

Review of Introductory Phonology by Bruce Hayes*

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Overview. Hayes's (2009) *Introductory Phonology* is Blackwell's first phonology textbook since Kenstowicz (1994) and Spencer (1995). Unlike Kenstowicz's book, this one is intended for the novice, though it presupposes a background in phonetics and some familiarity with the goals of linguistic theory. The aims of the book are to introduce beginning linguists to phonological analysis and to situate phonological theory in the broader scientific context. The book has benefited from extensive field testing: it started out as course notes for undergraduate phonology at UCLA. I have used this book twice to teach undergraduate phonology at NYU, and I can attest that the book is popular with undergraduate linguistics majors. It is quite readable, presents a sophisticated point of view, and there is plenty of great fodder for classroom discussion to keep both students and instructors interested. In my opinion, it is the best phonology textbook available on the market right now, so I plan to use it again in future teaching and recommend it to others.

Contents. The book has fifteen chapters. Chapter 1 is an excellent and comprehensive overview of articulatory phonetics and the International Phonetic Alphabet, which is used throughout. The next two chapters cover phonemic analysis. Chapter 2 is on the basics of contrast, underlying representations, and complementary distributions, whereas chapter 3 discusses some interesting issues and complications in phonemic analysis. These include the relationship between orthography and phonemes, the psychological reality of the phoneme, and contextual neutralization. Chapter 4 is devoted to features, and chapter 5 is a brief overview of morphology. There are three chapters on phonological alternations. Chapter 6 is a general overview, and chapter 7 starts introducing the logic rule ordering. Rule ordering is discussed further in chapter 8, which also covers morphophonemic

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analysis and the determination of underlying representations. Chapter 9 covers rule productivity and exceptionality in phonology. Chapter 10 is on morphosyntactic rule domains and boundary phonology. Chapters 11 deals with historical change, and chapter 12 discusses phonological abstractness, with examples such as Slavic yers. Chapters 13-15 shift gear to prosodic phonology, covering syllables, stress, and tone and intonation. Each chapter ends with a short exercise section and a section with suggestions for further reading, which range from classics such as Sapir (1925) and Jakobson et al. (1952) to more recent experimental work such as Baayen et al. (2002). Most chapters also prepare the reader for the exercises by detailed case studies, which are introduced in order of increasing complexity. The book ends with a short methodological appendix on writing up phonology problems and a good single index of phonological terms and languages.

Critical assessment. There are many things to like about Introductory Phonology. First of all, the book is a pleasure to read—it is written in a very accessible and conversational style, which is very important for an undergraduate textbook. Another major strength is that the book covers topics that tend to worry good undergraduate students but that textbooks either do not cover or leave till the very end. Hayes offers a balanced discussion and informed opinions on topics such as rules of limited productivity, exceptions, the role of literacy in phonology, the relationship between phonology and phonetics, and the effects of language contact on phonological grammars. It is probable that not all instructors will agree with the points of view advocated in the book, but the topics make for a lively discussion in the classroom. The book also has many great suggestions for doing fieldwork in languages other than English, and it often discusses experimental evidence for certain phonological claims. This is what we should expect of a textbook written in the XXI century at a major center of linguistic research. Most importantly, the book does a really solid job of cementing the basic skills that form the foundation of phonological analysis, both explaining the logic and demonstrating it on detailed examples. This goes a long way towards helping the instructor teach the analytical skills.

There are a few features of the book that may be either strengths or weaknesses depending on the instructor. First, quite a few of the rules discussed in the book are rules of American English. On the one hand, this is a plus since everyone in the classroom has access to English, and a focus on English is guaranteed to engage students who plan to apply their newfound phonological knowledge in acting or speech therapy. On the other hand, however, the rules sometimes focus on phonetic

detail to such an extent that the discussion might alienate foreign or less linguistically introspective students and present problems for instructors who do not speak English natively. This attention to phonetic detail can also prove tricky in the context of material presented in subsequent chapters. For example, chapter 2 introduces English allophones of /l/, including light [l], dark [ɫ], a dental dark [ɬ] before interdentalals, and a half-devoiced [l̥] after voiceless fricatives and aspirates in words such as [sɪl̥ɑrt] “slight.” The rule to derive the last allophone is easy to write informally, but it is all but impossible to formalize using the features and notation introduced in chapter 4. It may have been pedagogically simpler to write the allophone as [l̥] and return to the actual phonetic reality in section 6.4, which discusses near-neutralization and phonetic detail.

The informal statement of rules is another feature of the book that may not work for all instructors. For the most part, the rules are written in a simplified SPE notation (Chomsky and Halle 1968): the familiar $A \rightarrow B / C ___ D$, except that segments are often written with IPA symbols rather than feature matrices. Hayes has a reason for doing this:

A fully explicit phonological analysis of a language would use no phonetic symbols. Only the feature matrices have theoretical status, and the phonetic symbols are meant only as convenient abbreviations. . . . On the other hand, one also wants to be able to describe phonologies in a way that is accessible to human inspection. My own feeling is that in semi-formal presentation, it is appropriate to use a mixed notation, using phonetic symbols when they lead to no harm, and features where they contribute insight. (p. 92)

On the one hand, informal rules are generally a good thing because they allow for a focus on substance—especially since Hayes always takes care to describe the rules in intuitive terms and to give them mnemonic names, a practice that he explicitly recommends. On the other hand, however, it is not a bad idea for beginning students to practice writing rules in explicit and formal detail as much as possible.¹ The compromise, of course, is to require students to write explicit rules alongside informal statements and mnemonic names used in the textbook.

The chapter on features might elicit some quibbles, as phonology textbook chapters on features

¹My own pedagogical bias here is influenced by how mathematics was taught in the former Soviet Union. Students were not allowed to use calculators until well after covering algebra, geometry, and trigonometry, under the theory that arithmetic is a good workout for the brain and that a student with solid pencil-and-paper math skills will be able to put a calculator to better use once its use is warranted. This pedagogical strategy is applied in some syntax classes, where instructors do not allow beginning students to use triangles in trees.

always seem to. Most of the features are traditional SPE, but for vowels, the traditional [\pm back] distinction is supplemented with a [\pm front] feature in order to account for three-way backness contrasts, and the consonantal features include [\pm tap], [\pm trill], and [\pm labiodental]. To help the student sort out all the features, the chapter includes a large and exhaustive table of feature values for practically every IPA symbol. (This chapter is meant to be supplemented with the FeaturePad software, which is available for free at the UCLA website. Unfortunately, the software is Windows only, so neither I nor most of my students, overwhelmingly Mac users, got to try it.) Departures from the SPE tradition are always highlighted and supported by arguments, but these may not convince everyone. One thing that doesn't quite come through in the chapter is that some of the features are more important in characterizing a sound than others. For example, the primary feature that distinguishes fricatives from stops is usually [continuant], but in the table, it is often redundant with [delayed release]. I found that students needed some guidance in focusing on the "big" features.

Because the book is written in the context of a ten-week quarter system rather than a semester system, there was not quite enough material for a 15-week semester at NYU (though this depends on the instructor and the student population). In future versions, the book might benefit from the addition of more exercises of varying length—some chapters include only one or two problems at the end. The book should also be expanded to cover additional topics. A theme that I would have liked to see discussed is enriching phonological representations to constrain phonological rules. The book barely mentions common rules such as vowel harmony and dissimilation, and it does not discuss the formal devices phonologists use to deal with them. It thus omits an important class of rules that are quite common in the languages of the world and that students might encounter in their fieldwork. (Autosegmental representations are introduced at the very end of the book, but only as a means of dealing with tone.) On the same note, the chapter on stress does without metrical foot structure, using modified SPE-style rules that assign stress to syllables (e.g., $\sigma \rightarrow [+stress] / ____ (\sigma)]_{word}$ for Polish). This is a descriptive but not a predictive account of stress, and it feels like another missed opportunity, especially since the author is a recognized authority on metrical stress theory (Hayes 1995). While in many ways, this is a very modern textbook, the representations used in it could have been taken straight from the 1970's.

I would like to emphasize that none of the issues raised here are deal-breakers—rather, they open up opportunities for interesting classroom conversations. The book strikes the right balance

between covering basic skills in an accessible manner and propelling the curious students to further study phonology.

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