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<th>Title</th>
<th>[Review of the book <em>A figure of speech: A festschrift for John Laver</em>, by W. J. Hardcastle &amp; J. M. Beck (Eds.)]</th>
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This book in honour of John Laver contains fifteen papers in four separate sections that mirror much of his work from a long and illustrious career in phonetics. The three papers in the first section discuss evidence from instrumental research and how it affects our understanding of phonetic representation. In section two, the three papers deal with cognitive aspects of phonetic processing. Section three is the longest, with five papers that report on the sounds in various languages around the world, particularly how they are affected by social context. And the four papers in the final section deal with the topic that is perhaps most closely associated with John Laver, voice quality.

In the first paper, Peter Ladefoged considers whether the underlying targets for consonants, vowels and stress should be represented in articulatory, auditory or acoustic terms, and he concludes that no one kind of representation is appropriate for all types of phonological unit. While consonants may be represented well in terms of articulatory gestures, vowels seem to exhibit considerable variation in the articulation of different speakers, which suggests that vowels are better modeled by auditory targets, and a combination of different acoustic parameters seems to capture stress patterns best.

Next, John Ohala argues that although phonetic models may be necessary to explain some speech phenomena, such as epenthesis of [p] in the [mθ] sequence and the labial or velar nature of [w], they cannot represent all of our knowledge, because speakers do not know physics, and he concludes that there should be no requirement of phonetic naturalness for phonological grammars.

The final paper in section one, by W. J. Hardcastle & F. Gibbon, provides an overview of electropalatography (EPG) as a tool for research and for clinical assessment and therapy. Examples of EPG output are given to illustrate the articulation by normal speakers of the nasal in ban cuts, and it is reported that of ten speakers, two never assimilated the [n], four exhibited complete assimilation and produced [ŋ] with no residual alveolar gesture, and the remaining four exhibited substantial variation in their behaviour. Further illustrative EPG outputs are provided to demonstrate its use as a diagnostic clinical tool, for example how it can reveal that a [t] and a [k] produced by a patient with a cleft palate may differ even when they sound the same.

The second section includes three papers on how the brain processes sounds. In the first, Anne Cutler & Mirjam Broersma report on priming and reaction time experiments with English and Dutch subjects which show that a phonetic category boundary such as that
between /s/ and /f/ can be shifted by the exposure to just twenty tokens. In addition they report that the absence of a contrast between /e/ and /æ/ in Dutch means that the imaginary word *chass* primes *chess* for Dutch listeners but not for English listeners.

The next paper, by Helen Fraser, considers the representation of speech from the perspective of phenomenology, showing that it is essential always to consider the needs of the user when selecting a suitable representation. Fraser argues that phoneme-based transcription, especially using the IPA, is not the most appropriate means of representing speech for some purposes.

In the last paper in section two, Peter MacNeilage & Barbara Davis argue that Frame and Content Theory, with syllables as the frame and consonants and vowels as the content, provides a suitable model for explaining the evolution of speech production and also the rhythmic speech output of many severely brain-damaged patients.

The five papers in section three report on the effects of social context on the sounds of various languages. In the first, R. E. Asher and E. L. Keane compare /ai/ in formal and colloquial Tamil, particularly the suggestion that this vowel is a monophthong in the colloquial variety. However, the data from only one of their three speakers confirm this claim, and they conclude that it was not possible to elicit true colloquial Tamil from the other two speakers, as the inherently formal nature of making recordings tends to be incompatible with the production of the colloquial variety of the language.

The second paper in section three, by Gerry J. Docherty & Paul Foulkes, investigates glottal variants of /t/ in Tyneside English and concludes that canonical glottal stops with a period of complete silence are very rare, but that a voiced or partially voiced sound with no sustained occlusion is most common, especially among young working-class speakers. Furthermore, there is often evidence of F2 transitions, suggesting there is a residual gesture for an alveolar consonant.

In the third paper, Janet Fletcher studies the distribution of vowels in three Australian indigenous languages, Mayali, Dalabon and Kayardild, all of which are characterised by a small number of vowels, and she concludes that the vowels exhibit sufficient contrast rather than maximal dispersion, and that their vowel spaces are anchored around the open [a] vowel. In addition, she investigates the use of prosodic cues to signal reported speech in two of the languages, and she reports that pitch range is greater and pitch is generally higher for reported speech, especially when the quotative marker does not occur.

The paper by Jonathan Harrington, Sallyanne Palethorpe & Catherine Watson builds on their earlier work which compared the formants of the vowels in the Queen’s Christmas broadcasts in the 1950s and 1980s. This time, they measured the four diphthongs, /eɪ/, /aʊ/, /oʊ/ and /au/, and they report that by the 1980s the Queen was making a greater distinction between the two front diphthongs and also between the two back ones than she did thirty years earlier, and this confirms their earlier findings that the Queen is now making wider use of her vowel space than in the past. However, it is still true that she makes a smaller distinction between /au/ and /au/ than most speakers of Standard Southern British, which confirms the caricature of her pronunciation of *house* as ‘hice’.

And finally in section three, John Local investigates collaborative completions and reports that when one speaker tries to finish the utterance begun by another, the completion tends to be quieter, faster, and on a similar pitch but with less pitch range than the speech that is being completed.

In the first of the four papers on voice quality, Janet Mackenzie Beck gives an overview of how Voice Profile Analysis (VPA) can provide a way of characterizing the voices of individuals, not just their phonation but all aspects of speech that are subject to long-term settings, and she reports on the ways it can contribute to such things as interaction analysis and clinical applications.

The second paper in section four, by Ailbhe Ni Chasaide & Christer Gobl, reports on how manipulation of various acoustic parameters can affect the perceived attributes of speech, for example making it sound stressed, angry, hostile or happy. In particular, they consider the
tense-lax dimension of voice quality, and they find that it is gradient rather than categorical, and they further report that manipulating fundamental frequency in isolation with no adjustment to other acoustic parameters yields small shifts for the affects investigated.

In the third chapter on voice quality, John Esling & Jimmy Harris provide an overview of states of the glottis in phonation, using laryngoscope photographs to provide one clear picture to illustrate each of the settings, such as modal voice, falsetto, whisper, breathy voice, creaky voice and harsh voice.

And in the final chapter of the book, Francis Nolan discusses why forensic speaker identification has not made greater use of Laver’s framework for the description of voice quality, considering potential reasons such as lack of expertise, lack of time, and poor quality recordings. He concludes that it cannot simply be because of lack of knowledge, for despite his own familiarity with the framework, he himself has not made much use of it in the thirty cases he has dealt with, so a more important factor is likely to be the poor quality of many of the recordings that have to be used, especially those derived from the telephone.

Overall, this book represents a rich tapestry of papers with a wide range of goals and styles produced by eminent scholars from around the world. While a few of the papers report on rather small-scale studies, most of them offer valuable insights that not only enrich our knowledge of the pronunciation of various languages but also contribute to our overall understanding of phonetics. For example, in the paper by Asher & Keane, one might question whether three speakers is enough to draw reliable conclusions about the nature of diphthongs in Tamil, but in fact not only does the paper raise interesting issues about the problems of obtaining good-quality recordings of genuine colloquial speech, it also provides valuable evidence about what happens to diphthongs under different conditions, suggesting that for polysyllabic words the middle part of a monosyllabic /ai/ is retained, but in those cases where a diphthongal /ai/ is found in colloquial speech, it is the initial rather than the middle section of the formal version of the vowel that occurs.

The paper which is based on data from the fewest subjects is of course that by Harrington et al., with their analysis of the speech of just one person, the Queen. While some might question the wisdom of investigating a single speaker in such depth, especially someone with such idiosyncratic speech habits, the analysis does provide fascinating evidence about how the pronunciation of one very well-known person can vary over time and it also clearly shows that public figures do not always speak the most clearly or offer the most appropriate model for learners around the world.

The study of the Queen’s speech uses public broadcasts, but it is not clear how easily available these recordings are for others to use. In fact, it is a little unfortunate that most of the papers in this book make almost no use of data from publicly-available corpora, and furthermore that none of the data is made available for us to listen to, perhaps on a CD-ROM or a dedicated website, to enrich our appreciation of the findings and to allow us build on the results that are reported. While the study by Docherty & Foulkes of glottal variants of /t/ in Tyneside is based on the meticulous measurement and detailed analysis of a substantial corpus of data, and the study by Local of collaborative completions provides interesting and valuable results from 180 instances of such completions extracted from 18 hours of recorded interactions, it appears that neither of these corpora are available to other researchers. Finally, while Fletcher is to be commended for her careful and interesting work on the vowels and intonation of indigenous languages of Australia (and in fact hers is the only paper in the book that provides analysis of endangered languages), making the data publicly available would seem to provide an even more valuable resource in helping to ensure that these languages are not irretrievably lost.

Of course, we have to accept that making data available to others is not always an option. For example, it may be that Fletcher’s speakers of indigenous Australian languages would not agree to their conversational recordings becoming part of a widely distributed corpus, and this certainly should not interfere with the valuable descriptive work she has done on the recordings. Furthermore it is hardly surprising if the data cannot be made available from
some studies, such as Nolan’s thoughtful and interesting introspection of methods adopted in forensic cases of speaker identification. However, there are plenty of speech corpora available today which are appropriate for many kinds of study, and one hopes for example that Local’s detailed and insightful study of collaborative completions might be extended to instances where the data are publicly available, so that we can get the chance to listen to the examples and build on his findings.

In experimental work which involves the reactions of subjects to speech samples, the key is not so much to make the data available but instead to ensure the results are presented comprehensively and are thus replicable, and Cutler & Broersma do an excellent job in presenting their results for the bilingual perception of vowels and fricatives in a concise but clear fashion. But while Ní Chasaide & Gobl provide an interesting summary of some detailed work on the affective reactions of listeners to various acoustic manipulations of speech, to gain a proper understanding of this work one would really need to access the ‘fuller account’ (p. 327) published elsewhere. For example we are told to consult the text for a definition of ‘RK’ (p. 330), but this definition is never actually given. (Perhaps RK is really one of the LF parameters listed on page 332 as ‘EE, RA, RG, and RG’?)

Three of the papers provide valuable overviews of techniques that are adopted in phonetic investigation. Hardcastle & Gibbon present clear examples accompanied by detailed computer printouts of how EPGs can be used in research and clinical assessment, and they also give some interesting data showing how speakers vary in their patterns of assimilation. Similarly, Mackenzie Beck offers a thorough overview of the use of the VPA scheme for different kinds of investigation, though the exact details of how a ‘neutral voice’ is determined are never quite explained, in particular how the scheme can overcome the problems of identifying a ‘normal’ voice that she indicates is a shortcoming of other voice profiling systems (p. 311). And Esling & Harris provide exceptionally clear photographic evidence to illustrate the states of the glottis for various kinds of phonation, though many readers may struggle a little to understand statements such as ‘The vestibule is delineated anteriorly by the epiglottis, posteriorly by the apices of the arytenoid cartilages, and laterally by the aryepiglottic folds’ (p. 358). A diagram or two showing the physiology of the laryngeal region of the throat might have been valuable at this point.

Finally, there are four papers which present little in the way of new speech data but offer important insights into theoretical issues. The concise but carefully-argued contribution by Ladefoged provides exceptionally clear evidence to show that articulatory targets may not be appropriate for all kinds of speech units, providing a useful antidote to the claim by some scholars that all of speech can be modeled effectively in terms of articulatory gestures. The paper by MacNeilage & Davis presents a cogent case for syllabic frames and segmental content forming the underlying structure of speech, and it also collates interesting evidence from a range of previous studies to show how Frame and Content Theory can allow a representation of the basic rhythmic output of severely brain-damaged patients. However, the other two theoretical papers seem to be missing something. While Ohala raises some important questions about the requirement for phonetic explanations in representing sound patterns, he states (p. 34) that full coverage would require more space than he is allocated, which is a bit mysterious as his is actually one of the shortest papers in the book (16 pages, compared with the average of 26 pages). And even though Fraser’s paper is one of the longest (35 pages), while she makes an eloquent case against the use of the IPA for all purposes, she never really indicates what a suitable phonetic representation for use in dictionaries or in second language teaching should look like, especially as she argues that use of ordinary spelling as exemplified by ‘Oxford diacritics’ is not suitable (p. 107).

Overall, the book contains a rich mixture of practical and theoretical papers which add to our knowledge of a range of languages, demonstrate the use of various research techniques, and enhance our understanding of theoretical issues in phonetics. One imagines that John Laver will be rather pleased with this book prepared in his honour.