
Introduction and Background to Pronunciation Teaching

Why This Volume?

As a prospective teacher of English to speakers of other languages (ESOL) you may be wondering what this book offers you. To be direct, there are no other books that introduce whole courses focused on teaching the pronunciation of English as a second, foreign, or international language. A few publications that come closest are Murphy and Byrd's (2001) *Understanding the Courses We Teach: Local Perspectives on English Language Teaching*, Graves' (1996) *Teachers as Course Developers*, and the half dozen volumes of TESOL's *Language Teacher Research* series (Farrell, 2008). A clear strength of these and comparable teacher preparation texts is their depictions of whole ESOL courses as taught by contemporary English language teachers. Another strength is that in most cases their chapter-contributors are the teaching specialists who offer the courses described. The ESOL courses introduced in such resources focus on the teaching of listening, speaking, reading, writing, vocabulary, grammar, and English for specific purposes. However, few of them include any attention to the teaching of pronunciation at all. This is a gap in current ESOL teacher development resources that *Teaching the Pronunciation of English (TPE): Focus on Whole Courses* bridges directly.

Who Are the Contributors to the TPE Collection?

The *TPE* contributors are contemporary language teachers who specialize in teaching the pronunciation of English, and we have all been doing so for many years. We read and contribute to contemporary literature, attend and give papers at conferences, review and create teaching materials, conduct small and larger scale research projects, participate in and

lead teacher development workshops, review for professional journals, remain current with emerging trends, and, most importantly, all of us teach the pronunciation of English as a second language (ESL), English as a foreign language (EFL), or English as an (international) lingua franca (ELF). As illustrated in Chapters 3–12, our efforts span different regions of the world including Canada, England, Belgium, New Zealand, Spain, and the United States. Building from this range of professional experiences, the *TPE* collection is our opportunity to extend and strengthen the knowledge base of pronunciation teaching by sharing some of the practical knowledge we have learned with other language teachers. Our motivation is to support more effective pronunciation teaching in as many language classrooms, in as many different parts of the world, as possible. We believe that pronunciation teaching should not be relegated solely to pronunciation-centered courses but that it may also be interwoven within other ESOL course types. To these aims, the *TPE* collection is designed to serve as a core text in an ESOL teacher development course dedicated to preparing pronunciation teachers.

Why Focus on Pronunciation?

For anyone interested in teaching the pronunciation of English to speakers of other languages, we live in a fascinating era. There was a time not too long ago when pronunciation teaching was poorly understood and had fallen out of favor within many circles of English language teaching (ELT). Starting in the mid-1980s and with a momentum that has been building ever since, ELT specialists have been generating more effective and more innovative pronunciation teaching materials, resources, and instructional strategies. Just as important, beginning in the mid-1990s a growing number of empirical researchers have been expanding a reliable research base to support pronunciation teaching (Derwing & Munro, 2015). Because contemporary teachers can build upon teaching specialists' and researchers' efforts, today we know a lot more about teaching the pronunciation of English than ever before. The questions classroom teachers, materials developers, and researchers ask are ever more interesting and a knowledge base to support pronunciation teaching is not only expanding but deepening in quality (Baker & Murphy, 2011; Thomson & Derwing, 2015).

Along with its expanding knowledge base, the need to teach pronunciation is becoming increasingly clear. As Celce-Murcia, Brinton, and Goodwin (2010) and Morley (1987, 1991, 1994) discuss, non-native

English speakers in need of pronunciation assistance live both within and beyond English-dominant parts of the world. Those within include: recent immigrants and refugees to English-speaking nations who are in search of better employment, social, and educational opportunities; long-term residents who aspire to fuller societal participation; secondary school students, university students (international teaching assistants especially), and faculty; technical and professional employees in business, health services, entertainment, and industry; and service providers such as small business owners, etc. Similarly, non-native speakers in need of pronunciation instruction who live outside English-dominant parts of the world include: “refugees (adult and adolescent) in resettlement and vocational training programs wishing to relocate in English-speaking countries” (Celce-Murcia et al., 2010, p. 8); the already large and growing number of non-native English-speaking teachers around the world; students at all levels of education; diplomats, politicians, and entrepreneurs; and service industry employees such as call center personnel, hotel and restaurant personnel, tour guides, travel agents, and customs agents. In fact, many residents of non-English dominant nations use English as the medium of communication when speaking with international visitors and temporary workers unfamiliar with the local language. As this partial listing suggests, the diversity of contemporary student populations in need of English pronunciation instruction is both notable and expanding worldwide.

What Is Included in This Book?

First and foremost, the *TPE* collection illustrates that pronunciation teaching is compatible with communicative, task-based, and technology-mediated approaches to language teaching. Its compatibility is illustrated most directly in Chapters 3–12, which are dedicated to specialist-teachers’ firsthand depictions of pronunciation-centered courses. Each of these ten chapters features a set of innovative teaching strategies and contemporary course design structures developed by the chapter contributor(s). As such, Chapters 3–12 offer multiple opportunities to learn about whole courses as designed and taught by some of the most effective pronunciation teachers working today.

To prepare readers to better appreciate the substance and quality of Chapters 3–12, the volume’s two initial chapters are more foundational. Chapters 1 and 2 provide an overview of core topics language teachers need to know about to become successful pronunciation teachers.

As suggested by its title, *Suprasegmentals*, Chapter 1 begins at the macro level by introducing the relatively broader topics of thought grouping, prominence, word stress, pitch jumps, and intonation. These five topics fall within what is commonly termed the **suprasegmental** dimension of pronunciation teaching and learning. In this context, the prefix *supra* means “above” as in the phonological elements that operate above the segmental level of individual consonant and vowel sounds. Chapter 1 breaks from tradition by foregrounding suprasegmental topics from the start because those new to pronunciation teaching often complain of not being able to “see the forest for the trees.” To circumvent this complication, the topics featured in Chapter 1—thought grouping and prominence in particular—represent the phonological context within which most other pronunciation phenomena occur. In addition to thought grouping and prominence, Chapter 1 also discusses word stress, pitch jumps, and intonation in this order because they are all interrelated (Gilbert, 2008), because the process of thought grouping serves as their foundation (Dickerson, 2010), and because each of the other topics builds on the ones discussed before it (Dickerson, 2010; Gilbert, 2008; Murphy, 2013).

Following Chapter 1’s suprasegmental focus, Chapter 2 is dedicated to narrower pronunciation topics—the full inventory of English consonant and vowel sounds. The sequencing of topics in phonology featured in *TPE*’s first two chapters is intentional since the individual consonants and vowels of English may be thought of as “the trees within the forest.” As previously stated, these are the **segmental** elements of pronunciation. Attention to them is delayed until the broader themes featured in Chapter 1 have been established.

Teachers of pronunciation need to be well acquainted with the full range of suprasegmental and segmental topics introduced in Chapters 1 and 2 since all of them play important roles in the pronunciation of English and contribute to enhancing the intelligibility of non-native English speakers. Once the *TPE* collection’s initial chapters have set the stage for thinking and learning about pronunciation, Chapters 3–12 provide opportunities to read about (and discuss with others) ten different ESOL courses dedicated to pronunciation teaching and learning. The book’s final section is an epilogue titled *Where Do We Go from Here?* that reviews core themes recurring throughout the *TPE* collection and offers additional advice to those interested in learning more.

Introduction Organization

The remainder of this introductory section is organized as responses to eleven questions designed to build awareness of core topics in teaching pronunciation. For each question, reflect on what you may already know about the topic and what you would like to know more about. The questions are:

1. What are the learning objectives for readers of this book?
2. What is L2 pronunciation and how may it be best defined?
3. Why does the pronunciation of English often differ from its written form?
4. Are ESOL teachers ready to teach pronunciation?
5. Which facets of pronunciation are the most important to teach?
6. Can non-native speakers teach the pronunciation of English?
7. Can pronunciation be taught communicatively?
8. How much improvement may teachers and learners expect?
9. Do learners' needs vary?
10. How may the phonological system of English be taught?
11. What else can I do to learn to teach pronunciation?

1. What are the learning objectives for readers of this book?

Reed and Michaud (2010) offer the useful image of goal-driven “reverse engineering” in how to design learning objectives for any kind of a language course or program of self-study (p. 19). We can apply their advice to the purposes of this book by specifying the destination of anyone who might be interested in learning to teach the pronunciation of English. Upon completion of a teacher development course featuring this book, readers will be able to:

- teach pronunciation in either a pronunciation-centered course or within an ESOL course of a different instructional focus (e.g., listening, speaking, reading, writing, grammar)
- analyze language learners' pronunciation needs

- read, understand, and discuss contemporary pedagogic literature and related empirical research
- design and implement pronunciation curricula
- work efficiently with contemporary instructional materials
- apply contemporary technologies to pronunciation teaching
- locate additional resource materials (i.e., know where to go to learn more).

Expanding on this final point, readers will realize that service as a pronunciation teacher entails a long-term journey in which we are always learning more through participation in a wider professional community of practicing teachers, materials developers, researchers, and other specialists.

2. What is L2 pronunciation and how may it be best defined?

To understand what L2 pronunciation is, we need to do so in ways that differ from a layperson's understanding. On this theme, Johnson (2009) distinguishes between two fundamentally different ways of thinking about L2 teaching. The distinctions she posits are important because they help explain why formal, organized study of English phonology and of pronunciation teaching are worthwhile. Johnson observes that most teachers employ either layperson, non-specialist "everyday" concepts when thinking about and discussing L2 teaching or they employ more specialist, technical, and "scientific" concepts (p. 14). A challenge we face as teachers is to continue developing professionally relevant ways of thinking about L2 pronunciation and language classroom possibilities. We develop specialist ways of thinking through formal study, the mentorship of more experienced teachers, guided reflections on teaching experiences, and related pathways of professional growth.

Derwing and Munro (1997, 2015) offer a clear illustration of specialist ways of thinking about L2 pronunciation and how they enrich pronunciation teachers' efforts in classrooms. As background, both Derwing and Munro are empirical researchers with extensive professional histories as L2 classroom teachers. While laypersons would tend to think of L2 pronunciation as a single construct, Derwing and Munro provide a research-based, specialist definition that separates it into three components: intelligibility, comprehensibility, and accent. Each is defined rela-

tive to the perceptions of proficient English language listeners. According to Derwing and Munro, **intelligibility** is tied to products of a listener's understanding (i.e., How much of the content does the listener understand of what the speaker is saying?). **Comprehensibility** is tied to the degree of effort a listener finds she or he must expend to understand a speaker (i.e., Is it easy or hard for the listener to follow what the speaker is saying?), and **accent** is tied to any differences the listener may be perceiving between the speaker's and the listener's pronunciation (i.e., Is the speaker's pronunciation almost the same, similar, or is it very different from the style of pronunciation the listener is used to?). As teachers, we are tempted to ask which of the three components is most relevant to pronunciation teaching or are all three of equal value? Derwing and Munro (1997) find that intelligibility, comprehensibility, and accent merit different degrees of attention in pronunciation classrooms. Further, Derwing (2010) and Derwing & Munro (2015), as well as most contemporary specialists, promote intelligibility and comprehensibility as foci of pronunciation instruction because they contribute more to effective communication.

Being able to think about L2 pronunciation not as a layperson might but as specialists do is important because awareness of intelligibility, comprehensibility, and accent clarifies contemporary priorities for L2 pronunciation teaching. While a layperson might comment on how difficult it is to understand a non-native speaker's accent, a specialist recognizes that the layperson's reference to difficulty signals that comprehensibility (and not necessarily the speaker's accent) is the relevant issue and would lead to a different set of teaching priorities and decisions. Also, although intelligibility and comprehensibility are more closely related to each other, Derwing and Munro's (1997, 2015) several related investigations have determined that a speaker's accent is less directly tied to the other two components and need not be priorities for pronunciation teaching. How and why are these distinctions relevant to a definition of L2 pronunciation? As these researchers explain, while a non-native English speaker who struggles with intelligibility and comprehensibility will always be viewed by first language (L1) listeners as accented, it is not unusual for a non-native accented speaker to be perceived as both intelligible and comprehensible. Though readers may substitute examples of their own, some well-known non-native accented speakers of English who many native speakers would consider to be both intelligible and comprehensible include the actors Javier Bardem, Ingrid Bergman, Gael García Bernal, Jackie Chan, Penélope Cruz, and Sofia Vergara; politicians Kofi Annan, Henry Kissinger, and Vicente Fox; news com-

mentator Jorge Ramos; and actor/politician Arnold Schwarzenegger. Although none of them would be characterized as what specialists in second language acquisition call **balanced bilinguals** (i.e., equally proficient in two languages), the point is that they are intelligible, comprehensible speakers of English. An implication of this specialist way of thinking is that an instructional focus on accent reduction, as might typically happen in a speech pathology clinic, is counterproductive in most ESOL classrooms since instructional time is limited and intelligibility and comprehensibility are more important concerns (Thomson, 2014). A pronunciation teaching specialist realizes that as long as the components of intelligibility and comprehensibility are either in place or are improving, then the presence of a non-native accent is of greatly diminished concern. This might mean, for example, that a focus on native-like pronunciation of the two *th* sounds of English (i.e., the word-initial consonant sounds of *think* and *that*) is less important than attention to alternative pronunciation features such as speaking tempo, word stress, and the way speakers regularly cluster groups of words together because the latter items contribute more to intelligibility. In sum, contemporary specialists do not view a non-native accent as a liability that needs to be eliminated. Rather, they prioritize attention to intelligibility and comprehensibility because the relevant teaching focus is to help ensure that non-native speakers are more fully and more easily understood. A corollary sometimes underappreciated by laypersons (including many speech pathologists when they work with non-native accented English speakers (Thomson, 2014)) is that “a change in accent does not ensure an improvement in communication effectiveness” (Derwing & Munro, 2015, p. 97). Such specialist reasoning leads to a different set of teaching priorities and explains why it is counterproductive to view pronunciation teaching in terms of accent reduction alone (Thomson, 2012, 2014). Two related themes to take away from this discussion are (1) to improve communication effectiveness intelligibility and comprehensibility should be the foci of L2 pronunciation teaching, and (2) teachers need to employ specialist, rather than layperson, ways of defining L2 pronunciation and thinking about pronunciation teaching.

3. Why does the pronunciation of English often differ from its written form?

Throughout my teaching career, students have often asked, “Why isn’t English pronounced as it is written?” This is an important question and one that usually signals frustration on the parts of learners who ask it. To facilitate related discussion in the classroom, teachers need to realize that

there is no quick or easy answer. It requires a conversation with English language learners that should be planned to unfold over time. To begin, there are many factors contributing to the less-than-direct relationship between the written and spoken forms of English words. These are two very different linguistic systems with their own sets of conventions, patterns, and inconsistencies. It would be a mistake for teachers to suggest that the conventions of written and spoken English are closer than they actually are.

Contrary to what many of us were taught when first learning to read and write, the orthographic system of English (i.e., its written form) is only partly alphabetic since the spelling of words reveals frequent lapses of direct sound-spelling correspondence. A purely alphabetic writing system would have a one-to-one relationship between speech sounds and the alphabet letters used to spell words. We find a more direct relationship when we use a system of phonemic transcription (e.g., the International Phonetic Alphabet) as will be introduced in Chapter 2. A few illustrations of the lack of direct sound-spelling correspondence in English adapted from Dauer (1993), MacKay (1987), and Prator and Robinett (1985) are listed.

- One sound may be represented by more than one spelling (“the vowel sound in *tea*, *tee*, and *people*, *ski*, and *fetus* [or *foetus*] . . . is an example, as is the underlined consonant sound in *fellow*, *telephone, and tough”) (MacKay, 1987, p. 46).*
- The same letter often represents different sounds (e.g., the seven different vowel sounds represented by the letter *o* in the words *women*, *woman*, *bone*, *cat*, *love*, *move*, and *port*. In the words *girl* and *giraffe* the letter *g* represents different consonant sounds, and the same may be said of the *ch* of *charge*, *stomach*, and *machine*).
- A combination of two letters (a digraph) may be used to represent just one sound within a word (e.g., *charge*, *meet*, *feat*, *bread*, *boat*, *this*, *cough*, *ring*).
- The same digraph may be used to represent different sounds (e.g., the digraph *ou* is pronounced nine different ways in the words: *out*, *dough*, *soup*, *touch*, *could*, *four*, *journal*, *cough*, and *famous*).
- Some letters are completely silent and correspond with no sound at all (e.g., *bomb*, *debt*, *muscle*, *Wednesday*, *island*, *right*, *sign*, *plate*, *orchid*, *knife*, *pneumatic*, *guitar*, *castle*).

- Some letters, though silent themselves, are used to signal the pronunciation quality of a preceding sound (the final letter *-e* of *car_e* is used to differentiate the vowel sounds of *car* and *care*; the letter *a* of *bea_st* is used to differentiate the vowels of *best* and *beast*).
- There are sounds in the pronunciation of some words with no corresponding letter at all (e.g., the initial invisible consonant *y* sound of the words *_use* and *_university*; the sound of *p* that most native speakers pronounce between the first and second syllables of something → *some(p)thing*, hamster → *ham(p)ster*, and Chomsky → *Chom(p)sky*).
- Some words sound exactly the same while it is their spelling differences that cue differences in meaning (e.g., *made*, *maid* / *there*, *they're*, *their* / *right*, *rite*, *wright*, *write*).

But beyond such non-alphabetic features of English orthography, what are some of the reasons for its lack of a more direct sound-to-spelling correspondence? For part of the explanation we need to consider some of the continuing repercussions of historical events. A long, eventful history in both the development of written conventions and the emergence of widespread literacy preceded modern forms of English. Though there is insufficient space to offer more than a hint of relevant historical events in this Introduction, two particularly consequential ones are outlined.

More than 950 years ago, England was on the losing end of an international war that resulted in linguistic repercussions that continue to impact us today. During the two and a half centuries that followed the violent Norman conquest and political subjugation of England in 1066 CE:

French was the official language of England. Most of the intelligentsia were killed at the time of the conquest, which included most of those who could read and write. So when English regained its status after 250 years of having been written very little, all scribal (that is, writing and spelling) traditions had been lost. English began to be written by those with a Norman French scribal bias and a knowledge of the alphabet as used in Norman French . . . [as a result] after about 1100 AD [sic] English began to be written according to foreign, specifically Norman French, spelling conventions. (MacKay, 1987, p. 47)

As well as the long-term impacts of the Norman Conquest, another reason for lack of more direct sound-to-spelling correspondence was the

relatively early adoption of the printing press in England. A generation before Columbus crossed the Atlantic, England was on the cusp of becoming a global economic power when, sometime in the late 1470s, William Caxton began operating what would become a commercially successful printing press in London. Caxton's purpose was the mass production and dissemination of English language books. Although the printing press had been invented in Germany several decades earlier, it was Caxton's contributions as a successful English merchant, typesetter, and commercial printer toward the end of the 15th century that played a surprisingly large role in the early standardization of English spelling. Caxton was operating at a time when spelling was highly personal, variable, and idiosyncratic, and while the pronunciation of English was still evolving in different ways throughout England. There was nothing like a centralized academy responsible for setting a uniformed system of English spelling. In fact, the first English language dictionary was not published until 1623, more than 120 years after Caxton's death (Shemesh & Waller, 2000). Caxton and other English book publishers of his era were inventing spelling conventions on their own. As an *entrepreneur* (notice the French origin and spelling of this word), Caxton was successful and the books he produced were popular. But the early adoption and success of the printing press in London meant that once large numbers of books were being read by the general public, the spelling decisions made by its early adopters began to establish many of the spelling conventions we continue to live with today. In the decades and centuries that followed, a growing number of books that featured the early printers' spelling decisions were being read and widely distributed throughout the rapidly expanding English-speaking world.

Along with the influences of these historical events, one of the central principles of English spelling reflects something other than an alphabetic principle of one-to-one sound-spelling correspondence. Linguists refer to this alternative principle for the spelling of English words as the **morphophonemic principle** (Chomsky, 1970). According to the principle, words that bear a similar appearance on the page (e.g., *politics-political-politician* / *photograph-photographer-photographic*) tend to be related in meaning even if their rhythmic productions and the pronunciation of their related syllables differ. The starting point for understanding this underlying principle of English spelling is the morpheme.

A **morpheme** is the smallest grammatically meaningful unit in a language. Although a morpheme may be a free-standing word such as *house*, *laugh*, or *bed*, it may also be an element of the language such as a prefix or a suffix that cannot stand on its own. For example, "the English word *unkindness* is made up of three morphemes: the stem *-kind-*, the

negative prefix *un-* and the noun-forming suffix *-ness*” (Richards, Platt, & Platt, 1992, p. 236). A clear example of how the morphophonemic principle operates in English is seen in the pronunciation and spelling of the past tense of regular verbs. To form the regular past when writing, we add an *-ed* to the end of a regular verb (e.g., *brush/brushed*; *clean/cleaned*; *land/landed*). To both writers and readers, the suffix that signals past tense is identical in all three words. However, for someone who is pronouncing the word pairs there are three different pronunciations for the formation of past tense. In *brushed* the ending sounds like *t*; in *cleaned* it sounds like *d*; and in *landed* the ending carries an extra vowel along with a final *d*, and the suffix sounds like *id*. The principle is that although the past tense ending has three different pronunciations depending on the final sound of the word to which it has been attached, the written ending is spelled the same in all three cases. According to the morphophonemic principle, words that bear a similar appearance on the page (e.g., *atom-atomic*; *social-society*; *nation-nationalize*; *Canada-Canadian*; *state-station-static*; *valid-validate-validly-validity-validation*) tend to be related in meaning even if they reveal different patterns of word stress and pronunciation. When viewed from the perspective of the morphophonemic principle we see that the spelling conventions of English are more reader-considerate than either listener-considerate or pronunciation-friendly. This is one of the reasons why pronunciation teaching merits at least some attention in most ESOL classrooms because non-native speakers will not necessarily discern such morphophonemic patterns as efficiently on their own. It is also one of the reasons for introducing a modified version of the International Phonetic Alphabet; see Chapter 2.

Now that learning objectives for working with the *TPE* collection have been specified, the constructs of intelligibility and comprehensibility have been introduced, and some discussion of spelling’s indirect relationship to pronunciation has been presented, it is worth reviewing what is known about L2 pronunciation teaching. Responses to the next several questions summarize connections between available research and teaching implications. Along with a few journal articles such as Lee, Jang and Plonsky (2015) and Thomson and Derwing (2015), much of the substance of this section is drawn from Grant’s (2014), Kang, Thomson, and Murphy’s (in press), and Reed and Levis’ (2015) edited collections, and Derwing and Munro’s (2015) co-authored book since these are recent, authoritative research reviews. Their shared purpose is to synthesize and discuss the findings of L2 pronunciation research as it applies to ESL, EFL, and ELF teaching. The time-frame of the research covered is the

mid-1990s to the present, a relatively recent period coinciding with the initial emergence and expansion of an empirical research turn in the field of L2 pronunciation teaching.

4. Are ESOL teachers ready to teach pronunciation?

A short answer to this question is that we do not know but there are several reasons to be concerned. In a recent synthesis of eighteen studies of what contemporary ESOL teachers think, know, and believe about the teaching of pronunciation, Murphy (2014b) found that a large number of teachers feel underprepared, believe that more training in this area is needed, recognize that too few certificate and degree programs offer a full course in how to teach pronunciation, and would like to have access to more fully developed curricula and instructional materials. Several investigations report that large numbers of contemporary teachers lack adequate training in how to teach L2 pronunciation (Breitkreutz, Derwing, & Rossiter, 2001; Burgess & Spencer, 2000; Foote, Holtby, & Derwing, 2011; Murphy, 1997). Perhaps due to a self-perceived lack of training, many teachers explain that they are reluctant to teach pronunciation (Burns, 2006; Macdonald, 2002), sometimes because they find it boring (Baker, 2014) and that when they teach pronunciation, they do so in ways very similar to how they were taught as L2 learners themselves (Hismanoglu & Hismanoglu, 2010). Some implications of this research are that many contemporary teachers lack both the training and confidence to teach pronunciation and that many language programs have dropped the ball with respect to meeting L2 learners' pronunciation needs. These are unsettling findings that this collection and other recent publications address directly; see Derwing and Munro (2015), Grant (2014), Jones (2016), Kang, Thomson, and Murphy (in press), Murphy (2013), and Reed and Levis (2015). A positive way of viewing the situation is to recognize that readers of this book will be better informed about the teaching of pronunciation than many contemporary ESL, EFL, and ELF teachers.

5. Which facets of pronunciation are the most important to teach?

Given the definition of pronunciation reviewed earlier, a more precise way of framing this question is to ask which facets of pronunciation most directly impact intelligibility and comprehensibility? To begin,

Lee, Jang, and Plonsky's (2015) recent meta-analysis of 86 empirical studies concludes that L2 pronunciation teaching is both effective and worthwhile. This is welcomed news that Grant's (2014) and Derwing and Munro's (2015) research summaries confirm. With respect to ESL classroom priorities, the research studies are consistent and clear. They suggest that to enhance communication effectiveness ESL pronunciation teaching should focus on word stress (Field, 2005), prominence (also known as sentence stress) (Hahn, 2004), prosodic features such as tone choice (Pickering, 2001; Wennerstrom, 2001), a rate of speech that listeners will perceive as neither too fast nor too slow (Derwing & Munro, 1997), sound segments within strongly stressed syllables (Zielinski, 2007), specific consonant and vowel sounds that have more of an impact on intelligibility (Catford, 1987; Munro & Derwing, 2006), as well as word-final consonants in general (Goodwin, 2014), especially when working with non-native English speakers of L1 Spanish backgrounds and those from Southeast Asia (Swan & Smith, 2001). Many specialists including Cauldwell (2013), Dickerson (2010), Gilbert (2008), Levis and Grant (2003), and Murphy (2013) prioritize the process of thought grouping, and Brinton (2014), Goodwin (2014), and Pickering (2012) all signal the related importance of an appropriate number and a suitable lengthening of pauses between thought groups. In their respective prioritizations of thought groups and pausing, both Cauldwell (2013) and Pickering (2012) offer particularly convincing research support.

As a means of teaching word stress, prominence, and other facets of English rhythm, some specialists recommend that instruction feature "speech-synchronized [body] gestures" (Acton, 2001, p. 200) such as hand claps, high fives, handshakes, the synchronized stretching of rubber bands, easy dance steps, and pencil tapping on desk tops. While the coordination of gestures and rhythms of speech is appealing, a word of caution is in order. For the most part, when specialists such as Chan (2007), Gilbert (2008), and Grant (2017) recommend speech-synchronized gestures, they do so from their practical experiences as classroom teachers. For more than two decades, they and many other pronunciation teachers have reported that teaching speech-synchronized gestures is helpful for teaching rhythms of word stress and prominence. Although Burri, Baker, and Acton (2016) offer research support synthesized from related fields, the jury is still out as far as empirical research support originating within the field of applied linguistics.

In a series of empirical studies of classic research design, Derwing, Munro, and Wiebe (1997) and Derwing and Rossiter (2003) identified

different benefits with respect to the teaching of suprasegmentals (e.g., stress, rhythm, intonation) and segmentals (e.g., consonants and vowels). On the one hand, they found prioritizing suprasegmentals leads to higher levels of both comprehensibility and fluency in non-native speakers' extemporaneous speech. On the other, a focus on segmentals better equips learners to notice their own mispronounced forms and to sustain such awareness over time. It also better positions them to be able to self-monitor and self-correct errors in their production when needed. When revisiting these findings a decade later, Derwing and Munro (2015) further clarified that instruction in “both segmentals and suprasegmentals have a place in the L2 classroom” and therefore may be viewed as mutually reinforcing facets of pronunciation instruction (p. 9). Partly in response to these specialist recommendations, Chapter 1 will focus on defining and illustrating the suprasegmental elements of English pronunciation and Chapter 2 will focus on the segmental elements of vowel and consonant sounds.

On a related topic, Saito and Lyster (2012) found it is important for teachers to find ways of providing explicit corrective feedback in pronunciation classrooms that will be received well by L2 learners. In a recent review of corrective feedback studies, Derwing and Munro (2015) report that L2 learners want to know how well they are doing in L2 pronunciation and that teachers need to provide relevant feedback in friendly, supportive ways. A related theme is that with teacher support, peers can be guided to serve as effective feedback providers especially in ESL settings when non-native speakers from a range of different L1 backgrounds are available. There is, of course, an extensive literature on the use of corrective feedback in L2 teaching (e.g., Ellis, 2009) unrelated to pronunciation teaching that may be drawn upon to inform teacher decision making in this area.

While the listing of teaching priorities presented so far is by no means comprehensive, it foregrounds specialist recommendations, most of which are grounded in empirical research. The priorities identified will need to be interpreted depending on the needs of local student populations, and teachers should keep in mind that any listing of research findings will likely evolve over time. Teachers interested in learning more about empirically supported priorities for pronunciation teaching should read and discuss contemporary research reports for themselves. A useful place to begin is Chapter 5 of Derwing and Munro (2015) where the co-authors conclude that “L2 speakers' perceptions and productions can improve significantly as a direct result of [pronunciation] teaching” (p. 108).

6. Can non-native speakers teach the pronunciation of English?

The answer to this question is an emphatic yes, and for several reasons. First, when viewed from a global perspective, there are far more English language courses and learners being taught by non-native English speakers than native speakers. Second, empirical research documents two essential themes: The first year of L2 learning is especially important for pronunciation development (Derwing & Munro, 2015), and learners' spoken intelligibility may suffer long-term negative effects if attention to pronunciation is neglected during the initial stages (Zielinski & Yates, 2014). Given these findings, the wider field needs as many non-native English speaking teachers as possible—especially those teaching in EFL settings—to be able and willing to teach pronunciation. Without their participation, the needs of language learners will not be well served. Third, there are very good reasons for non-native speakers to feel more confident than they typically do with respect to their potential to serve as effective models and teachers of English pronunciation. Since few L2 learners, except for the very young, will eventually acquire a native-like accent (Ortega, 2009), non-native English speaking teachers' own qualities of English pronunciation represent realistic aspirational models of pronunciation attainment (if they are intelligible and comprehensible). As Murphy (2014a) explains, it is simply more realistic for teachers and learners to embrace non-native accented, intelligible, comprehensible speech as an aspirational model. In fact, Murphy's (2014a) exploratory research suggests that pronunciation teachers who are native English speakers should supplement the model of their own L1 English pronunciation by incorporating within their courses frequent illustrations of intelligible and comprehensible non-native accented speech precisely because the latter are more realistic aspirational models. Classroom introduction of such models of pronunciation may be easily facilitated by accessing TEDTalks, Three Minute Theses[®], YouTube interview videos, the International Dialects of English Archive, and other relevant internet resources as a normal part of the instructional routine. Without exposure to such illustrations, L2 students may fail to realize that non-native accented speakers of English can attain high levels of intelligibility and comprehensibility and that such attainment is within their reach. Fourth, all ESOL teachers may feel confident that pronunciation can be taught successfully not only at intermediate and higher levels of proficiency (Couper, 2006; Derwing, Munro, & Wiebe, 1997) but to beginning level learners as well (Zielinski & Yates, 2014). For this to happen, everyone who teaches the pronunciation of English must be well trained.

7. Can pronunciation be taught communicatively?

For more than 35 years, there has been a vibrant tradition of teaching the pronunciation of English through procedures completely compatible with principles of communicative language teaching (CLT) (Celce-Murcia et al., 2010; Murphy & Baker, 2015). The earliest applications of CLT to pronunciation teaching are revealed in the work of some of the best-known specialists in the field (e.g., Celce-Murcia, 1983; Gilbert, 1984; Grant, 1993; Morley, 1991), in teacher preparation texts such as Celce-Murcia et al. (2010), in a growing number of activity resources (e.g., Marks & Bowen, 2012), and in contemporary ESL classroom instructional materials (Gilbert, 2012; Grant, 2017). Although those new to L2 pronunciation teaching sometimes wonder whether pronunciation can be taught through communicative means, an answer in the affirmative is eminently clear as these resources and those described in Chapters 3–12 will illustrate.

8. How much improvement may teachers and learners expect?

A consistent research finding over recent decades is that when students are asked about their pronunciation aspirations, most L2 learners will respond that they want to attain native or near-native pronunciation abilities (Derwing, 2003; Kang, 2010; Timmis, 2002). While this is a clear research finding, teachers need to interpret it with care because there is also ample empirical evidence of very real limitations to native-like pronunciation attainment. The fact is that very few people who initiate L2 study in adolescence or adulthood ever attain native-like pronunciation in a new language (Levis, 2005; Moyer, 1999; Scovel, 2000), and it is important for pronunciation teachers to be aware of this consistent research finding. In an authoritative discussion of the topic, Ortega (2009) comments that while native-like pronunciation attainment may be possible, such attainment is quite uncommon and few L2 learners ever accomplish it. Further, it was more than a decade ago that Derwing and Munro (2005) concluded that “there is no reason to believe that this goal [i.e., native-like pronunciation] is achievable in typical ESL classrooms” (p. 384). However, another essential theme running throughout these discussions is that native-like pronunciation attainment is not only an unrealistic goal for most adolescent and adult English language learners, but it is also an irrelevant one if students continue to progress in intelligibility and comprehensibility (Levis, 2005). Something teachers need to sort out when working with ESL, EFL, and ELF learners is how to

encourage improvement in the two components of pronunciation with the clearest potentials for enhancing communication effectiveness (i.e., intelligibility and comprehensibility) while at the same time not dampening students' enthusiasm. A possible resolution is to help students gain a realistic understanding of what may more reasonably be accomplished. One of a pronunciation teacher's central roles is to lead learners to better informed appreciation for what the process of L2 pronunciation learning entails and what it means to be a competent non-native speaker of English.

9. Do learners' needs vary?

Because all L2 teaching is tied to particular contexts of schooling (Freeman & Johnson, 1998), learners in different settings (e.g., different parts of the world), with different aspirations, and with different degrees of interaction with English speakers have varying pronunciation needs. Consider the different pronunciation needs of non-native speaking international teaching assistants who work with undergraduate students at English-medium universities; professional employees in business and industry; diplomats; recent refugees; non-native speakers who are English language teachers; primary school EFL learners in rural settings with limited opportunities to use English beyond the classroom; and service personnel who serve as tour guides, museum docents, waiters, and hotel receptionists in major cities worldwide. To elaborate just one example of a specialized learner population, Jenkins (2000) and Walker (2010) discuss teaching the pronunciation of English as an (international) lingua franca (ELF). They illustrate that relevant goals for pronunciation teaching in ELF settings are very different from ESL pronunciation goals. (Briefly, an ELF setting is one in which two or more non-native speakers from different L1 backgrounds are communicating with each other in English when no native speakers are present.) As English continues to serve as an international lingua franca in business, diplomacy, education, tourism, and entertainment worldwide, ELF interactions between non-native speakers of different L1 backgrounds are increasing in frequency and importance (Jenkins, 2010; Leitner, Hashim, & Wolf, 2016).

Jenkins' (2000, 2010) primary research has documented that while native speakers tend to listen for meaning and tend to fill in linguistic gaps in a non-native speaker's production, non-native listeners who are participating in ELF interactions depend even more heavily on the linguistic details of the incoming speech signal than had previously been recognized. This difference in ways of listening means that a non-native

speaker's intelligibility may suffer if ELF listeners become distracted by phonological differences with which they are unfamiliar. Such differences may include unfamiliar ways in which a non-native speaker from a different L1 background pronounces particular consonants, vowels, word endings, patterns of word stress, etc. Surprisingly, such phonological differences seem to be less of an issue when non-native speakers are interacting with native speakers since native listeners (at least those of attentive goodwill) are more efficient at perceptually adjusting their ways of listening (i.e., they are better able to fill in some of the phonological gaps). As documented in Jenkins' (2000) research, when ELF listeners are interacting with ELF speakers from different L1 backgrounds, they seem to have less perceptual dexterity while operating in their L2 and become more easily distracted by unfamiliar L2 speech features.

Walker (2010) illustrates that when teaching pronunciation in ELF settings, non-native listeners' tendency to become distracted by unfamiliar pronunciation features leads to a very different set of priorities for instruction, priorities that differ from those previously mentioned in response to Question #5. Early recognition of ELF learners' particular needs in the late 1990s was the catalyst that led to Jenkins' proposal of a lingua franca core (i.e., components of the English phonological system that help to maintain mutual intelligibility in ELF communications). Jenkins (2010) posits that lingua franca core items should be priorities when teaching ELF pronunciation. In Chapter 9, Patsko and Walker provide a full discussion of lingua franca core priorities, but here are two examples that should be easily recognized by those familiar with some of the differences between British and North American styles of pronunciation. ELF speakers are recommended to use the British way of pronouncing the *t* in words such as *butter* and *matter* (for North American speakers the *t* sounds somewhat more like a *d* in these locations). In contrast, ELF speakers are recommended to use the North American way of pronouncing the *r* in words such as *car*, *bird*, and *four* (British speakers tend to omit the *r* in these locations). In both instances, the principle is for ELF speakers to employ the pronunciation style that will be easier for other ELF speakers to hear, recognize, and understand. While some lingua franca core recommendations (see Chapter 9) may seem controversial or even counter-productive to ESL teachers unfamiliar with ELF realities, such research reminds us that all settings of language instruction need to be grounded in an identification of learners' real world needs. As Chapters 3–12 will illustrate, the teaching of L2 pronunciation should include a needs analysis component from the start.

10. How may the phonological system of English be taught?

It cannot be overemphasized that teachers of the pronunciation of English need to have a firm understanding of English phonology, both its suprasegmental and segmental dimensions. Also, given the career-long nature of L2 teacher development (Richards & Farrell, 2011), teachers need to know how to continue to learn more once having completed certificate and degree programs. Listed in a recommended order of priority, the core topics of English phonology pronunciation teachers need to know about and be ready to teach include:

1. the process of thought grouping
2. prominence
3. word stress
4. consonant phonemes (voice, place, and manner of articulation)
5. vowel phonemes (e.g., in relation to each other within the larger vowel field)
6. sound-spelling correspondences
7. variability (e.g., allophonic variation, dialect variation)
8. consonant phonetics (i.e., more detailed analysis)
9. vowel phonetics
10. connected speech phenomena (e.g., linking, assimilation, the intervocalic flap, vowel reduction, palatalization)
11. construction stress
12. rhythm
13. intonation
14. discourse meaning.

This range of topics is challenging for anyone new to pronunciation teaching to begin to master but is manageable within either a semester-long course or several months of private study. To be clear, the listing is applicable to both pronunciation teachers in training and language learners and follows a sequence recommended by Dickerson (2010). Also, not all of the topics listed need to be mastered for pronunciation teaching to begin. Specifically, the more essential topics are the first five listed. A teacher development course or workshop when less time is avail-

able might prioritize thought grouping, prominence, and word stress because these are also L2 classroom priorities (Dickerson, 2010; Levis & Grant, 2003; Murphy, 2013). But within the period of a full-semester course, there is more time available for teachers to learn about more, or perhaps all, of the 14 topics. Dickerson's (2010) underlying principle for those first learning about pronunciation teaching is to begin with the broad parameters of thought grouping and semantic prominence from the start because these suprasegmental dimensions set the phonological landscape within which virtually all other facets of the pronunciation of English take place. In other words, it is easier for both teachers and language learners to learn about the items closer to the top of the list (e.g., thought grouping, prominence, and word stress) before being introduced to consonants, vowels, and other naturally occurring phonological phenomena.

Resources to support coverage of these 14 topics appear throughout the *TPE* collection. As an aide while reading further, Table I.1 displays the core 14 topics as they are featured in Chapters 3–12. The topics are presented hierarchically along Table I.1's left-hand column accompanied by bullets to the right within individual cells to signal the particular chapters in which *TPE* chapter contributors discuss their ways of teaching the indicated topics. Toward the bottom of Table I.1's left-hand column, six additional topics are included since *TPE* contributors mentioned these other topics frequently, as well.

Due to space limitations, *TPE* contributors did not have an opportunity to write about everything they do when teaching pronunciation. The reason for featuring Table I.1 is to signal where readers can find *TPE* chapter coverage of particular topics. It may be useful to read the table along both its vertical and horizontal dimensions: Reading vertically signals the range of topics featured within an individual chapter while reading on the horizontal dimension signals which of the various chapters discussed how to teach a particular topic.

11. What else can I do to learn to teach pronunciation?

Beyond reading this book and enrolling in a related course, how else might someone learn to teach pronunciation effectively? While several decades of research into L2 teacher development have shown that focused reading and course work are essential preparatory experiences, they are insufficient on their own (Borg, 2003; Day, 1990). As language teachers, we also need firsthand opportunities to test out the concepts and teaching strategies we are learning about by working with actual

TABLE I.1

Core Topics in Phonology Matched with Coverage in Chapters 3–12

	3	4	5	6	7	8	9	10	11	12
Thought Groups	•	•	•	•	•	•	•	•		•
Prominence	•	•	•	•	•	•	•	•	•	•
Word Stress	•	•	•	•	•	•	•	•	•	•
Consonant Phonemes		•		•	•	•	•	•		
Vowel Phonemes	•	•		•	•	•	•	•	•	•
Sound-Spelling Correspondence					•			•	•	
Variability in Language				•		•	•		•	
Consonant Phonetics				•	•	•	•			
Vowel Phonetics		•		•	•	•	•			
Connected Speech Phenomena	•	•		•	•	•	•			•
Construction Stress		•	•			•				
Rhythm	•	•	•		•	•	•	•	•	•
Intonation	•	•	•	•	•	•		•		•
Discourse Meaning		•	•	•		•		•		•
Additional Topics										
Needs Analysis	•	•	•	•	•	•	•	•	•	•
Corrective Feedback		•	•	•	•	•	•	•	•	
Speech Synchronized Gestures	•	•			•			•	•	
Use of Internet Recordings	•	•	•	•	•		•			•
Assessment Procedures	•	•	•	•	•	•		•		
Syllable Structure		•		•	•	•	•			

language learners. In a study that explored these issues with both novice and seasoned pronunciation teachers, Baker (2014) concluded that ESL teachers who had previously completed degree courses dedicated to ways of teaching pronunciation revealed more variety, greater depth of understanding, and higher levels of personal engagement in acts of pronunciation teaching. Also, the L2 learners in their classes perceived them to be more effective as pronunciation teachers.

To become an effective pronunciation teacher, there are at least two domains of knowledge development to keep in mind; the first is **knowledge about phonology**, which includes declarative information about how the sound system of English operates (e.g., the 14 topics listed in Table I.1). These are the kinds of topics most of us can learn about relatively efficiently through reading, participating in lecture-discussions, and other learning experiences typically featured in ESOL teacher development courses and workshops. The second domain is more difficult to acquire through reading and discussion alone (Borg, 2003) since it entails **procedural and pedagogical knowledge about how to teach pronunciation**. Teacher education specialists refer to this latter domain of knowledge as “pedagogical content knowledge” (Johnson, 2009, p. 12) and find that it is experientially based, time-consuming to develop, and more difficult to acquire through reading and discussion alone (Baker, 2014; Murphy, 2014b). Pedagogical content knowledge means knowing how to do things effectively in language classrooms. It is one thing, for example, for a teacher to understand at a conceptual level what thought groups are and how the process of thought grouping operates (i.e., those are examples of knowledge about phonology). It is another thing altogether for an L2 teacher to know how to build L2 learner awareness about the process of thought grouping and how to provide learners with opportunities to use thought groups more effectively in classroom contexts of controlled, guided, and extemporaneous speech. This latter domain of instructional expertise illustrates a teacher’s pedagogical content knowledge. Of course, both domains are important and play essential roles in the professional life of a pronunciation teacher. Though they are interconnected, it seems fair to assume that teachers need at least some knowledge of phonology before the development of pedagogical content knowledge becomes possible. An implication is that an optimal way to read this book is to do so while beginning (or continuing) to teach pronunciation to non-native speakers.

Ideally, firsthand opportunities to develop pedagogical content knowledge should be coupled with guidance from more experienced teachers. Knowing this, one suggestion is to seek out opportunities to try out and

explore some of the ideas presented in this volume. If full-scale classroom teaching is not feasible, other options include tutoring L2 learners, volunteering to teach or tutor in a low-stakes language course or setting, offering to serve as an intern-assistant to a more experienced classroom teacher, observing pronunciation teachers in action (and discussing the experience with them), incorporating brief pronunciation phases within a language course focused on other skills, micro-teaching within a teacher development course, as well as other classroom teaching, practicum, and practice teaching experiences. Johnson's (2009, 2015) research illustrates that more experienced teachers and teacher educators can be especially helpful as mentors in the development of practical knowledge about teaching and that novice teachers benefit from opportunities to work with them. Johnson (2015) further explains that "the learning of [L2] teaching is not [primarily] a matter of discovery learning or learning by doing, but learning that is intentional, deliberate, and goal directed" with the support of more experienced professionals (p. 526). Reading the *TPE* collection and discussing its content with others are examples of such professional support. Another example is to seek opportunities to try out pronunciation teaching ideas firsthand, when possible with the support of others. The next two chapters prioritize what ESL, EFL, and ELF teachers need to know about the sound system of English (i.e., knowledge about phonology). In Chapters 3–12 discussion shifts to illustrations of how to teach pronunciation through teachers' own descriptions of ten different pronunciation-centered courses.

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