Joint development of teacher cognition and identity through learning to teach L2 pronunciation

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Abstract
The constructs of teacher cognition and teacher identity have recently gained considerable attention in second language teacher education research for their crucial roles in understanding teacher learning. While a number of current studies have examined the contributions of both constructs, the connections between cognition and identity are yet to be fully conceptualized. This article addresses this gap by drawing on the notion of identification to examine the identity construction and cognition development of 15 student teachers in the context of a postgraduate course on pronunciation pedagogy. Questionnaires, focus group interviews, observations, and semi-structured interviews were triangulated to obtain an in-depth understanding of the complex relations between identity formation and cognition growth. Findings revealed that identity construction-manifested through imagination of self and others, engagement and investment in the course, and alignment with course content-not only had a profound impact on participants’ cognition development, but that these two constructs were intertwined in a complex and reciprocal relationship, fostering the process of student teachers’ learning to teach pronunciation.

Keywords
cognition, pronunciation, identity, L2, teacher, development, joint, teach, learning

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The constructs of teacher cognition and teacher identity have recently gained considerable attention in second language teacher education research for their crucial roles in understanding teacher learning. While a number of current studies have examined the contributions of both constructs, the connections between cognition and identity are yet to be fully conceptualized. This article addresses this gap by drawing on the notion of identification to examine the identity construction and cognition development of 15 student teachers in the context of a postgraduate course on pronunciation pedagogy. Questionnaires, focus group interviews, observations, and semi-structured interviews were triangulated to obtain an in-depth understanding of the complex relations between identity formation and cognition growth. Findings revealed that identity construction—manifested through imagination of self and others, engagement and investment in the course, and alignment with course content—not only had a profound impact on participants’ cognition development, but that these two constructs were intertwined in a complex and reciprocal relationship, fostering the process of student teachers’ learning to teach pronunciation.

Keywords: language teacher cognition; teacher identity; pronunciation; second language teacher education

TEACHER LEARNING, DEFINED AS “HOW individuals learn to teach” (Freeman, 2002, p. 1), has been considered a fundamental component of second language teacher education (SLTE). Research into teacher learning has typically explored teachers’ cognitions, generally referred to as instructors’ beliefs, attitudes, thoughts, and knowledge (Borg, 2006; Woods, 1996). This body of research has focused mainly on teachers’ beliefs (Johnson, 1994; Kurihara & Samimy, 2007; Peacock, 2001), pedagogical and content knowledge (Wyatt & Borg, 2011), and self-perceptions as practitioners (Golombek & Jordan, 2005; Park, 2012), but more recent research has started to examine as well the role of teacher identity in teacher learning (Varghese et al., 2005). Each of these perspectives, however, only provides a partial understanding of teacher learning as beliefs, knowledge, and identity are frequently investigated as separate domains. This limited understanding has led to advocacy for a new research agenda for second language teacher cognition (SLTC) that moves beyond its narrow focus on beliefs and knowledge to include “other dimensions of teachers’ inner lives (e.g., emotions, motivations, values)” (Kubanyiova & Feryok, 2015, p. 437). The present article responds to this call by bringing together teacher identity and teacher cognition to theorize student teacher learning, focusing specifically on learning to teach English pronunciation. As a pronunciation course generally provokes identity-related issues,
such as the nexus between speaker identity, accent, and intelligibility (Gatbonton, Trofimovich, & Magid, 2005), it provides an ideal site for a study exploring the joint development of teacher cognition and identity.

TEACHER IDENTITY AND SLTE

The first of these two constructs, teacher identity, plays a central role in facilitating competent teacher development (Kanno & Stuart, 2011; Tsui, 2011). Defined as teachers’ perception and understanding of themselves and others as second language (L2) instructors (Murray & Christison, 2011), the concept of teacher identity has contributed to understanding practitioners’ perception of themselves as content, pedagogical, and didactic experts (Beijaard, Verloop, & Vermunt, 2000).

Research on the emerging identity of postgraduate student teachers has made several key contributions to understanding what learning to teach English as an additional language entails. Park’s (2012) work, for example, demonstrated that identity construction in North American postgraduate education is a gradual process. This study shed light on how a Chinese nonnative English-speaking (NNS) student teacher shifted from marginalizing herself (i.e., considering herself to hold a lower status position in TESOL) to learning to accept her nonnative identity, as her TESOL subject matter knowledge increased. In another North American study by Morita (2004), teacher learning was found to be substantially influenced by classroom participation, negotiation of competence, and navigation of power relations between six Japanese female graduate students and their instructors. An important insight from these two studies is that becoming a competent and confident teacher is dependent upon the development of one’s identity as a teacher.

The exploration into identity construction in the case of preparing pronunciation teachers is still in its infancy (Murphy, 2014). This is problematic given that pronunciation has regained some of its former prominence as a critical skill area in L2 teaching (Derwing & Munro, 2005; Munro & Derwing, 2015). L2 pronunciation merits attention because of the increasing research base to support pronunciation teaching (reflected in the newly inaugurated Journal of L2 Pronunciation) and the growing number of recent pedagogical materials and resources (e.g., Derwing & Munro, 2015; Jones, 2016; Reed & Levis, 2015; Yoshida, 2016). One relevant study that has examined pronunciation teacher preparation in North America is Golombek & Jordan (2005). Their research provides insights into the evolving identity of two student teachers from Taiwan, in that the course facilitated changes in participants’ perception of themselves as legitimate English speakers and pronunciation teachers. Their emerging identities as legitimate English speakers were significant for their development as pronunciation teachers. To what extent their learning also influenced their cognition development, however, is unknown. Furthermore, a common issue among all of the aforementioned studies was its limited scope, both in terms of size and links to specific contexts; thus, it is difficult to determine whether some of their findings can be applied to other contexts.

TEACHER COGNITION AND SLTE

The second body of research that has examined teacher learning and has a prominent role in contemporary SLTE research is teacher cognition. An important area of SLTC research is the exploration of factors that stimulate or restrict student teachers’ cognition development to determine the effectiveness of educational programs. Past experiences, strong pre-existing beliefs, prior and existing knowledge, personal traits, attitudes, and contextual factors have all exerted a powerful influence on student teachers’ cognition growth and subsequently their learning to teach language (Baker, 2011b; Kurihara & Samimy, 2007; Wyatt & Borg, 2011).

Research evidence of the impact of SLTE on student teacher learning, however, is relatively inconclusive. Some studies have only shown marginal development in student teachers’ cognition (e.g., Peacock, 2001; Urmston, 2003, in Hong Kong), but such findings are based mostly on questionnaire responses. Other research—carried out in North America, Japan, and Oman—built on more robust methodology with multiple data sources and indicates that SLTE can enhance the beliefs and knowledge of student teachers and subsequently prepare them effectively to teach an L2 in their classrooms (Baker, 2011b; Farrell, 2009; Johnson, 1994; Kurihara & Samimy, 2007; Wyatt & Borg, 2011). Along these lines, in the context of a tertiary teacher education program in Australia, specifically in a course focused on pronunciation pedagogy, Burri (2015b) found that NNSs’ self-perceived improvement of their own pronunciation and an increase in their language awareness had a profound impact on their cognition development. Burri, Baker, and
Chen (2017), in a subsequent study, found that pedagogical training sessions and observations of real-life L2 classrooms contributed to student teachers’ cognition development, whereas the intensity of the program and the complexity of the English sound system appeared to restrict participants’ cognition about pronunciation pedagogy.

These studies, although affording important insights into SLTE-related factors involved in the successful preparation of student teachers, have largely focused on teacher learning from an individualistic and cognitive perspective (Burns, Freeman, & Edwards, 2015), treating teachers’ practices, contexts, and mental lives as separate entities. One exception is Golombek and Doran’s (2014) work showing the interconnectedness of teacher cognition with emotions and practice. Nonetheless, Kubanyiova and Feryok (2015) have raised concerns about the theoretical divide in cognition research and called for attention devoted to assessing “the value of going beyond rationalist conceptualizations of cognition” (p. 443). This article sets out to address this concern by developing a broad conceptual framework that provides a better understanding of both social and cognitive development in teacher learning. It does this by examining the relationship between cognition and identity in an SLTE setting. Examining this connection will further our understanding of teacher learning, specifically within the context of a postgraduate course on pronunciation pedagogy at an Australian university. The study is thus guided by the following research questions:

RQ1. What relationship exists between the development of student teachers’ cognition about pronunciation instruction and their identity construction?

RQ2. What factors contribute to or restrict the cognition development and identity construction of student teachers learning to teach pronunciation?

THEORETICAL UNDERPINNINGS

The theory underpinning the proposed integrated framework of cognition and teacher identity comprises theories of identity (Norton, 2013) and social learning (Lave & Wenger, 1991). From this perspective, learning is seen as a process of becoming a member of a community made possible through social participation and understanding community practice, which in turn leads to increased knowledge and competence. A key tenet of Norton’s (2013) identity theory is that “opportunities to practice speaking, reading and writing … are socially structured in both formal and informal sites of language learning” (p. 2). Understanding teacher learning should include investigation into how the knowledge and skills are acquired but especially the conditions under which they are developed. Examination of teacher identity, therefore, offers a means to theorize how teacher cognition is shaped and developed.

In conceptualizing the complex interplay between identity and teacher cognition brought together in teacher learning, we draw on Wenger’s (1998) notion of identification. Wenger argues that identifying as someone or with someone is a fundamental element of identity formation. This association shapes who we are in any setting. In the context of teacher learning, identification may involve students’ identifying with certain beliefs and perspectives underpinning a teaching approach as an aspect that is crucial for the development of teacher cognition. In that light, identification brings identity and cognition together, offering a holistic approach to explore student teachers’ learning to teach pronunciation.

Wenger (1998) notes that identification can take place through three pathways: imagination, engagement, and alignment. For Wenger, imagination relates to imagining and positioning “ourselves in a completely different context” (p. 194). It thus can have a profound impact on identity formation as identities can “take on new dimensions” (p. 194). One example of this might be teachers envisioning themselves teaching pronunciation to L2 learners, resulting in increased self-confidence in teaching it. Engagement, on the other hand, refers to the extent to which participants invest their actions, activities, and “relations with other people” (p. 192) to gain a sense of who they are; a process which develops competence. Finally, participants need to demonstrate alignment, directing their actions in light of their positions and beliefs. Because aligning with something or someone typically involves participation (or non-participation), allegiance, and power, alignment in the present study could involve student teachers connecting themselves with, for example, course content.

METHODOLOGY

The present study aims to provide a thorough understanding of a particular case situated in a specific context: learning to teach English pronunciation in a postgraduate course on pronunciation pedagogy offered at an Australian university.
TABLE 1
Overview of Topics Covered in Pronunciation Course

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview of pronunciation instruction</td>
</tr>
<tr>
<td>2</td>
<td>Teaching pronunciation through multimodalities</td>
</tr>
<tr>
<td>3</td>
<td>Vowels (1)</td>
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<tr>
<td>4</td>
<td>Vowels (2)</td>
</tr>
<tr>
<td>5</td>
<td>Syllables, word stress, and phrasal stress</td>
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<tr>
<td>6</td>
<td>Tone units, sentence stress, and rhythm</td>
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<tr>
<td>7</td>
<td>Intonation</td>
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<tr>
<td>8</td>
<td>Consonants (1)</td>
</tr>
<tr>
<td>9</td>
<td>Consonants (2) and connected speech</td>
</tr>
<tr>
<td>10</td>
<td>Teaching techniques</td>
</tr>
<tr>
<td>11</td>
<td>Fluency development and integrating pronunciation into the curriculum</td>
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<tr>
<td>12</td>
<td>Pronunciation and spelling</td>
</tr>
<tr>
<td>13</td>
<td>Presentations</td>
</tr>
</tbody>
</table>

Research Context

The research took place in a 13-week long postgraduate course called ‘Teaching Pronunciation and Prosody’ that was taught by the third author. The structure of the course was organized in a way that each weekly lecture focused on a particular area of English pronunciation. Table 1 displays the sequencing and trajectory of the topics and concepts featured in the course. Each weekly lecture was structured into three components. Theoretical constructs relating to the English sound system were discussed in the first hour. The second hour provided student teachers with opportunities to learn about controlled, guided, and free pronunciation teaching activities (Baker, 2014). The majority of these activities were kinaesthetic/tactile in nature and included, for instance, jazz chants (Graham, 1986), rubber bands (Gilbert, 2012), Acton’s (2001) baton technique, and various haptic (movement + touch) techniques (see, for example, Acton et al., 2013; Burri & Baker, 2016; Burri, Baker, & Acton, 2016; Teaman & Acton, 2013). In the third hour of each lecture, students conducted various linguistic analyses of learner speech samples with the aim to improve student teachers’ phonological awareness as well as to prepare them for the final assessment task. The weekly topics were structured around readings from the main textbook (Celce-Murcia et al., 2010). The book was chosen because it was the most comprehensive volume currently available on teaching English pronunciation. Several journal articles and book chapters were used to supplement the textbook (e.g., Gibson, 2008; Gilbert, 2008; Jenkins, 2002; Levis & Grant, 2003; Murphy, 1991; Murphy & Kandil, 2004; Yates & Zielinski, 2009).

Three assessment tasks were included in the pronunciation pedagogy course. The first task required students to describe the current state of pronunciation instruction in their home context. The second task was a mid-term quiz that assessed student teachers’ knowledge about the English sound system. In the third assessment task, the students analyzed an L2 learner’s speech sample. They had to identify four pronunciation priorities and recommend eight techniques that a teacher could use to help improve the learner’s intelligibility. This work was subsequently presented in the last class of the course in a 5-minute presentation.

Overall, the course featured a strong collaborative learning environment, involving small group discussions, group task work, and peer teaching. The lecturer advocated the integration of pronunciation into all skill areas, as well as a balanced approach to teaching English pronunciation, including the teaching of segmentals (vowels and consonants) and suprasegmentals (stress, rhythm, and intonation) to enhance learner intelligibility (Crowther et al., 2015; Grant, 2014). Additionally, the inclusion of native and nonnative English varieties and accents in L2 teaching was a prominent theme throughout the semester, and students’ previous L2 learning and teaching experiences were regularly drawn on to stimulate reflection on subject content.

Participants

In the first lecture of the pronunciation pedagogy course, the first author explained the research project to the entire class. The third author who taught the course was not in attendance. It was explained to everyone that participation in the study was voluntary and that there would be no consequences if they decided not to participate or withdraw from the research (Casanave, 2010). Of the 24 postgraduate students enrolled in the course, 15 provided their written consent to participate in the project. Participants assigned themselves a pseudonym so that their confidentiality and anonymity was maintained throughout the study (Creswell, 2013). This was important in order to avoid any conflict of interest as the third author taught the course and marked the participants’ assessment tasks. The dichotomy of native versus nonnative teachers has been challenged in contemporary L2 teaching (Braine, 1999). Considering this distinction, however, is necessary in the present study in
order to explore the potential role participants’ language background played in learning to teach pronunciation. The students self-identified themselves as either first language (L1) or L2 speakers of English (as part of an initial questionnaire).

The demographic profile of the 15 participants varied considerably, including four from Australia (Lucy, Georgia, Grace, Charlotte), six from Japan (Hiro, Mio, Ken, Koki, Mai, Aoi), three from Hong Kong (Kirsten, Hayley, Mark), one from Pakistan (Alizeh), and one from Iran (Rio); all of the NNSs \((n = 10)\) were highly proficient in English. The age of the participants ranged between 20 and 60. While only 5 of the 15 student teachers reported having pronunciation teaching experience prior to the pronunciation course, all 15 had experience with studying a foreign language.

Data Collection and Analysis

In line with case study research and previous work on SLTC (Baker, 2014; Barnard & Burns, 2012), multiple data sources were triangulated to examine the relationship between cognition development and identity construction in learning to teach pronunciation: a pre- and post-course questionnaire, focus group interviews, observations, and semi-structured interviews.

The study used two questionnaires to explore participants’ reported cognitions about pronunciation teaching. The first questionnaire collected participants’ biographical data and elicited comments on some of their pre-existing pedagogical beliefs. This questionnaire was developed in previous research examining pronunciation teacher cognition (Baker, 2011c). At the end of the course, a second questionnaire was administered, consisting of the multiple-choice items from the first questionnaire, one question asking about homework, and one open-ended question about students’ general beliefs about teaching and learning English pronunciation. This second survey allowed us to examine the extent to which participants’ cognition about pronunciation instruction developed during the pronunciation pedagogy course.

The 15 participants were then divided into four focus groups according to their language background and teaching experience. The purpose of dividing the focus groups in this way was to obtain data “simultaneously from several interviewees” (Timošišuk & Ugaste, 2010, p. 1565) with similar backgrounds (Krueger & Casey, 2000). This allowed for an examination of learning to teach pronunciation according to participants’ linguistic and professional background. Each focus group consisted of 3–5 members and all four groups met with the first author three times during the semester (in weeks 5, 9, and 12). In addition to questions about participants’ cognitions about pronunciation instruction, participants were asked to share a “critical incident” (Richards & Farrell, 2005, p. 117) from the coursework to elicit their perceptions and viewpoints on any memorable, unexpected, or challenging moments they experienced during the pronunciation pedagogy course. The focus group interviews were audio recorded with a digital voice recorder.

Besides the focus group interviews, the first author conducted weekly nonparticipatory observations of the 3-hour lecture to observe participants’ reactions to class content and classroom interactions. The insights gained from these observations then served as stimuli for subsequent focus group and semi-structured interviews (Baker, 2011a; Borg, 2003). All of the lectures were video recorded with a Canon Vixia HF R21.

Based on several preliminary themes that were identified during data collection, purposeful sampling (Creswell, 2013) was applied by inviting 7 of the 15 participants to participate in a 30–45 minute semi-structured interview with the first author. The criteria for purposive sampling were student availability and several questions that arose during the data collection. We acknowledge the potential limitation of interview data in that the relation of power between the interviewer and interviewee may not necessarily produce transparent language (e.g., Talmy, 2010); however, conducting these interviews was important to obtain additional insights into student teachers’ cognitions about pronunciation. As the focus groups were relatively homogenous, interviewing 1 or 2 participants per focus group was considered to be adequate. During these interviews, the participants were asked clarification questions and a scenario-based question (Borg, 2006). This required participants to select specific course content (e.g., pronunciation teaching techniques), most likely reflecting their identification with and their cognition about pronunciation pedagogy at the end of the course; however, they were not specifically asked about their identities or cognition. The one-on-one interviews were audio recorded and conducted within a month of the completion of the course.

A coding structure drawn from Burri’s (2015a, 2015b) research on the cognition development of student teachers learning to teach pronunciation was used as a point of departure. This set of initial themes was then expanded by
analyzing and coding the data according to the components of identification discussed in the theoretical framework. Identified themes were allocated to individual students and a profile for each participant was created to attain a thorough understanding of the mediation of student teachers’ identities and cognitions. Initially examining each student teacher individually (Huang, 2014) not only allowed the exploration of participants’ cognition development and identity formation in depth, but also assisted in the identification of thematic overlaps among student teachers (Timoštšuk & Ugaste, 2010). All of the coding was undertaken in NVivo 10.

FINDINGS

In this section the findings of the study—derived from questionnaires, focus groups, observations, and interviews—are organized according to the theoretical framework underpinning the research. Thus, the first part of the findings is divided into the three categories constituting participants’ identification with the pronunciation pedagogy course: (a) imagination of self and others, (b) personal engagement and investment in the course, and (c) alignment with course content. In the second part of the findings we follow Morita’s (2004) model by profiling two student teachers. These profiles are included to highlight the complex relationship between participants’ cognition development and identity construction, and to foreground some of the factors that are part of the different trajectories of postgraduate student teachers’ learning to teach pronunciation.

Imagination of Self and Others

An analysis of the focus group and interview data showed that imagination of self and others exerted a substantial influence on participants’ cognition growth and identity formation. Contrary to previous nonnative English-speaking teacher (NNEST) research suggesting that NNSs consider themselves to be less able L2 teachers—a view that disempowers identity construction (Amin, 1997; Tang, 1997)—the majority of NNSs in the present study began to gradually imagine themselves over the course of the semester as legitimate and competent pronunciation instructors. At the end of the term, Mark, Mio, and Rio viewed NNSs to be better equipped to teach pronunciation due to their strong awareness of English pronunciation. This was evident in the following interview extract:

EXAMPLE 1

[NNESTs are] aware of the ways of teaching pronunciation and how they can teach pronunciation but, for native speakers, they [don’t] know that, why do they have that higher or lower pitch. They think it’s natural and they may not have too much awareness of the reason behind that. So they may not have enough theory or something to back up their teaching. (Mark; FI)

The nonnative student teachers, thus, increasingly viewed their identities in a positive light as the semester progressed. This newly acquired belief in their pedagogical ability resulted in increased confidence to teach pronunciation effectively (e.g., Hiro, Mio, Aoi, Rio, Mark), lending support to previous research suggesting that confidence is closely tied to NNESTs’ identity formation (e.g., Park, 2012).

Further contributing to the NNESTs’ positive self-image was the recognition by the native-speaking student teachers of the legitimacy of NNSs in teaching English pronunciation. As illustrated in the following statement made by Georgia, the native speakers (NSs) not only believed that the NNSs were more comfortable with course content, but they imagined NNESTs to be strongly positioned for teaching pronunciation due to their shared L1 with their students and their experience with learning English pronunciation explicitly:

EXAMPLE 2

I thought all this time that the best result was an native speaker teaching pronunciation, but of course that’s not always possible ... and then [NNSs] have the experience of learning another language and learning about pronunciation and that, so in some ways they’re better equipped. (Georgia, FI)

This acknowledgment of being legitimate pronunciation instructors appeared to have a powerful impact on NNS student teachers’ identity. In other words, since identity entails a sense of belonging and self-worth, the recognition by their NS peers empowered the NNSs, who began to believe they would be effective pronunciation teachers. Like Árva and Medyes’s (2000) findings, the majority of the student teachers thought the NSs’ strength was their superior command of English, allowing them to provide explanations in several different ways. However, by the end of the semester, four of the five NSs found it challenging to imagine and position themselves as effective pronunciation instructors. They appeared to be uncertain and lacked confidence in their ability to teach pronunciation to L2 learners. These
same four participants also had no previous pronunciation teaching experience. Although this is speculative, these NSs may have felt that the more they learned about pronunciation, the less they possessed subject matter knowledge about the English sound system, thus leading them to feel less confident in teaching it. Overall, these findings lend support to the importance of a joint development of teacher cognition and identity in learning to teach English pronunciation.

Personal Engagement and Investment in the Course

In addition to imagination, personal engagement and investment in the course and its content had a profound impact on student teachers’ identity construction, which in turn mediated their cognition growth. As the analysis of the focus group, interview, and observation data revealed, participants’ engagement/investment encompassed several different forms: reading professional literature, status as classroom teacher, and value attributed to assessment tasks.

Reading Professional Literature. Overall, student teachers in this study engaged in the course readings throughout the semester. However, three in particular—Lucy, Hiro, and Georgia—devoted a significant amount of time to reading a wide variety of literature on pronunciation pedagogy and research. For Georgia, this facilitated her understanding of course content, whereas Lucy began to recognize the importance of pronunciation and the value of including nonnative English varieties in L2 instruction. For Georgia, this facilitated her understanding of course content, whereas Lucy began to recognize the importance of pronunciation and the value of including nonnative English varieties in L2 instruction. In Hiro’s case, reading journal articles enhanced his understanding of the pedagogical goal of pronunciation instruction: “I’m reading those things second or third time, and kind of understand … the realistic goal [of pronunciation teaching]” (Hiro, FG1-3). Thus, these findings lend support to Golombek and Jordan’s (2005) research that found that professional literature can have a considerable effect on postgraduate student teachers’ learning to teach English pronunciation.

Status as Classroom Teacher. Having access to an L2 classroom either during or immediately after the postgraduate course contributed to some of the student teachers’ personal investment in the course, and subsequently to their emerging competence as pronunciation instructors. For Georgia, for example, taught at a local language school and was highly invested in the pronunciation course as a way of learning to teach pronunciation to her students. As she explained, having her own classroom allowed for experimentation with some of the newly learned pronunciation techniques. For example, she described how a new kinaesthetic/tactile technique she tried with one of her Vietnamese students improved his pronunciation:

EXAMPLE 3

I’m still helping the Vietnamese student that I interviewed and I showed him the baton system the other day … and it came together for him. So he can see the benefit of that. (Georgia, FI)

Charlotte also had access to an L2 classroom when she commenced her practicum in the later part of the semester, consequently gaining initial classroom experience. This newly gained status as a classroom teacher appeared to signify a particularly important stage in Charlotte’s process of learning to teach pronunciation. Until that point, as was evident in the focus group and observation data, Charlotte appeared to increasingly disassociate herself from subject matter, and she voiced strong doubts about her choice of becoming an L2 instructor. However, observation data obtained during the week 11 lecture demonstrated that her practicum experience during the course helped her realign herself with some of the course content. She gradually began to see pronunciation instruction in a somewhat more positive and relevant light. She explained to the postgraduate class that, for her current L2 students, intelligibility was the most important part of pronunciation. She also expressed her desire to teach one of the kinaesthetic/tactile techniques to her students.

Value Attributed to Assessment Tasks. Perceiving value in the assessment tasks used in the pronunciation pedagogy course to augment student teachers’ learning about the English sound system and how to teach it was a strong indication of the extent to which student teachers were invested in the course. Nine of the ten participants showing strong investment embraced the assessment tasks and considered them to be a useful means to learn about English pronunciation and how to teach it to L2 learners. Mio, for instance, perceived assessment task #3 as valuable because it improved her language awareness. In the same vein, Grace mentioned that the assignment assisted her with attaining a more in-depth understanding of the International Phonetic Alphabet (IPA):

EXAMPLE 4

I think that the last assignment that we’ve been working on for a while, it’s actually taught me to be aware of the phonetic alphabet more. So, as I’m analyzing things now I know a lot more symbols and it’s just
coming naturally to me, and I don’t really have to look at my chart anymore. (Grace, FG3-3)

Two of the five participants with less investment in the course, however, considered the assessments to be daunting and possibly unhelpful:

EXAMPLE 5

I don’t think the assignments overall are good for future teaching. [No] teacher is going to have time to do a 4000 word analysis of a student’s speech ever! (Charlotte, FG3-3)

Charlotte not only perceived assessment task #3 to be overwhelming, but it evoked in her some strong emotions and negative feelings toward the assignment, possibly contributing to her gradual disengagement occurring during the first half of the pronunciation pedagogy course. Charlotte’s struggles demonstrated the potentially negative effects that the lack of perceived value in the assessments had on her pronunciation teacher identity, but they also substantiate Borg’s (2009) proposition that program requirements (such as assessment tasks) can exert strong influence on teachers’ cognitions.

Alignment With Course Content

Alignment through personal interest in course content and through student teachers’ response to some of this content played important roles in the growth of participants’ pronunciation teaching competence. The areas of student teachers’ interests in specific subject matter content varied considerably; yet, the questionnaire, focus group, and interview data clearly showed that their identification with subject matter taught in the course had a positive effect on their identity formation and cognition development. At the beginning of the course, most student teachers considered segmentals to be the main focus in pronunciation instruction. However, at the end of the course, the majority of the participants regarded suprasegmentals as an important component in pronunciation pedagogy. For example, Lucy’s increased interest in suprasegmentals facilitated a shift in her pedagogical beliefs toward teaching prosodic features. Similarly, a strong interest in prosody fostered Hiro’s understanding of a need for a more balanced approach to pronunciation instruction, and Mark, Kirsten, and Aoi began to view suprasegmentals as an important element in pronunciation instruction. Moreover, Río’s interest in suprasegmentals fostered his awareness of and knowledge about several prosodic features such as intonation and prominence. Thus, these findings suggest that participants’ development of subject matter knowledge and identity formation occurred in a reciprocal relationship that was facilitated by a personal interest in English prosody.

Besides their increased interest in prosodic features, participants’ enthusiasm for the novelty of kinaesthetic/tactile techniques appeared to enhance their identification with course content. This was evident in the majority of student teachers expressing their desire to use kinaesthetic/tactile techniques in their future classrooms. In addition, Lucy’s passion for the history of the English language and Ken’s curiosity about accents stimulated their beliefs and knowledge about pronunciation. As Ken’s awareness of English accents increased, he began to understand that attaining native-like pronunciation was not necessary for L2 learners. Ken’s newly acquired understanding was reflected in the second questionnaire where he disagreed with the notion of accent elimination being the goal of pronunciation instruction (for more on accent reduction and pronunciation instruction, see Thomson & Derwing, 2015). These findings suggest that alignment through interest in course content was a crucial factor contributing to the process of student teachers’ learning to teach pronunciation.

The student teachers’ emotional response to some of the course content had an effect on the extent to which participants aligned with it. This was particularly true with regard to accents, which are interwoven with a speaker’s identity in complex, social, and psychological ways (Goodwin, 2014; Lindemann, 2005; Subtirelu & Lindemann, 2016). The focus group and observation data demonstrated that, for better or worse, everyone was struggling emotionally at some point during the semester (Timoštšuk & Ugaste, 2010). Data, however, clearly showed that NS student teachers without any teaching background experienced the most serious emotional struggles during the course. For example, Alizeh, who was from Pakistan and whose accent appeared to be central to her identity, expressed her puzzlement about the notion of correct pronunciation, and she seemed to be frustrated by her difficulties with trying to pronounce Australian English:

EXAMPLE 6

I’m always confused, actually, as to whether I’m pronouncing things correctly now, because this the Australian would do it, this the Canadian, but you can do it the way you do it in your country, so I’m not sure
if I’m doing it right … it’s impossible for me to get rid of this accent that I’ve got. I can’t do it! I mean I don’t want to do it as well … (Alizeh, FG3-1)

Focus group data suggested that, for most of the course, Alizeh was under the (wrong) impression that one of the underlying premises of the course was for her to get rid of her accent, causing the student teacher a great deal of emotional unrest. For Charlotte, on the other hand, course content (as well as the assessment tasks) caused occasional emotional turmoil. Three-hour lectures/workshops were perceived to be too long, and she explained that the course contained too much content for her to process. Relatively early on in the semester, she thought the course was not preparing her adequately to teach pronunciation in future classes, and even at the end of the course she expressed little desire to teach pronunciation. Charlotte’s lack of alignment as well as her partial reluctance to engage with some of the course content confirms that learning to teach pronunciation requires both cognition development and identity negotiation.

In fact, emotions, cognition, and learning to teach “continuously interact and influence each other” (Golombek & Doran, 2014, p. 105), and therefore the two participants’ emotional dissonance was likely part of their developing conceptualization of pronunciation pedagogy. A closer look at the data revealed that the student teachers’ difficulties did not appear to restrict their alignment with course content. Rather, as the observation data suggested, their struggles may have formed an integral part of their development, as both students began to show some cognition growth by the end of the semester. As previously mentioned, Charlotte expressed her intention to teach a kinaesthetic/tactile technique during her practicum. In contrast, Alizeh, perhaps as a result of her increasing acceptance of herself as a legitimate speaker, began to redefine her conception of the goal of pronunciation teaching. In her presentation delivered in the last class of the semester, she mentioned learner intelligibility to be the goal of pronunciation teaching. This shift of teacher cognition appeared to have co-developed with her new sense of self—her emerging pronunciation teacher identity.

These were incidents of gradual growth taking place, particularly given Charlotte’s somewhat negative perception toward kinaesthetic/tactile pronunciation teaching in the first half of the course. Nevertheless, findings suggest that for certain student teachers learning to teach pronunciation may involve substantially more cognition development and negotiation of identity coupled with emotional struggles. These challenges may not automatically restrict student teachers’ growth, but for some the process of becoming a competent pronunciation instructor may take longer and move beyond the realms of a postgraduate course on pronunciation teaching.

Illustrative Examples of Student Teachers Learning to Teach English Pronunciation

In this segment of the findings, drawing on all of the data sources triangulated in the study, two student teachers are profiled to highlight some of the aforementioned themes in more detail, as well as to demonstrate the different trajectories, complexity and interrelatedness of cognition development and identity construction of postgraduate student teachers learning to teach pronunciation.

Lucy. Even though Lucy possessed several years experience of mainstream classroom teaching in Australian primary and secondary schools, she reported having no prior pronunciation teaching experience. Lucy was heavily invested in the course. She read a wide array of professional literature on pronunciation instruction, and, as the semester progressed, she began to see the legitimacy and potentially advantageous position of NNESTs in teaching pronunciation. Her perspective on the goal of pronunciation teaching also changed, and she began to understand that achieving native-like pronunciation was an unrealistic notion for L2 learners. Lucy’s personal interest in the history of English language had a profound impact on her identification with subject matter in that it consolidated her cognition about pronunciation instruction:

EXAMPLE 7

Well it probably wasn’t until about week 11 and 12 of the course that something kind of clicked together for me. I don’t know what it was but we had one session where we talked a lot about the history of English … and I’m hugely interested in that. Suddenly it kind of all clicked together. (Lucy, FI)

This amalgamation of knowledge achieved toward the end of the semester was an important step in Lucy’s formation of becoming a competent pronunciation teacher. By the end of the semester, Lucy’s overall perception of the importance of pronunciation grew substantially. Prior to taking the course, she had never heard of prosody. She thought that pronunciation “had absolutely nothing to do with anything …”
and that teaching should be done through repetition. At the end of the course, her cognition had shifted toward teaching suprasegmentals to help L2 learners improve their intelligibility. Lucy now believed that pronunciation was a critical component in L2 teaching and learning and should, therefore, be integrated into L2 teaching programs. English was viewed as a world language, and Lucy’s perception of nonnative English varieties changed to the extent that she would include them in her classrooms.

Sharing a class with nonnative student teachers further enhanced her understanding of the difficulties L2 learners face with learning English pronunciation. Subsequently, Lucy considered teaching a monolingual class to be easier than a multilingual one because it would allow meeting student needs more effectively. In spite of her substantial growth in competence, Lucy was unsure about how to teach pronunciation, and she found it somewhat difficult to understand some of the teaching techniques learned in class. This suggests that although Lucy’s identity as a pronunciation instructor clearly began to emerge during the course, becoming a competent and effective pronunciation teacher may require more time than a graduate course can provide.

Mio. Mio had several years of pronunciation teaching experience in Japan and reported having prior knowledge of prosody (e.g., rhythm). During her formative school years in Japan, Mio had taught herself how to use the IPA to improve her own pronunciation. She was highly invested in the course, which was evident in her positive perception toward the assessment tasks in that she considered them to be helpful for her language awareness and understanding of course content. As the course progressed, she began to see value more in teaching segmentals, because, in her opinion, clearly producing individual sounds would assist students with producing “good intonation” (FI).

In her final interview, Mio explained that the pronunciation pedagogy course “influenced [her] way of thinking” (FI). Because of all the different English varieties spoken in the classroom, she gradually began to accept nonnative varieties, and therefore considered teaching both native and nonnative English varieties to her Japanese students. Mio also gained confidence in her ability to teach pronunciation, and she thought that NNSs could be effective pronunciation teachers. She expressed a strong desire for the lecturer to correct her pronunciation and she was highly interested in the use of kinaesthetic/tactile pronunciation teaching. Halfway through the semester, Mio was given the opportunity to observe an English as a second language (ESL) class taught by the third author. As she explained during the week 7 lecture, this observation was a key moment in her alignment with course content and her beliefs about the effectiveness of pronunciation instruction. That is, Mio began to see value in using kinaesthetic/tactile pronunciation activities. Besides her newly gained appreciation for this type of pronunciation teaching, the instructor was now seen to be a crucial element in pronunciation instruction and learning. Mio’s changing cognition about the important role an instructor plays in teaching pronunciation appeared to be a reflection of her own emerging identity as a pronunciation teacher.

Because of her teaching experience, Mio had a strong awareness of pronunciation instruction being frequently influenced by government decisions and policies. She was also aware that pronunciation instruction was context-dependent. Mio explained that in a vocational program she would teach segmentals and intonation using a kinaesthetic/tactile approach, whereas in a high school context, the articulation system, syllables, and stress needed to be foregrounded. Interestingly, however, at the end of the semester Mio was still somewhat unsure whether pronunciation teaching could actually lead to permanent change. Similar to Lucy’s case, this indicates that becoming a competent pronunciation teacher goes beyond a graduate course on pronunciation pedagogy.

DISCUSSION

The findings of this study illustrated that participants’ identity not only affected their cognition, but that the construction of student teachers’ identity and the development of their cognition were intertwined and mediated each other in complex ways. Figure 1 conceptualizes the reciprocity between participants’ cognition development and identity construction that occurred as part of their participation during the pronunciation pedagogy course.

As the figure shows, these two constructs were in an interwoven, inseparable, and reciprocal association, which contributed substantially to participants learning to teach pronunciation. Lucy’s identity, for example, was shaped by engaging with the literature and drawing on her personal interest. This, then, resulted in considerable cognition growth in the areas of suprasegmentals, instructional target, and importance of pronunciation instruction. Reflecting this growth was her
newly gained appreciation (i.e., imagination) of NNESTs being suitably positioned to teach pronunciation. Hiro’s identity construction, on the other hand, was facilitated by a growing sense of being a capable pronunciation instructor (imagination), high engagement and investment in the course, and a strong personal interest in the course and its content (alignment). These characteristics in turn had a strong impact on the development of his cognition in that he began to value a balanced approach to pronunciation instruction. Conversely, his newly found pedagogical beliefs seemed to stimulate his identity formation to the extent that he expressed his confidence in possessing the ability to teach pronunciation even though English was not his L1. For Mio, the assessment tasks, an ESL classroom observation, and interacting with classmates from diverse linguistic backgrounds contributed to her cognition development. This growth was critical in that it boosted her confidence (i.e., imagination) in being able to teach English pronunciation. Overall, the social process of learning together about pronunciation pedagogy and engaging with others in this classroom community helped to shape the student teachers’ identity as teachers.

In addition to this vital reciprocal relationship between identity construction and the development of participants’ beliefs and knowledge about pronunciation pedagogy, the findings demonstrated that learning to teach pronunciation is also an individual process. Various factors, such as peer recognition of competence regardless of native status, professional literature, status as a classroom teacher, assessment tasks, personal interests, and participants’ response to the content, all played important roles in student teachers’ identification with the pronunciation pedagogy course. Previous research has established that cognition development and identity formation are both multifaceted and individual processes (e.g., Borg, 2005; Cabaroglu & Roberts, 2000; Park, 2012; Trent, 2012; Tsui, 2007); however, our study clearly highlighted the heterogeneous nature of teacher learning that occurred as part of social participation in a course on pronunciation pedagogy. That is, irrespective of their cultural and linguistic backgrounds, student teachers experienced different trajectories in their journey to become effective pronunciation teachers. Also, in light of the struggles Charlotte and Alizeh encountered during the course, it is reasonable to assume that for some individuals becoming a competent pronunciation instructor is a slow process that takes place over a prolonged period of time. It can, therefore, be argued that for pronunciation teaching competence to emerge, the shaping of student teachers’ identity must undergo a complex, diverse, often emotional and nonlinear process, which in turn is critical for cognition development to occur.

Considering these findings, we concur with Crookes (2015) that Borg’s (2012) claim of identity being part of cognition needs to be treated with caution. More specifically, the findings generated by this study point to both identity construction and cognition development as being integral parts of L2 teacher learning. Thus, identity and cognition need to be considered as two equally critical components that mediate each other in SLTE. We suggest, therefore, that L2 teacher educators pay close attention to the
intertwined nature of these two components rather than grouping them together as one construct. Adopting this more holistic perspective as suggested by Kubanyiova and Feryok (2015) would likely enhance the effectiveness of SLTE because teacher learning is then viewed as a multidimensional process, one that takes into account and taps into student teachers’ personal investment, imagination, and alignment, along with their knowledge, beliefs, and perceptions (i.e., cognition). In essence, cognition growth and identity formation play essential roles in postgraduate student teachers learning to teach language.

CONCLUSION

This article has demonstrated that L2 teacher learning is a highly multifaceted individualistic and social process. Wenger’s (1998) notion of identification provided a useful framework for analyzing and making sense of participants’ learning together to teach pronunciation. The student teachers’ emerging pronunciation teaching competence is obviously just the beginning of their quest to become effective L2 instructors, especially since teacher learning is often impacted by contextual factors, such as curricula, school and government policies, colleagues, supervisors, and parents, and therefore negotiated in actual teaching contexts over a prolonged period of time. More research is necessary to examine how and to what extent the teachers begin to negotiate and implement their pronunciation teaching practices in their future teaching contexts. Continuing this line of inquiry would most certainly reveal new and valuable insights for L2 teacher educators to implement in their SLTE programs.

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NOTES

1 As Wenger posits, imagination can also cause disassociation and subsequently impact one’s identity in a nonparticipatory way.
2 The third author was unaware of which students participated in the study; thus, students were neither advantaged nor disadvantaged by their choice to participate, or alternatively not to participate, in the study.
3 The following notation system is used to refer to data sources: FI = final interview; FG1-3 = focus group 1, interview 3; T3 = assessment task #3; OW7 = observation/week 7.
4 At the time this study was conducted, Georgia was the only participant engaged in regular L2 teaching. Charlotte and Grace began their practicums, while Koki, Hiro, Mai, Aoi, Miho, Ken, and Rio all reported either returning to their previous teaching positions, having been offered employment after their studies, or beginning to look for teaching opportunities immediately after their courses were completed.
5 See Acton (2001).
6 The speech analysis of scripted (300 words) and unscripted (300 words) text consisted of 600 words in total, and the write-up of the results and pedagogical implications was 3400 words.
7 It was not clear why Alizeh developed this misperception, particularly since one of the goals of the course was for student teachers to become familiar with and value the use of English varieties rather than aiming for accent reduction to be the instructional target of pronunciation teaching.

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