., Slabakova, R., & Farmer, T. (2017). The fine-tuning of linguistic expectations over the course of L2 learning. *Studies in Second Language Acquisition*, 39, 493–525. https://doi.org/10.1017/S0272263116000164

Levon, E. (2006). Hearing 'gay': Prosody, interpretation and the affective judgments of men's speech. *American Speech*, 81, 56–78. https://doi.org/10.1215/00031283-2006-003

Levon, E. (2007). Sexuality in context: Variation and the sociolinguistic perception of identity. *Language in Society*, 36, 533–554. https://doi.org/10.1017/S0047404507070431

Levon, E. (2014). Categories, stereotypes, and the linguistic perception of sexuality. *Language in Society*, 43, 539–566. https://doi.org/10.1017/S0047404514000554

Levon, E., & Buchstaller, I. (2015). Perception, cognition, and linguistic structure: The effect of linguistic modularity and cognitive style on sociolinguistic processing. *Language Variation and Change*, 27, 319–348. https://doi.org/10.1017/S0954394515000149

Li, X. (2010). Sociolinguistic variation in the speech of learners of Chinese as a second language. *Language Learning*, 60, 366–408. https://doi.org/10.1111/j.1467-9922.2009.00560.x

Li, X. (2014). Variation in subject pronominal expression in L2 Chinese. *Studies in Second Language Acquisition*, 36, 39–68. https://doi.org/10.1017/S0272263113000466

Linford, B., & Shin, N. L. (2013). Lexical frequency effects on L2 Spanish subject pronoun expression. In J. C. Amaro, G. Lord, A. de Prada Pérez, & J. E. Aaron (Eds.), *Selected proceedings of the 16th Hispanic Linguistics Symposium* (pp. 175–189). Somerville, MA: Cascadilla Proceedings Project.

Liskin-Gasparro, J. (2000). The use of tense-aspect morphology in Spanish oral narratives: Exploring the perceptions of advanced learners. *Hispania*, 83, 830–844. https://doi.org/10.2307/346482

Long, M. (1990). The least a Second Language Acquisition theory needs to explain. *TESOL Quarterly*, 24, 649–666. https://doi.org/10.2307/3587113

Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. Ritchie & T. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–468). San Diego, CA: Academic Press.

Long, M., & Porter, P. (1985). Group work, interlanguage talk, and second language acquisition. *TESOL Quarterly*, 19, 207–228. https://doi.org/10.2307/3586827

Lumley, T., & O'Sullivan, B. (2005). The effect of test-taker gender, audience and topic on task performance in tape-mediated assessment of speaking. *Language Testing*, 22, 415–437. https://doi.org/10.1191/0265532205lt303oa

Mackey, A. (Ed.) (2012). *Input, interaction, and corrective feedback in L2 classrooms*. Oxford, UK: Oxford University Press.

MacWhinney, B. (2001). The Competition Model: The input, the context, and the brain. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 69–90). New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9781139524780.005

MacWhinney, B. (2008). A Unified Model. In P. Robinson & N. Ellis (Eds.), *Handbook of cognitive linguistics and second language acquisition* (pp. 341–371). Mahwah, NJ: Lawrence Erlbaum Associates.

Mayol, L. (2012). An account of the variation in the rates of overt subject pronouns in Romance. *Spanish in Context*, 9, 420–442. https://doi.org/10.1075/sic.9.3.03may

Milroy, L. (1980). *Language and social networks*. Oxford, UK: Blackwell.

Milroy, J., & Milroy, L. (1985). Linguistic change, social network, and speaker innovation. *Journal of Linguistics*, 21, 339–384. https://doi.org/10.1017/S0022226700010306

Molnar, M., Ibáñez-Molina, A., & Carreiras, M. (2015). Interlocutor identity affects language activation in bilinguals. *Journal of Memory and Language*, 81, 91–104. https://doi.org/10.1016/j.jml.2015.01.002

Mougeon, R., Nasadi, T., & Rehner, K. (2004). *The sociolinguistic competence of immersion students*. Bristol, UK: Multilingual matters.

Moonwomon-Baird, B. (1997). Toward a study of lesbian speech. In A. Livia & K. Hall (Eds.), *Queerly phrased: Language, gender, and sexuality* (pp. 202–213). Oxford, UK: Oxford University Press.

Niedzielski, N. (1999). The effect of social information on the perception of sociolinguistic variables. *Journal of Language and Social Psychology*, 18, 62–85. https://doi.org/10.1177/0261927X99018001005

Norton, B. (2010). Language and identity. In N. Hornberger & S. McKay (Eds.), *Sociolinguistics and language education* (pp. 349–369). Clevedon, UK: Multilingual Matters. https://doi.org/10.21832/9781847692849-015

Ortega, L. (2011). SLA after the social turn: Where cognitivism and its alternatives stand. In D. Atkinson (Ed.), *Alternative approaches in second language acquisition* (pp. 167–180). New York, NY: Routledge.

Ortega, L. (2013). SLA for the 21st century: Disciplinary progress, transdisciplinary relevance, and the bi/multilingual turn. *Language Learning*, 63, 1–24. https://doi.org/10.1111/j.1467-9922.2012.00735.x

Philp, J., & Gurzynski-Weiss, L. (this volume). On the role of the interlocutor in second language development: A cognitive-interactionist approach. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 19–50). Amsterdam, Netherlands: John Benjamins.

Plough, I., & Gass, S. M. (1993). Interlocutor and task familiarity: Effects on interactional structure. In G. Crookes & S. Gass (Eds.), *Tasks and language learning: Integrating theory and practice* (pp. 35–56). Clevedon, UK: Multilingual Matters.

Podesva, R. (2007). Phonation type as a stylistic variable: The use of falsetto in constructing a persona. *Journal of Sociolinguistics*, 11, 478–504. https://doi.org/10.1111/j.1467-9841.2007.00334.x

Podesva, R. (2008). Three sources of stylistic meaning. *Texas Linguistic Forum*, 51, 134–143.

Polio, C., Gass, S., & Chapin, L. (2006). Using stimulated recall to investigate native speaker perceptions in native-nonnative speaker interaction. *Studies in Second Language Acquisition*, 28, 237–267. https://doi.org/10.1017/S0272263106060116

Poteau, C. (2011). Effects of interlocutor familiarity on second language learning in groupwork (Unpublished doctoral dissertation). Temple University, Philadelphia.

Preston, D. (1993). Variationist linguistics and second language acquisition. *Second Language Research*, 9, 153–172. https://doi.org/10.1177/026765839300900205

Preston, D. (1996). Variationist perspectives on second language acquisition. In R. Bayley & D. R. Preston (Eds.), *Second language acquisition and linguistic variation* (pp. 1–45). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/sibil.10.02pre

Preston, D. (2000). Three kinds of sociolinguistics and SLA: a psycholinguistic perspective. In B. Swierzbin, M. Anderson, C. Klee, & E. Tarone (Eds.), *Social and cognitive factors in SLA* (pp. 3–30). Somerville, MA: Cascadilla.

Preston, D. (2002). A variationist perspective on SLA: Psycholinguistic concerns. In R. Kaplan (Ed.), *Oxford handbook of applied linguistics* (pp. 141–159). Oxford, UK: Oxford University Press.

Preston, D. (2004). Three kinds of sociolinguistics: a psycholinguistic perspective. In C. Fought (Ed.), *Sociolinguistic variation: Critical reflections* (pp. 140–160). Oxford, UK: Oxford University Press.

Regan, V., Howard, M., & Lemée, I. (2009). *The acquisition of sociolinguistic competence in a study abroad context*. Bristol, UK: Multilingual Matters.

Rickford, J., & McNair-Knox, F. (1994). Addressee- and topic-influenced style shift. In D. Biber & E. Finegan (Eds.), *Sociolinguistic perspectives on register* (pp. 235–276). Oxford, UK: Oxford University Press.

Rickford, J., & Price, M. (2013). Girlz II women: Age-grading, language change and stylistic variation. *Journal of Sociolinguistics*, 17, 143–179. https://doi.org/10.1111/josl.12017

Ringer-Hilfinger, K. (2012). Learner acquisition of dialect variation in a study abroad context: The case of the Spanish [θ]. *Foreign Language Annals*, 45, 430–446. https://doi.org/10.1111/j.1944-9720.2012.01201.x

Robinson, P. (1995). Task complexity and second language narrative discourse. *Language Learning*, 45, 99–140. https://doi.org/10.1111/j.1467-1770.1995.tb00964.x

Robinson, P. (2001). Task complexity, task difficulty, and task production: Exploring interactions in a componential framework. *Applied Linguistics*, 22, 27–57. https://doi.org/10.1093/applin/22.1.27

Robinson, P. (2005). Cognitive complexity and task sequencing: A review of studies in Componential Framework for second language task design. *IRAL*, 43, 1–33. https://doi.org/10.1515/iral.2005.43.1.1

Robinson, P. (2007). Task complexity, theory of mind, and intentional reasoning: Effects on L2 speech production, interaction, uptake and perceptions of task difficulty. *IRAL*, 45, 193–213. https://doi.org/10.1515/iral.2007.009

Robinson, P. (2011). *Second language task complexity: Researching the cognition hypothesis of language learning and performance*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/tblt.2

Rogers, H., Smyth, R., & Jacobs, G. (2003). Vowel reduction as a cue to distinguishing gay- and straight-sounding male speech. In J. T. Jensen & G. Van Herk (Eds.), *Proceedings of the annual meeting of the Canadian Linguistics Society* (pp. 167–176). Ottawa: University of Ottawa.

Rothman, J. (2007). Pragmatic solutions for syntactic problems: Understanding some L2 syntactic errors in terms of pragmatic deficits. In S. Bauuw, F. Drijkoningen, & M. Pinto (Eds.), *Romance languages and linguistic theory* (pp. 299–320). Amsterdam, Netherlands: John Benjamins.

Salgado-Robles, F. (2011). The acquisition of sociolinguistic variation by learners of Spanish in a study abroad context (Unpublished doctoral dissertation). University of Florida, Gainesville.

Salgado-Robles, F. (2014). Variación dialectal por aprendientes de español en un contexto de inmersión en el extranjero: Un análisis cuantitativo del uso leísta en el discurso oral y escrito. *Lenguas Modernas*, 43, 97–112.

Salgado-Robles, F. (2018). Efectos del contexto de inmersión en la competencia sociolingüística de EL2: La adquisición del laísmo madrileño. *Círculo de Lingüística Aplicada a la Comunicación*, 74, 307–332.

Samper Padilla, J. A. (2011). Sociophonological variation and change in Spain. In M. Díaz-Campos (Ed.), *The handbook of Hispanic sociolinguistics* (pp. 98–120). Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781444393446.ch5

Sankoff, D. (1988). Sociolinguistics and syntactic variation. In F. J. Newmeyer (Ed.), *Linguistics: The Cambridge survey* (pp. 140–161). Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511620577.009

Schilling-Estes, N. (2004). Exploring intertextuality in the sociolinguistic interview. In C. Fought (Ed.), *Sociolinguistic variation: Critical reflections* (pp. 44–61). New York, NY: Oxford University Press.

Schumann, J. (1976). Second language acquisition: The Pidginization Hypothesis. *Language Learning*, 26, 391–408. https://doi.org/10.1111/j.1467-1770.1976.tb00283.x

Schumann, J. (1978). The relationship of pidginization, creolization and decreolization to second language acquisition. *Language Learning*, 28, 367–379. https://doi.org/10.1111/j.1467-1770.1978.tb00140.x

Schwenter, S., & Torres-Cacoullos, R. (2008). Defaults and indeterminacy in temporal grammaticalization: The 'perfect' road to perfective. *Language Variation and Change*, 20, 1–39. https://doi.org/10.1017/S0954394508000057

Shea, C., & Curtin, S. (2011). Experience, representations and the production of second language allophones. *Second Language Research*, 27, 229–250. https://doi.org/10.1177/0267658310375753

Shin, N. L., & Otheguy, R. (2013). Social class and gender impacting change in bilingual settings: Spanish subject pronoun use in New York. *Language in Society*, 42, 429–452. https://doi.org/10.1017/S0047404513000468

Silva-Corvalán, C. (1997). Variación sintáctica en el discurso oral: Problemas metodológicos. In F. Moreno Fernández (Ed.), *Trabajo de sociolingüística hispánica* (pp. 115–135). Alcalá, Spain: Universidad de Alcalá (UAH) Madrid.

Smyth, R., & Rogers, H. (2002). Phonetics, gender, and sexual orientation. In *Proceedings of the Annual Meeting of the Canadian Linguistics Association* (pp. 299–301). Montreal: l'Universite du Quebec au Montreal.

Squires, L. (2013). It don't go both ways: Limited bidirectionality in sociolinguistic perception. *Journal of Sociolinguistics*, 17, 200–237. https://doi.org/10.1111/josl.12025

Squires, L. (2014a). Talker specificity and the perception of grammatical variation. *Language, Cognition and Neuroscience*, 29, 856–876. https://doi.org/10.1080/01690965.2013.804193

Squires, L. (2014b). Knowledge, processing, evaluation: Testing the sociolinguistic perception of English subject-verb agreement variation. *Journal of English Linguistics*, 42, 144–172. https://doi.org/10.1177/0075424214526057

Staum Casasanto, L. (2008). Does social information influence sentence processing? *Proceedings of the Annual Meeting of the Cognitive Science Society*, 30, 799–804.

Tarone, E. (2007). Sociolinguistic approaches to second language acquisition research – 1997–2007. *Modern Language Journal*, 91, 837–848. https://doi.org/10.1111/j.1540-4781.2007.00672.x

Tarone, E. (2010). Social context and cognition in SLA: A variationist perspective. In R. Batstone (Ed.), *Sociocognitive perspectives on language use and language learning* (pp. 54–72). Oxford, UK: Oxford University Press.

Tarone, E., & Liu, G. Q. (1995). Situational context, variation, and second language acquisition. In G. Cook & B. Seidhofer (Eds.), *Principle and practice in applied linguistics: Studies in honour of H. G. Widdowson* (pp. 107–124). Oxford, UK: Oxford University Press.

Tarone, E., & Parrish, B. (1988). Task-related variation in interlanguage: The case of articles. *Language Learning*, 38, 21–44. https://doi.org/10.1111/j.1467-1770.1988.tb00400.x

Travis, C. E. (2005). The yo-yo effect: Priming in subject expression in Colombian Spanish. In R. Gess & E. J. Rubin (Eds.), *Theoretical and experimental approaches to Romance linguistics: Selected papers from the 34th Linguistic Symposium on Romance Languages (LSRL)* (pp. 329–349). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/cilt.272.20tra

Travis, C. E. (2007). Genre effects on subject expression in Spanish: Priming in narrative and conversation. *Language Variation and Change*, 19, 101–35. https://doi.org/10.1017/S0954394507070081

Valdman, A. (1988). Classroom foreign language learning and language variation: The notion of pedagogical norms. *World Englishes*, 7, 221–236. https://doi.org/10.1111/j.1467-971X.1988.tb00233.x

Valdman, A. (2002). The acquisition of sociostylistic and sociopragmatic variation by instructed second language learners: The elaboration of pedagogical norms. In C. Blyth (Ed.), *The sociolinguistics of foreign-language classrooms: Contributions of the native, the near-native, and the non-native speaker* (pp. 57–78). Boston, MA: Heinle.

VanPatten, B., & Benati, A. G. (2010). *Key terms in second language acquisition*. London, UK: Continuum.

VanPatten, B., & Williams, J. (Eds.) (2014). *Theories in second language acquisition: An introduction*. New York, NY: Routledge.

Willis, E., Geeslin, K. & Henriksen, N. (2009, October). *The acquisition of /θ/ by study abroad learners in León*. Spain. Paper presented at the 13th Hispanic Linguistics Symposium, San Juan, Puerto Rico.

Woolsey, D. (2008). From theory to research: Contextual predictions of "estar + adjective" and the study of the SLA of Spanish copula choice. *Bilingualism: Language and Cognition*, 11, 277–295. https://doi.org/10.1017/S1366728908003519

Zhang, Q. (2005). A Chinese yuppie in Beijing: Phonological variation and the construction of a new professional identity. *Language in Society*, 34, 431–466. https://doi.org/10.1017/S0047404505050153

Zhang, Q. (2008). Rhotacization and the "Beijing Smooth Operator": The social meaning of a linguistic variable. *Journal of Sociolinguistics*, 12, 201–222. https://doi.org/10.1111/j.1467-9841.2008.00362.x

Examining the role of instructor first language in classroom-based oral input

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In instructed second language (L2) settings, instructor-provided input is essential for learners' interlanguage development. While some input is consciously modified by instructors to assist learners, much of instructors' speech contains inherent linguistic variability mediated by linguistic, social, and situational factors. Variable, learner-directed input may also be influenced by instructors' individual characteristics (e.g., Gurzynski-Weiss, Geeslin, Long, & Daidone, 2017; Gurzynski-Weiss et al., 2018). The present study extends this work by examining instructor first language (L1) in relation to patterns of variable subject expression in Spanish in learner-directed classroom speech. Twelve instructors of second year, university-level L2 Spanish – half with L1 Spanish and half with L1 English – were recorded teaching one vocabulary-focused lesson. Analyses of subject forms produced in finite clauses in relation to independent variables known to constrain subject expression in Spanish revealed that some constraints on subject form use in instructor speech were influenced by the instructors' L1.

Keywords: input, instructor characteristics, L1, subject expression, variationist approach

Introduction

The interlocutor plays a central, yet complex, role in second language (L2) learning. This individual, often the "more competent" participant (Long, 1996) engaging with learners, has a hand in areas that are considered to be key ingredients for L2 learning – namely, input, interaction, and feedback (e.g., Gass & Mackey, 2015; Long, 2006). That stated, this role likely varies in degree from one interlocutor to the next, owing to the individual differences (IDs) or characteristics of interlocutors. As such, there is a growing body of research that seeks to examine how interlocutor IDs interact with and/or influence constructs that, across theories of SLA, mediate opportunities for L2 learning (see, e.g., Gurzynski-Weiss, 2017; this volume).

In the L2 classroom, the instructor represents not only the more competent interlocutor for learners but also the main source of target language input (Gurzynski-Weiss, 2014; Philp & Tognini, 2009). Not surprisingly, this input demonstrates variability on many levels. On the one hand, instructors modify spoken language directed to learners, and this "teacher talk" varies as a function of instructional purpose, the perceived proficiency level of learners, and task type (Chaudron, 1988), amongst other factors (see Dela Rosa & Arguelles, 2016). However, instructors also modify spoken language generally in response to linguistic and extralinguistic factors that constrain the inherent variability observed in human language. Taken together, the variability that we observe in oral input directed to classroom learners reflects influence from a complex interplay of factors related to the instructor, all of which are likely to influence L2 learning.

As seen throughout this volume, there is general agreement across theories that input is a key ingredient for language learning (Geeslin, Chapter 6; Lantolf, Chapter 4; Larsen-Freeman, Chapter 8; Philp & Gurzynski-Weiss, Chapter 2). Regardless of whether input is viewed as the means for gaining linguistic experience or for triggering innate knowledge, access to language itself is essential for development. Despite its importance, there is a great deal that remains unknown about the nature of the input to which learners have access, how this input differs across learning contexts and speakers, and the degree to which the input is directly reflected in the linguistic knowledge of the learner. We know, for example, that the characteristics of learners, such as age, gender, first language literacy, motivation, attitude, working memory, and so on, all have the potential to play a role in the process of L2 acquisition (e.g., Dörnyei, 2014). Until recently, less attention has been given to the role of the instructor and his or her IDs or characteristics in classroom learners' acquisition of variable linguistic structures, such as subject expression in Spanish. In addition to expanding our knowledge on the nature of variability in instructor speech, research of this kind is essential for understanding and explaining patterns of linguistic variation acquired by classroom learners. The present study examines variability in instructor oral input directed to L2 Spanish classroom learners. Building on the work of Gurzynski-Weiss and colleagues (e.g., Gurzynski-Weiss et al., 2018; Gurzynski-Weiss, Geeslin, Long, & Daidone, 2017), this study offers an analysis of patterns of Spanish subject form use in classroom-based, learner-directed oral input and explores a single individual characteristic – instructor first language (L1) – in relation to observed patterns.

Background

Theoretical framework

The present study adopts a variationist approach to L2 learning (e.g., Bayley & Preston, 1996; Geeslin, 2011, Chapter 6), which seeks to "examine how interlanguage is conditioned by linguistic and social context and how this variation changes as acquisition progresses" (Gudmestad, 2014, p. 80). Central to this framework is the quantitative characterization of linguistic variation, which is paramount to our understanding of not only language change broadly, but also how speakers use language in linguistically and socially meaningful ways. The latter concept refers to sociolinguistic competence (Canale & Swain, 1980), and the empirical study of learners' acquisition of variable linguistic structures contributes directly to our knowledge of learners' developing sociolinguistic competence in L2s.

Within this approach, a variable linguistic structure is analyzed in the following way: First, because there is alternation between two or more forms, all forms that fulfill the same function in discourse are identified and quantified in terms of their frequency of use. Following documentation of the range and frequency of forms, we examine the linguistic and extralinguistic factors that constrain or influence the use of the forms identified. The factors selected for analysis are often adopted from previous research on the same linguistic structure in the L1 sociolinguistic literature as well as from previous L2 variation research, if available. Finally, when the dataset is robust enough to allow this, we develop a quantitative model of the influencing factors on the prediction of a particular form based on the observed patterns of use. In the existing L2 variation literature, this analysis is carried out not only for the L2 learners under study, but also for a native speaker comparison group. In this way, research on L2 variation is able to assess the acquisition of sociolinguistic norms of the target (native speaker) community as well as learners' sensitivity to linguistic and extralinguistic factors that likewise influence native speaker speech (Geeslin & Long, 2014).

It is important to note that, in the L2 research context, there are two types of variable structures that have been investigated. The first, known as Type I variation, or vertical variation, refers to the alternation between targetlike and non-targetlike forms that is observed in learner language (e.g., **yo sabo la respuesta* vs. *yo sé la respuesta*). The second, Type II, or horizontal variation, refers to the alternation observed between two or more targetlike forms (e.g., *mañana veré la película* vs. *mañana voy a ver la película* vs. *mañana veo la película* 'tomorrow I will/am going to see the movie') observed in native speaker speech and studied in the field of sociolinguistics. It is this second type of variation that is of interest in the current study. Our variationist study of subject form expression in classroom Spanish allows

us to connect what we know about native language variation to the influence of a particular instructor characteristic and to see how this new knowledge might allow us to explore the implications for classroom instruction more broadly.

Spanish subject expression

In Spanish, several linguistic forms are permitted in subject position, as shown in (1).

(1) a. *Laura habla español* 'Laura speaks Spanish' Lexical noun phrase (NP)
 b. *Ella habla español* 'She speaks Spanish' Overt subject pronoun
 c. *Ø Habla español* '(She) speaks Spanish' Null subject pronoun
 d. *¿Quién habla español?* 'Who speaks Interrogative pronoun
 Spanish?'
 e. *Alguien habla español* 'Someone speaks Indefinite pronoun
 Spanish'
 f. *Esta (mujer) habla español* 'This (woman) Demonstrative pronoun
 speakers Spanish

As shown in (1c), null subject pronouns are permissible in Spanish, which has been described as a "pro-drop" language, and these pronouns are in variation with overt subject pronouns, lexical NPs, and other pronouns in finite verb contexts. It is important to note that, in some finite verb contexts, overt pronominal subjects are required or prohibited; these contexts are not included in variationist analyses of subject expression in L1 and L2 Spanish as there is no variation observed in them (e.g., *hay* 'there is/are').

Empirical research conducted in the L1 sociolinguistic literature has been instrumental in documenting frequencies of subject form use and identifying the linguistic and extralinguistic factors constraining subject form variation in Spanish (see Carvalho, Orozco, & Shin, 2015). This body of literature further enjoys a long-standing tradition of carrying out quantitative analyses of subject form variation such that comparisons across distinct regions and social groups are possible. With regard to frequencies of use, null subject pronouns are, typically, the most frequent subject form reported across studies. Following null subject pronouns, overt subject pronouns and lexical NPs are the second and third most frequent forms reported, followed by the remaining pronominal forms (which are relatively infrequent). It is precisely because of these frequencies that, upon examining the linguistic and extralinguistic factors constraining subject form use, quantitative analyses are limited to the two (for binomial analyses) or three (for multilevel analyses) most frequent forms produced by speakers in collected datasets.

With regard to constraints on subject form use, the variation observed between use of null subject pronouns and overt subject pronouns in native Spanish data has

been shown to be conditioned by several linguistic and extralinguistic factors, including verb person and number (e.g., Abreu, 2009; Bayley & Pease-Álvarez, 1997; Flores-Ferrán, 2004; Hochberg, 1986; Holmquist, 2012; Otheguy & Zentella, 2012), verb tense-mood-aspect (TMA; e.g., Abreu, 2009; Cameron, 1993; Enríquez, 1984; Hochberg, 1986; Silva-Corvalán, 1982), referent continuity (e.g., Ávila-Jiménez, 1995; Bayley & Pease-Álvarez, 1997; Cameron, 1993; Flores-Ferrán, 2002, 2004; Silva-Corvalán, 1982; Shin & Otheguy, 2009), referent specificity (e.g., Alfaraz, 2015; Cameron, 1993; Geeslin & Gudmestad, 2008; Otheguy, Zentella, & Livert, 2007), perseveration (e.g., Cameron & Flores-Ferrán, 2004), and priming (e.g., Abreu, 2012; Cameron, 1994; Travis, 2007), to name but a few. Four linguistic factors that show extensive analysis in the existing literature and are included for further review here are verb person and number, verb TMA, referent continuity, and referent specificity. With regard to verb number, overt subject pronouns occur more frequently with singular than plural verb forms (e.g., Flores-Ferrán, 2004). Additionally, overt subject pronouns are produced more frequently with first- as opposed to third-person singular referents (e.g., Flores-Ferrán, 2004), and similar rates of overt subject pronouns have been reported for first- and second-person referents (e.g., Geeslin & Gudmestad, 2016). Existing findings for verbal TMA are less straightforward (e.g., Abreu, 2009; Bayley & Pease-Álvarez, 1997), as there are several levels or categories of this variable, and the data elicitation task is likely to influence the distribution of verbal TMA forms employed by speakers. However, TMA has often been reported to have a statistically significant influence on Spanish subject form expression. For example, Abreu (2009) found higher rates of overt subject pronouns for present subjunctive, present indicative, imperfect, and conditional verb forms (ranging from 40–46%) than future, past perfect, and imperfect subjunctive forms (ranging from 18–20%). Bayley and Pease-Álvarez (1997) reported the opposite (i.e., higher rates of null subject pronouns for subjunctive, imperfect, and conditional than for other verb forms, although these verb forms favored [statistically] the use of an overt subject pronoun in their dataset). It is important to note that Bayley and Pease-Álvarez examined children's written narrative whereas Abreu examined oral data from adult speakers, thus the reported differences may also be due to contextual differences. Turning to discourse-pragmatic factors, findings for referent continuity (or switch reference) are fairly consistent in the literature: overt subject pronouns are observed with greater frequencies in contexts of switch reference (i.e., referent of the finite verb is the same as the referent of the immediately preceding finite verb; e.g., Bayley & Pease-Álvarez, 1997; Cameron, 1993; Flores-Ferrán, 2002, 2004; Silva-Corvalán, 1982; Shin & Otheguy, 2009). Finally, referent specificity, which refers to whether or not human referents can be identified by name (Geeslin & Gudmestad, 2008), has been examined in previous research. For example, Geeslin and Gudmestad (2008) reported a higher rate

of overt subject pronouns for specific referents (18.2%) than group and non-specific referents (5.6% and 7.0%, respectively).

Taken together, research on subject expression in native Spanish has been instrumental in identifying and describing (quantitatively) in detail patterns of subject form use across varieties of Spanish. We know that, while the rates of use of subject forms tend to vary by country or origin of the speaker, the restrictions on this use (linguistic constraints) tend to be relatively stable (although see Carvalho, Orozco, & Shin, 2015, for more discussion on this observation). What is more, this variable structure does not appear to be highly stigmatized nor to vary considerably by formality of context or level of education (see Ávila-Jiménez, 1996, for an exception). This is important when considering the classroom context, as we are generally studying a relatively formal context in which all participants have a relatively higher level of education than those included in the full range of social classes often examined in sociolinguistic research. These methods and findings have motivated and appeared in the study of Spanish subject expression among L2 learners from a variationist perspective.

L2 acquisition of Spanish subject expression

Turning now to the L2 context, we see that previous research on subject expression in L2 acquisition is extensive, and learners' (especially L1 English-speaking learners') development of this particular structure has been examined from a variety of theoretical perspectives. Early work on this topic reflects generative scholars' interest in the extent to which learners acquired properties of the null subject parameter (e.g., Al-Kasey & Perez-Leroux, 1998; Isabelli, 2004; Liceras & Díaz, 1999; Rothman & Iverson, 2007), given the lack of the [+pro-drop] setting in learners' L1 (i.e., English). Variationist work on this topic has focused instead on the extent to which learners acquire the variable nature of subject expression in Spanish. Specifically, L2 variation scholars, using knowledge and methodology from L1 sociolinguistic research, have sought to identify the range and distribution of subject forms employed by learners and the linguistic and extralinguistic factors influencing subject form use, and to trace patterns of use as learners' experience with Spanish increases (in longitudinal and cross-sectional designs). Furthermore, learners' patterns of use are compared with those observed for native speakers (or Spanish-dominant bilingual speakers, where appropriate) to assess the extent to which learners acquire (or not) target patterns of variation.

Previous research on highly-advanced L2 speakers has shown that, overall, learners approximate target-like rates of use of null and overt subject pronouns (e.g., Geeslin & Gudmestad, 2008); however, learners produce null subject pronouns

at a slightly higher rate than native speakers. Additionally, learners demonstrate sensitivity to the same linguistic factors known to constrain subject expression for native speakers in the L1 sociolinguistic literature (e.g., Abreu, 2009; Geeslin & Gudmestad, 2011; Quesada & Blackwell, 2009). Fewer developmental studies exist, but a central study carried out by Geeslin, Linford, and Fafulas (2015) offers the following developmental stages in the acquisition of variable subject expression in L2 Spanish, based on 180 English-speaking learners' completion of a written preference task (p. 203):

Stage One   Subject personal pronoun rates are greater than or equal to native speakers; no factors constrain variation

Stage Two   Subject personal pronoun rates increase; person/number, TMA, and discourse cohesiveness constrain variation, but only person/number does so in a nativelike way

Stage Three Highest rates of subject personal pronouns observed; person/number, referent continuity, and perseveration constrain variation

Stage Four   Subject personal pronoun rates decrease; additional factors constrain variation (e.g., TMA, verb semantic class)

Stage Five   Subject personal pronoun rates are less than or equal to native speakers; factors constraining variation are the same as those constraining variation for native speakers

As outlined by Gurzynski-Weiss et al. (2017),

> If the input to which learners are exposed differs in the frequency of use of particular forms, the degree to which these factors constrain subject expression and/or the frequency with which the various categories of each constraining variable are present in the classroom input may have consequences for acquisition.
>
> (p. 233)

Thus, crucial to our understanding of how classroom learners acquire variable subject expression in Spanish is the continued examination of rates of and constraints on use of subject forms, especially in the input directed to learners within the classroom. As highlighted in recent work on this topic, the instructor is the primary interlocutor providing input to classroom learners. As such, examining instructors' oral input, as well as characteristics of the instructor that may variably influence that input (such as the instructor's L1), is essential to our understanding of classroom-based acquisition of variable Spanish subject expression.

Oral input in instructed settings

An indisputable ingredient for L2 learning is access to input, and theories that seek to explain L2 acquisition must offer a theoretical account of the role of input in this process (VanPatten & Williams, 2015). Indeed, across theories of SLA (historically and in contemporary practice), the importance of input for L2 learning is evident. For example, within behaviorism – which views learning as the acquisition of a set of speech habits through stimulus-response, repetition, and imitation (Skinner, 1957) – input (from a native speaker) is viewed as the stimulus for learning. Krashen's (1981) Monitory Theory proposed comprehensible input as necessary and sufficient for SLA to occur. Theories based on Universal Grammar, largely propelled by the work of Chomsky, view input as a "trigger" for general principles as well as language-specific parameters (White, 2015). Within usage-based approaches, input lies at the heart of learning, as it is used by learners to induce rules about the L2 (Ellis & Wulff, 2015). This brief illustration demonstrates the importance of input for theoretical work in L2 learning, which has guided much of the empirical work that seeks to examine the relationship between input and L2 learning.

That stated, what evidence has been provided that input is indeed linked to learning? Within the L1 acquisition literature, it has been shown that oral language skills are linked to input for young children (e.g., Gámez & Levine, 2013; Hart & Risely, 1995; Hoff & Naigles, 2002; Huttenlocher, Waterfall, Vasilyeva, Vevea, & Hedges, 2007). A recent study by Gámez and Levine (2013), which examined the relation between instructor input and gains in oral language skills by child Spanish-speaking learners of English, demonstrated that expressive language in particular was significantly related to word type and utterance complexity in instructor speech. In the adult SLA literature, early evidence is found in the work of Larsen-Freeman (1976), who hypothesized that the order of morphemes acquired by L2 English learners was based on the frequencies of morphemes used by ESL instructors in the classroom (i.e., while teaching). Larsen-Freeman's hypothesis was confirmed for four of six classes analyzed, and motivated empirical attention on the nature of the input to which learners are exposed. Hamayan and Tucker (1980) also reported a positive statistical relationship between the frequencies of nine linguistic structures produced by instructors and L1 and L2 child French learners' accuracy with those same structures in oral production.

Little research exists that examines the relationship between instructor oral input and the acquisition of variable linguistic structures (see Chapter 6 for discussion of the role of the interlocutor in variationist L2 learning). However, very recently a series of studies carried out by Gurzynski-Weiss and colleagues have

begun to examine instructor speech in L2 Spanish classrooms for variable input. Gurzynski-Weiss et al. (2018) examined variable Spanish subject expression in the various types of input to which L2 classroom learners are exposed. In their oral input sample, which consisted of speech from five native speaker instructors directed to learners during grammar-focused portions of recorded lessons, they reported the following range and distribution of subject forms: null (73.8%), lexical NPs (13.6%), overt subject pronouns (5.2%), interrogative pronouns (3.8%), demonstrative pronouns (2.5%), and indefinite pronouns (1.1%). Additionally, several constraints on null subject form use were identified, including verb number and person, verb TMA, referent continuity, and referent specificity. Many of these constraints, as well as their direction of effect, demonstrated several similarities and differences to those reported in the L2 literature, suggesting that "constraints on subject form use attested for L2 learners are only partially reflected in the classroom input to which learners are exposed" (Gurzynski-Weiss et al., 2018, p. 310). Gurzynski-Weiss et al. (2017), using the same oral input dataset examined in Gurzynski-Weiss et al. (2018), explored instructor individual characteristics in relation to patterns of variable subject form use. The individual characteristics explored in their study included instructor country of origin, years living in the US, age of onset of English, and years teaching L2 Spanish. With regard to rates of subject form use, null subject pronouns represented the most frequent subject form across all instructors, followed by lexical NPs. However, one of the instructor participants (P5) differed notably in the rate of null subject pronouns observed in comparison to the other instructors, and several differences between instructors were found for the remaining subject forms in terms of frequencies. With regard to constraints on subject form use, one instructor (P3) differed considerably from the other instructors. Gurzynski-Weiss et al. (2017, 2018) outline several hypotheses to explain these differences, ultimately calling for further research with larger datasets given the complexity associated with individual instructors, classrooms, and discourse settings (p. 246).

The present study

This study extends two related lines of inquiry: exploring the nature of variable subject expression in input directed to learners (e.g., Gurzynski-Weiss et al., 2018) and examining the role of the instructor's own characteristics in this variability (e.g., Gurzynski-Weiss et al., 2017; see also Chapter 6). Specifically, this study investigates how the characteristics of instructors, such as L1, influence the input learners receive for linguistic structures that are variable in native speech. The following research questions guided the present study:

1. What is the distribution of subject forms in classroom-based instructor oral input?
2. What is the relationship of the linguistic and extralinguistic factors examined to the use of subject forms in instructor oral input?
3. To what extent does the relationship of the linguistic and extralinguistic factors with subject form use differ by instructor L1?

Methods

Participants and setting

Twelve instructors of second year (third- and fourth-semester), university-level L2 Spanish participated in this study. All instructors were highly advanced speakers of Spanish and English, half of whom reported Spanish as their L1 and the other half reporting English as their L1. The L1 Spanish-speaking instructors represented distinct countries of origin, including Argentina, Mexico, Puerto Rico, and Spain. The instructor participants varied widely with regard to previous experience teaching Spanish, ranging from 0.5 to 14 years (M = 5.13 years; Mdn = 4.5 years). In addition to teaching university-level L2 Spanish, all instructors were MA or PhD students in a research-intensive Spanish and Portuguese graduate program. The research focus of three of the instructors was Hispanic literature and/or cultural studies, and the remaining instructors (n = 9) studied Hispanic linguistics. A summary of key characteristics of each instructor participant is provided in Table 1, along with the course level he or she taught.

Table 1. Summary of instructor characteristics and course level

Instructor ID	L1 (Country of origin)	Area of study	Years teaching L2 Spanish	Course level
P1	Spanish (Spain)	Linguistics	7	4th semester
P2	English (US)	Literature	5	3rd semester
P3	Spanish (Puerto Rico)	Literature	7	4th semester
P4	English (US)	Linguistics	4	3rd semester
P5	Spanish (Argentina)	Linguistics	6	4th semester
P6	Spanish (Puerto Rico)	Linguistics	4	4th semester
P7	English (US)	Linguistics	5	3rd semester
P8	English (US)	Linguistics	2	4th semester
P9	Spanish (Spain)	Linguistics	3	4th semester
P10	English (US)	Linguistics	0.5	4th semester
P11	English (US)	Literature	4	3rd semester
P12	Spanish (Mexico)	Linguistics	14	4th semester

As shown in Table 1, the majority of instructor participants were teaching a fourth-semester Spanish language course at the time of the present study. The third- and fourth-semester Spanish language courses comprised the last two courses in the Spanish basic language program within the departmental context of the present study. Common syllabi and exams were developed for each course level; thus, all instructors of third-semester Spanish followed the same syllabus and gave the same exams, and all instructors of fourth-semester Spanish similarly followed the same syllabus and gave the same exams. Given the logistical uniformity within course level, instructors teaching the same course level often shared PowerPoint lessons and other instructional materials.

Materials and procedure

Each instructor was video recorded one time (within the same academic year) while teaching a 50-min classroom lesson. To collect the video recorded data, a small camera was placed on a tripod at the back of the classroom for the entire class meeting. To minimize the observer effect, the researcher was not present during any instructor's recorded classroom meeting. Additionally, to facilitate the examination of comparable discourse from each instructor participant, classroom lessons that focused on the presentation and practice of vocabulary were selected for recording for each instructor participant.

Following collection of the video recorded data, a portion of each recorded lesson during which new vocabulary was presented was identified for analysis of instructor speech. Thus, 12 excerpts featuring presentation of new vocabulary comprised the primary dataset for this study. In addition to noting the vocabulary topic (e.g., parts of the body, vacation) and presentation format (e.g., categorization of vocabulary words, playing *Simon Says*), the length of each excerpt was recorded (see Table 2 for summary of this information). Similar to Gurzynski-Weiss et al. (2017), there was notable variation in the length of each excerpt identified, ranging from just under 2 min to just over 11 min. However, this variation was not expected to negatively influence our analysis, given our focus on the distribution – rather than the total count – of subject forms produced by instructors (Gurzynski-Weiss et al., 2017, p. 234).

All speech recorded in the 12 excerpts identified for analysis was transcribed orthographically. Student speech and speech produced in English (by students and instructors) were included in transcriptions but were not included in the analysis.

Table 2. Summary of characteristics of excerpts identified for analysis

Participant	Start time of excerpt	End time of excerpt	Vocabulary topic	Presentation format
P1	6:38	10:55	Parts of the body	Students review vocabulary words in pairs, then answer questions posed by instructor as a class
P2	20:15	27:08	Vacation	Students repeat each vocabulary word after instructor, with questions and examples arising incidentally
P3	11:56	15:14	Parts of the body	Students play *Simon Says* as a class
P4	7:41	13:20	Vacation	Students categorize vocabulary words in pairs
P5	4:00	13:18	Parts of the body	In small groups, students read vocabulary words aloud to practice pronunciation, then instructor asks which words are difficult to pronounce
P6	3:06	5:01	Parts of the body	Students repeat a selection of vocabulary words after the instructor
P7	9:03	15:23	Technology	Students individually come up with synonyms for vocabulary words
P8	20:55	25:10	Geographic terms	Students supply target vocabulary word for each photo shown by the instructor
P9	8:00	9:50	Geographic terms	Instructor has each student produce one vocabulary word aloud
P10	13:05	16:48	Parts of the body	Instructor reads each vocabulary word aloud from text and has students reply with English equivalent
P11	15:25	26:14	Vacation	Students categorize vocabulary words in pairs; instructor answers students questions about vocabulary
P12	4:47	7:35	Parts of the body	Students supply target vocabulary word for images appearing on PowerPoint slide

Data coding and analysis

Following research on L2 Spanish subject expression and related research on variable instructor oral input (e.g., Gurzynski-Weiss et al., 2017), the researchers identified all finite verbs (e.g., *habla* 'speak,' *bailo* '[I] dance') in the transcribed excerpts and coded them for the subject form expressed (i.e., the dependent variable) and several linguistic and extralinguistic variables. With regard to the dependent variable,

possible subject forms included null subject pronouns (e.g., *Ø sé* '[I] know'), overt subject pronouns (e.g., ***yo sé*** 'I know'), lexical NPs (e.g., ***ella*** *sabe* 'she knows'), demonstrative pronouns (e.g., ***esto*** *dice* 'this says'), indefinite pronouns (e.g., *alguien sabe* 'someone knows'), and interrogative pronouns (e.g., *quién sabe* 'who knows?').

To identify and describe constraints on subject form use, each finite verb was also coded for the linguistic and extralinguistic variables listed and exemplified in Table 3 (adapted from Gurzynski-Weiss et al., 2017, pp. 235–236).

Table 3. Coding scheme for linguistic and extralinguistic variables

Variable	Levels	Examples
Number	Singular	*sé* 'know-1sg'
	Plural	*saben* 'know-3pl'
Person	1st	*sé* 'know-1sg'
	2nd	*sabes* 'know-2sg'
	3rd	*sabe* 'know-3sg'
TMA	Conditional	*comería* 'would eat'
	Future indicative	*comerá* 'will eat'
	Imperative	*come* 'eat'
	Imperfect indicative	*comía* 'was eating/used to eat'
	Periphrastic future	*va a comer* 'going to eat'
	Present indicative	*come* 'eats'
	Present perfect	*ha comido* 'has eaten'
	Present progressive	*está comiendo* 'is eating'
	Present subjunctive	*coma* 'eats'
	Preterit indicative	*comió* 'ate'
Referent continuity	Same	***Comía*** *[yo] mientras* ***miraba*** *[yo] la tele* 'I was eating while watching TV'
	Switch	***Comía*** *[yo] mientras mi hermana* ***hablaba*** 'I was eating while my sister was talking'
TMA continuity	Same	***Comía*** *[imperfect] mientras mi hermana* ***hablaba*** *[imperfect]* 'I was eating while my sister was talking'
	Different	***Comía*** *[imperfect] cuando mi Hermana me* ***llamó*** *[preterit]* 'I was eating when my sister called me'
Referent specificity	Specific	*Yo sé* 'I know'
	Nonspecific	*¿Quién sabe?* 'Who knows?'
	Group	*Los instructores saben* 'the instructors know'
	Nonanimate (i.e., nonhuman referents)	*El tiempo vuela* 'Time flies'
Instructor L1	English	–
	Spanish	

Note. TMA = tense, mood, aspect; L1 = first language

Following coding of the data for the dependent variable (i.e., subject form expressed) and each independent variable (Table 3), descriptive statistics were calculated to determine the distribution of subject forms produced across all instructor participants. The distribution of subject forms was also examined by instructor L1, again by means of descriptive statistics.

In order to examine the relationship between each linguistic and/or extralinguistic variable (Table 3) and subject form distribution across instructors, the dataset was limited to the two most frequent subject forms observed, and contingency tables were drawn between each linguistic variable and the dependent variable for descriptive analysis. Unlike previous research on L1 and L2 Spanish subject expression (e.g., Geeslin & Gudmestad, 2008), the analysis was limited to the two most frequent subject forms and not the three most frequent subject forms observed to limit empty cells in cross-tabulations.

Results

This section is organized in the following manner: To start, we present the overall distribution of subject forms observed in the present dataset. We then present the distribution of subject forms by instructor L1 to highlight distinct frequencies of use. Finally, we present our findings with regard to the factors related to subject form use, for all instructor participants and by instructor L1.

Distribution of subject forms

As is common practice in variationist research on L1 and L2 Spanish subject expression, finite verb contexts in which no variation was observed (e.g., categorically null subject pronouns expressed, as with imperative verb forms, *hay* 'there is/are,' etc.) were excluded from the dataset. These exclusions yielded a final token count of 522. Figure 1 presents the distribution of subject forms observed across these 522 finite verb contexts.

As shown in Figure 1, null subject pronouns ($n = 345$) comprised the most frequent subject form observed in the dataset. The second and third most frequent forms observed were lexical NPs ($n = 94$) and interrogative pronouns ($n = 46$), respectively, although the proportion of these forms relative to null subject pronouns was notably smaller. Overt subject pronouns ($n = 18$), demonstrative pronouns ($n = 14$), and indefinite pronouns ($n = 5$) together comprised less than 7% of the subject forms observed in oral input produced by instructor participants of this study.
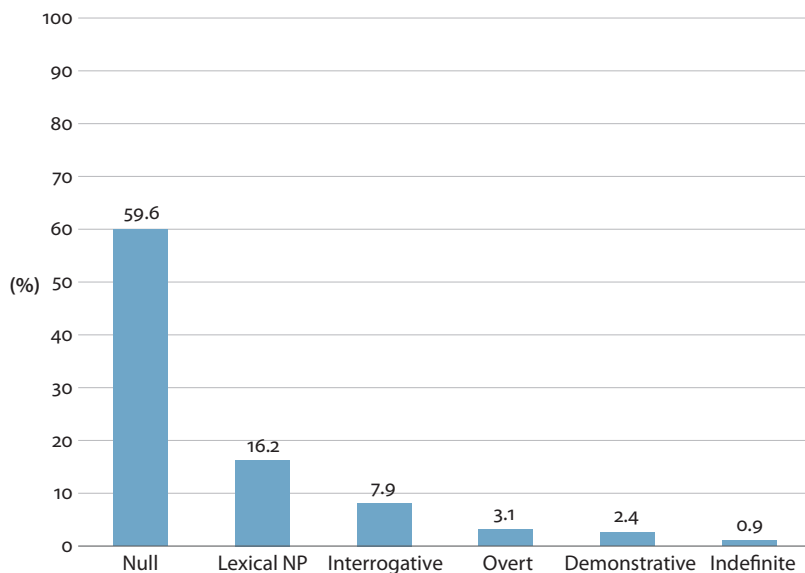
Figure 1. Distribution of subject forms

Distribution of subject forms by instructor L1

Figure 2 presents the distribution of subject forms observed in the present dataset by instructor L1. These results are descriptive, as no statistical analyses were employed.
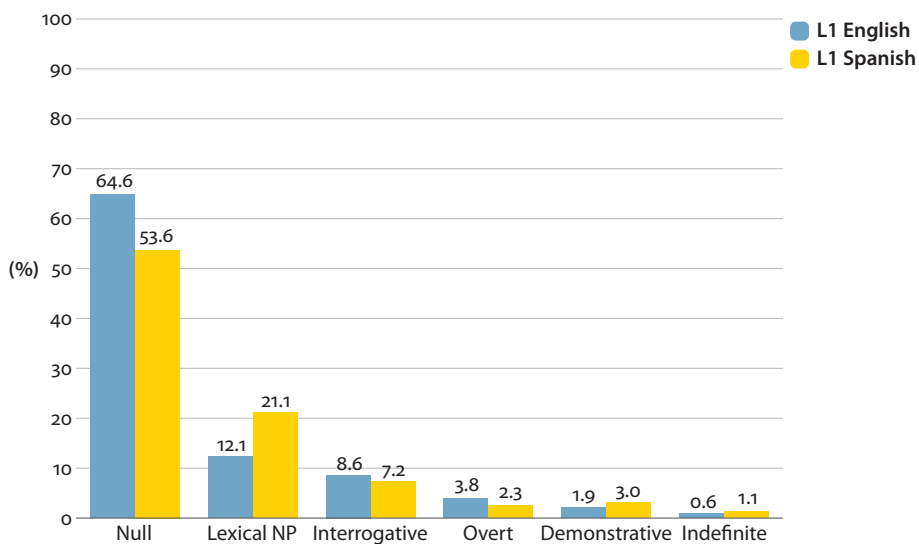
Figure 2. Distribution of subject forms by instructor L1

A first observation of note is that both L1 English and L1 Spanish instructors employed the same range of subject forms. In other words, all instructors, regardless of L1 background, produced null subject pronouns, lexical NPs,[1] interrogative pronouns, etc. However, the frequencies with which instructors produced these forms show differences by instructor L1. For example, L1 English instructors employed a greater percentage of null subject pronouns than L1 Spanish instructors (i.e., 64.6% [$n = 203$] vs. 53.6% [$n = 142$], respectively). Additionally, L1 Spanish instructors produced a notably higher percentage of lexical NPs than L1 English instructors (e.g., 21.1% [$n = 56$] vs. 12.1% [$n = 38$], respectively). L1 English instructors produced interrogative pronouns at a slightly higher rate than L1 Spanish instructors (8.6% [$n = 27$] vs. 7.2% [$n = 19$], respectively). Furthermore, while overt subject pronouns, demonstrative pronouns, and indefinite pronouns together comprised the least frequent subject forms produced by instructor regardless of L1 background, L1 English instructors produced a higher percentage of overt subject pronouns than L1 Spanish instructors (3.8% [$n = 12$] vs. 2.3% [$n = 6$], respectively), whereas L1 Spanish instructors produced a higher percentage of demonstrative pronouns than L1 English instructors (3.0% [$n = 8$] vs. 1.9% [$n = 6$], respectively).

Factors related to subject form use

As a reminder, to identify the linguistic and/or extralinguistic variables constraining subject form distribution across instructors, the analysis was limited to the two most frequent subject forms (i.e., null subjects and lexical NPs) observed, and contingency tables were drawn to examine the relationship between each independent variable (see Table 3) and the dependent variable (i.e., subject form expressed).[2] Unlike some previous research on L1 and L2 Spanish subject expression (e.g., Geeslin & Gudmestad, 2008), the analysis was limited to the two most frequent subject forms and not the three most frequent subject forms observed to limit empty cells in cross-tabulations.[3] As a result, the final count of subject forms included in this analysis was 439 (null: 345 [78.6%], lexical NP: 94 [21.4%]).

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1.   Whether a lexical NP was the first mention of a referent was not coded for the present analysis. As pointed out by a reviewer, lower frequencies of null pronouns, when a referent is first mentioned, may be expected. This observation should be accounted for in future analyses that incorporate detailed examinations of lexical NPs.

2.   The small number of tokens in several of the cells in this dataset make employing the standard statistical analyses expected in this field inadvisable.

3.   We argue that the other forms are important and should be included in the analysis when larger datasets permit. Additionally, as pointed out by a reviewer, although previous research only included the most frequent forms, those forms tended to be null and overt subject pronouns. As such, the comparability between this and other research is somewhat complex.

Table 4 presents the distribution of null subject pronouns and lexical NPs across all instructors for each independent variable.

Table 4. Percentage of null subject pronouns and lexical NPs for each independent variable

Variable	Category	Lexical NP		Null	
		N	%	*N*	%
Number	Plural	63	17.3	302	82.7
	Singular	31	41.9	43	58.1
Person	1st	0	0.0	148	100
	2nd	1	1.4	69	98.6
	3rd	93	42.1	128	57.9
TMA	Conditional	0	0.0	1	100
	Future indicative	1	100	0	0.0
	Imperative	1	3.8	25	96.2
	Imperfect indicative	0	0.0	3	100
	Periphrastic future	0	0.0	25	100
	Present indicative	86	25.6	250	74.4
	Present perfect	0	0.0	2	100
	Present progressive	0	0.0	2	100
	Present subjunctive	0	0.0	33	100
	Preterit indicative	6	60.0	4	40.0
Referent continuity	Same	15	10.1	134	89.9
	Switch	79	28.2	201	71.8
TMA continuity	Different	33	22.3	115	77.7
	Same	61	21.7	220	78.3
Referent specificity	Group	4	2.4	163	97.6
	Nonspecific	2	2.9	68	97.1
	Specific	26	35.1	48	64.9
Instructor L1	English	38	15.8	203	84.2
	Spanish	56	28.3	142	71.7

Note. NP = noun phrase; TMA = tense, mood, aspect; L1 = first language

The most frequent subject form across nearly all categories of each independent variable (22 of 24 total categories or levels) was a null subject pronoun. Lexical NPs were more frequent with preterit verbs. With regard to instructor L1, the variable of particular interest in this study, although null subject pronouns were more frequent than lexical NPs regardless of instructor L1, a different distribution of these subject forms was found for L1 English as opposed to L1 Spanish instructors – specifically, L1 English instructors produced a relatively higher percentage of null subject pronouns than L1 Spanish instructors. In the section that follows, we examine factors constraining subject form use by instructor L1 background.

Constraints on subject form use by instructor L1

In order to identify how instructor L1 background influences patterns of subject form use, we examined two sets of cross-tabulations (between the dependent variable and each linguistic variable [Table 3]): the first based on L1 English instructors' subject form use and the second based on L1 Spanish instructors' subject form use. Similar to the previous analysis, each dataset (i.e., L1 English and L1 Spanish) was limited to the two most frequent subject forms observed: null subject pronouns and lexical NPs.

For the L1 English instructors, a total of 241 subject forms (null: 203 [84.2%], lexical NP: 38 [15.8%]) were included for descriptive analysis, and findings are presented in Table 5.

Table 5. Percentage of null subject pronouns and lexical NPs for each independent variable for L1 English instructors

Variable	Category	Lexical NP		Null	
		N	%	*N*	%
Number	Plural	21	10.5	179	89.5
	Singular	17	41.5	24	58.5
Person	1st	0	0.0	106	100
	2nd	1	2.9	34	97.1
	3rd	37	37.0	63	63.0
TMA	Conditional	–	–	–	–
	Future indicative	1	100	0	0.0
	Imperative	0	0.0	7	100
	Imperfect indicative	0	0.0	2	100
	Periphrastic future	0	0.0	10	100
	Present indicative	36	17.1	174	82.9
	Present perfect	0	0.0	2	100
	Present progressive	0	0.0	1	100
	Present subjunctive	0	0.0	4	100
	Preterit indicative	1	25.0	3	75.0
Referent continuity	Same	5	4.8	99	95.2
	Switch	33	25.0	99	75.0
TMA continuity	Different	5	9.8	46	90.2
	Same	33	17.8	152	82.2
Referent specificity	Group	1	1.1	94	98.9
	Nonspecific	2	4.8	40	95.2
	Specific	0	0.0	34	100

Note. NP = noun phrase; TMA = tense, mood, aspect

For L1 English instructors, patterns of subject form use across categories of each linguistic variable reflect the group pattern (i.e., across all instructors) – that is, null subject pronouns are more frequent than lexical NPs. However, within some linguistic variables, we observed a relatively higher percentage of lexical NPs for one category over another category. For example, null subject pronouns were more frequent than lexical NPs for plural and singular verbs, but we observed a higher percentage of lexical NPs for singular as opposed to plural verbs. Lexical NPs were also observed more frequently for third-person verbs than first- and second-person verbs. For the TMA variable, lexical NPs were very infrequent but were more likely to be produced with present indicative verbs than other verbal TMAs. Finally, lexical NPs were produced with relatively greater frequency in contexts of switch reference than in same reference contexts, as well as when TMA continuity was the same between two tensed or finite verbs (as opposed to different).

For the L1 Spanish instructors, a total of 198 subject forms (null: 142 [71.7%], lexical NP: 56 [28.3%]) were included for descriptive analysis, and findings are presented in Table 6. Results for the L1 Spanish instructors show many similarities to the findings for L1 English instructors. First, null subject pronouns are more frequent, overall, than lexical NPs across most categories of each independent variable. Furthermore, L1 Spanish instructors, similar to L1 English instructors, produced a higher percentage of lexical NPs with singular (as opposed to plural) verbs, with third-person (as opposed to first- and second-person) verbs, with preterit indicative (as opposed to other verbal TMA) verbs, and in switch (as opposed to same) reference contexts.

Nevertheless, there are some differences between the findings for L1 Spanish instructors and those for L1 English instructors. One difference is related to the TMA continuity variable: Whereas a distinct distribution of subject forms was observed for L1 English instructors (i.e., distinct percentages of lexical NPs and null subject pronouns across categories of TMA continuity), (almost) the same distribution of subject forms was observed for L1 Spanish instructors (i.e., almost the same percentage of lexical NPs and null subject pronouns across categories of TMA continuity). Another difference is related to the referent specificity variable: Whereas L1 English instructors produced null subject pronouns nearly exclusively for each category of this variable, L1 Spanish instructors produced null subject pronouns nearly exclusively for group and nonspecific referents only. For specific referents, L1 Spanish instructors produced a relatively higher percentage of lexical NPs as opposed to null subject pronouns.

Table 6. Percentage of null subject pronouns and lexical NPs for each independent variable for L1 Spanish instructors

Variable	Category	Lexical NP		Null	
		N	%	N	%
Number	Plural	42	25.5	123	74.5
	Singular	14	42.4	19	57.6
Person	1st	0	0.0	42	100
	2nd	0	0.0	35	100
	3rd	56	46.3	65	53.7
TMA	Conditional	0	0.0	1	100
	Future indicative	–	–	–	–
	Imperative	1	5.3	18	94.7
	Imperfect indicative	0	0.0	1	100
	Periphrastic future	0	0.0	15	100
	Present indicative	50	39.7	76	60.3
	Present perfect	–	–	–	–
	Present progressive	0	0.0	1	100
	Present subjunctive	0	0.0	29	100
	Preterit indicative	5	83.3	1	16.7
Referent continuity	Same	10	22.2	35	77.8
	Switch	46	31.1	102	68.9
TMA continuity	Different	28	28.9	69	71.1
	Same	28	29.2	68	70.8
Referent specificity	Group	3	4.2	69	95.8
	Nonspecific	0	0.0	28	100
	Specific	26	65.0	14	35.0

Note. NP = noun phrase; TMA = tense, mood, aspect

Discussion

Similar to previous research on this topic (Gurzynski-Weiss et al., 2017), the present study has shown that the same range of subject forms are produced by instructors in vocabulary-focused L2 Spanish classroom lessons. Furthermore, this range is apparent regardless of instructor L1 background. This finding suggests that this particular individual characteristic is unlikely to differentially influence classroom learners' acquisition of the range of subject forms observed in the Spanish language, as opportunities for exposure to the full range of Spanish subject forms is not restricted by instructor L1.

The *distribution* of subject forms produced by instructors, however, shows slight differences by instructor L1. While null subject pronouns, lexical NPs, and interrogative pronouns, respectively, comprise the three most frequent subject forms produced by instructors in this study, rates of null subject pronoun use are higher for L1 English instructors than L1 Spanish instructors. As a reminder, these results are descriptive (i.e., not based on statistical analysis). These findings may be linked to the tendency on the part of L1 English instructors to employ a greater number of null subjects in certain verb number and person combinations (e.g., first-person singular; Geeslin & Gudmestad, 2008) or in combination with verbs that demonstrate greater lexical frequency (cf. Erker & Guy, 2012; Linford, Long, Solon, & Geeslin, 2016). Another difference is that L1 English instructors employed more overt subject pronouns than demonstrative pronouns, whereas the opposite is true for L1 Spanish instructors. On the one hand, this finding may point to interaction between the communicative demands of the classroom context (Gurzynski-Weiss et al., 2017) and instructor L1. In response to the perceived proficiency of classroom learners, instructors might produce more overt subject pronouns in general to make their speech more comprehensible, and L1 English instructors, who share the native language of classroom learners, may be more likely to do so. On the other hand, this finding may simply be linked to the topic of the recorded lesson. For instance, an interesting difference we see is a higher use of lexical NPs for L1 Spanish than L1 English instructors; however, a review of the dataset shows the majority of lexical NPs to occur in lessons taught by L1 Spanish instructors whose topic was parts of the body. Thus, it may be that differences in the rate of use of overt subject and demonstrative pronouns produced by L1 English and L1 Spanish instructors reflect distinct topics of the lessons examined in this study. Taken together, these differences, while subtle, may influence classroom learners' acquisition of variable Spanish subject expression. To be clear, these differences are not likely to influence the overall path of development of rates of subject form use; however, the fluctuation in rates that is attested in previous research (e.g., Geeslin et al., 2015) could very well be connected to the differences observed in the classroom. In fact, Geeslin and Gudmestad (2008) found that, in interview data, highly advanced L2 speakers produced fewer "other" subject forms (e.g., interrogative, demonstrative, and indefinite pronouns) than native speakers. In the present study, in contrast, L1 English instructors (who are very comparable to the L2 speakers of Geeslin and Gudmestad, 2008) and L1 Spanish instructors produced a strikingly comparable percentage (e.g., 11.1% vs. 11.3%, respectively) and distribution of these "other" subject forms. This finding points to the need to consider carefully distinct discourse modes and/or settings when comparing L1- and L2-speaking instructors' speech inside and outside of the classroom, as this

particular instructor characteristic does not appear to operate independently of external factors such as discourse context (cf. Gurzynski-Weiss et al., 2018).

With regard to the linguistic and extralinguistic factors examined, null subject pronouns were the most common overwhelmingly across categories of each variable (recall that null subject pronouns and lexical NPs, the two most frequent subject forms observed, formed the basis of this descriptive analysis). Importantly, with regard to the influence of instructor L1 on subject form distribution, the descriptive analysis revealed that L1 English instructors produced a relatively higher percentage of null subject pronouns than L1 Spanish instructors. Upon closer analysis of the linguistic factors influencing subject form distribution by instructor L1, two key differences were revealed: (a) L1 English instructors produced a distinct distribution of null subject pronouns and lexical NPs for the TMA continuity variable, whereas L1 Spanish instructors did not; and (b) L1 English instructors produced null subject pronouns nearly exclusively across categories of the referent specificity variable, whereas L1 Spanish instructors produced null subject pronouns nearly exclusively for group and nonspecific referents only. With regard to TMA continuity, this variable has demonstrated mixed influence in previous research on L1 and L2 subject expression (e.g., Geeslin et al., 2015; Linford, 2014), making a comparison to the present findings difficult. Nevertheless, that L1 English and L1 Spanish instructors produced a distinct distribution of null subject pronouns and lexical NPs suggests, again preliminarily, that L1 instructor background influences the subject form distribution in relation to TMA continuity. Regarding referent specificity, the findings reported here diverge from previous research examining interview data (e.g., Geeslin & Gudmestad, 2008). A notable departure is that, although null subject pronouns were the most frequent subject form produced by advanced L2 and native speakers in Geeslin and Gudmestad's (2008) study, null subject pronouns were not produced nearly exclusively as was found in the present study. Taken together, these findings show that some constraints on subject form use in instructor speech are influenced by the L1 background of the instructor, suggesting that patterns of subject form use in classroom-based oral input are mediated by individual characteristics of the instructor. More research with larger datasets reflecting diverse topics in classroom contexts is needed to facilitate in-depth discussion on the extent to which instructor characteristics – in this case, instructor L1 – may potentially alter the developmental trajectory of variable Spanish subject expression by L2 learners. However, the findings of the present study point to further examination of instructor L1 background in particular, as this individual characteristic meaningfully influences patterns of subject form use found in the input available to classroom learners.

Concluding remarks

The present study investigated patterns of variable Spanish subject expression in the oral input provided by 12 instructors during vocabulary-focused lessons in second-year language courses. In keeping with the goals of the current volume, this input was examined for similarities and differences by the L1 of the instructor. In line with previous research on this topic (e.g., Gurzynski-Weiss et al., 2017), the findings revealed, overall, the same range of subject forms produced by all instructors. Subtle differences, however, were uncovered with regard to rates of subject form use, and constraints on the subject form distribution also showed key differences by instructor L1.

In addition to increasing the number of classroom lessons and instructors, future analyses on this topic would do well to examine instructors' patterns of subject form use over time (e.g., an academic semester and/or year). Future research should also strive to compare patterns of subject form use across instructors and their classes for the same topic, to the greatest extent possible. This aspect of methodological design would facilitate interpretation of findings that are subject to influence from contextual factors such as topic. That stated, the manner in which the instructors of this study facilitated classroom presentation of the vocabulary topic also demonstrated variability. As such, future analyses should incorporate this factor with detail (see, e.g., Travis, 2007, who examines the influence of discourse genre on subject form variation). Finally, the present study has provided the motivation to investigate the role of additional instructor characteristics, such as years of teaching experience or previous training in pedagogy and SLA, on variable patterns of Spanish subject expression in classroom-based oral input. Examination of these characteristics will permit enhanced understanding of the nature of variable input directed to classroom learners and, importantly, the role of the instructor in influencing that input.

References

Abreu, L. (2009). Spanish subject personal pronoun use by monolinguals, bilinguals and second language learners (Unpublished doctoral dissertation). University of Florida, Gainesville.

Abreu, L. (2012). Subject pronoun expression and priming effects among bilingual speakers of Puerto Rican Spanish. In K. Geeslin & M. Díaz-Campos (Eds.), *Selected proceedings of the 14th Hispanic Linguistics Symposium* (pp. 1–8). Somerville, MA: Cascadilla Proceedings Project.

Alfaraz, G. G. (2015). Variation of overt and null subject pronouns in the Spanish of Santo Domingo. In A. Carvalho, R. Orozco, & N. L. Shin (Eds.), *Subject pronoun expression in Spanish: A cross-dialectal perspective* (pp. 3–16). Washington, DC: Georgetown University Press.

Al-Kasey, T., & Pérez-Leroux, A. T. (1998). Second language acquisition of Spanish null subjects. In S. Flynn, G. Martohardjono & W. O'Neil (Eds.), *The generative study of second language acquisition* (pp. 161–183). Hillsdale, NJ: Lawrence Erlbaum Associates.

Avila-Jiménez, B. I. (1995). A sociolinguistic analysis of a change in progress: Pronominal overtness in Puerto Rican Spanish. *Cornell Working Papers in Linguistics*, 13, 25–48.

Avila-Jiménez, B. (1996). Subject pronoun expression in Puerto Rican Spanish: A sociolinguistic, morphological, and discourse analysis (Unpublished doctoral dissertation). Cornell University, Ithaca, NY.

Bayley, R., & Pease-Alvarez, L. (1997). Null pronoun variation in Mexican-descent children's narrative discourse. *Language Variation and Change*, 9(3), 349–371. https://doi.org/10.1017/S0954394500001964

Bayley, R., & Preston, D. R. (Eds.). (1996). *Second language acquisition and linguistic variation*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/sibil.10

Cameron, R. (1993). Ambiguous agreement, functional compensation, and nonspecific tú in the Spanish of San Juan, Puerto Rico and Madrid, Spain. *Language Variation and Change*, 5(3), 305–334. https://doi.org/10.1017/S0954394500001526

Cameron, R. (1994). *Switch reference, verb class and priming in a variable syntax*. Paper presented at the 30th Regional Meeting of the Chicago Linguistics Society, Chicago, IL.

Cameron, R., & Flores-Ferrán, N. (2004). Perseveration of subject expression across regional dialects of Spanish. *Spanish in Context*, 1(1), 41–65. https://doi.org/10.1075/sic.1.1.05cam

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1–47. https://doi.org/10.1093/applin/1.1.1

Carvalho, A. M., Orozco, R., & Shin, N. L. (Eds.). (2015). *Subject pronoun expression in Spanish: A cross-dialectal perspective*. Washington, DC: Georgetown University Press.

Chaudron, C. (1988). *Second language classrooms: Research on teaching and learning*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9781139524469

Dela Rosa, J. P. O., & Arguelles, D. C. (2016). Do modification and interaction work? A critical review of literature on the role of foreigner talk in second language acquisition. *Manager's Journal on English Language Teaching*, 6(3), 46–60. https://doi.org/10.26634/jelt.6.3.8178

Dörnyei, Z. (2014). *The psychology of the language learner: Individual differences in second language acquisition*. New York, NY: Routledge. https://doi.org/10.4324/9781410613349

Ellis, N. C., & Wulff, S. (2015). Usage-based approaches to SLA. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (pp. 75–93). New York, NY: Routledge.

Enríquez, E. (1984). *El pronombre personal sujeto en la lengua española hablada en Madrid*. Madrid, Spain: Consejo Superior de Investigaciones Científicas.

Erker, D., & Guy, G. R. (2012). The role of lexical frequency in syntactic variability: Variable subject personal pronoun expression in Spanish. *Language*, 88(3), 526–557. https://doi.org/10.1353/lan.2012.0050

Flores-Ferrán, N. (2002). *Subject personal pronouns in Spanish narratives of Puerto Ricans in New York City: A sociolinguistic perspective*. Munich: Lincom.

Flores-Ferrán, N. (2004). Spanish subject personal pronoun use in New York City Puerto Ricans: Can we rest the case of English contact? *Language Variation and Change*, 16(1), 49–73. https://doi.org/10.1017/S0954394504161048

Gámez, P. B., & Levine, S. C. (2013). Oral language skills of Spanish-speaking English language learners: The impact of high-quality native language exposure. *Applied Psycholinguistics*, 34(4), 673–696. https://doi.org/10.1017/S0142716411000919

Gass, S. M., & Mackey, A. (2015). Input, interaction, and output in second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (2nd ed., pp. 180–206). New York, NY: Routledge.

Geeslin, K. L. (2011). Variation in L2 Spanish: The state of the discipline. *Studies in Hispanic and Lusophone Linguistics*, 4(2), 461–518. https://doi.org/10.1515/shll-2011-1110

Geeslin, K., & Gudmestad, A. (2008). Variable subject expression in second-language Spanish: A comparison of native and non-native speakers. In M. Bowles et al. (Eds.), *Selected proceedings of the 2007 Second Language Research Forum* (pp. 69–85). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K., & Gudmestad, A. (2011). Using sociolinguistic analyses of discourse-level features to expand research on L2 variation in forms of Spanish subject expression. In L. Plonsky & M. Schierloh (Eds.), *Selected proceedings of the 2009 Second Language Research Forum* (pp. 16–30). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K., & Gudmestad, A. (2016). Native and non-native subject form expression in Spanish: a look at the first and second person. *Spanish in Context*, 13(1), 53–79. https://doi.org/10.1075/sic.13.1.03gee

Geeslin, K., Linford, B., & Fafulas, S. (2015). Variable subject expression in second language Spanish: Uncovering the developmental sequence and predictive linguistic factors. In A. Carvalho, R. Orozco, & N. L. Shin (Eds.), *Subject pronoun expression in Spanish: A cross-dialectal perspective* (pp. 220–241). Washington, DC: Georgetown University Press.

Geeslin, K. L., & Long, A. Y. (2014). *Sociolinguistics and second language acquisition: Learning to use language in context*. New York, NY: Routledge.

Gudmestad, A. (2014). Variationist approaches to second language Spanish. In K. L. Geeslin (Ed.), *The handbook of Spanish second language acquisition* (pp. 80–95). Malden, MA: Wiley-Blackwell.

Gurzynski-Weiss, L. (2014). Instructor characteristics and classroom-based SLA of Spanish. In K. L. Geeslin (Ed.), *The handbook of Spanish second language acquisition* (pp. 530–546). Malden, MA: Wiley-Blackwell.

Gurzynski-Weiss, L. (Ed.) (2017). *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and researchers*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16

Gurzynski-Weiss, L., Geeslin, K. L., Daidone, D., Linford, B., Long, A. Y., Michalski, I., & Solon, M. (2018). Examining multifaceted sources of input: Variationist and usage-based approaches to understanding the L2 classroom. In A. E. Tyler, L. Ortega, M. Uno, & H. I. Park (Eds.), *Usage-inspired L2 instruction: Researched pedagogy* (pp. 291–311). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.49.13gur

Gurzynski-Weiss, L., Geeslin, K., Long, A. Y., & Daidone, D. (2017). Linguistic variation in instructor provision of oral input. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and researchers* (pp. 225–253). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.10gur

Hamayan, E. V., & Tucker, G. R. (1980). Language input in the bilingual classroom and its relationship to second language achievement. *TESOL Quarterly*, 14(4), 453–468. https://doi.org/10.2307/3586234

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul Brookes.

Hochberg, J. G. (1986). Functional compensation for /s/ deletion in Puerto Rican Spanish. *Language*, 62(3), 609–621. https://doi.org/10.1353/lan.1986.0041

Hoff, E., & Naigles, L. (2002). How children use input to acquire a lexicon. *Child development*, 73(2), 418–433. https://doi.org/10.1111/1467-8624.00415

Holmquist, J. (2012). Frequency rates and constraints on subject personal pronoun expression: Findings from the Puerto Rican highlands. *Language Variation and Change*, 24(2), 203–220. https://doi.org/10.1017/S0954394512000117

Huttenlocher, J., Vasilyeva, M., Waterfall, H. R., Vevea, J. L., & Hedges, L. V. (2007). The varieties of speech to young children. *Developmental Psychology*, 43, 1062–1083. https://doi.org/10.1037/0012-1649.43.5.1062

Isabelli, C. A. (2004). The acquisition of the null subject parameter properties in SLA: Some effects of positive evidence in a naturalistic learning context. *Hispania*, 87, 150–162. https://doi.org/10.2307/20063017

Krashen, S. D. (1981). *Second language acquisition and second language learning*. Oxford, UK: Pergamon.

Lantolf, J. P. (this volume). I ~ You > You ~ Me: The hidden other in L2 development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 79–97). Amsterdam, Netherlands: John Benjamins.

Larsen-Freeman, D. E. (1976). An explanation for the morpheme acquisition order of second language learners. *Language Learning*, 26(1), 125–134. https://doi.org/10.1111/j.1467-1770.1976.tb00264.x

Larsen-Freeman, D. (this volume). Complexity Theory: Relational systems in interaction and in interlocutor differences in second language development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 189–208). Amsterdam, Netherlands: John Benjamins.

Liceras, J., & Díaz, L. (1999). Topic-drop versus pro-drop: Null subjects and pronominal subjects in the Spanish L2 of Chinese, English, French, German and Japanese speakers. *Second Language Research*, 15(1), 1–40. https://doi.org/10.1191/026765899678128123

Linford, B. (2014). Self-reported motivation and the L2 acquisition of subject pronoun variation in Spanish. In R. T. Miller et al. (Eds.), *Selected proceedings of the 2012 Second Language Research Forum: Building bridges between disciplines* (pp. 193–210). Somerville, MA: Cascadilla Proceedings Project.

Linford, B., Long, A. Y., Solon, M., & Geeslin, K. (2016). Measuring lexical frequency: Comparison groups and subject expression in L2 Spanish In L. Ortega, A. Tyler, & M. Uno (Eds.), *Usage-based approaches to language learning and multilingualism* (pp. 137–154). Washington, DC: Georgetown University Press.

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of research on second language acquisition* (Vol. 2, pp. 413–468). New York, NY: Academy Press.

Long, M. H. (2006). Input, interaction, and second language acquisition. *Annals of the New York Academy of Science*, 379, 259–278. https://doi.org/10.1111/j.1749-6632.1981.tb42014.x

Otheguy, R., Zentella, A. C., & Livert, D. (2007). Language and dialect contact in Spanish in New York: Toward the formation of a speech community. *Language*, 83, 770–802. https://doi.org/10.1353/lan.2008.0019

Otheguy, R., & Zentella, A. C. (2012). *Spanish in New York: Language contact, dialectal leveling, and structural continuity*. New York, NY: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199737406.001.0001

Philp, J., & Gurzynski-Weiss, L. (this volume). On the role of the interlocutor in second language development: A cognitive-interactionist approach. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 19–50). Amsterdam, Netherlands: John Benjamins.

Philp, J., & Tognini, R. (2009). Language acquisition in foreign language contexts and the differential benefits of interaction. *IRAL-International Review of Applied Linguistics in Language Teaching*, 47(3–4), 245–266.

Quesada, M. L., & Blackwell, S. E. (2009). The L2 acquisition of null and overt Spanish subject pronouns: A pragmatic approach. In J. Collentine, M. García, B. Lafford, & F. Marcos Marín (Eds.), *Selected proceedings of the 11th Hispanic Linguistics Symposium* (pp. 117–130). Somerville, MA: Cascadilla Proceedings Project.

Rothman, J., & Iverson, M. (2007). The syntax of null subjects in L2 Spanish: Comparing two L2 populations under different exposure. *RESLA*, 20, 185–214.

Shin, N. L., & Otheguy, R. (2009). Shifting sensitivity to continuity of reference: Subject pronoun use in Spanish in New York City. In M. Lacorte & J. Leeman (Eds.), *Español en Estados Unidos y en otros contextos: Cuestiones sociolingüísticas, políticas y pedagógicas* (pp. 111–136). Madrid, Spain: Iberoamericana.

Skinner, B. F. (1957). The experimental analysis of behavior. *American Scientist*, 45(4), 343–371.

Silva-Corvalán, C. (1982). *Subject expression and placement in Mexican-American Spanish*. Cambridge, UK: Cambridge University Press.

Travis, C. E. (2007). Genre effects on subject expression in Spanish: Priming in narrative and conversation. *Language Variation and Change*, 19, 101–135.
https://doi.org/10.1017/S0954394507070081

VanPatten, B., & Williams, J. (Eds.) (2015). *Theories in second language acquisition: An introduction*. New York, NY: Routledge.

White, L. (2015). Linguistic theory, universal grammar, and second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (pp. 34–53). New York, NY: Routledge.

Complex Dynamic Systems Theory

Complexity Theory

Relational systems in interaction and in interlocutor differences in second language development

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Complexity theorists are interested in understanding *the relations* among components in a complex system and how individual differences in the components affect their relationship to other components. Specific to our interests here, the ability of speakers to adjust their speech depends on the relationship with the person with whom they interact. Further, all interactions involve mutual influence (Ricca, 2012). Larsen-Freeman and Cameron (2008a) call this bidirectional influence "co-adaptation."

Existing research on interaction is briefly surveyed before turning to the view of interlocutor interaction that Complexity Theory inspires. Before concluding, research attesting to the effect of interlocutor individual differences (age, experience, sex, status, similarity, identity, first language) is reviewed. Finally, four considerations for enhancing future research on interlocutor individual differences are proposed.

Keywords: affordances, Complexity Theory, co-adaptation, emergent synchrony, socially-induced linguistic coordination

Introduction

Although it has not always been the case, the topic of interlocutor interaction has been central to almost all major modern second language acquisition (SLA) theories, those in the present volume being no exception. In addition, research on interlocutor interaction and on individual differences are common entries on many research agendas. I am pleased to participate in a volume that brings interaction and individual differences together, especially because the topic of interlocutor individual differences is not only of interest to SLA theory in general, but also to an approach to second language development to which I am committed, namely

one inspired by Complexity Theory or Complex Dynamic Systems Theory (CDST). CDST is a relational systems theory, which means that one cannot fully understand one part of a complex system if one does not look at its relationship with another. CDST affords a systems way of thinking "in terms of connectedness, relationships and context" (Capra & Luisi, 2014, p. 10). CDST is an ecological theory.[1] Thus, adopting a somewhat different angle from other theories, complexity theorists are interested in understanding *the relations* that connect the components of a complex system within a given spatial and temporal context.

For present purposes, this means that in order to investigate the effect of interlocutor individual differences (IDs) on second language learners, the focus must not be solely on the interlocutor nor on the learner, but rather on what transpires between them within a particular context (see also Geeslin, Chapter 6). While this may seem obvious, traditionally, researchers have often staked out a more unilateral, or at least unidirectional, position by, for example, attributing changes in learner performance to some environmental factor or to some practice that a teacher enacts. Further, they have done so by making general claims, such as that all learners need is comprehensible input or that repetition drills contribute to automaticity in production, without taking IDs of learners or of their interlocutors or the interaction between them into account. To make things more complicated, according to CDST, the relationship between interlocutors is not static, but rather is continually and reciprocally interactive. Moreover, what results from the interaction is contingent and emergent, and therefore cannot be predetermined.

In this chapter, I begin by discussing interlocutor interactions from a CDST perspective. I do this to provide a backdrop for the main theme of this chapter and volume. CDST motivates a somewhat different understanding of interlocutor interactions. Next, I inventory some interlocutor IDs that have been identified by researchers as affecting performance. I suggest that, however illuminating these studies have been, their insights into interlocutor differences are limited and might be enhanced by considering the perspective CDST offers. I conclude by discussing what adopting this perspective entails.

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1.   Entire books have been devoted to CDST in second language development, so I cannot discuss the theory comprehensively here. Interested readers can consult, for example, Larsen-Freeman and Cameron (2008a); Ortega and Han (2017); Verspoor, de Bot, and Lowie (2011).

Interaction: A relational systems perspective

A relational system is "an integrated whole whose essential properties cannot be reduced to those of its parts. They arise from the interactions and relationships between the parts" (Capra & Luisi, 2014, p. 10). The way that the 13th century Sufi poet, Jalaluddin Rumi, put it is: "You think because you understand 'one' that you must therefore understand 'two' because one and one make two. But you forget that you must also understand 'and.'" In other words, understanding a complex system requires more than understanding each member or component of the system atomistically. More recently, Gallagher (2017) wrote:

> In the intersubjective context…a relational understanding is accomplished in the social interaction between two people where some novel shared meaning (or some decision or even some misunderstanding) is instituted in a way that could not be instituted within the single brain of either one of those alone.   (p. 12)

Applying this insight to the theme of this book, this view holds that interlocutors in an interaction are not autonomous, but are part of a larger, coupled system. Interlocutors' language tends to converge as interactions unfold.[2] Thus, entertaining the notion of a coupled system brings us into the realm of what CDST researchers call "co-adaptation" (Larsen-Freeman & Cameron, 2008a).

Before I expand on co-adaptation, let me acknowledge that there is a history in language research concerning how interaction influences learners' developing language resources. In first language acquisition research, it has long been accepted (e.g., Snow, 1972) that child-directed speech, in which caregivers customize their language for the children with whom they are interacting, can facilitate the children's language acquisition. More recently, it has been claimed that the change in the children's language resources occurs when children tune into frequently-occurring patterns that arise in these interactions (Tomasello, 2003). Researchers Dale and Spivey (2006) write of the strong type of syntactic coordination that occurs between a child and its caregiver whereby the child (and/or caregiver) is inclined "to produce sequences of words or syntactic phrases, during a conversation, that match those being heard" (p. 393). Although not equivalent concepts, related ones can be found in the area of language use, including dialogic syntax, resonance, co-construction (Du Bois, 2014), interactive alignment (Garrod & Anderson, 1987; Garrod & Pickering, 2004), alignment (Stivers, 2008), entrainment (Costa, Pickering, & Sorace, 2008), dialogism (Bakhtin, 1981; Linell, 2009), and distributed language (Cowley, 2011).

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2.   I am taking interaction here to refer to conversation between interlocutors. There are other ways for humans to interact, of course, but given the theme of this volume, I assume the focus should be on conversation as joint action (Clark, 1996).

Perhaps more familiar to second language researchers, and along these same lines, are concepts such as the interactional instinct (Lee, Mikesell, Joaquin, Mates, & Schumann, 2009; Joaquin & Schumann, 2013), alignment (Atkinson, Churchill, Nishino, & Okada, 2007), adaptive imitation (Macqueen, 2012), and emergentism (Ellis & Larsen-Freeman, 2009). On a more local level, one might also include priming (Gries, 2005), whereby a speaker reproduces a previously spoken interlocutor's partial or complete utterance. For instance, it has been claimed that second language learners' primed production of the syntactic structures targeted in recasts are predictive of subsequent development (McDonough & Mackey, 2006). Certainly not to be overlooked are scholars such as Ferguson (1975), Long (1983), Gass and Varonis (1984), and Gass and Mackey (2006), among others, for their work showing how native speakers adjust their language production for the sake of the second language learners with whom they are interacting.

Now, returning to co-adaptation in relational systems, I should point out firstly that CDST researchers choose not to think in terms "input" and "output," drawing on an ecological metaphor rather than a computer-based one. Environmental language is not seen to be a triggering mechanism. Further, it is not just a matter of copying linguistic forms or of learners' figuring out the rules from available input and conforming to a target linguistic system. It is also not perfectly reproducing what one hears. Instead, one way that the ecological metaphor applies to the present discussion is by pointing to the universal tendency of humans and other organisms to synchronize behavior in a context (Strogatz, 2003).[3] Synchronization is a form of spontaneous pattern formation that operates according to general principles of self-organization described by nonlinear dynamics (Oullier et al., 2008). Although what is often attested is the ability of humans to synchronize their physical actions, such as two individuals adopting a similar posture, attention recently has also been given to the linguistic coordination that occurs between interlocutors in dialogue (Fusaroli & Tylén, 2014). By applying a dynamical model of motor coordination to describe the unfolding of conversational perspective-taking, Duran and Dale (2014) have illustrated how low-level coordinative processes ground higher-level social and cognitive processes, taking the interaction, rather than the individuals, as the appropriate level of analysis. In a simulated interactive task, the researchers found stabilizing patterns of social interaction analogous to the coordinative dynamics of intra-personal motor activity.

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3.   As with other areas of complex systems, synchrony is attested in diverse systems, both mechanical, e.g., pendulum clocks, animate non-humans, e.g., fireflies synchronizing their flashing, in physiology, e.g., firing neurons in brains, in human social behavior, e.g., applauding audiences, and in keeping with CDST, on diverse levels, e.g., in the neuromarkers describing the transient neural activity of the brain's functional networks during social behavior (Tognoli & Kelso, 2015).

Emergent synchrony between coupled organisms, such as a propensity for rhythmic communication (Kelso, 1999), is ubiquitous in nature, though it manifests in obviously more complex ways in humans than in others (Pikovsky, Rosenblum, & Kurths, 2001). One example of the greater complexity is that human co-adaptation can require interpretation of the intentions and dispositions of one's interlocutor, which entails having some sort of embodied theory of mind. Spevack et al. (2018) echo my earlier point about the relational, non-atomistic, nature of interactions when they observe that recent work (Gallotti & Frith, 2013; Spivey, 2013) on language synchronization between people shows how two subsystems can be described in dynamical systems terms as becoming one cognitive system.

Of course, speakers can have communicative goals that go beyond communicating a message intelligibly, such as to impress one's interlocutor with one's intelligence. In this regard, the social context of language use with its inherent routines is indispensable in constraining interpretive possibilities (Tomasello, 2003, p. 90). This does not just happen one time. Co-adaptation is an ongoing, iterative process. "As interlocutors interact, their language resources are dynamically altered, as each speaker adapts to the other" (Larsen-Freeman, 2011, p. 54) on an ongoing basis.[4]

As I have indicated, it is also the case that the adaptation goes beyond the language signal itself. Indeed, speakers often subconsciously adjust their physical posture and position in response to what they observe about their interlocutor's posture and position. Physical synchronization can result in increased positive affinity between interlocutors (Spevack et al., 2018, p. 7). This kinesthetic mirroring reminds us that the systems at work in interaction include physical systems as well as systems of language (Larsen-Freeman & Cameron, 2008a, p. 170).[5] Thibault (2015) adds:

> Voice prosodies such as perceived patterns of rhythm, tempo or pacing, intonation (tone), and degree of loudness afford ways of synchronizing with the neural and bodily rhythms of interlocutors and in achieving arousal, affective attunement, interpersonal harmony or convergence, and so on. Inter-individual patterning of this kind thus constitutes a mutual form of bodily-sensing and body-attunement which can effect a qualitative shift in the experiences of interlocutors.[6]   (p. 201)

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4.   A further note is that the adaptation can be divergent as well as convergent. We can see this in the theory of social accommodation (Giles & Smith, 1979), whereby individuals adapt their communicative behaviors to magnify or reduce social differences.

5.   And, although somewhat controversial, there is evidence of mirror neurons in the brain (Iacoboni, 2008) that "mirror" "the behavior of the other, as though the observer were itself acting" (Wikipedia).

6.   In the same vein, Kirk (2017) has recently observed that rhythm in speech may function primarily as a method of achieving interactive alignment between speakers.

Spevack et al. (2018, p. 8) sum up:

> …as two people co-create a shared dialogue, information patterns at multiple levels of representation are passed back and forth so fluidly that the two people cannot help but become substantially correlated with each other in their speech acts, grammatical patterns, word choices, and motor movements of many kinds…

What is also distinctive about a CDST approach is that the relations between the (coupled) components that make up a complex system are "preeminently dynamic in nature, as unfolding, ongoing processes rather than as static ties among inert substances" (Emirbayer, 1997, p. 289). Grounding this abstraction to the primary relationship of a dyadic interaction (of the kind that this book is concerned with), Larsen-Freeman and Cameron (2008a, pp. 167–168) have written about how interlocutors come to an interaction with their different ontogenetic histories and move on from the interaction changed in some way by participating in it. So, learners and their language resources both shape and are shaped by their interaction in a context, which is not separate from them (King, 2016). It is this reflexivity that is also characteristic of a complex dynamic system.[7] Writing about development in children, dynamic systems researcher Thelen (2005) alludes to this reflexivity:

> How a child behaves depends not only on the immediate current situation but also on his or her continuous short- and longer-term history of acting, the social situation, and the biological constraints he or she was born with. Every action has within it the traces of previous behavior. The child's behavior, in turn, sculpts his or her environment, creating new opportunities and constraints.   (p. 260)

Larsen-Freeman and Cameron (2008a) go on to maintain that the roles that a person plays in various socio-cultural groups of which he or she is a member "build up collections of experiences through other conversations and through other events that contribute to the [emergence of] language [patterns], [and to] cognitive and affective resources available to be drawn on in future talk" (p. 171).

It is important to acknowledge that there can be different motivations for co-adaptation between interlocutors, e.g., a search for coherence (Meadows, 1993), a desire for emotional equilibrium (Damasio, 2003), and the reduction of alterity (Cameron, 2003). I have chosen to emphasize co-adaptation because it seems of all the factors that characterize a coupled system, it is perhaps co-adaptation that is most affected by interlocutor IDs, if for no other reason than interlocutors who are aligned are more likely to interact longer and more often than those who

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7.   Ushioda (2015, p. 51) makes the same point with regards to social identity: "there is a mutually constitutive and co-adaptive relationship between internal and social-environmental processes. Identity both moulds and is moulded by shifting relations and social networks."

are not (see, for example, Van Engen, Baese-Berk, Baker, Kim, & Bradlow, 2010). Furthermore, while I am by no means the first to establish the importance of inter-action in second language development, my intent has been to cast it in a new light drawing on insights from CDST. I will discuss the implications of these insights for research following the next section.

Interlocutor individual differences

First, though, I briefly inventory some of the IDs that have been said to influ-ence interlocutor interaction. As I mentioned earlier, in this chapter I have limited my treatment of interaction to that which takes place in conversations, although conversations are not temporally bounded in that they are influenced by past in-teractions and anticipated future ones (see Back, Chapter 5; Lantolf, Chapter 4; Serafini, Chapter 9). In addition, CDST, more generally, would allow for interac-tions of various kinds, including those between individuals and texts. Individual differences are likewise multifarious, spanning cognitive, physical, experiential, and social differences.

Gurzynski-Weiss and Baralt (2014) contend that, in studies of corrective feed-back in SLA, it is important to attend to the provider of the feedback. This makes a great deal of sense because the ability of speakers to co-adapt depends in part on the person with whom they interact. As I have argued, in a coupled system, individuals do not function independently in their interaction since each affects the other continuously linguistically, physically, affectively, and ideationally as the interaction proceeds (see Serafini, Chapter 9). Indeed, communicating and learning from others involve understanding the speaker as well as the message. If learning is to be facilitated in co-adapted interactions, then, navigating IDs is required.

Co-adaptation can be a cognitive phenomenon (see my earlier reference to theory of mind; see also Lantolf, Chapter 4); however, it is not purely a cognitive phenomenon. Trofimovich and Kennedy (2014) observe that what they refer to as alignment "is mediated by social factors, such as gender of the speaker and the lis-tener (Namy, Nygaard, & Sauerteig, 2012; Pardo, 2006) and perceived attractiveness of the speaker to the listener (Babel, 2012)" (p. 823). In the following discussion of factors, the interlocutors are both native and non-native speakers of English.

In one exemplary study, Keller-Cohen (2015) asked if older English native speakers modify their speech when talking to speakers of different ages, all native speakers of English. Conducting an experiment with older adults interacting with fictive children and adults, she identified age and experience as being influential in audience or recipient design.

Age

Keller-Cohen notes that speakers typically vary their speech depending on real or perceived characteristics of different listeners, including age differences. Her results show that older adults (with a mean age of 82) used a greater total number of propositions and rapport-building devices and a lower type-token ratio when giving instructions on sandwich-making to a child compared to an adult listener.

Experience

Keller-Cohen also notes that audience design may be particularly sensitive to social contact because people who engage less often with others (compared to those with more frequent interaction) may experience diminished capacity to tailor their messages to the needs of others. For instance, she found that adults with more social interactions used more propositions when talking to a child.

Sex

In another study of convergence (Pardo, 2006), interlocutors, all unacquainted native speakers of English from American universities, were paired with members of the same sex to complete a map-reading task. Native-speaking listeners were assigned to rate the convergence in each pair. Pardo (2006) reported that the sex of the speaker affected the degree of phonetic convergence. Contrary to previous research, Pardo found that the speech of male conversational partners converged more than females.

Status (in a task)

Pardo (2006) also found that the role assigned a speaker in the map-reading task affected the degree of phonetic convergence between members of a pair. She expected that the speaker with the information would have the more dominant status and would therefore invite more convergence. However, she reported that in female pairs, information-givers exhibited convergence to receivers, but receivers did not converge to givers. In male pairs, she did find the pattern she had expected, i.e., male information receivers converged to male information givers more than the reverse.

Similarity of interlocutors

In their study of 30 bilingual students in Canada, Trofimovich and Kennedy (2014) discovered that the degree of interactive alignment varied depending on the similarity between the interlocutors. When their bilingual participants completed a picture description task and a map-reading task in pairs using their shared second language, the researchers found that the more similar the two interlocutors sounded in terms of their fluency, linguistic skill, communicative effectiveness, attractiveness, and communicative anxiety at the outset of their interactive experience (as judged by native speaker listeners), the greater the increase in alignment over the course of the task, at least in the picture task. This finding applied to participants' non-verbal behavior as well as their verbal interaction. The researchers go on to note:

> On the other hand, the degree to which the interlocutors differed in their age, length of stay in Canada, self-rated speaking and listening ability, or amount of daily English use bore no obvious relationship to the extent of alignment in either task. (p. 828)

Interestingly and of relevance to the dynamism of CDST, the convergence that occurred during both information-exchange tasks, as rated by native-speaking listeners, increased over the course of the conversation, significantly so within five minutes of interaction. An increase in convergence was also reported in Pardo (2006), even carrying through to speech produced immediately after the conversation. Clearly, this changing dynamic is an important factor for researchers to monitor when studying interaction. Then, too, synchronization studies have shown that there is often a "social memory," i.e., that a change in a person's behavior induced by interacting with another persists even after the encounter is over (Oullier et al., 2008).

Identity

Tarone (2015) recounts how French immersion students in Canada and immersion students of different languages in the U.S. produce their second language better in terms of pronunciation and syntax earlier in the program than they do later on. As they progress in school, their second language speech shows substantially more English influence. Apparently, as students become older, they no longer wish to sound like their adult interlocutors, but instead to forge an identity with their peer group. Tarone and Swain (1995) argue that immersion students begin switching to English when they need a teen vernacular register, in order to avoid sounding like their teachers.

First language

Especially germane to research in SLA is Ghanem's (2017) finding that the most important influence on what she refers to as alignment is the effect of the interlocutors' first language. Interestingly, alignment in her study was more likely to occur when speakers of different first languages were conversing than when interlocutors shared a first language. This runs contrary to a study by Kim, Horton, and Bradlow (2011), where a match in a regional dialect facilitated phonetic convergence within pairs of native speakers of the target language, English or Korean.

Moving forward in interlocutor research, informed by CDST

This existing research on interaction and interlocutor IDs is invaluable. However, there are four considerations, informed by a CDST view of co-adaptation that might prove helpful in enhancing future research.

1. Isolating IDs and encountering unanticipated ones

First, just as with ID research on second language development in general, the number of factors that can potentially influence co-adaptation between interlocutors is endless (Larsen-Freeman, 1997), and treating them one by one in isolation, when we know that IDs overlap and interact with other IDs, may not yield consistent results (as is evident in my summary above). By the same token, one may encounter unanticipated IDs. For instance, in a 1980 study by Guiora, Acton, Erard, and Strickland (1980) researchers studied the effect of a dose of benzodiazepine (Valium) on participants' performance on a test of Thai pronunciation (the Standard Thai Procedure; STP). The researchers reasoned that the Valium would have a felicitous effect because it would make the participants' ego boundaries more permeable. What they discovered is that it did enhance the participants' performance, but only when they interacted with one of two testers. The significant effect of tester on STP scores was quite surprising to the investigators given the very limited and standardized role of the tester. However, they later learned from participants' reports that the participants appeared to be very sensitive to subtle cues, such as the tester's eye contact and facial expression. Therefore, participants may have been able to interpret these cues from the tester and to take them into consideration when being tested, rather than supporting the experimenters' hypothesis that it would be their ego boundaries that would be affected. Of course, we learn from such studies, and this is all to the good. However, one lesson is to be on the lookout for the effect an unanticipated ID can have and to consider non-verbal as well as verbal behavior.

2. Temporally and spatially contextualized

Second, while a learner's sex, age, and first language at the time of a study may be relatively fixed, their effects can differ at other times. And, certainly, when it comes to other IDs, we know that they are much more mutable (e.g., Dörnyei, 2009; Gurzynski-Weiss, Chapter 10). Therefore, any measure taken at a single point in time will be just that – a single snapshot of the trait.

Indeed, it is well known that IDs that are important at one time may wax and wane in influence at another time. In a recent study, Serafini (2017) demonstrated that aspects of motivation to learn a second language fluctuate depending on the temporal context, including students' stage of development. For example, she found that attitudes toward the course seemed to matter most for intermediate learners. An additional requirement of CDST, then, is the need to investigate how individuals' IDs change, according to the temporal context.

To add to that, from a CDST point of view, it is not only the temporal context that needs to be taken into account; it is the spatial one as well. Instead of identifying and measuring context-free traits, with the implication that they are inherent in the individuals themselves (Linell, 2007), what is needed is to investigate the particular individual in a particular context over time (Larsen-Freeman, 2017c). As Norton (2013) observes:

> [M]any have assumed that learners can be defined unproblematically as motivated or unmotivated, introverted or extroverted, inhibited or uninhibited, without considering that such affective factors are frequently socially constructed in inequitable relations of power, changing over time and space, and possibly coexisting in contradictory ways in a single individual. (p. 45)

In short, IDs are not discrete, static, and context-independent traits.

3. Emerging and contingent effects

Third, interlocutor effects are not simply attributable to the properties of the interacting partners. Instead, from a CDST perspective, effects are seen to emerge from the properties. Consequently, any effect of interlocutor IDs:

> …has to be understood as temporally situated, as creative with respect to antecedents and driven by local contingency. On conceptual grounds, this is not to deny any causal values to these partners' properties, but simply to reduce their role to that of a necessary, though not sufficient, condition for the interaction to occur – therefore leaving the character of an emerging novelty to the contingency of their interaction. (Giorgi, 2012, p. 15)

In other words, "the functioning of a dynamic system is emergent [and contingent] rather than predetermined" (Mascolo, van Geert, Steenbeek, & Fischer, 2016, p. 7). This is so because what is perceived and taken in according to CDST has to be initial state dependent and emically controlled (Larsen-Freeman, 2015). Therefore, each of us will perceive and categorize, even if only implicitly, certain things while ignoring others.

4.   Relationships that are reciprocal

Fourth, compared with earlier efforts, one point of difference in ID research on individuals' co-adaptation is its insistence that both parties are affected in the interaction. Thus, for example, while there has been valuable research over the years investigating the unilateral effects of teachers' language on their students, it does not necessarily treat the reciprocity in such relationships or discuss how interlocutors align their behavior through reciprocal interactions.

To cite an early example, a unidirectional change is reported in Jackson and Cosca (1974). The researchers found that the type of language used with the students depends on their ethnicity. The research revealed that teachers praised and encouraged Anglophone students more often than Chicanos and asked the former more questions than the latter (Larsen-Freeman & Long, 1991). In another classroom study, it was found that teachers tended to call on non-Asians more than Asian students (Sato, 1982). So, learners' IDs influence teacher behavior, but we are not informed about what subsequently happens to teachers. If we are interested in the process of second language development from a CDST perspective, we should look beyond the general patterns to the specific local interactions and the consequences of the adaptive moves in both directions.

In another case, the change in performance was initiated by learners (as reported in Larsen-Freeman & Long, 1991): Beebe (1980) studied the risk-taking behavior of Puerto Rican English language learners. Children who were experiencing difficulty displayed significantly greater risk-taking behavior with an English-speaking interviewer than with a bilingual English-dominant Hispanic interviewer. Risk-taking was defined by both the amount of talk by the children and the amount of information they volunteered. Beebe suggests that the bilingual children may have made their speech converge with that of the native speakers in order to gain their approval.

There have been many other examples, but to my knowledge, this research has not systematically investigated the reciprocity of such interactions. While this may seem a trivial point, I think its implications are far from minor, certainly in pedagogy. For example, Ricca (2012) opines:

> All [interactions] involve mutual influence. It has been said that teachers must know their students, but usually what is meant is not that the teacher is to be transformed, but rather that the teacher can, by knowing her or his students, more efficiently move the students to a desired understanding. However, a complexity approach suggests not only that attempts such as efficiency are misplaced, but also requires that teachers must be transformed by their students as a result of the mutual influence of teachers and students.   (p. 43)

As I wrote at the beginning of this chapter, the focus must not solely be on the interlocutor nor on the learner, but rather on what unfolds between them within a particular context and how they are affected by the interaction. One example of this is Cameron's research (as discussed in Larsen-Freeman & Cameron, 2008a) among young learners in a Norwegian classroom for which she measured the interactional differential between the teacher and the students (pp. 208–211) to display a collective variable that describes teacher-student talk as a composite.

It is not simply the properties of the environment including the teacher's IDs, but the learner's relational stance towards them that creates a learning affordance. It is also not a question of a teacher providing an affordance; the agency for determining the existence of an affordance still rests with the perceptions of the individual learner (Larsen-Freeman, 2017a; Serafini, Chapter 9). This does not mean, of course, that a teacher's efforts to provide corrective feedback are unimportant, nor that the teacher's expertise in doing so does not matter. I understand that the genesis for this volume lies in the observation that one key element of interaction research that has been under-researched when analyzing corrective feedback is the provider of the feedback. It is indeed right to bring our attention to this omission. Gurzynski-Weiss and Baralt (2014) point to the concurrent decisions that teachers have to make with regard to the provision of feedback that teachers hope will be optimal. My point is only that a teacher's enactment of a corrective feedback strategy does not play out unilaterally. Both points together are well illustrated in Thoms' (2014) study of a university instructor teaching a Hispanic culture course in Spanish. Thoms reports how the interplay between the instructor and one of his students transformed what would be considered, from a cognitive perspective, a recast for an individual student into an affordance for learning that was socially constructed between the instructor and student to potentially benefit all students in the course.

An objection might be raised that what I have been discussing in much of this chapter relates to the use of language, not its learning. However, from a CDST perspective, there is no need to posit a distinction between the processes of language use and language development other than that they occur at different timescales. Moreover, I submit that both are facilitated by reciprocal co-adaptation. Therefore,

the fact that there is an alignment of linguistic forms between interlocutors taking place on occasions when language is used means that language development is also transpiring. Synchronizing one's language with another will reduce the complexity of the system by narrowing down choices for participants. Thus, the utterances of others offer us a resource for learning, which we can adapt for our own purposes (Harvey, 2015). A particular joint action takes the form it does because participants come to the interaction with certain expectations derived from previous experience as members of socio-cultural groups. Their present experience is no doubt influenced by individual interlocutor differences – some fleeting and some more stable. This experience feeds forward affecting future interactions with interlocutors, and so it goes.

Conclusion

In this chapter, I have discussed aspects of interaction and interlocutor IDs viewed from a CDST perspective. These have included the need to examine co-adaptation and the reciprocity in interactions that take place within relational systems. What is of import in such a system is how the system components relate to one another. A relevant question we might ask here, following Ricca (2012), is what is the effect of a learner being given feedback on the feedback giver?

Significantly, then, we need to focus on the relationships among IDs, rather than taking them up one by one – and we need to do so within an ecological context, where it is not only the system-internal factors that are at play but their interaction with the greater environment (including other interlocutors). In this regard, I have proposed that there is a universal tendency for individuals to synchronize both their linguistic and non-linguistic behavior. All this needs to be accomplished with an approach aimed at conserving the richness of IDs and the recognition of their particularity (Larsen-Freeman, 2017c).[8]

Also, as I have also indicated, CDST places greater emphasis on dynamism and change. To be sure, behavioral tendencies can achieve some measure of stability, but they are always susceptible to being disrupted, sometimes by the smallest of influences or unanticipated ones. Adopting a CDST perspective motivates the search for changing patterns of stability and variability at the time and over time.

These considerations should not make us think that research findings of any consequence are unattainable, but doing so does require a different framing. Indeed,

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8.   While this may seem a tall order, there is guidance available. See, for example, Larsen-Freeman and Cameron (2008b), Verspoor, de Bot, and Lowie (2011), Dörnyei, MacIntyre, and Henry (2015), Hiver and Al-Hoorie (2016; 2020), and Larsen-Freeman (2017b).

as always, the evidence we have as researchers or teachers is language-using be-havior in particular contexts. In examining this behavior, I submit that a CDST frame affords a more robust way of understanding interlocutor IDs and their role in language learning.

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References

Atkinson, D., Churchill, E., Nishino, T., & Okada, H. (2007). Alignment and interaction in a socio-cognitive approach to second language acquisition. *Modern Language Journal*, 91(2), 169–188. https://doi.org/10.1111/j.1540-4781.2007.00539.x

Babel, M. (2012). Evidence for phonetic and social selectivity in spontaneous phonetic imitation. *Journal of Phonetics*, 40, 177–189. https://doi.org/10.1016/j.wocn.2011.09.001

Bakhtin, M. (1981). *The dialogic imagination: Four essays*. Austin, TX: University of Texas Press.

Beebe, L. (1980). Risk-taking and the language learner. In H. Seliger & M. Long (Eds.), *Class-room-oriented research in second language acquisition* (pp. 39–66). Rowley, MA: Newbury House.

Cameron, L. (2003). Challenges for ELT from the expansion in teaching children. *ELT Journal*, 57(2), 105–112. https://doi.org/10.1093/elt/57.2.105

Capra, F., & Luisi, P. L. (2014). *The systems view of life: A unifying vision*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511895555

Clark, H. (1996). *Using language*. New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511620539

Costa, A., Pickering, M. J., & Sorace, A. (2008). Alignment in second language dialogue. *Language and Cognitive Processes*, 23(4), 528–556. https://doi.org/10.1080/01690960801920545

Cowley, S. J. (2011). *Distributed language*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/bct.34

Dale, R., & Spivey, M. (2006). Unraveling the dyad: Using recurrence analysis to explore patterns of syntactic coordination between children and caregivers in conversation. *Language Learn-ing*, 56(3), 391–430. https://doi.org/10.1111/j.1467-9922.2006.00372.x

Damasio, A. (2003). *Looking for Spinoza: Joy, sorrow, and the feeling brain*. New York, NY: Harcourt.

Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning envi-ronment. *Language Learning*, 59(Suppl 1), 230–248. https://doi.org/10.1111/j.1467-9922.2009.00542.x

Dörnyei, Z., MacIntyre, P. D., & Henry, A. (Eds.) (2015). *Motivational dynamics in language learning*. Bristol, UK: Multilingual Matters.

Du Bois, J. W. (2014). Towards a dialogic syntax. *Cognitive Linguistics*, 25(3), 359–410. https://doi.org/10.1515/cog-2014-0024

Duran, N., & Dale, R. (2014). Perspective-taking in dialogue as self-organization under social constraints. *New Ideas in Psychology*, 32(1), 131–146. https://doi.org/10.1016/j.newideapsych.2013.03.004

Ellis, N. C., & Larsen-Freeman, D. (2009). Constructing a second language: Analyses and computational simulations of the emergence of linguistic constructions from usage. *Language Learning*, 59(Suppl. 1), 90–125. https://doi.org/10.1111/j.1467-9922.2009.00537.x

Emirbayar, M. (1997). Manifesto for a relational sociology. *American Journal of Sociology*, 103(2), 281–317. https://doi.org/10.1086/231209

Ferguson, C. A. (1975). Toward a characterization of English foreigner talk. *Anthropological Linguistics*, 17(1), 1–14.

Fusaroli, R., & Tylén, K. (Eds.) (2014). Special Issue on linguistic coordination: Models, dynamics, and effects. *New Ideas in Psychology*, 32(1), 115–182. https://doi.org/10.1016/j.newideapsych.2013.03.002

Gallotti, M., & Frith, C. D. (2013). Social cognition in the we-mode. *Trends in Cognitive Science*, 17(4), 160–165. https://doi.org/10.1016/j.tics.2013.02.002

Gallagher, S. (2017). *Enactivist interventions: Rethinking the mind*. Oxford, UK: Oxford University Press. https://doi.org/10.1093/oso/9780198794325.001.0001

Garrod, S., & Anderson, A. (1987). Saying what you mean in dialogue: A study in conceptual and semantic coordination. *Cognition*, 27(2), 181–218. https://doi.org/10.1016/0010-0277(87)90018-7

Gass, S., & Mackey, A. (2006). Input, interaction, and output. In K. Bardovi-Harlig & Z. Dörnyei (Eds.), *Themes in SLA research: AILA Review*, 19, 3–17.

Gass, S., & Varonis, E. M. (1984). The effect of familiarity on the comprehensibility of nonnative speech. *Language Learning*, 34(1), 65–87. https://doi.org/10.1111/j.1467-1770.1984.tb00996.x

Geeslin, K. (this volume). Variationist perspective(s) on interlocutor individual differences. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 127–157). Amsterdam, Netherlands: John Benjamins.

Ghanem, R. (2017). Nonnative speakers' alignment of linguistic features with different interlocutors. (Unpublished doctoral dissertation). Northern Arizona University, Flagstaff, AZ.

Giles, H., & Smith, P. (1979). Accommodation theory: Optimal levels of conversation. In H. Giles & R. St. Clair (Eds.), *Language and social psychology* (pp. 45–65). Oxford, UK: Basil Blackwell.

Guiora, A., Acton, W., Erard, R., & Strickland, F. (1980). The effects of benzodiazepine (Valium) on permeability of language ego boundaries. *Language Learning*, 30(2), 351–363. https://doi.org/10.1111/j.1467-1770.1980.tb00323.x

Giorgi, F. (2012). Agency. In D. Favareau, P. Cobley, & K. Kull (Eds.), *A more developed sign: Interpreting the work of Jesper Hoffmeyer* (pp. 13–16). Tartu, Finland: Tartu University Press.

Gries, S. T. (2005). Syntactic priming: A corpus-based approach. *Journal of Psycholinguistic Research*, 34(4), 365–399. https://doi.org/10.1007/s10936-005-6139-3

Gurzynski-Weiss, L. (this volume). Synthesizing cross-theoretical explorations of interlocutors and their individual differences. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 247–266). Amsterdam, Netherlands: John Benjamins.

Gurzynski-Weiss, L., & Baralt, M. (2014). Exploring learner perception and use of task-based interactional feedback in FTF and CMC modes. *Studies in Second Language Acquisition*, 36(1), 1–37. https://doi.org/10.1017/S0272263113000363

Harvey, L. (2015). Beyond member-checking: A dialogic approach to the research interview. *International Journal of Research & Method in Education*, 38(1), 23–38. https://doi.org/10.1080/1743727X.2014.914487

Hiver, P., & Al-Hoorie, A. H. (2016). A dynamic ensemble for second language research: Putting complexity theory into practice. *Modern Language Journal*, 100(4), 741–756. https://doi.org/10.1111/modl.12347

Hiver, P. & Al-Hoorie, A. H. (2020). *Research methods for complexity theory in applied linguistics*. Bristol, UK: Multilingual Matters.

Iacoboni, M. (2008). *Mirroring people: The new science of how we connect with others*. New York, NY: Farrar, Straus, & Giroux.

Jackson, P., & Cosca, C. (1974). The inequality of educational opportunity in the Southwest: An observational study of ethnically mixed classrooms. *American Educational Research Journal*, 11(3), 219–229. https://doi.org/10.3102/00028312011003219

Joaquin, A. D. L., & Schumann, J. H. (Eds.). (2013). *Exploring the interactional instinct*. New York, NY: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199927005.001.0001

Keller-Cohen, D. (2015). Audience design and social relations in aging. *Research on Aging*, 37(7), 741–762. https://doi.org/10.1177/0164027514557039

Kelso, J. A. S. (1999). *The self-organization of brain and behavior*. Cambridge, MA: The MIT Press.

Kim, M., Horton, W. S., & Bradlow, A. R. (2011). Phonetic convergence in spontaneous conversations as a function of interlocutor language distance. *Laboratory Phonology*, 2(1), 125–156. https://doi.org/10.1515/labphon.2011.004

King, J. (Ed.) (2016). *The dynamic interplay between context and language learner*. Houndmills, UK: Palgrave Macmillan.

Kirk, S. (2017, September). *The function of rhythm and interactive alignment in creating confluence in conversation*. Paper presented at the British Association of Applied Linguistics Conference, University of Leeds, UK.

Lantolf, J. P. (this volume). I ~ You > You ~ Me: The hidden other in L2 development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 79–97). Amsterdam, Netherlands: John Benjamins.

Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18(2), 140–165. https://doi.org/10.1093/applin/18.2.141

Larsen-Freeman, D. (2011). A complexity theory approach to second language development/acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 48–72). New York, NY: Routledge.

Larsen-Freeman, D. (2015). Ten 'lessons' from Complex Dynamic Systems Theory: What is on offer. In Z. Dörnyei, P. D. MacIntyre, & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 11–19). Bristol, UK: Multilingual Matters.

Larsen-Freeman, D. (2017a). Shifting metaphors: From computer input to ecological affordances to adaptation. In *Proceedings from the IATEFL 50th Anniversary Conference*, Birmingham (pp. 10–19). Kent, UK: IATEFL.

Larsen-Freeman, D. (2017b). Complexity Theory: The lessons continue. In L. Ortega & Z.-H. Han (Eds.), *Complexity theory in language development: In celebration of Diane Larsen-Freeman* (pp. 11–50). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.48.02lar

Larsen-Freeman, D. (2017c, October). On particularizing second language development. Paper presented at the Second Language Research Forum, The Ohio State University.

Larsen-Freeman, D., & Cameron, L. (2008a). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.

Larsen-Freeman, D., & Cameron, L. (2008b). Research methodology on language development from a Complex Systems perspective. *Modern Language Journal*, 92(2), 200–213. https://doi.org/10.1111/j.1540-4781.2008.00714.x

Larsen-Freeman, D., & Long, M. (1991). *An introduction to second language acquisition research*. London, UK: Longman.

Lee, N., Mikesell, L., Joaquin, D. J., Mates, A. W., & Schumann, J. H. (2009). *The interactional instinct: The evolution and acquisition of language*. Oxford, UK: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195384246.001.0001

Linell, P. (2009). *Rethinking language, mind, and world dialogically: Interactional and contextual theories of human sense-making*. Charlotte, NC: Information Age Publishing.

Long, M. H. (1983). Linguistic and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition*, 5(2), 177–193. https://doi.org/10.1017/S0272263100004848

Macqueen, S. (2012). *The emergence of patterns in second language writing: A sociocognitive exploration of lexical trails*. Bern, Switzerland: Peter Lang. https://doi.org/10.3726/978-3-0351-0437-0

Mascolo, M. F., van Geert, P., Steenbeek, H., & Fischer, K. W. (2016). What can dynamic systems models of development offer to the study of developmental psychopathology? In D. Cicchetti (Ed.), *Developmental psychopathology* (3rd ed., pp. 665–716). New York, NY: John Wiley & Sons. https://doi.org/10.1002/9781119125556.devpsy115

McDonough, K., & Mackey, A. (2006). Responses to recasts: Repetitions, primed production, and linguistic development. *Language Learning*, 56(4), 693–720. https://doi.org/10.1111/j.1467-9922.2006.00393.x

Meadows, S. (1993). *The child as thinker*. London, UK: Routledge.

Namy, L., Nygaard, L. C., & Sauerteig, D. (2012). Gender differences in vocal accommodation: The role of perception. *Journal of Language and Social Psychology*, 21, 422–432. https://doi.org/10.1177/026192702237958

Norton, B. (2013). *Identity and language learning: Extending the conversation* (2nd ed.). Bristol, UK: Multilingual Matters. https://doi.org/10.21832/9781783090563

Ortega, L., & Han, Z.-H. (Eds.) (2017). *Complexity Theory and language development: In celebration of Diane Larsen-Freeman*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.48

Oullier, O., de Guzman, G. C., Jantzen, K. J., Lagarde, J., & Kelso, J. A. S. (2008). Social coordination dynamics: Measuring human bonding. *Social Neuroscience*, 3(2), 178–192. https://doi.org/10.1080/17470910701563392

Pardo, J. S. (2006). On phonetic convergence during conversational interaction. *The Journal of the Acoustical Society of America*, 119(4), 2382–2393. https://doi.org/10.1121/1.2178720

Pickering, M. J., & Garrod, S. (2004). The interactive-alignment model: Developments and refinements. *Behavioral and Brain Sciences*, 27(2), 212–225. https://doi.org/10.1017/S0140525X04450055

Pikovsky, A., Rosenblum, M., & Kurths, J. (2001). *Synchronization. A universal concept in nonlinear sciences*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511755743

Ricca, B. (2012). Beyond teaching methods: A complexity approach. *Complicity: An International Journal of Complexity and Education*, 9(2), 31–51.

Sato, C. (1982). Ethnic styles in classroom discourse. In M. Hines & W. Rutherford (Eds.), *On TESOL '81* (pp. 11–24). Washington, DC: TESOL.

Serafini, E. J. (2017). Exploring the dynamic long-term interaction between cognitive and psychosocial resources in adult second language development at varying proficiency. *Modern Language Journal*, 101(2), 369–390. https://doi.org/10.1111/modl.12400

Serafini, E. J. (this volume). The impact of learner perceptions of interlocutor individual differences on learner possible selves during a short-term experience abroad. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 209–243). Amsterdam, Netherlands: John Benjamins.

Snow, C. (1972). Mothers' speech to children learning language. *Child Development*, 43(2), 549–565. https://doi.org/10.2307/1127555

Spevack, S. C., Falandays, J. B., Batzloff, B., & Spivey, M. J. (2018). Interactivity of language. *Linguistics and Language Compass*. <wileyonlinelibrary.com/journal/lnc3> (June 30, 2018). https://doi.org/10.1111/lnc3.12282

Spivey, M. (2013). The emergence of intentionality. *Ecological Psychology*, 25(3), 233–239. https://doi.org/10.1080/10407413.2013.810475

Stivers, T. (2008). Stance, alignment, and affiliation during storytelling: When nodding is a token of affiliation. *Research on Language and Social Interaction*, 41(1), 31–57. https://doi.org/10.1080/08351810701691123

Strogatz, S. (2003). *Sync: How order emerges from chaos in the universe, nature, and daily life*. New York, NY: Hachette Books.

Tarone, E. (2015). Second language acquisition in applied linguistics: 1925–2015 and beyond. *Applied Linguistics*, 36(4), 444–453. https://doi.org/10.1093/applin/amv035

Tarone, E., & Swain, M. (1995). A sociolinguistic perspective on second-language use in immersion classrooms. *Modern Language Journal*, 79(2), 166–178. https://doi.org/10.1111/j.1540-4781.1995.tb05428.x

Thelen, E. (2005). Dynamic systems theory and the complexity of change. *Psychoanalytic Dialogues*, 15(2), 255–283. https://doi.org/10.1080/10481881509348831

Thibault, P. (2015). The microgenesis of meaning and value: Differentiation-articulation in brain and body and the text-context relation in systemic functional linguistics. In G. Kvåle, E. Maagerø, & A. Veum (Eds.), *Kontekst, språk og multimodaltitet* (pp. 201–269). Bergen, Norway: Fagbokforlaget Vigmostad & Bjørke AS.

Thoms, J. J. (2014). An ecological view of whole-class discussions in a second language literature classroom: Teacher reformulations as affordances for learning. *Modern Language Journal*, 98(3), 724–741. https://doi.org/10.1111/modl.12119

Tognoli, E., & Kelso, S. (2015). The coordination dynamics of social neuromarkers. *Frontiers in Human Neuroscience*, 9, article 563, 1–16.

Tomasello, M. (2003). *Constructing a language: A usage-based theory of language acquisition*. Cambridge, MA: Harvard University Press.

Trofimovich, P., & Kennedy, S. (2014). Interactive alignment between bilingual interlocutors: Evidence from two information-exchange tasks. *Bilingualism: Language and Cognition* 17(4), 822–836. https://doi.org/10.1017/S1366728913000801

Ushioda, E. (2015). Context and complex dynamic systems theory. In Z. Dörnyei, P. D. MacIntyre, & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 47–54). Bristol, UK: Multilingual Matters.

Van Engen, K. J., Baese-Berk, M., Baker, R. E., Kim, M., & Bradlow, A. R. (2010). The Wildcat Corpus of native- and foreign-accented English: Communicative efficiency across conversational dyads with varying language alignment profiles. *Language & Speech*, 53(4), 510–540. https://doi.org/10.1177/0023830910372495

Verspoor, M., de Bot, K., & Lowie, W. (Eds.). (2011). *A dynamic approach to second language development: Methods and techniques.* Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.29

The impact of learner perceptions of interlocutor individual differences on learner possible selves during a short-term experience abroad

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A dynamic shift in second language (L2) research (de Bot, 2015a) has revealed L2 motivation and learner self-concept as temporally dynamic and multidimensional traits that continually emerge in interaction with context (Mercer, 2016; Ushioda, 2015). However, interlocutors have received scant attention under a Complex Dynamic Systems Theoretical framework.

To bridge this gap, this study explores the dynamic interaction between learner selves (Dörnyei, 2009) and interlocutor individual differences (IDs) over a two-week experience abroad. A case study approach focused on three L2 learners and one heritage speaker who completed a daily interaction log, Likert-scale questionnaires targeting daily, weekly, and monthly changes in self-concept, and journal reflections focused on daily interactions in Spanish. Interlocutors (e.g., host families, teachers, Ecuadorian university students) completed a questionnaire tapping several IDs (e.g., language background). Results revealed fluctuation in learner perceptions of self, which interacted with their perceptions of interlocutor IDs.

Keywords: Complex Dynamic Systems Theory, dynamic interaction, L2 motivation, learner self-concept, study abroad

Introduction

Since the 1950s, the number of college students who study abroad for academic credit has increased worldwide (Dietrich, 2018), and U.S. higher education reflects these global patterns (U.S. Department of Education, 2016). Such immersion experiences, commonly referred to as study abroad, residence abroad, stay abroad, immersion, and more in the second language acquisition (SLA) literature, are often touted by L2 researchers and educators as being superior to solely learning in

a formal classroom setting, given how learners receive more intensive linguistic exposure in diverse naturalistic contexts and have more frequent opportunities to practice their language skills with a wide range of interlocutors in meaning-focused interactions (e.g., Collentine & Freed, 2004; DeKeyser, 2007; Muñoz, 2012; Sanz & Morales-Front, 2018).[1]

From a cognitive-interactionist perspective, superior learning outcomes in naturalistic contexts are attributed to increased opportunities to receive comprehensible input, notice gaps in L2 knowledge, negotiate meaning, receive feedback, reformulate output, etc. during meaningful, contextualized interaction in the target language (Gass, 1997; Long, 1996; see Philp & Gurzynski-Weiss, Chapter 2). Thus, when compared to at-home instructed learners, research generally finds more favorable outcomes for study abroad learners in the area of oral proficiency and fluency (e.g., O'Brien, Segalowitz, Freed, & Collentine, 2007). However, effects on other areas of language development are mixed (see Marijuan & Sanz, 2018).

Rather than linguistic development, more socially-oriented researchers tend to emphasize the affective outcomes of study abroad, like learners' sense of self, L2 identity, and attitudes and motivation (e.g., Benson, Barkhuizen, Bodycott, & Brown, 2012; Kinginger, 2009), and the importance of gaining access to rich, meaningful, and varied target language input in the first place via "the negotiation of social relationships […] with host interlocutors" (Mitchell, Tracy-Ventura, & McManus, 2015, p. 8).

A key shortcoming under both psycholinguistically and socially oriented strands of study abroad research is a one-sided focus on the learner, while ignoring *who* their interlocutors actually are, similar to methodological and empirical gaps observed in instructed environments (see Gurzynski-Weiss, 2017b). The role of interlocutors in immersion settings is particularly relevant to consider when investigating learners' development and construction of self while abroad. However, few previous studies have explored how learners view and construct different facets of self in relation to their host interlocutors or how interlocutors' individual differences (IDs) may impact learners' perceptions of self over the course of an experience abroad (Pellegrino, 2005)

To further explore the relationship between interlocutor IDs and the development of L2 learner selves over time, the current chapter takes a Complex Dynamic Systems Theoretical (CDST) approach to investigate change in learner perceptions of self over multiple timescales during a short-term period abroad and how these phenomena evolve in relation to interlocutor characteristics. Key findings demonstrate the dynamic, situated, emergent, and multidimensional nature of learner

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1. However, this assumption has not gone unquestioned nor always been supported empirically (e.g., Freed, 1995).

selves and indicate that the influence of interlocutor characteristics appears to be filtered through L2 learners' perceptions of such IDs. The dynamic link between a learner's perception of interlocutor IDs and their own developing perceptions of self likely influences the potential for co-adaptation and alignment, which hypothetically can lead to or away from further opportunities for L2 development (Larsen-Freeman, Chapter 8).

Background literature

CDST and learning context

A complex, dynamic system is a set of independent, yet interconnected, variables that "mutually affect each other's changes over time" (van Geert, 1994, p. 50). This interrelatedness means that the behavior of the whole emerges from the interactions of multiple moving parts, and this highly complex behavior is neither random nor totally predictable (Larsen-Freeman & Cameron, 2008a). Like other complex systems in the real world (e.g., a forest ecosystem), L2 development is argued to be a holistic, relational system that continually affects and is affected by other complex, dynamic systems (e.g., Beckner et al., 2009; Larsen-Freeman, 1997, 2002, 2015, this volume; Larsen-Freeman & Cameron, 2008a). Since Larsen-Freeman's seminal article (1997), a growing 'dynamic turn' in L2 research (de Bot, 2015a) has increasingly questioned "traditional scientific approaches that analyze systems into their components and study them individually" (Larsen-Freeman, 2002, p. 38).

Thus, dynamic approaches have not only questioned longstanding assumptions but also crucially transformed our understanding of key variables like 'context,' which is traditionally thought to be 'external' to the learner and to exert unidimensional, unidirectional effects on learners and the language learning process (Ushioda, 2015). In contrast, CDST proposes context to be a dynamic, rather than static, construct that continuously interacts with learner-internal variables and changes on multiple levels and over multiple timescales (King, 2016; Mercer, 2015, 2016; Ushioda, 2009, 2015).

Interlocutors form integrated components within the context of L2 interaction, and their role may be elucidated by certain CDST principles, such as co-adaptation and alignment. Co-adaptation is a reciprocal process, or a kind of "mutual influencing" that happens over time in which change in one system affects change in another connected system (Larsen-Freeman & Cameron, 2008b, p. 203). A simple example of this in an instructed L2 setting are the ways that language learners orient and respond to the input they receive (whether from teachers or other learners), which "will affect the content, quantity, and quality of further input in the developing

context of the interaction" (Ushioda, 2015, p. 47). This ongoing, reciprocal process of co-adaptation between interlocutors not only shapes the nature of the linguistic interaction but also alters each interlocutor's cognitive and affective resources (Larsen-Freeman, Chapter 8).

Importantly, as Larsen-Freeman (Chapter 8) explains, the ability of speakers to co-adapt depends in part on the person with whom they interact as well as on one's interpretation of the intentions and dispositions of the interlocutor. Therefore, interlocutor characteristics like age, sex, identity, and attitudes, likely affect processes of co-adaptation between speakers, which in turn likely affects, alignment, or coordination, between speakers. The degree to which speakers converge or diverge during interaction refers to both linguistic factors (e.g., vocabulary use or phonetic speech patterns) and social factors (e.g., beliefs or attitudes) (see Trofimovich & Kennedy, 2014) and ultimately impacts the quality and frequency of current and future interactions given that "interlocutors who are aligned are more likely to interact longer and more often than those who are not" (Larsen-Freeman, Chapter 8, pp. 194–195).

Learner affective outcomes and interlocutors in study abroad settings

Defined under a poststructuralist framework, L2 identity is conceived to be "how a person understands his or her relationship to the world, how that relationship is constructed across time and space, and how the person understands possibilities for the future" (Norton, 2000, p. 5). Importantly, L2 identity does not develop in a vacuum; the kinds of people that learners perceive themselves to be and who they desire to become depend to some extent on "how they are welcomed and assisted, or not, in the social settings where they are involved" (Kinginger, 2009, p. 155). That is, the quantity and quality of interaction during a learner's time abroad likely impacts and is impacted by different facets of one's social identities (Benson et al., 2012), leading to a fluctuating sense of self (Pellegrino, 2005) and variable attitudes and motivation toward the target language and host culture (Isabelli-García, 2006), which in turn influences learners' desire to seek out and engage in further L2 interaction.

Many studies conducted in immersion contexts have explored the perception, construction, and negotiation of learner identities in relation to fixed identity categories like gender or age (e.g., Polanyi, 1995) as well as the ways learners construct and negotiate their identities (e.g., Benson et al., 2012; Kinginger, 2008). Recently, qualitative research has focused on the factors that affect how different aspects of self are perceived and construed and how they evolve in immersion settings.

For example, in a study conducted with two Canadian learners studying for one to two semesters in Germany, Müller and Schmenk (2017) explored the connection between pronunciation and learners' selves. A critical discourse analysis of biweekly e-journals and pre-, during-, and post-study abroad interviews revealed connections between dominant discourses about language, culture, and identity, particularly how learners perceive 'native-like' pronunciation and the native speaker ideal, and their own pronunciation and L2 self. Importantly, beliefs were linked to learners' degree of willingness to participate in learning opportunities. In another study carried out in Germany, McGregor (2016) explored the experiences of two American students during a year abroad in recorded oral narratives focused on reporting 'critical incidents', with a focus on links between macro-level factors (i.e., ideological discourses about monolingualism and diversity in the U.S.) and micro-level factors (e.g., learners' self-constructions). A holistic content analysis showed that learners' ideas about language learning and study abroad both continually shaped and were shaped by macro-level discourses, which challenged the construction and negotiation of the L2 self in line with their imagined identities.

In a semester-long study conducted with 29 American college students in China, Du (2015) analyzed learners' language skills, identities, and the ways in which they presented themselves to others based on informal monthly interviews. A grounded theory analysis showed that a majority of students embraced being perceived as an outsider, or "foreigner," and used it to their advantage in several interactional contexts (e.g., to navigate public transportation). Learners also took pride in their proficiency and in challenging stereotypes of Americans in interactions with native Mandarin speakers, which was interpreted as validating their ideal self.

While these studies offer valuable insights into the internal and external factors affecting the identities imagined, projected, and negotiated by learners abroad, attention to the role of interlocutors, and their differences, remains lacking. One way to more overtly incorporate the interlocutor is through social network analysis (Mercer, 2015), which has been used to study how the structure and complexity of learner relationships formed abroad affect linguistic gains (e.g., Magnan & Back, 2007) and changes in learner motivation (Isabelli-García, 2006). Nonetheless, interlocutor characteristics were either not taken into account or limited to the status of 'native speaker,' which reflects broader theoretical, empirical and methodological gaps in both instructed and naturalistic contexts (Gurzynski-Weiss, 2017a, 2017b).

One key exception is Pellegrino (2005) who explored the impact of the interaction between learner-internal factors (e.g., attitudes toward the L2) and external factors (e.g., interlocutor behavior, attitudes, and personal characteristics) on the self-construction of six native English-speaking L2 learners of Russian studying

abroad in Russia for 4–10 months. Study abroad interlocutors included language instructors, resident directors, host-family members, roommates, and friends. A grounded theoretical analysis of individual learner narratives revealed that the (perceived) positive and negative attitudes, behaviors, and characteristics of host interlocutors, particularly age and gender, influenced learners' developing sense of self and "the 'ideal selves' that learners aim to project through the L2 in the study abroad environment" (p. 15) by validating, accepting, challenging, or threatening their imagined identities. Another key finding was that learners' sense of self and self-construction gradually relied less on their perceptions of interlocutors over time, elucidating the dynamic relationship between interlocutor characteristics and learner affective outcomes within an immersion environment.

While Pellegrino's study offered several valuable insights into the evolution of learners' sense of self in relation to their study abroad interlocutors, this study was carried out in the 1990s, and the questions explored merit revisiting given that the "'abroad' today is not the 'abroad' of even five or ten years ago" (Coleman, 2015, p. 37). Moreover, this study could be strengthened by including an independent measure of interlocutor IDs rather than solely relying on their salience in learner narratives and also assessing change over different levels of granularity, or timescales (e.g., minutes, days, weeks, months, years; see de Bot, 2015b). Most importantly, research must endeavor to explicitly conceptualize context and the self as complex, dynamic systems, in line with conceptual advances under the dynamic turn in SLA.

Context and the self as complex dynamic systems

Ushioda's (2009) influential 'person-in-context relational view' of L2 motivation first challenged traditional notions of context by crucially emphasizing the co-adaptive, mutually influential relationship between learners and the learning context, arguing that "learners shape and are shaped by context" (Ushioda, 2015, p. 48). The key notion of 'future self-guides', which was influentially adapted from self-discrepancy theory (Higgins, 1987; Markus & Nurius, 1986) to inform Dörnyei's L2 Motivational Self System (Dörnyei, 2005, 2009), has also undergone significant theoretical evolution.

As Henry (2015) argues, our conceptions of self are likely changing all the time given their sensitivity to receiving new or inconsistent information. "Through social interaction these self-representations change, their evolutionary paths altered both by information received about the self – through self-perception, social comparison, and self-appraisal – as well as through the individual's cognitive processing of such self-conceptions" (Henry, 2015, p. 89). Mercer (2016) also stresses

the temporal dynamism and contextual embeddedness of the self as well as its inherent multidimensionality, arguing that our sense of self is "formed over many years and previous encounters as a frame of reference" and that during social interactional encounters, we may "readjust, adapt and rethink our sense of self – the past influences our perception of and behaviors in the present, but the present also influences our understandings of the past as well as our current and future sense of self" (p. 15; see also Lantolf, Chapter 4).

In sum, dynamic conceptions of context and the self, as it relates to the domain of L2 learning, underscore their continuous interaction and highlight the need to study how the self is (re)constructed through current interactions with others as well as in relation to learner perceptions of the past[2] and imagined future experiences. Interlocutors are a key piece to this puzzle, but we still know little about interlocutors from a CDST perspective, particularly the extent to which interlocutor IDs mediate and interact with learners' perception and construction of self over time.

The current study

Motivated by previous conceptual and empirical gaps, the present mixed-methods study explores the dynamic interaction between learner possible selves and interlocutor IDs over an intensive, two-week experience abroad. To shed light on the ongoing, iterative processes of co-adaptation and alignment, learners and interlocutors are conceptualized as intersecting components of a larger complex, dynamic system, or a 'coupled system' (Larsen-Freeman, Chapter 8; Larsen-Freeman & Cameron, 2008a). Further, to overcome previous methodological limitations, change in learner self-perceptions is measured over daily, weekly, and monthly timescales, and interlocutor ID constructs are identified based on learner perception and also measured independently via interlocutor self-report questionnaires. Two main questions guided the study:

1. How do learner perceptions of self evolve over a short-term experience abroad?
2. To what degree do interlocutor differences interact with study abroad learners' perception and construction of self over a short-term experience abroad?

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2.   For an in-depth discussion of the notion of 'past selves,' see Falout (2016).

Method

In line with methodological recommendations made by CDST researchers (Hiver & Al-Hoorie, 2016; Larsen-Freeman, 2012; Mercer, 2015), this mixed-methods study takes a case-based approach with a focus on four individual learners and relationships formed with interlocutors abroad. The system components under focus are learner and interlocutor characteristics.

Participants

Ten university students (9 Female, 1 Male; ages 18–31; M = 22.22 years) participated in the study (IRB# 1002822-1). All were US-born students enrolled in a short-term intensive winter abroad program (2 weeks) held at the Universidad de San Francisco de Quito (USFQ) campus in Cumbayá, Ecuador. Nine participants were L1 English, L2 Spanish learners who were first exposed to Spanish in adolescence or early adulthood. One participant was a heritage speaker of Spanish who was exposed to the target language since birth, and two reported Yoruba and Russian, respectively, as a native language in addition to English. Participants were majoring in a wide variety of disciplines such as Global Affairs, Community Health, and Government Intelligence, and three participants were Spanish minors. Results of an online, pre-departure placement test determined learners to be at beginning (n = 5), intermediate (n = 3), and advanced (n = 2) proficiency levels, and students were placed into one of three courses taught by USFQ professors based on their test results. Learners also completed an online background questionnaire (29 closed- and open-ended items) distributed via a Survey Monkey link. In addition to several questions about their linguistic and academic background, participants were asked to report any previous experience traveling abroad (once or twice; 3 or more times; once a year on average; at least once a year on average), total years of prior formal study in Spanish (6 months-1 year; 2–3 years; 4–5 years; 5+ years), and to self-rate their listening, speaking, reading, and writing skills (Functional; Intermediate; Advanced; Nativelike). No student reported previously participating in a study abroad program, but seven students had traveled to a Spanish-speaking country for tourism or short educational experiences, and one student reported having lived abroad extensively throughout childhood. Self-selected pseudonyms are used throughout the chapter when referring to participants.

Focal learners

Four learners completed all quantitative and qualitative research measures and were selected as the four focal case studies. A brief description of each participant is provided below.

Focal learner 1: Julia

Julia was a sophomore majoring in Environmental and Sustainability Studies who placed at a beginning proficiency level on the placement exam. As a L1 English-L2 Spanish learner, Julia was first exposed to Spanish as an adult (18 years+) with very little prior formal study (6 months-1 year). She rated her language skills as 'Functional' in all areas and reported using English as her primary language of communication in all personal, professional, and academic contexts. This was her first experience abroad.

Focal learner 2: Leah

Leah was a Psychology and Neuroscience major in her junior year and also placed at a beginning proficiency level. Leah was a simultaneous bilingual, reporting both English and Russian as the first languages she learned to speak and read. Leah was first exposed to her third language, Spanish, in adolescence (13–18 years) with 2–3 years of previous formal study. She rated her language skills as 'Functional' with the exception of listening (None) and reported using English as her primary language of communication with the exception of using Russian with her maternal grandparents. She reported having traveled to Spain once or twice before.

Focal learner 3: Jenna

Jenna was a junior majoring in Community Health and minoring in Spanish. She placed at an intermediate proficiency level and reported English as her L1 with first exposure to Spanish in childhood (6–12 years old). Jenna had studied Spanish in a classroom setting for 5+ years and rated her language skills as 'Intermediate' in speaking, 'Advanced' in listening and writing, and 'Native-like' in reading. She reported using English as her primary language of communication in all domains and had previously traveled to Spain once or twice.

Focal learner 4: Raquel

Raquel was a senior majoring in Criminology, Law, and Society and minoring in Spanish. Like Leah, she was a simultaneous bilingual and reported Spanish as the first language she learned to speak and English as the first language she learned to read. She placed at an advanced proficiency level and had studied Spanish formally for 5+ years. She rated all language skills as 'Nativelike' with the exception of writing

(Advanced) and reported using Spanish, English, or Both as her primary languages of communication depending on the interlocutor and context. For example, she reported using Spanish most frequently with parents, grandparents, and siblings, and English with friends and cousins, as well as at work and school. She had traveled to her family's country of origin, El Salvador, once or twice before.

Learner perceptions of self: Quantitative measures

Quantitative data were gathered via two Likert-scale, self-report questionnaires administered at different time scales, following suggestions by de Bot (2015b).[3] Questionnaire A was administered before (Time 1), during (Time 2), and at the conclusion of (Time 3) the 2-week program, as well as one month later (Time 4), and Questionnaire B was completed on a daily basis over the 2-week duration of the program. Details of each questionnaire are provided below.

Questionnaire A (40 Likert-scale items) was designed to target the construct of learner possible selves (Dörnyei, 2005, 2009) and was adapted for the current immersion context from previous research conducted in an instructed L2 Spanish context (Serafini, 2017). Learners were sent a Survey Monkey link at the four designated time points and asked to complete the survey within 1–2 days. The questionnaire included four groups of 10 statements each intended to measure the ideal L2 self (e.g., '*I can imagine myself living abroad and fluently communicating in Spanish*'), the ought-to L2 self (e.g., '*I study Spanish because close friends of mine think it is important*'), motivated learning behavior (e.g., '*I would like to spend lots of time studying Spanish*'), and a novel construct related to learners' imagined self abroad, the global L2 self (e.g., '*I envision myself living and working abroad in the future on a long-term basis*'). After reading each statement, learners were instructed to indicate the extent of their dis/agreement by clicking the appropriate response option (Strongly Disagree; Moderately Disagree; Slightly Disagree; Neutral; Slightly Agree; Moderately Agree; Strongly Agree), which were coded from 1–7. An average Likert rating was calculated for each of the four self-constructs, and simple line graphs were created for each learner to visualize their weekly (x 3) and monthly (x 2) trajectories.

Questionnaire B (4 Likert-scale items), completed via pencil-and-paper, was adapted from instruments used in previous classroom-based research exploring the fluctuation of L2 motivation over micro-timescales (e.g., Waninge, Dörnyei, & de

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3. According to de Bot (2015b), timescales refer to the level of granularity of a developmental process. Given that L2 development takes place over different, interacting timescales, he recommends collecting data from different timescales "to get the full picture" (p. 36) and avoid spurious results.

Bot, 2014). Learners were instructed to read four statements at the end of each day and place an X closest to the response that most accurately reflected their feeling in the moment of completing the survey (Strongly Agree ____ ____ ____ ____ ____ ____ ____ Strongly Disagree). Responses were also coded from 1–7. One representative statement was selected from Questionnaire A to represent each of the four target constructs, the ideal L2 self (i.e., '*I see myself as a competent speaker of Spanish*'), ought-to L2 self (i.e., '*I feel I am meeting the expectations of those around me*'), motivated learning behavior (i.e., '*I am expending a lot of effort improving my communication skills in Spanish*'), and the global L2 self (i.e., '*I see myself as a global citizen*'). Learners were asked to place the slip of paper from each day in an envelope (13 total) and submit at the end of the program. Given that Questionnaire B only included one statement per target construct, the four statements for each of the 13 daily ratings were averaged together to represent a daily composite self-construct. Simple line graphs were used to visualize these day-to-day trajectories for all learners who completed the daily questionnaire ($n = 8$) as well as for each focal learner.

To further analyze the daily change in learner perceptions of self, a moving min-max graph plot was created for each focal learner (Spoelman & Verspoor, 2010; Van Dijk, Verspoor, & Lowie, 2011). These graphs show the bandwidth, or score range, for each measurement occasion by plotting it in a moving window, or "a time frame that moves up one position (i.e., measurement occasion) each time" (Spoelman & Verspoor, 2010, p. 538). This type of graph "highlights the general trend of variability, while keeping the raw data visible" (Van Dijk, Verspoor, & Lowie, 2011, p. 75). Given the 13 measurement points, a moving window of minimum and maximum scores was set at three (e.g., min(t1…t3), min(t2…t4), min(t3…t5), etc.; max(t1…t3), max(t2…t4), max(t3…t5)).

Learner perceptions of self: Qualitative measures

To elucidate factors influencing changes in learners' perceptions of self and to allow key contextual factors impacting a learner's sense of self to come from learners themselves (Mercer, 2016), learners also completed guided daily journal reflections submitted online, which asked learners to reflect on their perceptions of experiences and interactions with host interlocutors.

A total of eight daily journal entries in Spanish (a minimum of four per week) were collected. Learners were instructed to reflect on their daily experiences in the host country that may have positively or negatively impacted their perception of their ability to effectively communicate in Spanish, their perspective as a university student abroad, and the sense of themselves as bi/multilingual speakers. They were asked to think about experiences inside and outside the classroom, at home with

their host family, during group excursions as well as personal outings, other group events like the welcome lunch and orientation, etc. Based on proficiency level, learners were instructed to complete a minimum number of words ranging between 100–150 words and to avoid a simple summary of daily events or daily routines.

Study context

The study took place at the USFQ campus in Cumbayá Ecuador. Similar to the majority of modern study abroad programs (Sanz & Morales-Front, 2018), the study context can be characterized as a 'mixed' instructed and naturalistic language learning environment that included family homestays, cultural excursions, and classroom instruction. All students were placed with Ecuadorian host families with varying numbers of adult, adolescent, and child members in each household, and students interacted with their host families daily during breakfast and dinner. Students also attended a beginning, intermediate, or advanced language course based on the results of their placement test. Each course was taught by a local USFQ professor from 8:30am-1:00pm Monday-Friday during both weeks of the program. After lunch each day, students either attended a mandatory group excursion to nearby sites of historical and cultural interest led by a local female tour guide, attended a mandatory lecture given by a local USFQ professor, or had free time. Students also attended two longer excursions led by the same tour guide over the weekends.

Among the challenges in conducting a study motivated under a complexity framework is defining and delimiting external, internal, and temporal boundaries in a particular learner-context ecosystem (Ushioda, 2011). As Ushioda notes, broadening or sharpening our lens will determine the factors under focus, which might include features of the linguistic and social environment such as L2 input and classroom instructional practices; physical aspects of the environment such as classroom setup; historical factors like previous conversations or world events; social factors such as peer group relations; and cultural factors such as cultural norms of interaction. A broad contextual lens is applied here with learners themselves determining the relevant external factors as relayed through their reflections on social interactions in the target language within the local community, in the home, and in the classroom setting.

Study abroad interlocutors

To identify relevant interlocutors in this setting, learners completed a daily social interaction log following Isabelli-García (2006) that asked them to report (i) who they interacted with that day in Spanish; (ii) topics of conversation; (iii) how long the interaction lasted; and (iv) mode of communication (Face-to-face (FTF), Phone (P), Online (O), or Other). To facilitate this task, learners were first given a checklist of possible interlocutors with the following options: ____ Host family (Who?: _____); ____ USFQ professor; ____ Ecuabuddy conversation partner; ____ Tour guide; ____ Other: _____). Various interlocutors were identified ($N = 35$) including host family members; beginning, intermediate, and advanced USFQ Spanish professors; USFQ program coordinators in charge of the welcome orientation, organizing excursions, host family stays, and all other logistical aspects of the program; Ecuadorian university students who were part of a social group called Ecuabuddies aiming to welcome international students and organize social activities; a group excursion tour guide; a faculty program director (i.e., the researcher); and several 'miscellaneous' interlocutors (e.g., bus driver, waiter).

To elicit information about IDs, all adult interlocutors over the age of 18 years old were invited to complete a paper-and-pencil questionnaire (52 closed- and open-ended items) administered in either Spanish or English, depending on the participant's preference. The IDs measured were selected following Gurzynski-Weiss (2017a) and previous study abroad research (Pellegrino, 2005). Six IDs were assessed via the questionnaire including (i) gender; (ii) age; (iii) language-related training and background (e.g., monolingual vs. bilingual); (iv) familiarity with learners' first language (L1) and culture; (v) experience working with learners of the target language; and (vi) attitudes toward L2/heritage language (HL) learners (assessed via a semantic differentials section including 21 adjective pairs, e.g., Patient ____ ____ ____ ____ ____ ____ ____ Impatient). The consent form and questionnaire took up to 20–25 minutes to complete. Of the 35 questionnaires distributed, 17 were completed (5 Spanish; 12 English) including 4 host family members, 3 USFQ professors, 4 program coordinators, 1 tour guide, and 5 Ecuabuddies.

Results

Patterns of change in learner perceptions of self

To address the first question, four line graphs, presented in Figures 1–4 below, were constructed to depict the evolution and patterns of weekly and monthly change in learner possible selves for Julia, Leah, Jenna, and Raquel.
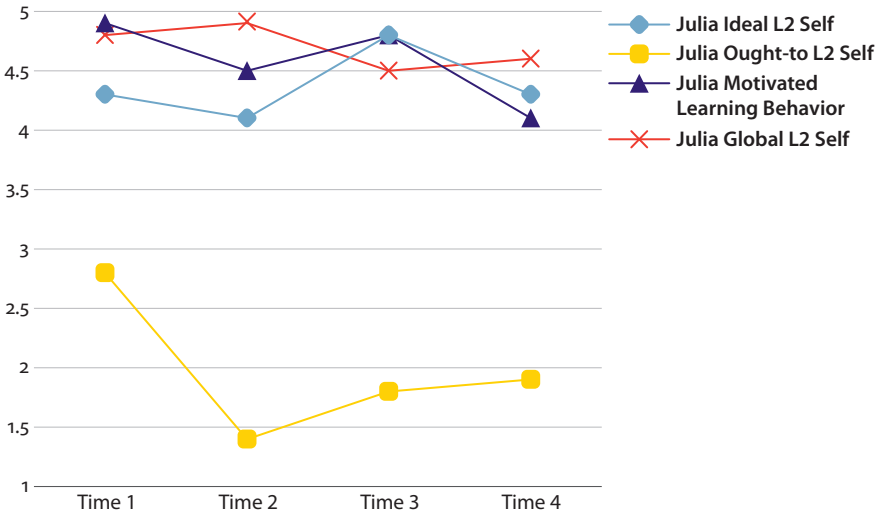
Figure 1. Julia: Weekly and monthly possible selves
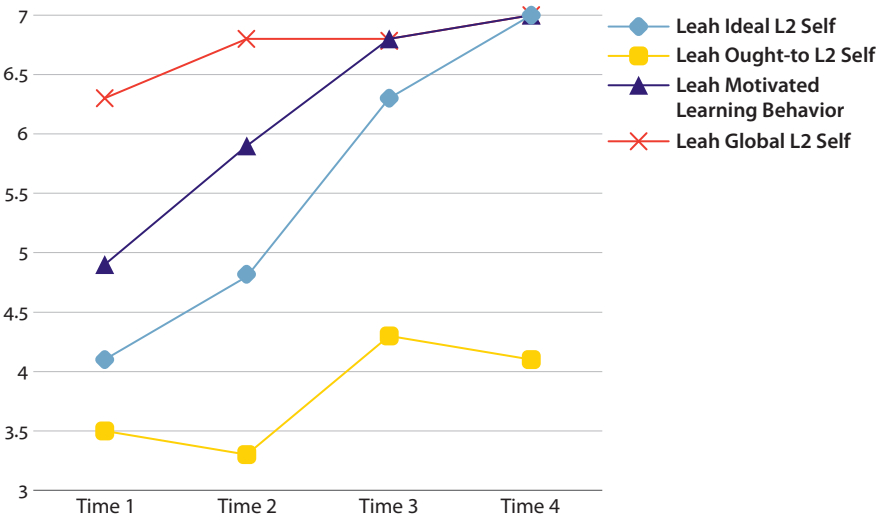
Figure 2. Leah: Weekly and monthly possible selves
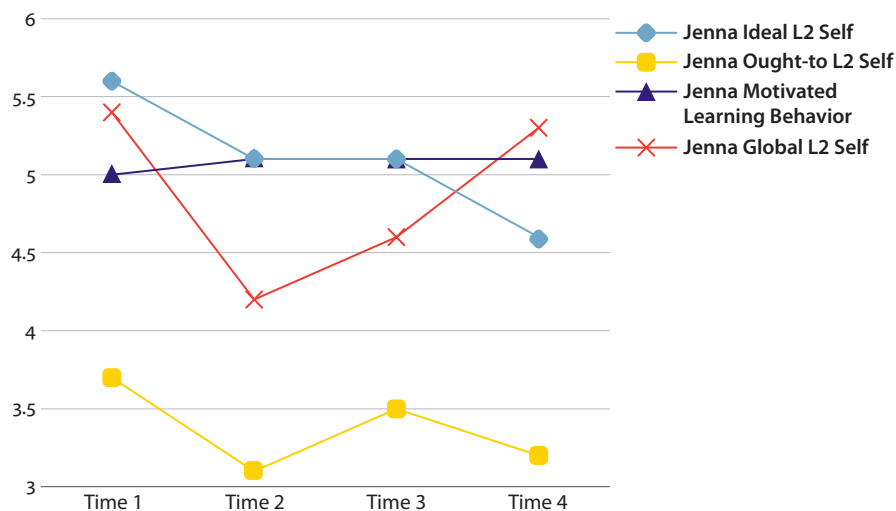
Figure 3. Jenna: Weekly and monthly possible selves
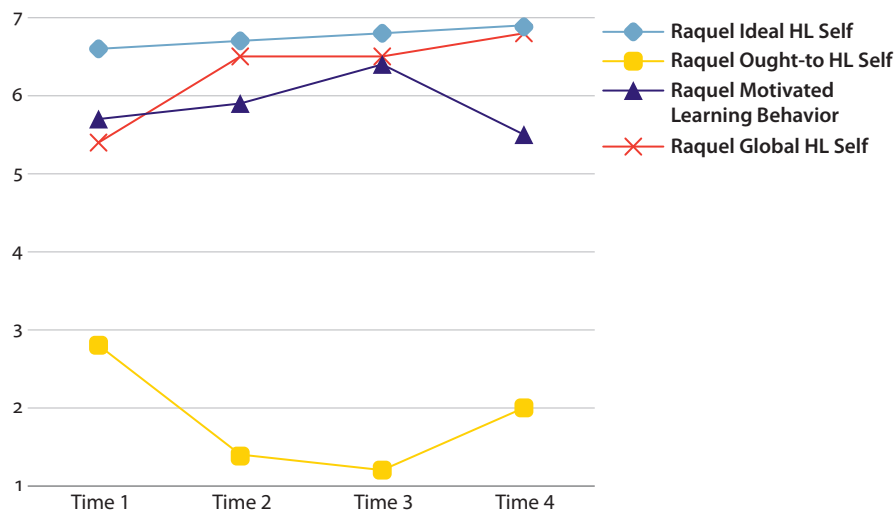
Figure 4. Raquel: Weekly and monthly possible selves

As the figures above show, patterns of both variability and stability within and between the individual focal learners emerged. In particular, learners' *Ideal self (IS)*, or the ideal attributes they envision possessing as L2 or HL learners, varies over time and changes at different rates. At the outset, Raquel (Figure 4), an advanced heritage learner, has the most positive *IS*, while Julia and Leah (Figures 1 and 2), beginning L2 learners, have the lowest, and Jenna (Figure 3), an intermediate L2 learner, is somewhere in the middle. Throughout the program, Julia exhibits marked variability, slightly decreasing after week one, then increasing at the end of the program, and decreasing again one month later, settling at her original average Likert rating assessed at Time 1 (4.3). Jenna's trajectory is also variable, with a steep decrease after week 1, stability (no change) from the mid-point to the end of the program, and another decrease one month later. On the other hand, Leah and Raquel's *IS*s are increasingly positive but with different rates of change. Raquel's increases are incremental from week to week (6.6 > 6.7 > 6.8 > 6.9) whereas Leah's weekly change shows steep jumps (4.1 > 4.8 > 6.3 > 7).

Interestingly, Julia and Leah's reported *Motivated learning behavior (MLB)* aligns with the pattern of change observed in their *Ideal L2 self*. This is also the case for Raquel except for a minimal decrease at Time 4. In contrast, Jenna's *MLB* is stable across all time points (5 > 5.1 > 5.1 > 5). In contrast to the *IS*, at the outset of the program, learners' *Ought-to L2/HL self (OS)* is low (between 1-Strongly Disagree and 4-Neutral) and even lower after one week. At the end of the program (Time 3), Julia and Jenna's *OS* slightly increases, Leah's *OS* shows a substantial increase, and Raquel exhibits a slight decrease. A month after returning home, their *OS*s decrease (Leah and Jenna) or show a subtle (Julia) or marked (Raquel) increase.

Change in the *Global L2/HL Self (GS)*, which roughly represents the extent to which learners envision themselves as global citizens, show similar profiles for Leah and Raquel with an initial increase, stability over the last week of the program, and a continuing upward trajectory a month after going home. However, Julia and Jenna display opposite patterns; while Julia's *GS* goes up after the first week, then steadily decreases throughout the rest of the study, Jenna's *GS* initially goes down, then steadily increases.

To visualize micro-level changes on a day-to-day basis, Figure 5 visually compares the daily Likert ratings (13) for each focal learner to those for the whole group. Again, the four items on the daily selves questionnaire were averaged together to represent a composite self-construct.
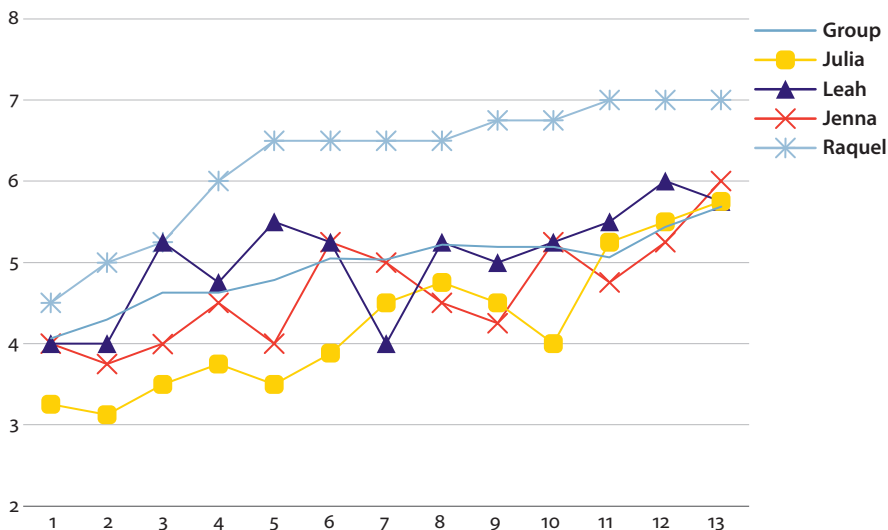
Figure 5. Daily possible selves data for group and individual learners

As seen in Figure 5, the individual learner trajectories deviate greatly from the group average. While, as a group, learners' self-concept becomes more positive incrementally over time, Julia, Leah, and Jenna show marked day-to-day fluctuations and Raquel initially increases from Day 1 to Day 5 but plateaus for the remainder of the program, which may be linked to her high proficiency level. Nevertheless, everyone ended the program with a stronger, or more accessible, self-concept, increasing by 2–3 points overall from Day 1 to Day 13.

Finally, to further analyze within-subject variability, or "how stable or unstable the system is at a given moment" (Spoelman & Verspoor, 2010, p. 533), moving min-max graphs (window size of 3 data points) are provided for each focal learner in Figures 6–9 below.
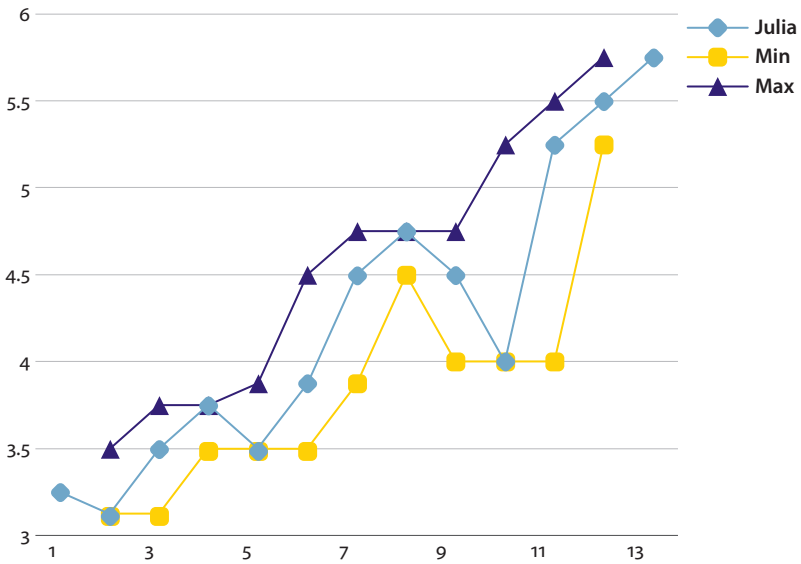
Figure 6. Julia: Moving min-max graph
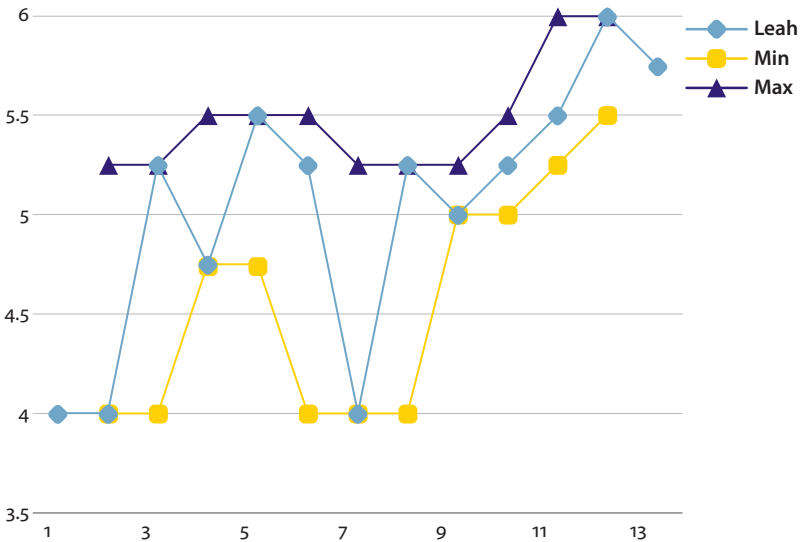
Figure 7. Leah: Moving min-max graph
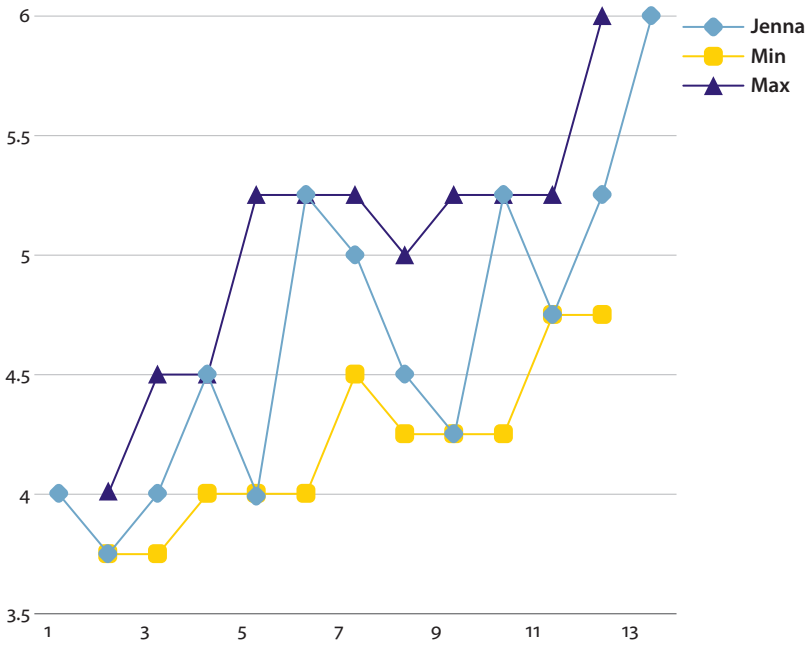
Figure 8. Jenna: Moving min-max graph
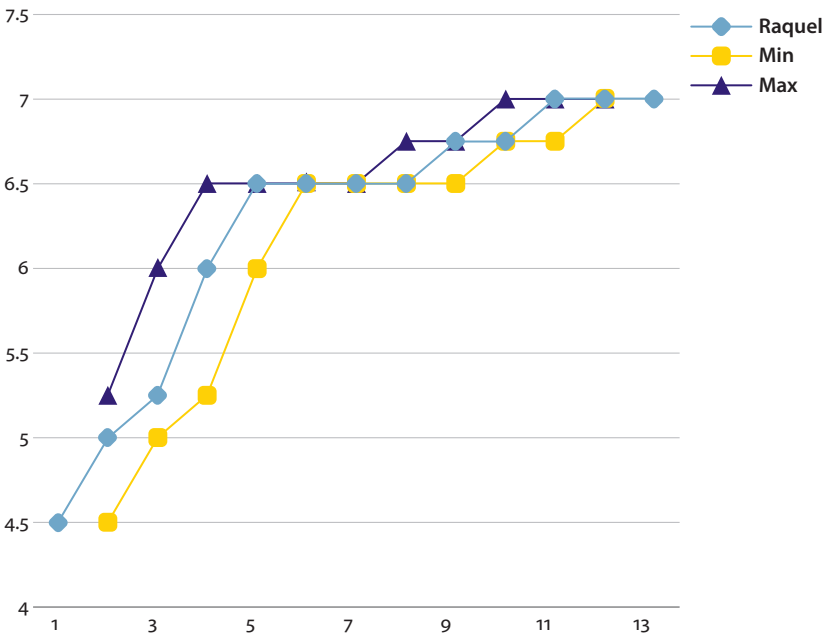
Figure 9. Raquel: Moving min-max graph

A comparison of the four graphs reveals distinct patterns of intra-individual variability. Over week 1, Julia (Figure 6) exhibits little variability, which then increases during the last week. The opposite pattern emerges for Leah (Figure 7) with high initial variability, followed by stability. On the other hand, Jenna (Figure 8) displays relatively consistent variability throughout the program while Raquel's self-perception (Figure 9) remains relatively stable, likely indicating some degree of 'dynamic stability' (Larsen-Freeman & Cameron, 2008a).

Factors affecting the perception and construction of self

In this section, a bottom-up, thematic content analysis of the four focal learners' daily journal reflections is presented in order to further situate the temporal dynamics of variability and stability described above. Three salient themes emerged, related to how learners perceive and construct the self as language learners and in relation to their interlocutors, and are discussed in turn below with illustrative quotes (translated from Spanish to English). Comments from other learners in the group are referred to when illustrative of a particular theme.

i.   *Interaction between internal and external factors determines fluctuation and stability.*

First, learners' self perceptions fluctuated greatly from one day to the next based on internal and external factors as well as their interaction. Two internal factors that exerted influence over learners' self-assessment and risk-taking in current L2 interactions were events and experiences related to learning or using the language prior to the program as well as internal self-comparison. One example emerges on the first day of classes: Julia relays feeling nervous and scared to speak in class and with Ecuadorian university students outside of class, which she attributes to her low level of proficiency, lack of vocabulary, and peer self-comparison ("*The professor is very nice but I don't know a lot of words. Other students understand more […] I am nervous to speak with other students from the university, but I want to try*"). In spite of these inhibitions, she arrives early the next day and speaks with an Ecuadorian student before class ("*I was scared to talk to him, but I tried. My Spanish isn't great, but I had a conversation with him. A little English was used, but less than before. I think every day I will learn more words*"). This interaction boosted Julia's confidence, which may explain the slight increase in her daily self-rating after the first day of class (3.125 >> 3.5).

　　These fluctuations were even more marked the following week for Julia, which are linked to her interactions with interlocutors both inside and outside the classroom. For instance, one day she relays her frustration about failing to successfully

communicate with a taxi driver ("*Today was difficult for me. […] I asked him to repeat some words. However, when I gave him directions (how to get home) he didn't understand. He took the wrong street. […] I used my hands and words, but I don't speak fast enough*"). The next day in spite of receiving a low exam grade, she is encouraged by her professor and classmates in the morning ("*My classmates and teacher helped make me feel better*"), and her optimism is further strengthened after an engaging excursion ("*When we went to the Middle of the World, I was better. […] Every day I understand more. I still get frustrated, but every day makes more sense and I feel more confident than before*"). These positive experiences may explain her marked jump in self-rating from one day to the next (4 >> 5.25).

Similar to Julia, Leah initially feels self-conscious about her Spanish based on her perceived poor comprehension ability, particularly outside the classroom ("*I'm feeling bad about my Spanish. I can't understand a lot. In my class, I understand more, but on the street and in normal conversations, I don't understand much*"). However, the following day she feels inspired to improve after attending a lecture ("*After the lecture, I feel inspired to learn more Spanish*"). Again, this experience may have contributed to her increased self-rating from day 1 to day 2 (4 >> 5.25). The last five days of the program, Leah's self-perception stabilizes and remains high, with gradual increases that may be linked to a string of positive experiences, from receiving a high grade on her final exam to attending a BBQ with her host family.

At first, Jenna also conveys hesitance and intimidation in class given her low level of linguistic self-confidence ("*I don't get many opportunities to practice speaking Spanish in the U.S. because I lack personal confidence in my speaking ability*"). However, the following day, her sense of confidence markedly improves after an interaction with Ecuadorian students in the 'Ecuabuddy' international welcome group.

> We learned how to play a local card game and even some local lingo. It was refreshing to spend time with young people our age. They were patient, kind, and funny. It really helped that they were all fluent in Spanish and English, an inspiration for us to become completely bilingual.　　　　　　　　　　　　　　　(Jenna)

Jenna not only relayed feeling inspired to become bilingual after this positive interaction, which may be linked to the observed rise in her self-perception (4 >> 4.5), but it also impacted how she imagined living her life back home ("*This created a sense of friendship and hospitality, qualities I plan to apply to my life when I return to the United States*").

As a heritage speaker of Spanish, Raquel's previous experiences with the target language differ from her L2 peers as she had significant naturalistic exposure to and practice using Spanish with family ("*I grew up speaking Spanish but I didn't learn to read or write it until I was 13 years old*"), which may be connected to the overall stability observed in Raquel's daily self-ratings. Like Jenna, Raquel also has

a positive interaction with the Ecuabuddies. After playing cards and going to a bar together, she is prompted to reflect on her previous knowledge and lexical variation in Spanish more generally.

> The Ecuabuddies taught us some words that people say in Ecuador like 'chuchaqui' and 'sorberte'. The word 'sorberte' for me means 'pajilla' because that's how I learned it as a kid and 'sorbete' is ice cream. It's interesting how… a word from one country has a different meaning in another country.   (Raquel)

While Raquel feels comfortable and confident in informal contexts, her self-confidence waivers the next day after taking the first exam. She feels vulnerable about advanced grammar topics and thus, is uncertain about her performance ("*I get confused a little because there are so many verb conjugations and endings* […] *Now I have to wait until Monday to know the grade I got. I hope I passed!*"). In spite of this temporary dip in linguistic confidence, her positive self-perception remains stable (6.5 >> 6.5).

ii.   *Learner self-perceptions are filtered through their perceptions of others.*

Several comments in the journal entries reflect the degree to which learners' imagined selves are affected by, or filtered through, how they believe others perceive them. In particular, L2 interactions with different interlocutors validated or inspired their ideal and global L2/HL selves whereas other times they felt challenged or threatened. Interestingly, articulation of the ought-to L2 self was wholly absent, which reinforces the overall low Likert ratings.

First, in many instances, learners referred to a sense of belonging, based on how they perceived being treated by native Spanish speakers. This theme is illustrated when Jenna attends an extended family member's birthday and was immediately (and unexpectedly) made to feel welcome, rather than an outsider ("*They introduced and greeted me very warmly. I didn't feel like a foreigner at all*"). Raquel similarly makes reference to the generous hospitality of her host family, in spite of their initial surprise at her Spanish ability ("*They were a little surprised that I could already speak Spanish. They made me feel at home*").

Similarly, Leah relays that the significant time spent communicating with her host mother made her feel like a member of the family and develop a strong emotional bond ("*My Mom in Ecuador and I talk every night for two hours. Sometimes about her kids, advice, politics, differences between our cultures, and our futures. I love my family here the same as my family in the U.S.*"). These interactions likely contributed to Leah's commitment to continue studying Spanish and live abroad again, which she expresses at the end of the first week ("*I'm inspired to learn more Spanish. Perhaps live in a Latin American country. I speak a little Spanish now, but ultimately, I hope to be fluent*").

Throughout the second week, Leah's determination to improve her Spanish only grows. Lunch with her professor on the last day of the program solidifies and reinforces her imagined ideal self ("…*my professor and I spoke about the future of my Spanish-speaking abilities. I am going to learn Spanish fluently. I love the language. I am not ready to leave Ecuador.* […] *I learned so much about myself. Now I know I want to live in Latin America or Spain for a period of time*"). Similarly, Raquel reflects on a newfound independence, which enables her to imagine herself living abroad in the future ("…*now I think I can live in another country besides the United States* […] *this is the first time traveling abroad without my parents. It is somewhat different because one learns to be independent*").

Learners also frequently referred to interpersonal interactions with host interlocutors outside the home and classroom, and the perceived success of these exchanges proved crucial for learners' sense of self and linguistic (in)security. For example, Julia's confidence improves after bargaining prices in an open-air market in Quito with her host mother ("*I spoke with people in the market. I can negotiate with people and get good prices.* […] *I think my speaking is better after my trip to the market*"). In another encounter, Julia successfully orders lunch in Spanish, which motivates her to keep improving ("*I'm not always sure, but the waiter understood me.* […] *I want to speak with more confidence*").

In addition to their linguistic development, different interactions led learners to gain a broader perspective of global issues and to reflect on their position in the world. For example, after discussing the international war on drugs and the effects of American foreign policy on South American countries in class, Jenna expresses wanting to become a more informed global citizen, which she links to being bilingual ("*This made me want to investigate more about global issues in order to become a better citizen of the world. Knowledge about world politics is a huge component of being bilingual…*"). Later during a group excursion to Otavalo, Jenna reflects on poverty and inequality after bargaining with indigenous artisans to get lower prices ("*This was eye-opening because many of them, the majority of whom are indigenous people, live in poverty. It made me realize the inequalities in society on a global level*")

In contrast to the many positive experiences relayed in their journals, learners also reported feeling frustrated and insecure, particularly when they compared themselves to others and felt their limited L2 proficiency impeded comprehension. For instance, Julia often expressed frustration when she did not fully understand the information, which happened in several interactional contexts, such as during a required cultural excursion ("*I don't know a lot of words in Spanish and I don't like it when I don't know the information. I'm frustrated*"), while attending a required lecture ("*He was very interesting but there are words I don't understand because the topic is difficult. Also I don't understand when people speak fast.*"), and also in class ("*I don't like it when other people understand more than me*").

Some learners also resented the use of English by students or others in the program. For example, Raquel was frustrated that a required lecture was given mainly in English ("*I was not very happy that more than 50% of the presentation was in English*"). As the only heritage speaker in the program, Raquel is aware that she understands more but nonetheless felt that her language learning goals were threatened by the use of English ("*I know that I understand Spanish and I can speak it and others in the program don't understand everything like I do but we are here to improve our Spanish and get used to speaking it more*"),

Finally, while not prevalent in the four focal learners' reflections, it is worth noting that other learners' sense of belonging and ideal L2 self were threatened when they felt perceived or positioned as outsiders. For example, Renee, an African-American student, had a frustrating experience at the supermarket where she felt that other customers were watching her and she was repeatedly asked where she is from.

> The experience was positive, but a lot of people were looking. I look different from my host family and other people tried to find out where I was from… people were staring. I ignored them, but it was really frustrating to experience.   (Renee)

Later, Renee was disappointed that the cashier assumed she could not speak the language ("*After shopping, we paid and I tried to talk to the employee for practice, but the employee didn't think I could speak Spanish and only spoke with the family. It was disappointing…*"). While the current methodology did not document whether negative experiences such as these impacted further language use, Renee's open reflection is striking in terms of the emotional impact this interaction and external positioning seemed to have on her self-perception.

iii. *The significance of interlocutor IDs is filtered through individual learner perceptions.*

In this section, I highlight the IDs that were salient in the journal reflections and, where possible, compare learner comments with the interlocutor's responses on the self-report questionnaire in order to highlight any misalignment between interlocutor IDs measured on the questionnaire and learner perceptions of these characteristics. Of the six interlocutor IDs measured, three were frequently mentioned in learner reflections, including language-related training and background (i.e., degree of bilingualism), previous experience working with learners of the target language, and attitudes toward Spanish study abroad learners. Age, gender, and familiarity with learners' L1 and culture did not play a prominent role.

First, several learners were inspired by their interlocutors' high level of bilingualism as illustrated in the preceding section. In addition to her interactions with the Ecuabuddies, who she perceived to be "*completely bilingual*", Jenna was

also influenced by one of the lecturers ("*The speaker was very competent in English and Spanish, it gave me motivation to reach her level of bilingualism one day*"). Interestingly, Jenna's perception of being 'completely bilingual' does not align with the self-reported responses about language background given by the two Ecuabuddies with whom she reported interacting. Both reported learning Spanish from birth and English during adolescence (6–12 years), though they were clearly Spanish dominant based on reported frequency of use with family and friends, and their schooling background.

Second, all learners portrayed highly positive perceptions of teachers and host mothers, who they reported interacting most frequently with in the interaction log. From the learners' perspective, teachers and host mothers in this context functioned as 'caretakers' (Pellegrino, 2005), serving not only as linguistic and cultural experts and sources of feedback, but also as friends. Importantly, two IDs that may have mediated learners' perceptions of these caretakers were previous experience interacting with Spanish L2 learners and interlocutor attitudes.

For example, Julia describes her beginning Spanish teacher, Mariluz, as 'nice' as well as someone she often relied on for help and encouragement in the face of linguistic insecurity ("*The professor tried to help me but some days are harder than others*"; "*My classmates and professor helped me feel better…*"). While this was Mariluz's first time teaching L2 Spanish in a study abroad program, her overall attitudes toward L2 Spanish learners, as measured on the semantic differentials section, were positive (average rating of 6 on a 7-point scale), which may have contributed to Julia's positive perception of her. Nonetheless, Mariluz also perceived learners slightly negatively (2–3) in terms of competence, approachability, and patience.

Raquel also appreciated her advanced Spanish teacher, Ximena's, encouragement, which helped her build more linguistic self-confidence ("*…she encouraged me to have more confidence in speaking more over the last two weeks. I have spoken about difficult topics in Spanish and I am very proud of myself*"). In contrast to Mariluz, Ximena reported extensive experience teaching in this particular program (4 years), but had negative attitudes toward study abroad learners (3.8 average), particularly in terms of laziness, politeness, and patience.

Jenna construed building a meaningful relationship with her intermediate Spanish teacher, Carolina, and valued her teaching approach in the classroom ("*I appreciate her style of teaching, she is very calm, helpful, and she isn't scared of correcting our grammatical errors*"). Most importantly, Jenna felt a 'connection' with Carolina, which was facilitated by positive interpersonal interactions ("*We enjoyed connecting with our professor over coffee and croissants. She is an incredible person, we learned about her life and opinions*"). Jenna's strong connection with Carolina may have been influenced by Carolina's extensive previous experience teaching study abroad learners in this and other programs as well as her generally positive

attitudes toward learners (5.4 average). However, like her fellow teachers, Carolina had slightly negative perceptions of learners in the areas of sincerity, worldliness, and patience.

Host mothers, like teachers, offered guidance and emotional connection that students valued and appreciated. For example, Raquel's host mother, Marta, encouraged her to attend an optional excursion to the hot springs in Papallacta despite her reluctance ("*At first I didn't want to go because I wanted to spend more time with my host family but my host mother convinced me. Also it was an opportunity that I wouldn't have again. It was a good decision to go!*"). Of the four focal learners, Marta was the only host mother to return a completed ID questionnaire. While she had only hosted study abroad learners for 2 years, she had highly positive attitudes (6.3), which may have influenced Raquel's favorable impression of her.

The strong emotional connections that learners were able to form with their host mothers in just a two-week period of time were particularly notable. Julia greatly enjoyed spending time with and doing activities with her host mother ("*My mother from Ecuador and I went to the market in Quito today.* […] *I like the mother in my family. We have a beautiful time together. I bought a scarf for her…*"). As previously noted, Leah spoke extensively with her host mother every night about several topics, and she frequently mentioned the emotional bonds she formed with her family. Likewise, Jenna expressed how much she would miss her host mother, who she perceived as a friend ("*I am going to miss my Mom María the most.* […] *I wrote her a two-page thank-you note to show my gratitude for her love and friendship*").

Finally, learners indicated interacting frequently (Julia) or somewhat frequently (Leah, Jenna, Raquel) with the tour guide, Mónica, who guided the five required cultural excursions. Based on their reflections, learners' linguistic proficiency played a key role in mediating the extent to which they could benefit from Mónica's cultural expertise. For example, as referenced earlier, Julia felt frustrated by not always understanding everything Mónica said due to her use of unknown vocabulary and fast rate of speech. In contrast, Raquel's high level of proficiency enabled her to fully access and appreciate Mónica's knowledge ("*Our guide, Mónica, taught us a lot about the indigenous groups that used to live there and a lot of other things. It's impressive all of the information she knows…*").

Mónica's lack of awareness of the need to explain certain words, speak more slowly, and perform frequent comprehension checks in order to maximize the learning experience for all students is likely related to her never having given tours to study abroad L2 learners before. Given Mónica's lack of previous experience interacting with students abroad, her attitudes toward them may be more directly linked to her interactions with these learners in particular. While her attitudes on the whole were positive (5.3 average), she perceived study abroad learners to be slightly lazy and unapproachable, and somewhat insensitive and insincere. Thus,

it is possible that some learners' intimidation and feelings of frustration may have manifested as verbal and nonverbal behavior that in turn influenced Mónica's attitudes toward L2 learners.

One final note is warranted about interlocutor age, which was not a dominant theme but surfaced in some learners' reflections in terms of a desire to interact with young people their own age and to make friends with local Ecuadorian students. Thus, interlocutor age may play a role in motivating (some) learners to seek out further opportunities for L2 communication (see Larsen-Freeman, Chapter 8).

Discussion

The current study provides valuable insights into the dynamic, situated nature of learner selves in an immersion setting and highlights the key role that interlocutors play in mediating how learners perceive themselves. Specifically, learners' self-representations were found to be continually subject to change through social interaction and were particularly sensitive to new or incompatible information communicated by their interlocutors as well as their own internal comparisons with others (Henry, 2015). Learner reflections analyzed here provide evidence that "the self does not develop in a vacuum, but is influenced by [past, present, and imagined future] experiences, environmental factors and interpersonal relationships" (Mercer, 2014, p. 164).

In the context of this study, the extent of variability observed in learner imagined selves over days, weeks, and months hinged on several interacting internal and external factors, particularly previous experiences in the target language and daily interactions with different interlocutors in the immersion setting. For example, cumulative past experiences seemed to prime learners to perceive and construe themselves in a certain way. While Julia, Leah, and Jenna all experienced significant anxiety and linguistic insecurity on the first day of classes based on limited previous exposure to and practice communicating in the target language, Raquel did not experience the same initial insecurity, which may be linked to her advanced proficiency level and significant previous experience using the language in naturalistic settings as a heritage speaker of Spanish. Strikingly, Raquel also exhibited very little fluctuation in her perceptions of self, in contrast to her peers. This sort of stability may indicate the emergence of a preferred attractor state (Larsen-Freeman, 2012), which can act as a "stabilizing force" (Dörnyei, 2010, p. 261) and supports previous research suggesting more stable relationships among cognitive and affective resources in learners at high proficiency (Serafini, 2017).

Interactions with different study abroad interlocutors also positively or negatively affected learner self-perceptions, which reflects previous findings in study

abroad research (e.g., McGregor, 2016; Pellegrino, 2005). More specifically, some experiences validated learners' sense of self, such as when Jenna is so warmly welcomed at a family celebration, which made her feel like one of the family rather than being treated as a 'foreigner'. Other interactions challenged or even threatened learners' ideal L2 self, particularly when they felt positioned as outsiders, as experienced by Renee at the supermarket. The assumption that she is from somewhere else and does not know Spanish based on her race elucidates how 'racializing' the Spanish language (Leeman, 2004), in this case using race as an index of language, can have a detrimental impact on an individual's perception of self and motivation, particularly their willingness to seek out and participate in further L2 communication. Renee's experience also crucially expands what we know about the challenges learners may confront in constructing their L2 self in line with their imagined identities abroad (McGregor, 2016).

Internal self-comparison was also a dominant theme that seemed to have positive effects for some (Raquel) and a negative impact for others (Julia). Regarding the latter, Julia often felt more linguistically insecure and less confident when she compared her limited aural comprehension, vocabulary, and pronunciation skills to those of her peers. She also tended to focus on her perceived 'problem with pronunciation', which supports previous findings showing that learners' perception of their L2 pronunciation is key to their self-expression (Müller & Schmenk, 2017).

Overall, these data underscore the importance of the interlocutor not only as a source of language input and feedback for learners, but also as a crucial source of information about themselves, causing their conceptions of self to continually be in flux (Henry, 2015; Pellegrino, 2005). This sensitivity to change demonstrates the key role the interlocutor plays in mediating learner perceptions of self. Importantly, this study goes one step further by proposing that learner perceptions of interlocutor IDs are a key mechanism underlying processes of co-adaptation and alignment during L2 interaction, which supports a holistic view of learner and interlocutor IDs as contextually-embedded, dynamic elements of a larger 'coupled system' (Larsen-Freeman & Cameron, 2008a).

A good example of potential convergence between interlocutors is Jenna's perception of Ecuadorian students being 'completely bilingual' and the resulting positive impact on her ideal L2 self, though their actual language-related training and background as self-reported on a questionnaire did not fully align with this assessment. However, this is somewhat irrelevant as Jenna's subjective perception of this characteristic of her interlocutors is what positively strengthens her ability to envision this aspect of her ideal L2 self, motivating her to reduce the gap between her current intermediate level of Spanish proficiency and her desire to be bilingual.

While the above example does not elucidate the reciprocal nature of co-adaptive processes, attitudes toward L2 Spanish learners provide a clearer example of the

potential reciprocal influence of learner perceptions of interlocutors and inter-locutor perceptions of learners, which can create (or inhibit) possibilities for co-adaptation (Larsen-Freeman, Chapter 8). For example, the tour guide, Mónica, expressed moderately positive overall attitudes but also perceived study abroad learners to be somewhat lazy, unapproachable, insensitive, and insincere. Given that this was her first time working with L2 Spanish study abroad learners, her self-reported attitudes may be more directly linked to her interactions with these particular study abroad learners, some of whom felt frustrated by their lack of comprehension during the tours, particularly those at lower proficiency. Learners' feelings of frustration may have manifested as verbal and nonverbal learner be-havior that negatively affected Mónica's attitudes and behavior toward L2 learners, which in turn might have negatively impacted learners' willingness to actively seek out opportunities to communicate with her.[4]

Interestingly, learners did not explicitly reference interlocutor gender or fa-miliarity with learners' L1 and culture in their journal reflections, but did make limited references to age in terms of the desire to interact more with young native Spanish speakers. In contrast, learners in Pellegrino's (2005) study felt threatened by interacting with native speaker peers their own age, and perceived interaction with children and older adults as 'safer' and less risky. Contextual factors such as differences in social (and pedagogical) context (Russia vs. Ecuador), the target lan-guage under study (Russian vs. Spanish), and program length (4–10 months vs. 2 weeks) may have played a role in how learners oriented toward interlocutor age, but this explanation remains purely speculative without asking the learners themselves.

Importantly, certain interlocutors seemed to have more of an impact than oth-ers on learner possible selves and, thus, on learning opportunities. For instance, even during this short time abroad, learners were able to develop meaningful relationships with teachers and host mothers, who seemed to act as caretakers[5] (Pellegrino, 2005) in this 'mixed' context including both formal instruction and naturalistic immersion. This finding reflects previous research highlighting the key role of the instructor as a main source of feedback in the classroom setting (e.g., Gurzynski-Weiss, 2016) as well as the key role of the host mother as the 'locus of interaction' in immersion settings (e.g., Shiri, 2015). Moreover, learners who de-veloped more complex relationships with these caretakers, for example viewing an

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4.   However, it is worth noting that the two examples above regarding disparate interpretations of what constitutes being 'completely bilingual', 'lazy', 'sensitive', etc. may also be explained based on cultural differences between the U.S. and Ecuador.

5.   While gender was a not a salient interlocutor ID from the learners' perspective, it is none-theless interesting to note that all interlocutors viewed as 'caretakers' were female, and thus may have indirectly played a unique role.

interlocutor not only as a host mother, but also as a friend, formed strong emotional attachments in just a short amount of time, which may be linked to more positive growth in learner selves during and after the two-week period abroad. This finding reinforces the importance of the complexity of social networks formed abroad for learner affective outcomes (Isabelli-García, 2006).

Occasional, or even one-time, encounters outside the home and classroom with 'non-teacher/non-peer interlocutors' (Gurzynski-Weiss & Plonsky, 2017) also played a role. In particular, learners' perceived success in carrying out daily tasks (e.g., ordering a meal from a waiter, purchasing a bus ticket from the bus driver, etc.) seemed to positively impact learners' ongoing appraisal of self-confidence and linguistic in/security. This has important implications for study abroad administrators who should focus on building learners' pragmatic competence in order to better prepare them to interact with a wide range of interlocutors in the host country.

Finally, the importance of accessing learner perspectives when investigating context and self/identity-related phenomena cannot be overstated. That is, regardless of the (objective) reality, for learners, "perception is truth" (Du, 2015, p. 252), which makes gaining access to a first-person perspective and "the learners' own subjective interpretation of the relevance and meaning of respective contextual factors" (Mercer, 2016, p. 17) a crucial methodological step.

Conclusions and future directions

Motivated by a broader dynamic shift in the field of SLA as a whole (de Bot, 2015a), this study provides valuable insights into the temporal, situated dynamics of developing learner selves and their relation to interlocutor differences within an immersion environment. Generally, findings reveal that interlocutors not only serve as a key catalyst spurring L2 development through social interaction (Gurzynski-Weiss, Chapter 10), but also crucially impact the affective outcomes of study abroad. More specifically, learners' perception of their host interlocutors, particularly characteristics like their level of bilingualism and attitudes, impacted how learners perceived and constructed different facets of self in journal reflections and self-report surveys. Thus, learners' developing sense of self seems to be filtered by their own subjective perceptions of interlocutor differences, which has important methodological implications for the study of interlocutor IDs in both instructed and naturalistic learning contexts.

The value of insights provided here is nonetheless limited by the current study's methodology, which did not clearly illustrate the reciprocal, reflexive nature of co-adaptation, or how *both* parties emerged changed from their interactions. One way to approach this methodologically would be to observe and record actual

interactions between interlocutors in order to analyze "what unfolds between them within a particular context and how they are affected by the interaction" (Larsen-Freeman, Chapter 8, p. 201). This might also reveal more about the impact of nonverbal behavior and 'unanticipated IDs' (Larsen-Freeman, Chapter 8) on the degree of alignment between interlocutors. Another productive avenue for future research is to conduct interviews and/or collect journal reflections from all interlocutors, not just learners, and to employ social network analysis (Mercer, 2015) through the use of tools like sociograms (Hiver & Al-Hoorie, 2016) which can visually represent the complexity and structure of learner relationships formed abroad in more depth. Finally, methods like 'retrodictive qualitative modeling' (Dörnyei, 2014) can be used to retroactively analyze how focal components within a dynamic system interact and lead to unique developmental trajectories and outcomes.

References

Beckner, C., Blythe, R., Bybee, J., Christiansen, M. H., Croft, W., Ellis, N. C., Schoenemann, T. (2009). Language is a complex adaptive system: Position paper. *Language Learning*, 59, 1–26. https://doi.org/10.1111/j.1467-9922.2009.00533.x

Benson, P., Barkhuizen, G., Bodycott, P., & Brown, J. (2012). Study abroad and the development of second language identities. *Applied Linguistics Review*, 3, 173–193. https://doi.org/10.1515/applirev-2012-0008

Coleman, J. (2015). Social circles during residence abroad: What students do, and who with. In R. Mitchell, N. Tracy-Ventura, & K. McManus (Eds.), *Social interaction, identity and language learning during residence abroad* (pp. 33–52). Paris, France: The European Second Language Association.

Collentine, J., & Freed, B. F. (2004). Learning context and its effects on second language acquisition. *Studies in Second Language Acquisition*, 26, 153–171. https://doi.org/10.1017/S0272263104262015

de Bot, K. (2015a). *A history of applied linguistics: From 1980 to the present*. New York, NY: Routledge.

de Bot, K. (2015b). Rates of change: Timescales in second language development. In Z. Dörnyei, P. D. MacIntyre, & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 29–37). Bristol, UK: Multilingual Matters.

DeKeyser, R. M. (2007). Study abroad as foreign language practice. In R. DeKeyser (Ed.), *Practice in a second language: Perspectives from applied linguistics and cognitive psychology* (pp. 208–226). New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511667275.012

Dietrich, A. J. (2018). History and current trends in U.S. study abroad. In C. Sanz & A. Morales-Front (Eds.), *The Routledge handbook of study abroad research and practice* (pp. 545–558). New York, NY: Routledge.

Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates.

Dörnyei, Z. (2009). The L2 motivational self system. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identities and the L2 self* (pp. 9–42). Bristol, UK: Multilingual Matters. https://doi.org/10.21832/9781847691293-003

Dörnyei, Z. (2010). The relationship between language aptitude and language learning motivation: Individual differences from a Dynamic Systems perspective. In E. Macaro (Ed.), *Continuum companion to second language acquisition* (pp. 247–267). London, UK: Continuum.

Dörnyei, Z. (2014). Researching complex dynamic systems: 'Retrodictive qualitative modelling' in the language classroom. *Language Teaching*, 47(1), 80–91.

Du, H. (2015). American college students studying abroad in China: Language, identity, and self-presentation. *Foreign Language Annals*, 48, 250–266. https://doi.org/10.1111/flan.12138

Falout, J. (2016). Past Selves: Emerging motivational guides across temporal contexts. In J. King (Ed.), *The dynamic interplay between context and the language learner* (pp. 47–65). Basingstoke, UK: Palgrave.

Freed, B. F. (1995). What makes us think that students who study abroad become fluent? In B. Freed (Ed.), *Second language acquisition in a study abroad context* (pp. 123–148). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/sibil.9.09fre

Gass, S. (1997). *Input, interaction, and the second language learner*. Mahwah, NJ: Lawrence Erlbaum Associates.

Gurzynski-Weiss, L. (2016). Factors influencing Spanish instructors' in-class feedback decisions. *Modern Language Journal*, 100, 255–275. https://doi.org/10.1111/modl.12314

Gurzynski-Weiss, L. (2017a). Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 4–15). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.01gur

Gurzynski-Weiss, L. (2017b). Instructor individual characteristics. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 451–467). New York, NY: Routledge.

Gurzynski-Weiss, L. (this volume). Synthesizing cross-theoretical explorations of interlocutors and their individual differences. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 247–266). Amsterdam, Netherlands: John Benjamins.

Gurzynski-Weiss, L., & Plonsky, L. (2017). Look who's interacting: A scoping review of research involving non-teacher/non-peer interlocutors. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 306–324). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.13gur

Henry, A. (2015). The dynamics of possible selves. In Z. Dörnyei, P. MacIntyre, & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 83–94). Bristol, UK: Multilingual Matters.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319–340. https://doi.org/10.1037/0033-295X.94.3.319

Hiver, P., & Al-Hoorie, A. H. (2016). A dynamic ensemble for second language research: Putting Complexity Theory into practice. *Modern Language Journal*, 100, 741–756. https://doi.org/10.1111/modl.12347

Isabelli-García, C. L. (2006). Study abroad social networks, motivation and attitudes: Implications for second language acquisition. In M. A. DuFon & E. Churchill (Eds.), *Language learners in study abroad contexts* (pp. 231–258). Clevedon, UK: Multilingual Matters. https://doi.org/10.21832/9781853598531-013

King, J. (2016). *The dynamic interplay between context and the language learner*. Houndmills, UK: Palgrave MacMillan.

Kinginger, C. (2008). Language learning in study abroad: Case histories of Americans in France. *Modern Language Journal*, 92. Monograph. https://doi.org/10.1111/j.1540-4781.2008.00821.x

Kinginger, C. (2009). *Language learning and study abroad: A critical reading of research*. Houndmills, UK: Palgrave Macmillan. https://doi.org/10.1057/9780230240766

Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18, 140–165. https://doi.org/10.1093/applin/18.2.141

Larsen-Freeman, D. (2002). Language acquisition and language use from a chaos/complexity theory perspective. In C. Kramsch (Ed.), *Language acquisition and language socialization* (pp. 33–46). London, UK: Continuum.

Larsen-Freeman, D. (2012). Complex, dynamic systems: A new transdisciplinary theme for applied linguistics? *Language Teaching*, 45, 202–214. https://doi.org/10.1017/S0261444811000061

Larsen-Freeman, D. (2015). Ten lessons from CDST: What is on offer. In Z. Dörnyei, P. MacIntyre, & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 11–15). Bristol, UK: Multilingual Matters.

Larsen-Freeman, D. (this volume). Complex systems, relations, and synchrony in interlocutor individual differences in second language development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 189–208). Amsterdam: John Benjamins.

Larsen-Freeman, D., & Cameron, L. (2008a). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.

Larsen-Freeman, D., & Cameron, L. (2008b). Research methodology on language development from a Complex Systems perspective. *Modern Language Journal*, 92, 200–213. https://doi.org/10.1111/j.1540-4781.2008.00714.x

Leeman, J. (2004). Racializing language: A history of linguistic ideologies in the US Census. *Journal of Language and Politics*, 3, 507–534. https://doi.org/10.1075/jlp.3.3.08lee

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of language acquisition* (pp. 413–468). San Diego, CA: Academic Press.

Magnan, S. S., & Back, M. (2007). Social interaction and linguistic gain during study abroad. *Foreign Language Annals*, 40, 43–61. https://doi.org/10.1111/j.1944-9720.2007.tb02853.x

Markus, H. R., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954–969. https://doi.org/10.1037/0003-066X.41.9.954

Marijuan, S., & Sanz, C. (2018). Expanding boundaries: Current and new directions in study abroad research and practice. *Foreign Language Annals*, 51(1), 185–204. https://doi.org/10.1111/flan.12323

McGregor, J. (2016). "I thought that when I was in Germany, I would speak just German": Language learning and desire in twenty-first century study abroad. *L2 Journal*, 8, 12–30.

Mercer, S. (2014). The self from a complexity perspective. In S. Mercer & M. Williams (Eds.), *Multiple perspectives on the self in SLA* (pp. 160–176). Bristol, UK: Multilingual Matters. https://doi.org/10.21832/9781783091362-012

Mercer, S. (2015). Social network analysis and complex dynamic systems. In Z. Dörnyei, P. D. MacIntyre, & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 73–83). Bristol, UK: Multilingual Matters.

Mercer, S. (2016). The contexts within me: L2 self as a complex dynamic system. In J. King (Ed.), *The dynamic interplay between context and the language learner* (pp. 11–28). Houndmills, UK: Palgrave Macmillan.

Mitchell, R., Tracy-Ventura, N., & McManus, K. (Eds.) (2015). Introduction. In R. Mitchell, N. Tracy-Ventura, & K. McManus (Eds.), *Social interaction, identity and language learning during residence abroad* (pp. 7–12). Amsterdam, Netherlands: The European Second Language Association.

Müller, M., & Schmenk, B. (2017). Narrating the sound of self: The role of pronunciation in learners' self-construction in study-abroad contexts. *International Journal of Applied Linguistics*, 27, 132–151. https://doi.org/10.1111/ijal.12109

Muñoz, C. (Ed.) (2012). *Intensive exposure experiences in second language learning.* Bristol, UK: Multilingual Matters. https://doi.org/10.21832/9781847698063

Norton, B. (2000). *Identity and language learning: Extending the conversation* (2nd ed.). Harlow, UK: Longman.

O'Brien, I., Segalowitz, N., Freed, B., & Collentine, J. (2007). Phonological memory predicts second language oral fluency gains in adults. *SSLA*, 29, 557–582.

Pellegrino, V. A. (2005). *Study abroad and second language use: Constructing the self.* Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511620584

Philp, J., & Gurzynski-Weiss, L. (this volume). On the role of the interlocutor in second language development: A cognitive-interactionist perspective. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 19–50). Amsterdam, Netherlands: John Benjamins.

Polanyi, L. (1995). Language learning and living abroad: Stories from the field. In B. F. Freed (Ed.), *Second language acquisition in a study abroad context* (pp. 271–291). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/sibil.9.17pol

Sanz, C., & Morales-Front, A. (2018). Introduction. In C. Sanz & A. Morales-Front (Eds.), *The Routledge Handbook of Study Abroad Research and Practice*. New York, NY: Routledge. https://doi.org/10.4324/9781315639970

Serafini, E. J. (2017). Exploring the dynamic long-term interaction between cognitive and psychosocial resources in adult second language development at varying proficiency. *Modern Language Journal*, 101, 369–390. https://doi.org/10.1111/modl.12400

Shiri, S. (2015). Intercultural communicative competence development during and after language study abroad: Insights from Arabic. *Foreign Language Annals*, 48, 541–569. https://doi.org/10.1111/flan.12162

Spoelman, M., & Verspoor, M. (2010). Dynamic patterns in development of accuracy and complexity: A longitudinal case study in the acquisition of Finnish. *Applied Linguistics*, 31, 532–553. https://doi.org/10.1093/applin/amq001

Trofimovich, P., & Kennedy, S. (2014). Interactive alignment between bilingual interlocutors: Evidence from two information-exchange tasks. *Bilingualism: Language and Cognition*, 17(4), 822–836. https://doi.org/10.1017/S1366728913000801

Ushioda, E. (2009). A person-in-context relational view of emergent motivation, self and identity. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity, and the L2 self* (pp. 215–28). Bristol, UK: Multilingual Matters. https://doi.org/10.21832/9781847691293-012

Ushioda, E. (2011). Language learning motivation, self, and identity: Current theoretical perspectives. *Computer Assisted Language Learning*, 24, 199–210. https://doi.org/10.1080/09588221.2010.538701

Ushioda, E. (2015). Context and Complex Dynamic Systems Theory. In Z. Dörnyei, P. D. MacIntyre, and A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 47–54). Bristol, UK: Multilingual Matters.

Van Dijk, M., Verspoor, M., & Lowie, W. (2011). A dynamic approach to second language development: Methods and techniques. In M. Verspoor, K. de Bot, & W. Lowie (Eds.), *A dynamic approach to second language development: Methods and techniques*, (p. 55–84). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.29.04van

van Geert, P. L. C. (1994). *Dynamic systems of development: Change between complexity and chaos.* New York, NY: Harvester Wheatsheaf.

Waninge, F., Dörnyei, Z., & de Bot, K. (2014). Motivational dynamics in language learning: Change, stability, and context. *Modern Language Journal*, 98, 704–723. https://doi.org/10.1111/modl.12118

Concluding material

Synthesizing cross-theoretical explorations of interlocutors and their individual differences

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The theoretical and empirical contributions of this current volume are united in their efforts to examine interlocutors and their individual differences. In this final chapter, I demonstrate how the four approaches – the cognitive-interactionist approach (Philp & Gurzynski-Weiss; Pawlak); sociocultural theory (Lantolf; Back); the variationist approach (Geeslin; Long & Geeslin); and complex dynamic systems theory (Larsen-Freeman; Serafini) – while, on the surface may appear to be markedly different, are all moving in harmony towards a more comprehensive understanding of the nature of interlocutors and their individual differences. I will also discuss how this shared advancement provides a more accurate picture of the complex influences that affect second language development. Finally, I will highlight the trends and areas for future research common across all approaches, providing concrete suggestions for those interested in conducting research on this topic.

Introduction

Despite the fact that "interlocutor interaction has been central to almost all major modern second language acquisition (SLA) theories" (Larsen-Freeman, page 189), explorations of interlocutors, whether theoretically or empirically, have been limited to considerations within single approaches – until this collection.[1] The current volume examines interlocutors and their individual differences (IDs) from four theoretical approaches: the cognitive-interactionist approach (COG/Philp & Gurzynski-Weiss, Chapter 2; Pawlak, Chapter 3); sociocultural theory (SCT/Lantolf, Chapter 4; Back, Chapter 5); the variationist approach (VAR/Geeslin, Chapter 6;

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1. See Gurzynski-Weiss (Ed., 2017) for a book-length examination of learner, teacher, and non-teacher/non-peer interlocutors from the cognitive-interactionist approach.

Long & Geeslin, Chapter 7); and complex dynamic systems theory (CDST/ Larsen-Freeman, Chapter 8; Serafini, Chapter 9). To facilitate the cross-theoretical explorations of interlocutors and their IDs, the prior chapters each sought to address the following common organizing questions:

1. Who are the interlocutors in this approach?
2. What are their role(s)?
3. Which interlocutor IDs might influence L2 development?
4. What do we know so far about interlocutors' IDs within this approach? And
5. Where do we go from here?

In this tenth and final chapter, I synthesize the themes from each of these questions in turn, making connections across the four approaches and demonstrating how each approach, while on the surface may appear to be markedly different from the others, is moving in harmony towards a more robust understanding of the complex and dynamic nature of interlocutors, their individual differences, and thus toward a more complete and accurate picture of their influence on second/additional language (L2) development. The chapter, and thus this volume, ends with trends and areas for future research common across all approaches, providing concrete suggestions for those interested in conducting research on this topic at this moment of methodological and theoretical advancement.

Who are the interlocutors of relevance?

As seen in the matrix in this volume's introduction (Chapter 1, pages 11–12), and as one would imagine within the realm of L2 development, all four approaches maintain that learner interlocutors are central. Additionally, all four share the belief that all interlocutors with whom learners interact are important to consider for second language acquisition (SLA). These interlocutors include: *fellow language learners of the same or different proficiency level* (COG/Philp & Gurzynski-Weiss, Chapter 2; COG/Pawlak, Chapter 3; SCT/Back, Chapter 5); *language instructors* (COG/Philp & Gurzynski-Weiss, Chapter 2; SCT/Lantolf, Chapter 4; SCT/Back, Chapter 5; VAR/Geeslin, Chapter 6; VAR/Long & Geeslin, Chapter 7; CDST/ Larsen-Freeman, Chapter 8; CDST/Serafini, Chapter 9); *native speakers and highly proficient target language users outside of the classroom – specified here as host family members* (CDST/Serafini, Chapter 9), *peer tutors* (SCT/Back, Chapter 5), as well as *community members* with whom learners have minimal exchanges during service encounters (CDST/Serafini, Chapter 9), or within their daily lives (SCT/ Lantolf, Chapter 4; CDST/Serafini, Chapter 9). These interlocutors are all cited as relevant to consider in relation to their face-to-face interactions with learners;

Philp and Gurzynski-Weiss (COG/Chapter 2) also extend this consideration to computer-mediated interaction.

While all four approaches included here share the position that learner interlocutors are influenced by their communicative partners during the interaction, Lantolf (SCT/Chapter 4) and Back (SCT/Chapter 5) each maintain that sociocultural theory views all current *and past* interlocutors as relevant for L2 development.[2] With respect to current interlocutors, Lantolf cites Deaf children's exposure to speakers and signers in education settings as an example, while Back discusses how a Spanish peer tutor's confidence in his own abilities changes when the course professor unexpectedly passes by and offers a correction. Past interlocutors – interlocutors who were at one time present but no longer are – such as a professor during a lesson, are also cited as influential in the SLA process. These past interlocutors can offer a competing or confirming viewpoint when a word is unknown, for example. In Back's study, one of the learners consulted their notes from class after disagreeing with the vocabulary word the peer tutor provided. This student was certain the professor had shared a word that was not what the peer tutor had offered. In this instance, this professor-during-class as past interlocutor was in essence offering a competing or confirming viewpoint on a vocabulary word that was escaping the peer tutor who was physically present. Serafini (CDST/Chapter 9) also discusses the influence of learners' fluctuating perceptions of self and how these interact with learners' perception of their interlocutors' IDs. One intermediate learner, Jenna, gained self-confidence following an interaction with local Ecuadorian students because of their similarity in age, kind temperament, and (perceived) high level of bilingual proficiency. Over the course of a two-week experience abroad, Serafini found learners' reflections on past interlocutors, their IDs, and their interactions – like this intermediate learner's – to influence their current self.

In addition to past and current interlocutors, Back goes even further, citing possible and future selves as interlocutors of relevance (SCT/Chapter 5). For example, one learner in Back's study was concerned with her performance on a future exam and wanted to ensure that the correct vocabulary word was solidified. Serafini (CDST/Chapter 9), echoing Mercer (2016), also cites one's conception of self as continually evolving and being (re)constructed through current interactions with others and in relation to learner perceptions of past and imagined future experiences. Serafini's intermediate learner, Jenna, described (her perception of) the local Ecuadorian students' bilingual proficiency as an "inspiration" for her and other students to "become completely bilingual" (page 229). This past interaction with Ecuadorian interlocutors not only contributed to immediate self-confidence

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2.   This is not to say that the other approaches would not consider past or future/possible interlocutors as relevant, but they have not explicitly mentioned these individuals within these pages.

but also helped to motivate this learner to (re-)construct her ideal and future L2 selves toward achieving bilingual proficiency.

Inanimate interlocutors such as written texts are also offered in this volume as examples of relevant interactants for learners in the variationist approach (Geeslin/Chapter 6; Long & Geeslin/Chapter 7) and sociocultural theory (Lantolf/Chapter 4; Back/Chapter 5). Both variationist chapters discuss work by Gurzynski-Weiss and colleagues (2017, 2018) that has considered textbooks and lesson plans as input with which learners interact. The sociocultural contributions to the volume, on the other hand, include written texts such as textbooks as well as students' handwritten class notes.

To summarize this first organizing question, the four approaches included in this volume find all the interlocutors with whom learners interact or have interacted as relevant to their current, future, and even imagined L2 development. For Back (SCT/Chapter 6) and Serafini (CDST/Chapter 9), potential future interlocutors may similarly influence L2 development, and for both sociocultural theory (Lantolf/Chapter 4; Back/Chapter 5) and the variationist approach (Geeslin/Chapter 6; Long & Geeslin/Chapter 7), written texts are also relevant as interlocutors.

What are the interlocutors' roles?

The second organizing question explores what roles interlocutors play in each theory or approach. As will become evident throughout the discussion that follows, interlocutors are critical to L2 learning opportunities. Or perhaps even more strongly and accurately stated, without interlocutors, L2 development simply will not occur. A striking theme across chapters is how interlocutors' roles are bidirectional: more knowledgeable interlocutors are not seen as experts that impart knowledge onto or into their less knowledgeable counterparts (SCT/Back, Chapter 5), rather they contribute in response to, alongside with, and in reception of the others (currently or previously; actually or simply possibly) involved in communication.

In complex dynamic systems theory, for example, the focus is on what transpires, continually and reciprocally, between interlocutor(s) and learner(s) within a particular context in a particular period of time (as defined by the individual study). As Larsen-Freeman (CDST/Chapter 8) highlights, learners co-adapt to the environment, adjusting to their interlocutors, including fellow learner interlocutors, both in the language they use as well as in non-verbal ways. It is in this adjustment or synchronization that L2 development occurs. Serafini (CDST/Chapter 9) describes learners and interlocutors as intersecting components of a larger complex dynamic system, interacting with context as well as with each other.

We see these themes echoed in the cognitive-interactionist chapters, as well. Philp and Gurzynski-Weiss (COG/Chapter 2) discuss how interlocutor interaction is necessary for L2 development to occur, as it is during interaction where input is provided, where there is the opportunity to direct attention to form within meaning, and where learners may test out their hypotheses via output production, receive feedback, and potentially use that information for L2 development. For cognitive-interactionists, this is also not a unidirectional process; research in this approach examines the features of interaction that occur when interlocutors of similar or different IDs work together (COG/Philp & Gurzynski-Weiss, Chapter 2; COG/Pawlak, Chapter 3). Likewise in this approach is the consideration of contextual features, whether it be in the type of task (with or without information gap, for example; COG/Pawlak, Chapter 3), type of group organization (full class or pair work; COG/Philp & Gurzynski-Weiss, Chapter 2), as well as social aspects, such as the (same or differing) status or familiarity between interlocutors (COG/ Philp & Gurzynski-Weiss, Chapter 2). All of these considerations influence the nature of the interaction and thus, the amount and nature of the opportunities for L2 development.

Sociocultural theory, as illustrated in this collection by Lantolf and Back, also holds as central a non-linear view of all influences on L2 development. For example, in Lantolf's (SCT/Chapter 4) discussion of the case study of Eva Hoffman, a native Polish-speaking woman learning English, he cites how the recirculating voices in her surroundings, including social others in her daily interactions, possess her; only over time does she claim those voices as her own. Critically, while Eva would have been observed to use the language of her interlocutors, she did not fully accept it as her own for some time (illustrated by her stating of the voices "I do not yet possess them; they possess me," page 86). By considering both observable and non-observable behavior (e.g., adopting the voices of social others), Lantolf captures a more accurate picture of the nature of L2 development and the powerful role of interlocutors and their IDs in this learning. Back's (SCT/Chapter 5) study provides a second example of ID change within sociocultural theory: peer tutor Roberto felt confident about his provision of the word for cough syrup, even after the learners were questioning it. His confidence changed, however, once the Spanish professor walked by and corrected him; he then took on a role more akin to a co-learner, stating explicitly how "we all learned" (page 113). Thus, for SCT, interlocutors not only provide L2 input and opportunities for output and interaction, their IDs coupled *with these L2 opportunities* inspire learners to make conscious and subconscious changes to their engagement with these L2 opportunities, and even, in the case of these aforementioned examples, one's own IDs.

Finally, the variationist chapters in this volume (VAR/Geeslin, Chapter 6; VAR/Long & Geeslin, Chapter 7) maintain that the goal of L2 communicative competence is to command the language and acceptable variation as dictated by the interaction with specific individuals within a specific context. In other words, interlocutors and their IDs determine what is an appropriate and acceptable L2 target (among other roles). Despite this centrality of the interlocutor within this approach, the interlocutor and their IDs were missing from variationist models. For example, in Preston (2000), one of the most cited variationist accounts of L2 learning, the relationship between interlocutors cannot be addressed, and there is no real-time or bidirectionality within the model. Geeslin's (VAR/Chapter 6) updated model of learner/interlocutor interaction, revealed for the first time in this volume (page 145), directly considers this interrelationship. Geeslin's depiction allows for the fact that IDs, or "characteristics," as she refers to them, are not static but are ever-changing during and across interactions. Geeslin provides a dynamic account of contextually-situated, co-constructed interactions between learners and interlocutors. Interlocutor IDs influence each aspect of the interactions, most centrally determining what type(s) of variation are appropriate for a given interaction and thus providing a (or multiple) target(s) for L2 development.

Thus, this second organizing question revealed how all four approaches view the roles of interlocutors and their IDs as non-linear and bidirectional influences, interacting with each other as well as with the specific context at hand. Most importantly, all approaches maintain that interlocutors are necessary for L2 development to occur.

Which interlocutor IDs might influence SLA?

After determining which interlocutors are theoretically relevant for empirical research and how their roles may potentially influence L2 development, the authors turned their attention to specifying *which* interlocutor IDs are important to consider within each approach. In terms of which factors of SLA are explored in the current volume, the reader is once again directed to the matrix (pages 11–12) for quick reference.

The following IDs are considered within this volume: *age* (CDST/Larsen-Freeman; CDST/Serafini; VAR/Geeslin); *anxiety* (COG/Philp & Gurzynski-Weiss); *attitude toward L2/heritage language* (CDST/Serafini; COG/Philp & Gurzynski-Weiss); *beliefs* (SCT/Back); *dynamic motivation* (CDST/Larsen-Freeman; CDST/Serafini); *engagement* (COG/Philp & Gurzynski-Weiss); *experience* (CDST/Larsen-Freeman); *experience with L2 learners* (CDST/Serafini); *first language* (CDST/Larsen-Freeman; CDST/Serafini; SCT/Lantolf; VAR/Geeslin; VAR/Long

& Geeslin); *gender* (CDST/Larsen-Freeman; CDST/Serafini; COG/Pawlak; VAR/Geeslin); *identity* (CDST/Larsen-Freeman; VAR/Geeslin); *knowledge* (CDST/Serafini; SCT/Back); *language history* (CDST/Serafini; SCT/Back); *learning styles* (COG/Pawlak); *motivation* (COG/Philp & Gurzynski-Weiss); *personality* (COG/Philp & Gurzynski-Weiss); *possible selves* (CDST/Serafini); *proficiency* (CDST/Serafini; COG/Pawlak; COG/Philp & Gurzynski-Weiss; VAR/Geeslin); *race/ethnicity* (CDST/Larsen-Freeman; VAR/Geeslin); *role in task* (CDST/Larsen-Freeman); *willingness to communicate* (COG/Philp & Gurzynski-Weiss); and *working memory* (COG/Philp & Gurzynski-Weiss).

As the chapters within the volume demonstrate, there are various ways of approaching how to categorize or consider interlocutor IDs. The cognitive-interactionist approach often differentiates between interlocutor-internal ID factors (age, working memory, familiarity with their partner) and factors external to the interlocutor (number of participants, types of task, etc.), which could also be considered contextual. Other scholars, such as Pawlak (2012, 2017), have categorized IDs as more cognitive (e.g., working memory, age), sociocultural (e.g., beliefs, attitudes, experience), and affective (e.g., motivation, willingness to communicate), differentiating IDs that are or are not constructed socially.

The variationist approach differentiates level I factors that we would consider in ID research (e.g., age, gender, socioeconomic class, etc.) from level II factors (linguistic factors – the observable reality and predictive linguistic context influencing current and future use) and level III factors (time). While neither sociocultural theory nor complex dynamic systems theory discuss a hierarchy or categorization of the variables at play (at least in the current volume), they both emphasize the reciprocal influence of IDs between interlocutors. For example, using the peer tutor example once again from Back (SCT/Chapter 5), the ID of "expert" fluctuated based on the interlocutors with whom Roberto was interacting. Serafini (CDST/Chapter 9) also demonstrates this fluid notion of the IDs of proficiency and confidence in knowledge based on one's interactions with specific interlocutors. Julia, for example, felt nervous about her class because, as she states, other students "understand more" and she does not "know a lot of words" (page 228). Nevertheless, her interaction with a local Ecuadorian student the following day "boosted Julia's confidence" (page 228). It bears reiterating that one's *perception* of proficiency may influence their interactions as much as or even more than their proficiency score on a given assessment.

In Figure 1, I have attempted to compile the ways the approaches in the current volume view interlocutor IDs.[3] You will note the abundance of arrows, depicting

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the constant and reciprocal influence between IDs and between IDs and context, both within a single interlocutor as well as between interlocutors, between interlocutor(s) and current context, and between interlocutor(s) and previous and future/potential context and interlocutor(s).
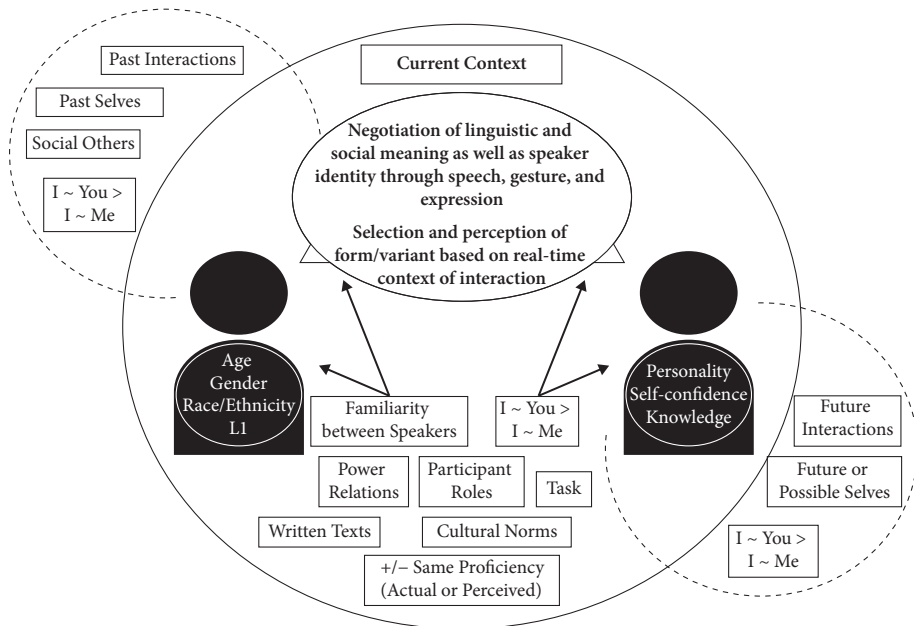
Figure 1. A cross-theoretical illustration of interlocutors and their IDs

In this Figure, two interlocutors are drawn, each with example IDs that are playing a role for themselves. In this particular interaction, for each interlocutor, different IDs are influencing their interaction (e.g., for one interlocutor, age, gender, race, and L1, whereas the other interlocutor is influenced by their personality, self-confidence, and knowledge). In the lower section of the center circle between the interlocutors, IDs that are influencing them both are seen; these include the interlocutors' roles in the interaction, power relations, and task type. In the center circle between the two interlocutors is a depiction of the negotiation of meaning occurring in real time between the two individuals, mediation that includes speech, gesture, expression, and the (co/re-) creation of identity. This also includes both interlocutors' expression and perception occurring in an [undefined] current context. And in each of the dashed circles in the upper left and lower right there are past and future interlocutors' and their IDs influencing each interlocutor in the current context. Once again, the intention here is to demonstrate that, at any given moment, each interlocutor is influenced by specific interlocutors and their IDs and that these

influences may include (their perception of) their own IDs or their interlocutors' in the current context, and/or interlocutors from past or future contexts. While each interlocutor in a given interaction theoretically has access to the same L2 output/input (depending on whether it was from themselves or their partner, respectively), not every interlocutor will *use* the L2 available to them.

Looking back: What do we know so far about interlocutor IDs?

All four approaches maintain that interlocutor IDs influence each aspect of L2 development, from input present in the learners' environment through influencing their (non)target-like production and L2 development. Most centrally, *interlocutor IDs determine the amount and type(s) of L2 input to which learners are exposed.* For example, Long and Geeslin (VAR/Chapter 7) illustrated how instructor interlocutors' L1 can affect the type of Spanish subject expression learners hear in the L2 classroom. Pawlak (COG/Chapter 3) demonstrated how learner interlocutors' gender can influence negotiated interaction during a task. Back (SCT/Chapter 5) discussed whether an earlier lesson with an invisible social other (i.e., the learners' instructor interlocutor from Spain) mentioning a brand of cough medicine (*Tossin*) may have led learners to innovate a non-normative term for cough syrup (*tosino*). Serafini (CDST/Chapter 9) highlighted a tour guide's lack of experience with students abroad as causing frustration for one learner who struggled to comprehend the guide's fast, unmoderated speech. And Larsen-Freeman (CDST/Chapter 8) further specified that the synchronization of one's language with another reduces "the complexity of the system by narrowing down choices for participants. Thus, the utterances of others offer us a resource for learning, which we can adapt for our own purposes" (page 202, citing ideas from Harvey, 2015).

Second, *interlocutor IDs influence how learners process and respond to the L2.* For example, learner interlocutors with greater working memory (WM) have been found to notice and benefit from feedback as compared to those with lesser WM (COG/Philp & Gurzynski-Weiss, Chapter 2). Pawlak (COG/Chapter 3) found a relationship between learner interlocutors' L2 processing and interactional responses in terms of negotiation of meaning and opportunity for modified output when they possessed different learning style dimensions from their fellow learner interlocutors (e.g., tactile vs. auditory or introverted vs. extraverted); this also occurred when learner interlocutors were in mixed-gender dyads. Differential processing according to ID goes beyond mere ability – it crosses into identity and the (re-)creation of the L2 self. As seen within the sociocultural theory chapters especially, learner interlocutors demonstrate a differential desire to engage with the L2 target, consciously deciding which form to adopt to achieve accuracy on an exam

(SCT/Back, Chapter 5) or accurately depict one's identity (SCT/Lantolf, Chapter 4). The variationist and complex dynamic systems theory chapters also include these ideas, citing how learner or teacher interlocutors may find a specific dialect more or less pleasing as an L2 target (VAR/Geeslin, Chapter 6), or a particular L2 culture as a potential future community for themselves (CDST/Serafini, Chapter 9). Larsen-Freeman mentions how interlocutors align (Atkinson, Churchill, Nishino, & Okada, 2007), adaptively imitate (Macqueen, 2012), and prime (Gries, 2005) their learner interlocutor partners during interaction, varying in the extent to which they do so – whether consciously or unconsciously – according to how much they would like to emulate their interlocutor as an L2 target. With respect to priming, Larsen-Freeman highlights its predictive power for L2 learners' "production of the syntactic structures" in their development (citing McDonough & Mackey, 2006). A related line of L1 research has shown that our knowledge of the social characteristics of a speaker can even shape our perception of language sounds, and vice versa (e.g., Niedzielski, 1999; Staum Casasanto, 2008). This undoubtedly occurs in L2 perception as well, and future research on this topic would further our understanding on the influence of interlocutor IDs on L2 processing.

Interlocutor IDs contribute to the *speed/rate at which learners acquire the L2*. Geeslin (VAR/Chapter 6) discusses at length how learners who study abroad have been found to move more quickly through acquiring the patterns of frequency of use and the constraints governing that variant-specific use when it comes to Spanish intonation (Henriksen, Geeslin, & Willis, 2010), past-time marking in perfective contexts (Geeslin, García-Amaya, Hasler-Barker, Henriksen, & Killam, 2012), object pronouns (Geeslin, García-Amaya, Hasler-Barker, Henriksen, & Killam, 2010), as well as phonetic geographic features (Bongiovanni, Long, Solon, & Willis, 2015; Willis, Geeslin, & Henriksen, 2009). Learners who have a more developed L2 self have been found to be more motivated to seek out interaction and therefore more L2 learning opportunities than less motivated learners whose L2 opportunities are limited to classroom lessons (CDST/Serafini, Chapter 9). Serafini cites learners' sense of belonging as motivating how they interacted. For example, Jenna discussed her experience during a host family member's birthday party stating, "They introduced and greeted me very warmly. I didn't feel like a foreigner at all" (page 230). Another student in Serafini's study, Leah, also stated that the significant time she spent conversing with her host mother increased her interaction (and thus input and output opportunities): "My Mom in Ecuador and I talk every night for two hours. Sometimes about her kids, advice, politics, differences between our cultures, and our futures. I love my family here the same as my family in the U.S." (page 230). These experiences increased the learners' motivation to seek out interactions, increased their confidence in speaking, and changed how they incorporated Spanish

into their current and desired future identity. This is similar to the findings of learners with lesser anxiety and higher willingness to communicate (COG/Philp & Gurzynski-Weiss, Chapter 2), which have been found to have a direct relationship to one's L2 opportunities and development (Cao & Philp, 2006; Gregersen, MacIntyre, & Meza, 2014; MacIntyre, 2017; MacIntyre & Gardner, 1989, 1994; Pawlak & Wystkowska-Wiertelak, 2015).

And, ultimately, there is evidence that interlocutor IDs are involved in the *overall success that learners experience with their L2*. Learners in Serafini's (CDST/ Chapter 9) study who had strong emotional attachment to their host mothers were those who demonstrated more positive growth in learner selves during and even beyond the two-week immersion program. Even non-teacher/non-peer interlocutors (Gurzynski-Weiss & Plonsky, 2017) such as store clerks featured in learners' reflections regarding who positively impacted their "ongoing appraisal of self-confidence and linguistic in/security" (page 238). In terms of language development, complex dynamic systems theory as explained by Larsen Freeman (CDST/ Chapter 8) places a premium on interaction during which synchronization, or "spontaneous pattern formation," both linguistic and physical (e.g., posturing), occurs between two or more interlocutors, each of whom simultaneously shapes the other and her language resources (page 192). Sociocultural theory also privileges interactional reciprocity between interlocutors as fundamental to L2 thinking for speaking and thus subsequent L2 development. Summarizing McNeill's (2016) proposal, Lantolf (SCT/Chapter 4) notes that mirror neurons in humans not only fire when a person observes another in action but also "when the person engages in the action as if they were the other person" (page 90). The effect of this process for L2 learning can be seen in an instructional effects study conducted by Lantolf and colleagues where they explicitly taught adult L1 speakers of Spanish a set of English motion verbs through video clips among other media. After eight hours of instruction, participants demonstrated English patterns of speaking *as well as* accompanying gestures, despite receiving no explicit instruction on the latter. Finally, we saw how invisible or absent interlocutors and/or their prior utterances or may also influence learning. Back's (SCT/Chapter 5) learners "repeatedly uttered an approximation" of *Tossin*, a brand name for a Spanish cough syrup, in an attempt to recall the Spanish word. Thus, throughout this volume we have clear examples of how interlocutors' IDs influence each facet of L2 development.

Looking forward: Where do we go from here?

This volume provides several points of departure which will propel us in moving the domain forward. I have selected six themes that have resonated across approaches and indicate particular promise for the next steps in this domain. Before providing concrete research questions for future use, I will reiterate the common theme that inspired each set of questions. First, the chapters here have repeatedly demonstrated two main points: (1) *interlocutors and their IDs do not exist in isolation from each other (within the same person), from context (immediate and within the larger community as well as past and future/imagined), or from the IDs of the others involved (previously, currently, or potentially)*; and (2) *how interlocutor IDs are experienced is unique to a given interaction, and they are ever changing.* While these conclusions provide challenges in robustly measuring how and to what extent interlocutor IDs influence L2 development, it is my firm belief that recognizing the interrelatedness and the complexity of IDs across approaches is a necessary step in order to more thoroughly understand and depict how L2 development occurs. For example, while we may be able to draw generalizations that a greater role of Spanish in one's future self (alone or alongside another ID, such as a high level of willingness to communicate) may lead to greater opportunities for varied and rich input (which in turn offer additional opportunity for hypothesis testing and output production, etc., if articulating L2 opportunities within a cognitive-interactionist approach), oftentimes interlocutor ID research will and should be necessarily concentrated on/limited to what is occurring between specific individuals in a specific context and time span. To this end, research questions propelling work in this area may include:

1. Which interlocutor IDs are at play in this particular L2 context?
2. How can we best measure and conceptualize each ID?
3. How can we accurately depict the reciprocal influence between IDs? Between IDs and (interactional) context (e.g., number of turns; positive attitudes)?
4. How are these IDs influencing opportunities (however defined) for L2 development?
5. How do IDs mediate L2 outcomes?
6. How do L2 outcomes loop back and influence IDs and interlocutor identity?

Second, in addition to whether IDs are internal or external to a given interlocutor (COG/Philp & Gurzynski-Weiss, Chapter 2), cognitive or social (COG/Pawlak, Chapter 3), or present in a given moment or prior/future (SCT/Lantolf, Chapter 4; SCT/Back, Chapter 5; CDST/Serafini, Chapter 9), future work may do well to *focus*

on which IDs are more dynamic, and what influences the dynamicity[4] of a given ID (or ID cluster, perhaps, if isolating certain IDs is empirically impossible or theoretically inadvisable). For example, age would be conceptualized as less dynamic (although of course always changing) than, say, motivation as measured via the L2 self system, which Serafini (CDST/Chapter 9) demonstrates as changing within both micro and macro timescales.[5] The idea of investigating IDs in clusters of known interrelatedness may be particularly worthwhile. To expand on the example from Serafini (CDST/Chapter 9), we saw how learners' interactions influenced their motivation and willingness to communicate (WTC; and vice versa). Considering learners' L2 self-system and WTC in tandem might prove to be much more fruitful than attempting to isolate the influence of each ID (see, for example, work by MacIntrye and colleagues examining WTC and anxiety, Donovan & MacIntyre, 2004; MacIntyre, 1994; MacIntyre, Babin, & Clément, 1999; or work by Dewaele and colleagues examining anxiety and enjoyment, Dewaele & MacIntyre, 2014). Variationist approaches to L2 learning may also profit from including IDs in their analyses of the rates of and constraints on variable structures. Long and Geeslin (VAR/Chapter 7) showed that the instructor as the "primary interlocutor providing input to classroom learners" varies in the distribution of subject forms based on their ID of L1. With a larger sample size, additional IDs like region of origin or experience teaching may reasonably be expected to affect the rate and distribution of variable forms like those involved in subject expression. While it is of course critical to ensure that each construct is as robustly operationalized as possible, as has been demonstrated throughout this volume, interlocutors and their IDs must be studied within a carefully defined context, and this includes within similar and potentially overlapping IDs. Research questions in need of investigation include:

1. Which IDs are more dynamic in nature? What influences their change?
2. How can we best measure the dynamicity of interlocutor IDs?
3. Should certain IDs be investigated as clusters of influence rather than as isolated IDs? How can we best advance this work?

Third, the current volume has demonstrated that *interlocutor* perceptions *of their own IDs and/or the IDs of other interlocutors may be as important as IDs that we researchers empirically verify.* Although actual proficiency inarguably plays a role, interlocutors' *perceptions* of proficiency and their *attitudes* towards perceived

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4. Additionally, see the forthcoming special issue in *Studies in Second Language Learning and Language Teaching* by Gurzynski-Weiss and colleagues.

5. See also Larsen-Freeman's description of IDs as either "fleeting" or "more stable" (page 202).

similarities or differences may influence, for example, their willingness to communicate even more so than actual, measurable differences or similarities of performance on a proficiency assessment, which are seldom if ever available to all individuals in an interaction (COG/Philp & Gurzynski-Weiss, Chapter 2). As we saw in Chapter 9, Serafini (CDST) demonstrated that the highly dynamic, situated, emergent, and multidimensional nature of learner selves appears to be filtered through L2 learners' perceptions of their own IDs and the IDs of others (page 230–235). As she states, "learner perceptions of interlocutor IDs are a key mechanism underlying processes of co-adaptation and alignment during L2 interaction" (CDST/Serafini, Chapter 9, page 236). Perceptions matter because they are the (co/re-)constructed reality of each individual, and this constructed reality is what motivates behavior. Future ID research must resist the temptation to be satisfied by collecting ID data with a questionnaire or other objective measure and assuming the data we collect reflect what learners and other interlocutors experience; we must investigate individuals' perception of IDs alongside measures designed to be objective. Research questions of value in this sub-domain include:

1. What is the relationship (or lack thereof) between one's perception of a given ID and more objective measures of the ID(s)?
2. How does one's interlocutor(s) perceive of their IDs in a given context?
3. Which IDs have greater distance between perceived and more objective measures?
4. What influences this distance/gap?
5. Is there a direct relationship between the magnitude of this gap and the influence on the L2 opportunities?

Fourth, all assert that *context matters*. While the terminology differs between approaches, each holds more immediate, localized context(s) (e.g., [specific sections of] a particular interaction) as well as more extended context(s) (e.g., a target language community) as indispensable for interlocutor ID research and research on L2 development in general. Context, however defined, may include past and/or future/potential contexts in addition to current. Regardless of extent or point in time, context provides patterns of real use and the L2 input that learners need (VAR/Geeslin, Chapter 6). Exposure to contextually (in)appropriate and meaningful language use may motivate individual learners to choose (not) to engage with, align to (CDST/Larsen-Freeman, Chapter 8), or incorporate (SCT/Lantolf, Chapter 4; COG/Philp & Gurzynski-Weiss, Chapter 2) the L2 linguistic forms, community markers, and identities with which/whom the language-in-context functions. While there is overwhelming agreement about the importance of considering context(s), there is much work to be done to determine the extent to which interlocutor IDs are influenced by

and influence context. Given that the most important part is defining the context, whether preemptively or as appropriate given emergent themes, research questions motivating this work are intentionally broad and may include:

1. How do contextually-relevant variables (within past, current, and/or future/ possible context(s)) interact with the IDs in the current learning environment?
2. What makes certain contexts or contextually-relevant variables and IDs interact more than others?
3. (How) do the IDs of relevance change depending on how we adjust the study's contextual lens?
4. What are robust ways to define the context of interest and value in a given study in both top-down and (especially) bottom-up data approaches? Via mixed methodology?

With respect to the last research question, we have examples within the current volume for how to undertake this challenging task. As Serafini highlights (CDST/ Chapter 9), complex dynamic systems theory proposes a dynamic conception of context as a component that continually changes and is changed by learner interlocutor IDs. This change occurs over multiple levels and timescales with interlocutors functioning as integrated components within the context of L2 interaction. Serafini provides an example of examining emerging learner selves across micro and macro timescales, using bottom-up thematic content analysis. Using a variationist approach, Geeslin (VAR/Chapter 6) stresses that the best way of studying "the 'systematic impact' of multiple, simultaneous influences … is through sophisticated statistical modeling" (page 131). Coupled with her model introduced in this volume (page 145), one can simultaneously study the ID(s) and role(s) of interlocutors, topic, and tasks.

The fifth theme picks up where the last methods-focused research question leaves off. Respecting the fact that what transpires between interlocutors and learners is contingent, dynamic, emergent, and cannot be predetermined, *we must consider – theoretically and empirically – unanticipated IDs* (CDST/Larsen-Freeman, Chapter 8, page 198). This includes and simultaneously supersedes research methodology. Without question, our designs must include space for IDs of relevance to emerge from the data. See, for example, burgeoning research on creativity in SLA (Mackey, Park, Akiyama, & Pipes, 2014), grit (Teimouri, 2017; Teimouri, Goetze, & Plonsky, 2019), and L2 enjoyment (Boudreau, MacIntyre, & Dewaele, 2018; Dewaele & Alfawzan, 2018; Dewaele & MacIntyre, 2014). While these IDs have roots in previously examined IDs such as personality, tolerance of ambiguity, and intrinsic motivation, respectively, these "newer" IDs have been proven to be more specific, separate constructs of relevance for L2 development. Especially for

non-peer/non-learner interlocutor IDs (Gurzynski-Weiss & Plonsky, 2017), there is substantial work to be done in this area. In this latter sub-domain, we must examine which more-researched IDs are relevant for all interlocutors, and which may be more influential for learner interlocutors, teacher interlocutors, or non-teacher/ non-peer interlocutors. Research questions in need of investigation include:

1. What IDs are at play in this study? Which were anticipated and which emerged from the specific dataset?
2. How do these IDs relate to each other in the current study? To the larger body of ID research/knowledge?
3. Does a given ID influence in a similar way in a similarly defined context for different (individual or types of) interlocutors?

The sixth and final theme that I will mention is the need to *explore how interlocutor IDs shape L2 development*. To be sure, explaining and optimizing how SLA occurs is the ultimate goal in all sub-domains of L2 research, and interlocutor ID studies are no exception. However, I believe that research on interlocutors and their IDs should be most concerned with *describing in detail* the aforementioned influences rather than focusing on potential differences in attainment according to different interlocutor ID comparisons (as occurred in the early stages of learner ID research; see, for example, Naiman, Fröhlich, Stern, & Todesco, 1996; Rubin, 1975). As articulated by Geeslin (VAR/Chapter 6), "access to input is shaped by the characteristics of the learner and the interlocutor, and over time, this may ultimately limit or create new opportunities for interaction" (page 135). Long and Geeslin (VAR/Chapter 7) stress that a point of departure can be examining rates of use rather than ultimate attainment. Larsen-Freeman (CDST/Chapter 8) stresses that from a complex dynamic systems theory perspective "there is no need to posit a distinction between the processes of language use and language development other than that they occur at different timescales. …the fact that there is an alignment of linguistic forms between interlocutors taking place on occasions when language is used means that language development is also transpiring" (pages 201–202). The reader is referred back to Figure 1 depicting these approaches (page 254), where all of these aspects in L2 development may be examined. Research questions for future studies include:

1. How can we most accurately describe the role(s) of interlocutors and their IDs in L2 development in a way that incorporates multiple theoretical approaches?
2. What makes a particular interlocutor and particular ID(s) influence L2 development in a given study?
3. Are the results of the current study represented in the Figure inspired by this volume (page 254)? If not, what adjustments should be made to the depiction?

Conclusions

Taken together, the chapters in the current collection have initiated a cohesive discussion of the theoretical role(s) of the interlocutor within four popular approaches to SLA; hypothesized and, whenever possible, illustrated how interlocutor IDs influence L2 opportunities and/or development; presented original and robust empirical research on interlocutors and their IDs within each theoretical approach; and provided theoretical, empirical, and methodological guidance for future research on interlocutors and their IDs. One of the most powerful contributions of this volume is the common call across all four approaches for the irrefutable role and need for research on interlocutors and their IDs.

Indeed, this final chapter in particular demonstrated how all four approaches are advancing congruently towards a more robust understanding of the complex and dynamic nature of all interlocutors and their individual differences, and thus toward a more complete and accurate picture of their influence on L2 development. While there were momentous strides within these pages, there is considerable work to be done, as highlighted throughout this synthesis and concluding chapter, which pulled together the most pressing areas for the next steps of research on this topic and articulated concrete and usable research questions that will advance this domain and our understanding of SLA. As Back (SCT/Chapter 5) realistically states, "not even a comprehensive collection of data at the most micro level can account for all the sources of knowledge that interlocutors and learners bring to a particular interaction" (page 120). However, as scientists, we must be inspired by this challenge and endeavor to investigate and explain each variable at play in L2 development, including the unquestionably significant role of interlocutors and their individual differences.

References

Atkinson, D., Churchill, E., Nishino, T., & Okada, H. (2007). Alignment and interaction in a sociocognitive approach to second language acquisition. *Modern Language Journal*, 91(2), 169–188. https://doi.org/10.1111/j.1540-4781.2007.00539.x

Back, M. (this volume). Interlocutor differences and the role of social others in a Spanish peer tutoring context. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 99–123). Amsterdam, Netherlands: John Benjamins.

Bongiovanni, S., Long, A. Y., Solon, M., & Willis, E. (2015). The effect of short-term study abroad on second language Spanish phonetic development. *Studies in Hispanic and Lusophone Linguistics*, 8, 243–283. https://doi.org/10.1515/shll-2015-0010

Boudreau, C., MacIntyre, P. D., & Dewaele, J.-M. (2018). Enjoyment and anxiety in second language communication: An idiodynamic approach. *Studies in Second Language Learning and Teaching*, 8, 149–170. https://doi.org/10.14746/ssllt.2018.8.1.7

Cao, Y., & Philp, J. (2006). Interactional context and willingness to communicate: A comparison of behavior in whole class, group, and dyadic interaction. *System*, 34(4), 480–493. https://doi.org/10.1016/j.system.2006.05.002

Dewaele, J. -M., & Alfawzan, M. (2018). Does the effect of enjoyment outweigh that of anxiety in foreign language performance? *Studies in Second Language Learning and Teaching*, 8, 21–45. https://doi.org/10.14746/ssllt.2018.8.1.2

Dewaele, J. -M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237–274. https://doi.org/10.14746/ssllt.2014.4.2.5

Donovan, L. A., & MacIntyre, P. D. (2004). Age and sex differences in willingness to communicate, communication apprehension, and self-perceived competence. *Communication Research Reports*, 21(4), 420–427. https://doi.org/10.1080/08824090409360006

Geeslin, K. (this volume). Variationist perspective(s) on interlocutor individual differences. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 127–157). Amsterdam, Netherlands: John Benjamins.

Geeslin, K. L., García-Amaya, L. J., Hasler-Barker, M., Henriksen, N. C., & Killam, J. (2010). The SLA of direct object pronouns in a study abroad immersion environment where use is variable. In C. Borgonovo, M. Español-Echevarría, & P. Prévost (Eds.), *Selected proceedings of the 12th Hispanic Linguistics Symposium* (pp. 246–259). Somerville, MA: Cascadilla Proceedings Project.

Geeslin, K. L., García-Amaya, L. J., Hasler-Barker, M., Henriksen, N. C., & Killam, J. (2012). The L2 acquisition of variable perfective past time reference in Spanish in an overseas immersion setting. In K. Geeslin & M. Díaz-Campos (Eds.), *Selected proceedings of the 14th Hispanic Linguistics Symposium* (pp. 197–213). Somerville, MA: Cascadilla Proceedings Project.

Gregersen, T., MacIntyre, P. D., & Meza, M. D. (2014). The motion of emotion: Idiodynamic case studies of learners' foreign language anxiety. *Modern Language Journal*, 98(2), 574–588. https://doi.org/10.1111/modl.12084

Gries, S. T. (2005). Syntactic priming: A corpus-based approach. *Journal of Psycholinguistic Research*, 34(4), 365–399. https://doi.org/10.1007/s10936-005-6139-3

Gurzynski-Weiss, L. (Ed.) (2017). *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors*. Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16

Gurzynski-Weiss, L., & Plonsky, L. (2017). Look who's interacting: A scoping review of research involving non-teacher/non-peer interlocutors. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 305–324). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.13gur

Gurzynski-Weiss, L., Geeslin, K., Daidone, D., Linford, B., Long, A., Michalski, I., & M. Solon. (2018). L2 classrooms as multi-faceted sources of input: The synergy of variationist and usage-based approaches. In A. Tyler & L. Ortega (eds.), *Usage-based L2 instruction* (pp. 293–313). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/lllt.49.13gur

Gurzynski-Weiss, L., Geeslin, K. L., Long, A. Y., & Daidone, D. (2017). Linguistic variation in instructor provision of oral input. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 225–254). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.10gur

Harvey, L. (2015). Beyond member-checking: A dialogic approach to the research interview. *International Journal of Research and Method in Education*, 38(1), 23–38. https://doi.org/10.1080/1743727X.2014.914487

Henriksen, N. C., Geeslin, K. L., & Willis, E. W. (2010). The development of L2 Spanish intonation during a study abroad immersion program in León, Spain: Global contours and final boundary movements. *Studies in Hispanic and Lusophone Linguistics*, 3, 113–162. https://doi.org/10.1515/shll-2010-1067

Lantolf, J. P. (this volume). I ~ You > I ~ Me: The hidden other in L2 development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 79–97). Amsterdam, Netherlands: John Benjamins.

Larsen-Freeman, D. (this volume). Complexity theory: Relational systems in interaction and in interlocutor differences in second language development. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 189–208). Amsterdam, Netherlands: John Benjamins.

Long, A. Y., & Geeslin, K. L. (this volume). Examining the role of instructor first language in classroom-based oral input. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 159–185). Amsterdam, Netherlands: John Benjamins.

MacIntyre, P. D. (1994). Variables underlying willingness to communicate: A causal analysis. *Communication Research Reports*, 11(2), 135–142. https://doi.org/10.1080/08824099409359951

MacIntyre, P. D. (2017). An overview of language anxiety research and trends in its development. In C. Gkonou, M. Daubney, & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 11–30). Bristol, UK: Multilingual Matters.

MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second-language learning: Toward a theoretical clarification. *Language Learning*, 39(2), 251–275. https://doi.org/10.1111/j.1467-1770.1989.tb00423.x

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44(2), 283–305. https://doi.org/10.1111/j.1467-1770.1994.tb01103.x

MacIntyre, P. D., Babin, P. A., & Clément, R. (1999). Willingness to communicate: Antecedents & consequences. *Communication Quarterly*, 47(2), 215–229. https://doi.org/10.1080/01463379909370135

Mackey, A. J., Park, H. I., Akiyama, Y., & Pipes, A. (2014, March). The role of cognitive creativity in L2 learning processes. Paper presented at the Georgetown University Roundtable on Languages and Linguistics, Washington, DC.

Macqueen, S. (2012). *The emergence of patterns in second language writing: A sociocognitive exploration of lexical trails*. Bern, Switzerland: Peter Lang. https://doi.org/10.3726/978-3-0351-0437-0

McDonough, K., & Mackey, A. (2006). Responses to recasts: Repetitions, primed production, and linguistic development. *Language Learning*, 56(4), 693–720. https://doi.org/10.1111/j.1467-9922.2006.00393.x

McNeill, D. (2016). *Why we gesture. The surprising role of hand movements in communication*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781316480526

Mercer, S. (2016). The contexts within me: L2 self as a complex dynamic system. In J. King (Ed.), *The dynamic interplay between context and the language learner* (pp. 11–28). Houndmills, UK: Palgrave.

Naiman, N., Fröhlich, M., Stern, H. H., & Todesco, A. (1996). *The good language learner*. Clevedon: Multilingual Matters.

Niedzielski, N. (1999). The effect of social information on the perception of sociolinguistic variables. *Journal of Language and Social Psychology*, 18, 62–85. https://doi.org/10.1177/0261927X99018001005

Pawlak, M. (this volume). The effect of proficiency, gender, and learning styles on the occurrence of negotiated interaction in communicative task performance. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 51–75). Amsterdam, Netherlands: John Benjamins.

Pawlak, M. (Ed.). (2012). *New perspectives on individual differences in language learning and teaching*. Heidelberg: Springer. https://doi.org/10.1007/978-3-642-20850-8

Pawlak, M. (2017). Overview of learner individual differences and their mediating effects on the process and outcome of interaction. In L. Gurzynski-Weiss (Ed.), *Expanding individual difference research in the interaction approach: Investigating learners, instructors, and other interlocutors* (pp. 19–40). Amsterdam, Netherlands: John Benjamins. https://doi.org/10.1075/aals.16.02paw

Pawlak, M., & Mystkowska-Wiertelak, A. (2015). Investigating the dynamic nature of L2 willingness to communicate. *System*, 50, 1–9. https://doi.org/10.1016/j.system.2015.02.001

Philp, J., & Gurzynski-Weiss, L. (this volume). On the role of the interlocutor in second language development: A cognitive-interactionist approach. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 19–50). Amsterdam, Netherlands: John Benjamins.

Preston, D. (2000). Three kinds of sociolinguistics and SLA: A psycholinguistic perspective. In B. Swierzbin, M. Anderson, C. Klee, & E. Tarone (Eds.), *Social and cognitive factors in SLA* (pp. 3–30). Somerville, MA: Cascadilla.

Rubin, J. (1975). What "the good language learner" can teach us. *TESOL Quarterly*, 9, 41–51. https://doi.org/10.2307/3586011

Serafini, E. J. (this volume). The impact of learner perceptions of interlocutor individual differences on learner possible selves during a short-term experience abroad. In L. Gurzynski-Weiss (Ed.), *Cross-theoretical explorations of interlocutors and their individual differences* (pp. 209–243). Amsterdam, Netherlands: John Benjamins.

Staum Casasanto, L. (2008). Does social information influence sentence processing? *Proceedings of the Annual Meeting of the Cognitive Science Society*, 30, 799–804.

Teimouri, Y. (2017). L2 selves, emotions, and motivated behaviors. *Studies in Second Language Acquisition*, 39(4), 681–709. https://doi.org/10.1017/S0272263116000243

Teimouri, Y., Goetze, J., & Plonsky, L. (2019). Second language anxiety and achievement: A meta-analysis. *Studies in Second Language Acquisition*, 1–25.

Willis, E., Geeslin, K. & Henriksen, N. (2009, October). The acquisition of /θ/ by study abroad learners in León, Spain. Paper presented at the 13th Hispanic Linguistics Symposium, San Juan, Puerto Rico.

Index

This book examines the role of interlocutors and their individual differences (IDs) in second language (L2) development from four theoretical lenses: the cognitive-interactionist approach, sociocultural theory, the variationist approach, and complex dynamic systems theory. A theoretical overview to each approach is written by a preeminent scholar in the framework, and each overview is followed by an empirical study that demonstrates how interlocutor IDs can be fruitfully researched within that framework. To maximize readability and impact, the chapters follow common organizing questions, inviting the engagement of L2 researchers, students, and teachers alike.

Collectively, the chapters in the current volume initiate a cohesive discussion of the theoretical roles of the interlocutor within these four popular approaches to SLA; illustrate how interlocutor IDs influence L2 opportunities and/or development; present innovative, original empirical research on interlocutors and their IDs within each approach; and provide theoretical, empirical, and methodological guidance for future research on interlocutors and their IDs. A powerful contribution of this volume, highlighted in the concluding chapter's synthesis, is the common call across all four approaches for the irrefutable role and need for research on interlocutors and their IDs. The volume also demonstrates how, despite theoretical and methodological differences, the four approaches are advancing congruently toward a more robust understanding of the multifaceted and dynamic nature of all interlocutors and their IDs, and thus toward a more complete and accurate picture of their influence on L2 development.

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