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Abstract

Recent longitudinal studies have contributed substantially to the understanding of teacher learning. Yet, research on learning to teach English pronunciation is still in its infancy with the aim of this article being the exploration of the longitudinal development of four L2 instructors’ practices and cognitions about English pronunciation pedagogy. Qualitative data were collected in three phases over six years, ranging from the beginning of a pronunciation pedagogy course into the teacher’s current professional careers. Pre- and post-course questionnaires, a course assignment, focus groups, observations, narrative frames, and semi-structured interviews were triangulated to produce detailed teacher profiles, which then provided a thorough understanding of the practitioner’s developing practices and cognitions. Findings demonstrated complex and continuous yet nonlinear and individual development, especially in two areas: (i) the teachers’ delivery of pronunciation instruction and (ii) their focus on pronunciation pedagogy. Four specific factors were also identified as impacting the developmental process of teachers’ practices and cognitions about pronunciation. In light of these findings, the article concludes with a recommendation to extend an existing framework for preparing pronunciation teachers.

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‘I Feel... Slightly out of Touch’: a Longitudinal Study of Teachers Learning to Teach English Pronunciation over a Six-Year Period

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Recent longitudinal studies have contributed substantially to the understanding of teacher learning. Yet, research on learning to teach English pronunciation is still in its infancy with the aim of this article being the exploration of the longitudinal development of four L2 instructors' practices and cognitions about English pronunciation pedagogy. Qualitative data were collected in three phases over six years, ranging from the beginning of a pronunciation pedagogy course into the teacher's current professional careers. Pre- and post-course questionnaires, a course assignment, focus groups, observations, narrative frames, and semi-structured interviews were triangulated to produce detailed teacher profiles, which then provided a thorough understanding of the practitioner's developing practices and cognitions. Findings demonstrated complex and continuous yet nonlinear and individual development, especially in two areas: (i) the teachers' delivery of pronunciation instruction and (ii) their focus on pronunciation pedagogy. Four specific factors were also identified as impacting the developmental process of teachers' practices and cognitions about pronunciation. In light of these findings, the article concludes with a recommendation to extend an existing framework for preparing pronunciation teachers.

With the spread of the English language, the global demand for well-prepared second language (L2) instructors has grown considerably, particularly in the last 2 decades. Second language teacher education (SLTE) has consequently gained increased importance and with that, further research into L2 teacher learning and the effectiveness of preparing future teachers. Numerous scholarly works have contributed to the establishment of a substantial body of knowledge since Freeman and Johnson's (1998) call for a reconceptualization of the knowledge-base of SLTE, with Johnson and Golombek (2020) recently advocating a sociocultural approach being the most effective way of preparing future language teachers. This type of holistic and social interactive approach, which takes individuals' historical backgrounds and lived experiences into account, is believed to meet the diverse needs of student teachers and thus better prepare them for future teaching contexts. Yet, as Freeman points out in an interview (Sadeghi 2019), much work remains to be done to better understand how L2 teachers can be prepared effectively.

Teacher learning, however, is not just restricted to SLTE programs. Webster (2019) argues that research must go beyond the initial training context and continue into practitioners' professional careers for researchers to fully understand the process of learning to teach language. Research looking beyond formal teacher preparation has revealed that the transition from SLTE programs to the novice (i.e. inexperienced) teacher stage is particularly problematic for instructors in the early years of their careers. Inexperienced teachers, for example, often adjust their practices to the context in which they are teaching while their beliefs and knowledge (i.e. cognitions)[1] remain similar to the ones acquired during SLTE, causing a dissonance between what they had learned in SLTE and their current practices and cognition (Bulut Albaba 2017). Webster (2019), on the other hand, found that feeling isolated can cause novice teachers' knowledge development to plateau, suggesting that schools play an important role in fostering L2 teacher learning. Yet, inexperienced teachers must find their

own professional identity (Kanno and Stuart 2011) while having to navigate the same responsibilities (e.g. lesson planning and delivery) as their senior colleagues but usually without much guidance from the institution they work for.

These issues highlight the importance of research exploring the long-term process of teacher learning. Nonetheless, more studies are needed to better understand how L2 instructors transition from SLTE programs into the first few years of their teaching careers. Insights gained from this line of inquiry will ultimately inform and help improve the preparation of future L2 teachers. To this end, second language teacher cognition (SLTC) provides a useful construct to examine the longitudinal process of learning to teach language.

SECOND LANGUAGE TEACHER COGNITION RESEARCH

SLTC has been defined as the 'unobservable cognitive dimension of teaching—what teachers know, believe, and think' (Borg 2003: 81). It enables researchers to examine the hidden aspects of teachers' lives and the connection to classroom practice. SLTC research began to flourish in the 1990s and 'has [since] helped to capture the complexities of who language teachers are, what they know and believe, how they learn to teach, and how they carry out their work in diverse contexts throughout their careers' (Johnson 2018: 259). In fact, the scope of SLTC research has broadened significantly since Kubanyiova and Feryok's (2015) call for a reconceptualization of the research paradigm. Recent inquiries, for example, include practitioners' cognitions about learner autonomy (Borg and Alshumaimeri 2019), World Englishes (Lim 2020), corrective feedback (Rahimi and Zhang 2015), instructors' developing cognitions about grammar (Svalberg 2015), and the relationship between cognition development and identity construction (Burri et al. 2017).

With the broadening of the SLTC research paradigm, pronunciation instruction has also received increased attention by teacher cognition researchers. This is most likely the result of scholars advocating for pronunciation to play an important role in oral communication and mutual intelligibility between speakers (Celce-Murcia et al. 2010; Thomson and Derwing 2015), as well as in the general improvement of listening comprehension (Kissling 2018). The shift in perspective not only led to the view that L2 teachers—irrespective of their linguistic background—can be effective pronunciation instructors (Levis et al. 2016), but it likely contributed to a surge in research exploring L2 teachers' practices and cognitions about pronunciation. A number of studies have shown, for instance, that L2 instructors often lack confidence in their ability to teach pronunciation (Baker 2014; Couper 2016; Bai and Yuan 2018), even though they may hold positive views toward teaching it (Buss 2015). This uncertainty has been associated with the lack of training in pronunciation teaching (Foote et al, 2011; Murphy 2014; Couper 2017) and the impact of institutional and sociocultural factors, such as questioning one's own pronunciation, insufficient time and resources, rigid school curriculum, inadequate guidance from textbooks, prioritization of other language skills, lack of professional learning opportunities, and parental expectations about a particular English model (Diepenbroek and Derwing 2013; Couper 2016; Bai and Yuan 2018; Georgiou 2019). If pronunciation is taught, it tends to be reactive and unplanned (Nguyen and Newton 2020) and ad hoc in response to student errors (Couper 2017). The delivery of pronunciation instruction is often limited to traditional teacher-centered activities such as drills, repetitions, and reading aloud (Baker 2014; Buss 2015; Georgiou 2019) with the focus being mostly on segmentals (vowels, consonants) rather than suprasegmentals (stress, rhythm, intonation) (Foote et al. 2011) because segmentals are typically perceived as being easier to teach (Wahid and Sulong 2013). Additionally, corrective feedback tends to be provided at the word

or phoneme level with teachers often doubting the effectiveness of correcting learner errors (Couper 2019). Research has also shown that previous learning, including formal training in pronunciation instruction, and pedagogical experiences influence teachers' practices and cognitions about pronunciation (Baker 2011; Nagle et al. 2018; Gordon 2019).

Research examining the impact of a formal pronunciation pedagogy course on student teachers' cognitions has provided valuable insights. Group work and exposure to English accents, for example, can contribute to a shift in student teachers' perception of the goal of pronunciation instruction with intelligibility being viewed as the pedagogical target rather than native-like pronunciation (Burri 2015a). Self-perceived improvement of their own pronunciations and increased awareness of their spoken English also play an important role in fostering cognition growth of student teachers, including confidence in their ability to teach pronunciation (Burri 2015b; Buss 2017). While the lack of teaching experience can increase the challenge of learning to teach pronunciation (Burri et al. 2017), multiple personal, professional, and program-related factors typically affect student teachers' learning process (Burri et al. 2018).

To what extent L2 instructors' practices and cognitions about pronunciation develop after the completion of a pronunciation pedagogy course is still largely unknown. An initial study showed that student teachers' strong uptake of course content and substantial cognition development tapered off as they began teaching. That is, the context in which the instructors were situated increasingly affected the teachers' practices and cognitions acquired during the course (Burri and Baker 2020). Research nonspecific to pronunciation teaching has suggested that cognitions and practices shape each other in the process of L2 teacher learning (Kang and Cheng 2014) and that cognitions are resistant to change (Peacock 2001; Urmston 2003) or a least they take substantial time to develop (Mattheoudakis 2007). Thus, more longitudinal research is needed to better understand the development of L2 teachers' practices and cognitions about pronunciation teaching to shed light on the process of learning to teach pronunciation over several years, which, in turn, will enhance the preparation of pronunciation instructors. As such, Crandall and Christison's (2016: 11) proposition that '[t]he field of SLTE needs longitudinal research that investigates how teaching expertise emerges, [and] how teachers' beliefs evolve' appears to be particularly relevant to pronunciation instruction.

AIM OF STUDY AND RESEARCH QUESTIONS

Responding to Crandall and Christison's (2016) appeal, the present study aims to explore the longitudinal development of four L2 instructors' practices and cognitions about English pronunciation pedagogy.[2] Examining what practitioners believe and do in their classrooms and how this relates to a graduate course on pronunciation pedagogy the teachers completed is believed to pro- vide valuable insights into learning to teach language over a period of several years. An earlier study using data collected over 3.5 years provided some initial understanding of teachers' developing practices and cognitions (Burri and Baker 2020). Findings of that study revealed a gradual development of teachers' practices and cognitions about pronunciation; that is, from the beginning of the pronunciation pedagogy into their teaching contexts 3.5 years later. Due to student and curriculum-related factors, this upward progression, however, slowed down notably once the participants completed their graduate studies and began teaching. In spite of these promising findings, a more comprehensive picture is needed to more fully understand the long-term process of L2 instructors learning to teach pronunciation. Thus, the present study extends our 3.5-year project and draws on data collected over six years with the goal of gaining further insights into the long-term learning

trajectories of teachers. It is important to note that we are pronunciation specialists who are conducting research to delve into processes of L2 pronunciation teacher development and therefore this study does not seek to judge teachers' pedagogical effectiveness; rather, it examines the longitudinal development of teachers' practices and cognitions in order for us to make empirically informed recommendations to improve the initial or formal preparation of pronunciation instructors. The following two research questions guide the study:

- How do the practices and cognitions of four L2 teachers develop from graduate coursework to emerging experienced teachers in relation to pronunciation pedagogy over a six-year period?
- What factors influence the teachers' practices and cognitions about English pronunciation?

METHOD

Qualitative data for this study were collected in three phases to obtain an in-depth understanding of the longitudinal development process of four teacher– participants' practices and cognitions about pronunciation. The following sections describe the data collection, study participants, and data analysis in detail.

Data collection

Phase 1 entailed a 13-week graduate course on pronunciation pedagogy offered at an Australian university in 2013. Data sources included a pre- and post-course questionnaire in which 15 student teachers were asked about their cognitions about pronunciation teaching and learning, three focus group interviews (held in weeks 5, 9, and 12), weekly observations of the 3-h lectures, semi-structured interviews conducted upon the completion of the course, and a final assessment task the graduate students were required to submit at the end of the course.[3] The task required student teachers to analyze the speech of an L2 learner and then recommend several techniques that could be used to improve the learner's intelligibility.

Each weekly lecture was divided into three parts. The first hour consisted of pronunciation-specific theory (e.g. prioritization of features of pronunciation according to English as Lingua Franca contexts versus contexts where English is spoken as a first language) with the second hour being devoted to the practical application of the theory. Student teachers were trained in the use of various techniques to improve specific L2 learners' pronunciation issues, including both segmentals and suprasegmentals. Kinaesthetic/tactile pronunciation teaching featured strongly in these training sessions with student teachers being trained, for instance, in the use of rubber bands to teach word stress (Gilbert 2008) and Popsicle sticks touching parts of the tongue to raise awareness of tongue position in producing consonants. It also included the use of movement and touch (e.g. haptic pronunciation instruction) to teach pronunciation systematically to L2 learners of all proficiency levels and ages (Acton et al. 2013). The third part of the lecture was spent on conducting language analyses to improve student teachers' phonological awareness and to help them with their final assessment task (see Burri 2016 for a more detailed description of the course).

Approximately three years after the pronunciation pedagogy course, Phase 2 was conducted in early 2017. Five of the 15 participants that took part in Phase 1 decided to continue in the research project.[4] The five participants completed a narrative frame in which they described their current teaching contexts, experiences, teaching practices, and cognitions about pronunciation. A narrative frame is a 'written story template consisting of a series of incomplete sentences and blank spaces of varying lengths. 'Structured as a story in skeletal form, [aiming] to produce a coherent story by filling in the spaces according to writers' experiences and reflections on these' (Barkhuizen, 2015: 178). In our case, the narrative

frame featured several sentence starters that the participants then completed; for example: '*When I teach English pronunciation to my students, I focus on teaching ____ because ____.*' One of the advantages of having the narrative frame in Word format was that it allowed the participants to write as much or as little as they desired. Also, using a narrative frame that the participants received and returned by email was the most efficient way to collect self-reported practices and cognitions as we were unable to visit the participants at that point in time.

For Phase 3, the first author observed and interviewed the remaining four participants (one from Phase 2 had dropped out). Two lessons taught on two different days were observed and video recorded (consent was obtained prior to observations). The narrative frames used in Phase 2 provided self-reported practices, and thus for Phase 3 we felt the need to visit the participants' classrooms in order to obtain a more thorough understanding of their practices and their teaching contexts. Following the two observations, a 40-min semi-structured interview was conducted and audio recorded with each participant. The interview questions were based on Richards' (2011) teaching competence framework encapsulating a holistic sociocultural perspective on teaching. Questions arising from Phases 1 and 2 as well as from the two observations were also included as part of the interview protocol.

Phase 3 took place from September 2018 to June 2019. Ideally, the observations and interviews would have been done within a month, but various scheduling difficulties (holidays, availability, family issues, and conference attendance) made this impossible. Although not necessarily ideal, it nonetheless encapsulates the challenging nature of researching instructors' real-life classroom settings (Burri 2020). At the same time, we believe that the triangulation of multiple qualitative data sources over several years helped to ensure the trustworthiness of this longitudinal research project (Neale 2019).

Participants

The four teacher–participants taking part in all three phases—and thus in the present study—included Lucy, Georgia, Rio, and Aoi (all pseudonyms). At the time of conducting Phase 3, Lucy, a 52-year Australian, taught English and worked as an administrator at an Intensive English Center. Depending on the semester, the number of students enrolled in her class ranged from 8 to 18. The 12- to 16-year old learners were predominantly migrants and refugees that came from various countries (i.e. Congo, Eritrea, Syria, Papa New Guinea, China, Thailand, Indonesia, and Burma) and possessed intermediate to upper-intermediate English proficiency.

Georgia was 61 and also Australian. Upon finishing her graduate studies, she continued in her previously held position of teaching academic writing to adult intermediate learners in an English Language Intensive Courses for Overseas Students program. After two years, she took on a student advisory role and stopped teaching academic writing. However, to keep connected with the classroom and because of her love for teaching, she voluntarily tutored three international students and taught a 4-week pronunciation seminar (1 h/ week) for international graduate and doctoral students with advanced English proficiency. The age range of her students was from 20 to 40.

Rio was originally from Iran and 32-year old. He taught lower English proficiency (i.e. false beginner level) adult migrant and refugee students enrolled in Certificates I and II in Spoken and Written English offered at a vocational institution in Australia. The students spoke mainly Arabic and Assyrian as their L1s. On average, 19–25 students attended the courses Rios taught. His workload consisted of 1–2 days of teaching per week while the rest was

spent on administrative duties, including program coordination, curriculum development, and teacher supervision.

Aoi, a 35-year old Japanese female, worked as a full-time junior high school English teacher at a private school in the Tokyo area. Depending on the grade she was assigned to teach (in Phase 2 she taught grade 7 and in Phase 3 grade 9), her students ranged from 12 to 15 years of age. There were 15–23 pupils in her classes, all with pre-intermediate English proficiency level. Supplementary Appendix A provides more detailed information on the four participants.

Data analysis

All of the qualitative data collected in three phases were collated into three profiles for each participant: (i) beginning and end of graduate course (Phase 1–2013); (ii) reported teaching context (Phase 2–2017); and (iii) current teaching context (Phase 3–2018 and 2019). The Phase 2 profiles differed from the Phase 3 profiles in that the Phase 2 profiles were based on a narrative frame and therefore on participants' self-reported practices and cognitions, whereas the Phase 3 profiles were derived from richer data sources that included interviews and classroom observations. The creation of these profiles included multiple rounds of revisions and drafts as we read and re-read the collected data. We also drew on our experience gained in previous research studies for which we created similar profiles (e.g. Burri 2016; Burri and Baker 2020). Upon completion of the profiles, they were emailed to the participants to have them checked for accuracy (Gu 2013). Only Aoi requested some minor wording changes to be made to her Phase 3 profile.

Once the profiles were returned—and in Aoi's case revised slightly—the first author identified themes across the three profiles for each participant. The codes established in Phase 2 provided an initial point of departure. The set was then expanded as new themes were discovered during the analysis of the profiles. The identification of themes required multiple readings of the profiles and was an essential step in gaining an in-depth understanding of the study participants' developing practices and cognitions about pronunciation, as well as factors that influenced these practices and cognitions.

FINDINGS

Analysis of the profile data showed a complex and continuous yet nonlinear and individual development over the six-year period. In particular, two major areas in the teacher–participants' practices and cognitions were evident: (i) delivery of pronunciation instruction and (ii) focus on pronunciation pedagogy. The findings also demonstrated that several factors exerted powerful influence on this long-term development.

Delivery of pronunciation instruction

Overall, the four participants demonstrated two notable trends in how they delivered pronunciation instruction over the six-year period. The first pertains to the uniqueness in the development of how they taught pronunciation. All four participants began the pronunciation pedagogy course with solid teaching backgrounds (5–20 years) but minimal to no experience with pronunciation instruction. Prior to the graduate course, Lucy, for example, had never taught pronunciation and believed that it was learned through repetition and taught as an add-on. A few years later (Phase 2), however, she regularly integrated pronunciation into her lessons in the form of speaking games, phonics activities, repetition, exaggeration of sounds, humour, and fun, and she used reading aloud to provide error correction and to work on the pronunciation of new vocabulary and intonation in declarative statements and questions.

Now, nearly six years later in Phase 3, Lucy believed that repeat-after-me was ineffective in improving L2 learners' pronunciation, revealing a notable change in her cognitions about the delivery of pronunciation teaching. Similarly, Georgia had used only mirrors and drills to teach pronunciation prior to the course, but in Phase 2 she reported including a quick pronunciation activity at beginning and end of each writing class, and in the pronunciation seminar (Phase 3), she frequently used reading aloud, drills/repetition, dialog work, video and audio clips, role-play, and gap-fill dictations. She also used kinaesthetic/tactile pronunciation teaching techniques that fostered learner awareness of the functions of strong and weak syllables in words and sentences in English through physical gestures, movements, and touch (e.g. the Butterfly technique as described in Burri and Baker 2016). Handouts were distributed for students to work on syllables, sentence stress, pausing, and chunking, and she regularly drew on her own L2 learning and extensive teaching experience to provide examples and personal stories.

Rio and Aoi began the graduate course with slightly more pronunciation teaching experience than Lucy and Georgia. Rio, for instance, used repetitions to teach IPA symbols, linking, and consonants to his students in Iran. A few years later, back in the classroom, he thought time was better spent on teaching vocabulary than on pronunciation, but the observations did show that Rio frequently had his students read out sentences and paragraphs to correct their pronunciation. As for Aoi, in Japan she used mostly face/mouth diagrams and tongue twisters in her classroom prior to commencing the graduate course. A few years later, she reported opting for a phonics-based approach to help her students 'understand the connection between pronunciation and also spelling' (P3-TI)[5] with the first 10 min of a lesson typically spent on phonics. Aoi used audio and video clips, IPA symbols, articulation diagrams, rap music, games (e.g. Bingo), and the required textbook to teach pronunciation, while drills and repetition were the most frequently occurring techniques. Aoi often asked students to repeat after her or read out vocabulary, sentences, or passages from the textbook. Aoi also used pair work—with the help of handouts—to have students engage in guided practice, such as simple question and answer tasks and information gap exercises. The findings, therefore, illustrated the varied development of each participant's pronunciation teaching. That is, each participant's long-term trajectory differed quite markedly, strengthening the findings of our earlier work done in Phase 2 that learning to teach pronunciation is an individual process (Burri and Baker 2020).

The second trend was that all four participants' post-training delivery of pronunciation instruction was mostly teacher-centered with limited or no communicative value, providing learners with few opportunities for guided and free practice. This substantial amount of teacher-centered instruction was surprising given, as was discussed in the course, the importance of implementing a systematic approach to pronunciation teaching, incorporating a continuum of communication-oriented activities ranging from controlled to guided, and free practice (see Baker 2014). Also, the assessment tasks the participants submitted at the end of the course included a solid depth of techniques that could be used as controlled, guided, and free practice. This indicted a substantial change in student teachers' cognitions, especially their pedagogical knowledge during Phase 1 of study. Yet, the narrative frames in Phase 2 suggested that the participants' pronunciation delivery was mostly teacher-centered with the Phase 3 observations and interviews confirming the Phase 2 data. This implied that without further job-embedded learning opportunities (Crandall and Christison 2016), the participants' teacher-centered pronunciation instruction continued into Phase 3 and is likely to do so in the coming years. The findings, therefore, suggested a rather inconsistent longitudinal development of the participants' pronunciation delivery, not only reinforcing Webster's

(2019) proposition that inquiry into teacher learning must go beyond SLTE but also supporting the notion that SLTE may result in limited long-term changes in student teachers' practices, beliefs, and views about teaching due to the powerful influence of assessment tasks on student teachers' cognitions (Gutierrez Almarza 1996).

Focus on pronunciation pedagogy

Reflecting the delivery of pronunciation instruction, notably the degree to which pronunciation remained a focus of their teaching and what features they addressed, the development of the participants' pedagogical focus also varied over the six-year period. The four participants began their graduate studies with limited or no knowledge of suprasegmental features. As their knowledge of pronunciation and pronunciation pedagogy broadened through coursework, their cognitions changed notably and they began to see value in teaching suprasegmentals, suggesting substantial uptake of course content. Lucy and Aoi, for example, had no prior knowledge of suprasegmentals, but by the end of the course Lucy believed that suprasegmentals were critically important to improving a speaker's intelligibility while Aoi thought they comprised the most important features of communication. Similarly, Georgia's cognitions shifted from having no knowledge of suprasegmentals to believing that both segmentals and suprasegmentals needed to be taught in the L2 classroom, and Rio's knowledge of intonation as a component of pronunciation developed to the extent of believing that intonation and prominence were important features to be included in pronunciation teaching.

Following the completion of their graduate studies, the participants' pedagogical focus on particular features of pronunciation began to diverge somewhat from their cognitions once the teachers returned to the L2 classroom. While the data suggested long-term uptake of the valuing of teaching suprasegmentals over the six-year period, the degree to which teaching suprasegmentals occurred varied considerably amongst the four participants by Phase 3. Lucy now focused primarily on teachings segmentals, such as 'final consonant sounds' and 'medial vowel sounds' (P3-TI) and sound-spelling correspondence in vocabulary; however, she occasionally gave some attention to suprasegmentals, such as by clapping to highlight syllables in words the class was working on. Rio's focus was similarly on correcting segmental sounds, particularly word endings such as –ed that were problematic for his learners, but still occasionally integrated some suprasegmental work such as sporadically highlighting intonation in yes/no questions. That said, producing a grammatically correct sentence was granted greater importance than adequate pronunciation for his beginning level learners. Georgia's emphasis, on the other hand, was now almost exclusively on suprasegmentals and fluency development, and less on the balanced approach she had previously reported favoring at the end of the teacher training course. She believed that '[f]ocusing on individual sounds [was] not so effective with advanced students because they get hung up about it' (P3-TI). As for Aoi, she seemed to more fully embrace the notion of a balanced approach to teaching segmentals and suprasegmentals in her Japanese junior high classes, explaining that she did not want her 'students to speak like a robot' (P2-NF). This suggests a relatively consistent development in her practices and cognitions about the primary target of pronunciation instruction, and, at the same time, strong uptake and implementation of course content that implied a balanced approach to pronunciation teaching.

Overall, it was evident that the longitudinal development of instructors' practices and cognitions about pronunciation was nonlinear, complex, and unique to each individual practitioner. The findings also showed that this uneven developmental process was due to the influence of four specific factors.

Factors impacting participants' practices and cognitions about pronunciation

Four factors were identified as impacting the longitudinal developmental process of teacher–participants' practices and cognitions about pronunciation: *teacher preparation factors*, *personal-professional factors*, *language factors*, and *contextual factors*. To varying degrees, the first three factors exerted considerable influence on participants' practices and cognitions from the beginning of the graduate course into their professional careers; that is, over the entirety of the three research phases. *Teacher preparation factors* included graduate course-specific elements (e.g. assignments, course content, readings, and collaborative learning activities). Learning about word and sentence stress during the course helped Aoi, for example, teach suprasegmentals in the classroom. Georgia found the course's hands-on haptic training to be helpful in teaching pronunciation, and Lucy thought the course gave her 'a wealth of theoretical knowledge of the English sound system' (P2-NF) that contributed to her general ability to teach pronunciation.

The second factor, *personal-professional factors*, which comprised affective and work-related components (e.g. personal interests, access to own classroom, positive experience during the course, teaching experience, passion for teaching, participation in this study), also exerted considerable influence on the participants' practices and cognitions. Georgia, for instance, was the only one teaching during the graduate course. Being able to use what she had learned in the course with an L2 student and seeing the immediate value of applying her new skills and knowledge was likely to have played a facilitating role in helping Georgia overcome her doubts and fears of kinaesthetic/tactile pronunciation teaching. This newly gained confidence, along with her passion for pronunciation instruction, eventually led to her to include kinaesthetic/ tactile techniques (e.g. the Butterfly technique) in the pronunciation seminar and the tutorials she taught in Phase 3 of this study.[6] However, after taking on her new administrative role, she felt removed from the classroom and 'slightly out of touch' (P3-TI) and therefore, to solidify previously acquired knowledge and skills, she requested to sit in the pronunciation pedagogy course the first author taught in 2018.

The third factor, *language factors* (e.g. phonological awareness, ambiguity of spoken language, complexity of intonation, and participants' own L2 learning) also had some influence on the four participants. Rio's Middle-Eastern background helped him to more readily recognize his students' segmental issues such as word endings rather than suprasegmentals of which he became more aware during the course. Georgia, on the other hand, found the ambiguity of spoken English challenging, possibly explaining her limited use of guided and free pronunciation activities in the classroom. However, her ongoing formal learning of Italian and thus her own L2 learning experiences assisted her with identifying her students' pronunciation difficulties and subsequently choosing a pedagogical focus (suprasegmentals and fluency) that met their needs.

The fourth factor, *contextual factors*, began to emerge as participants recommenced teaching and included two subcategories that were identified in the profiles of all four teachers: (i) learner needs and (ii) program. The data collected in Phase 2 revealed the existence of these contextual factors, but it was in Phase 3 that this fourth factor became more apparent as we collected additional qualitative data and subsequently gained a deeper understanding and more intricate knowledge of the participants due to the more in-depth analysis of the expanded profiles.

The first subcategory of the identified contextual factors was the L2 learners' needs. The teachers' perceptions of the students' needs were a powerful factor that caused the participants' practices and cognitions to shift considerably. While all four participants favored the teaching of suprasegmentals at the end of the graduate course, Lucy and Rio now focused predominately on segmentals because they were thought to be of more immediate need. Consequently, due to these perceived student needs, Lucy's and Rio's pedagogical focus in the classroom differed quite markedly from the beliefs they held at the end of the teacher training course about the importance of teaching suprasegmentals. As for Georgia, her advanced learners' needs to improve their writing (Phase 2) and later their fluency (Phase 3) contributed to her concentrating on suprasegmentals rather than a balanced approach which she supported at the end of the course. Georgia's teaching of suprasegmentals in a writing course is supported by research suggesting the existence of a positive correlation between teaching rhythm and literacy development (Lundetræ and Thomson 2018). In Rio's and Aoi's case, the students' relatively low English proficiency appeared to contribute to the two participants' teacher-centered delivery of pronunciation instruction. Concerns about this somewhat inconsistent development may be unwarranted given that the participants adjusted their practices to meet their learners' needs (Levis and McCrocklin 2018) and also to accommodate their desires and proficiency levels. Whether this adjustment was effective in helping students improve their pronunciation is unknown at this point, but needs-based pronunciation instruction was strongly advocated by the teacher educator throughout the graduate course, suggesting that the participants were able to incorporate some of this advocacy into their classrooms.

The program in which the participants worked also exerted powerful influence on the participants' practices and cognitions. As Lucy explained, teaching pronunciation was not prioritized in her Intensive English Center. The focus was on 'produc[ing] academic texts' (P3-TI) and the teachers faced a great deal of pressure to cover all the learning outcomes in order to prepare the students for mainstream education, leaving little room for pronunciation instruction. Similarly, Rio's program emphasized grammar instead of pronunciation in the lower level courses he taught, and including pronunciation in Georgia's advanced writing course (Phase 2) was a formidable challenge given that the priority was on improving students' writing. In the pronunciation seminar (Phase 3), she was required to use materials that someone else created, and, as she pointed out, this negatively affected the delivery of her pronunciation instruction. Similarly, having to collaborate and teach in sync with her colleagues teaching the same grade and course was a constraint for Aoi. Although she reported learning from her colleagues, the extent to which she could implement content and skills learned in the graduate course was limited, substantiating the notion that social pressure at work can influence teacher learning (Bulut Albaba 2017).

DISCUSSION

The findings revealed that the long-term development of teachers' practices and cognitions about pronunciation is a complex, nonlinear, individual, and context-driven process. In our previous work derived from Phase 1 of the study, teacher preparation factors, personal–professional factors, and language factors were identified as impacting student teachers' trajectories of learning to teach pronunciation during a graduate course (Burri, Baker and Chen 2018). The present study not only confirmed the presence of these factors, but demonstrated their robustness over time. They lasted from the beginning of a graduate course well into the teachers' careers and thereby continued to affect the practitioners' developing cognitions and practices over a prolonged period of time. With the addition of Phase 2 and particularly Phase 3, contextual factors were identified as exerting powerful influence on all

four practicing teachers, complementing previous research suggesting that pronunciation instruction is susceptible to a wide range of factors (Couper 2016; Bai and Yuan 2018; Georgiou 2019). The findings, therefore, have important implications for the preparation of pronunciation instructors.

Given the impact of contextual factors on the longitudinal development of participants' practices and cognitions, we propose for the context of teaching to play a more important role in a pronunciation pedagogy course. In this respect, we recommend the extension of our previously established framework for preparing pronunciation teachers (see Burri, Baker and Chen 2018). The initial framework was derived from data collected during a course on pronunciation pedagogy (Phase 1) and thus only partially captured the process of learning to teach pronunciation, with cognitions and identity featuring in the center and personal–professional, teacher preparation, and language factors placed on the outside of the original framework.[7] With the continuation of Phase 2 and especially Phase 3, context and practices began to feature prominently in the data, and therefore, as shown in Figure 1, 'contextual factors' have been added to the outside and 'practices' in the center of the new framework. The outside components now comprise contextual, personal–professional, teacher preparation and language factors with the center featuring cognitions, practices, and identity.

Contextual factors are placed on the outside of the framework because the findings demonstrated that the participants' teaching context in which they taught influenced the development of their practices and cognitions. As discussed in the previous section of this article, perceived student needs caused Lucy and Rio to shift from favoring suprasegmentals at the end of the course to focusing mostly on segmentals in the classroom. Georgia concentrated generally on suprasegmentals rather than the balanced approach she considered to be valuable at the completion of the course, and Lucy's, Rio's and Aoi's teacher-centered delivery was most likely attributed to their students' low proficiency level. In fact, Aoi believed that the teaching context substantially impacted her developmental process: 'Working environment in [Japan] sometimes prevent[s] teachers learning more' (personal communication, 13 February 2019), supporting the notion that some contexts 'are more appropriate and conducive to learning than others' (Avalos 2011: 10).

Considering the sociocultural nature of L2 teacher learning (e.g. Johnson and Golombek 2020, 2016), contextual factors influencing the process of learning to teach pronunciation is not surprising. Based on the findings of this present study, L2 teacher educators would, therefore, be well-advised to incorporate the context of teaching to a much greater extent in a graduate course on pronunciation pedagogy. This would likely improve the quality of pronunciation teacher preparation (Levis and Sonsaat 2019), but as the arrows in the framework are intended to show, contextual factors should be situated in a reciprocal relationship with the other three factors positioned on the outside of the framework as they are here. Learner needs and potential program-specific constraints (i.e. context of teaching) could be discussed, for example, in reference to the pronunciation-specific literature, including Jones' (2016) book in which several chapter contributors discuss the incorporation of pronunciation into courses more broadly focused on the teaching of reading, writing, and grammar. The teacher educator could also provide personal anecdotes about how she navigated contextual factors when teaching pronunciation (teacher preparation factors). As for personal–professional factors, case studies, like the profiles we created in this study, could be used to facilitate group discussions about L2 teachers' trajectories. These discussions and reflections would not only provide insights into teachers' professional journeys but ultimately contribute to student teachers' transition into the classroom (Farrell 2016). Finally, contextual

factors could be connected with language factors by examining the various languages the student teachers bring to class. Discussions could revolve around prominent phonological features of student teachers' languages, typical difficulties speakers of these language have with English pronunciation, and pedagogical recommendations— especially the delivery and focus of pronunciation instruction—to address the identified learner needs. Teaching English to Speakers of Other Languages graduate programs have grown increasingly diverse, and thus utilizing the student teachers' first languages would facilitate the preparation of pronunciation instructors.

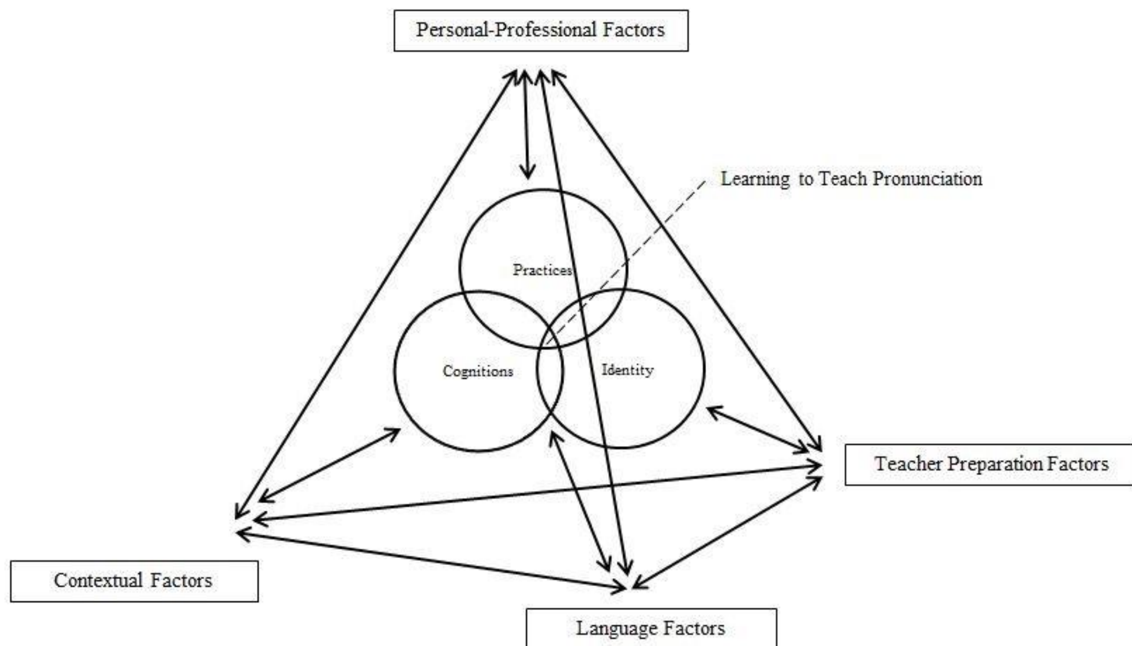

Figure 1: Extended Framework for Preparing Pronunciation Instructors

Our extended framework aligns with Johnson and Golombek's (2020) recommendation for SLTE pedagogy to be situated locally. These leading scholars suggest that 'teacher educators must create locally appropriate professional development opportunities, practices, and resources that are socially, culturally, historically, and institutionally situated in and responsive to teachers', students', and community needs' (Johnson and Golombek 2020: 120). Considering Johnson and Golombek's view, we believe that L2 teacher educators designing and delivering a pronunciation pedagogy course that embraces our revised framework is likely to equip L2 instructors with the skills and knowledge necessary to teach pronunciation in their future L2 classrooms. We would, of course, welcome any research that further assesses this proposition.

CONCLUSION

This article has demonstrated that the longitudinal nature of learning to teach English pronunciation is a complex process that is influenced by several factors. While the findings complement previous research suggesting that time, other priorities, teacher confidence, lack of training, and textbooks impact teachers' practices and cognitions about pronunciation teaching (Diepenbroek and Derwing 2013; Couper 2016; Bai and Yuan 2018; Georgiou 2019), the implications need to be treated with caution due the relatively small number of teachers participating in the study. Also, some of the courses the participants taught may have

been less conducive to pronunciation instruction (i.e. Rio taught a reading and writing class in Phase 3). Future research should, therefore, evaluate the effectiveness of our pronunciation teacher preparation-specific recommendations. A replication study conducted in a different country with different teachers may reveal new insights and consequently help researchers make additional recommendations and further refine our teacher preparation framework. However, all four participants have expressed their strong desire to keep connected with the project, and therefore, we intend to continue this line of research in the years to come. Their ongoing participation will not only help advance our understanding of L2 teacher learning and pronunciation teacher preparation, but enrich our own lives as researchers and L2 teacher educators.

NOTES

1 Following our previous work (Burri and Baker 2020), we use the plural form 'cognitions' in this study. We view 'cognition' as the overarching construct whereas the term 'cognitions' encapsulate teachers' different types of beliefs and knowledge.
2 Following Kubanyiova's (2012), 'development', 'change', and 'shift' are used interchangeably in this study to capture the potential alterations of teachers' practices and cognitions.
3 Aoi was not able to take part in the interview and Rio missed two of the three focus group interviews due to scheduling difficulties and unavailability.
4 The other 10 participants did not respond to our invitation or indicated that they were no longer available to continue in the study.
5 The following notation system is used in this paper: P1-FGI1 = Phase 1— Focus Group Interview 1; P1-FI = Phase 1—Final Interview; P2-NF = Phase 2—Narrative Frame; P3-TI = Phase 3—Teacher Interview.
6 Neither Lucy, Rio nor Aoi had access to a classroom during the graduate course, and therefore, they might have found the implementation and delivery of some of the kinaesthetic/tactile techniques more challenging than Georgia.
7 See Burri et al. (2018) for an in-depth discussion about the intertwined relationship between cognition development, identity construction, teacher preparation factors, personal–professional factors, and language factors in learning to teach pronunciation.

SUPPLEMENTARY DATA

Supplementary material is available at Applied Linguistics online.

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