REVIEWS

PAUL WARREN, *Uptalk: The phenomenon of rising intonation*. Cambridge: Cambridge University Press, 2016. Pp. xvi + 223.
ISBN 978-1-107-56084-0
doi:10.1017/S0025100316000323

Reviewed by **D. Robert Ladd**
Linguistics and English Language
University of Edinburgh
bob.ladd@ed.ac.uk

This book reviews and discusses almost everything that anyone has ever written about uptalk, and it is certain to become the standard reference on the topic. In the preface (p. xiv), Warren describes his aim as being 'to provide a coherent account of the origins, distribution, nature and use of that "rising inflection at the end of each sentence, which makes every remark sound like a whiny question"'. (That quoted characterisation of uptalk is from a piece in a popular magazine from the mid-1990s.) At the beginning of his brief final chapter (p. 187), he describes it slightly differently, saying that his aim 'has been to draw together in one place a range of research findings and other commentary relating to uptalk'. This second version of the aim is unquestionably fulfilled. As a survey of the literature, the book has no rival and is unlikely to acquire one. This is why it is certain to become the standard reference: except for specialised purposes, there is no point in going anywhere else to find out what has been said about uptalk – either by researchers or by journalists and lay commentators – over the past 30 or 40 years.

The chapter titles give a clear idea of what is on offer. After an introduction that, among other things, justifies the use of the term UPTALK to refer to his subject matter, Warren covers: the forms of uptalk (Chapter 2), the meanings and functions of uptalk (Chapter 3), uptalk in English varieties (Chapter 4), origins and spread of uptalk (Chapter 5), social and stylistic variation in uptalk use (Chapter 6), uptalk in the media (Chapter 7), perception studies of uptalk (Chapter 8), uptalk in other languages (Chapter 9), and methodology in uptalk research (Chapter 10). The book finishes with a very brief 'summary and prospect'. It's difficult to think of anything that is left out. Of particular note is the book's remarkable collection of references to uptalk in a whole range of material other than academic linguistic and sociolinguistic work, including an article in a professional journal on suicide prevention (pp. 65f.), a TV crime drama in which a forensic phonetician who knows about uptalk helps solve a murder (p. 116), and a 2001 review of a teen TV show that criticises the show because its dialogue DOESN'T feature uptalk (p. 81). These references are used throughout the book to illustrate points and, perhaps, to lighten the presentation. They are also the centrepiece of Warren's chapter on uptalk in the media (whose full title is actually 'Credibility killer and conversational anthrax: Uptalk in the media'), which presents a very interesting analysis of the way uptalk is mocked and marginalised in non-academic discourse, drawing heavily on Rosina Lippi-Green's work on 'language subordination' (Lippi-Green 2012).

It is a little unclear who the book is written for, though I doubt this is really Warren's fault. The blurb on the cover says it 'will be welcomed by those working in linguistics, as well as anyone interested in the way we talk today'. On the whole, I suspect that Warren was writing primarily for linguists, and was encouraged to make the book more accessible so that it would sell better. He himself never actually says that the book is for 'anyone interested in the

 © International Phonetic Association

https://doi.org/10.1017/S0025100316000323 Published online by Cambridge University Press

way we talk today'. In the first chapter he includes some background material that might be marketed as making it easier for certain groups of lay readers, though I find it hard to see how discussing the different transcription traditions in mid-20th century British and American linguistics (pp. 7ff.) is going to add much to anyone's understanding of the technical issues in defining and describing uptalk. Once past the introductory chapter, non-specialist readers are left to deal on their own with unreferenced allusions to things like Relevance Theory (pp. 58, 150), positive politeness (pp. 52, 64), and stress-timing vs. syllable-timing (p. 161), along with a couple of stray references to the Autosegmental-Metrical framework (e.g. pp. 38, 63) in a work that otherwise refers simply to ToBI. I do think that the book could have been written in a way more suitable for 'anyone interested in the way we talk today', but as I said I doubt that that was really Warren's aim. The value of the literature survey aimed at linguistic and sociolinguistic researchers is beyond doubt.

At the same time, for such readers the book may feel like something of a missed opportunity. Warren's range of sources sometimes seems unselective rather than comprehensive, and the breadth of coverage sometimes gets in the way of the first version of his declared aim, namely providing a 'coherent account'. I would have preferred a little less quotation and a little more authority, a little more critical discussion, a little more synthesis. For example, consider the way he treats what we can loosely call the 'meaning' or function of uptalk. It is frequently said (possibly beginning with Robin Lakoff's well-known claim in *Language and Woman's Place*; Lakoff 1975) that uptalk signals insecurity or deference and unwillingness to make a direct statement. Throughout the book, not only in his chapter on 'uptalk in the media', Warren quotes sources in the popular press that express this general view. Yet he also discusses quite a few academic studies (such as McLemore's 1991 study of uptalk in a Texas university sorority) that show that the view is simply empirically false: for example, McLemore showed clearly that uptalk was more often used by sorority members in some position of authority (e.g. at formal group meetings). Warren also devotes considerable space to studies (such as McGregor & Palethorpe 2008 or Fletcher & Harrington 2001) that seem to show clearly that uptalk is used primarily to engage the listener and to ensure that important new information is incorporated into the conversational background. Overall, anyone who reads the whole book is unlikely to come away with the idea that uptalk signals insecurity, but the popular view is never really demolished in the way it deserves to be. The discussion is distractingly even-handed.

A symptom of this even-handedness is that Warren frequently quotes commentary in the popular press at what I found to be unnecessary length. Of course, this commentary (blaming uptalk on Australian soap operas, 'Valley Girls', or whatever) constitutes valuable evidence for tracing the history of uptalk, but Warren seems to relish reprinting the predictable things that people say when they complain that the language is going to the dogs. On page 101, for example, the existence of a 2001 letter to the British newspaper *The Guardian* suggesting that uptalk has been prevalent in the west of England for decades is clearly relevant to the discussion, but there seems little point in going on to quote four lines' worth of the letter writer's complaints about 'the tedious and ugly reiteration of "I mean" and "you know" [etc. etc.]'. In a couple of places, Warren himself even seems to get into the spirit of the complainers. On page 98, at the beginning of a paragraph summarising the introductory section of the chapter on origins, he says: 'Uptalk certainly appears to have spread very rapidly, like an unchecked infection'. Perhaps this is just a case of irony failing to work on the printed page – he then goes on to cite examples of the disease metaphor in the popular press – but I found it puzzling that he incorporated the metaphor into his own narrative.

For readers of this journal, the most serious drawback of Warren's comprehensive (or unselective) approach to reviewing the literature lies in the way it affects the definition of uptalk itself. What exactly is the book about? In some important sense, Warren never actually says. He discusses a variety of research traditions that all appear to be dealing with approximately the same thing, and mentions a number of different labels that have been applied to that thing (High Rising Terminal, Australian Questioning Intonation, uptalk, etc.).

https://doi.org/10.1017/S0025100316000323 Published online by Cambridge University Press

However, he seems unwilling to try to pin down a phonetic or phonological definition that will allow us to distinguish uptalk rises from any other sort of rise. He merely reminds us from time to time that the discussions he reviews 'may not be discussions of precisely the same phenomenon' (p. 69) and that 'researchers are likely to make different judgements about what counts as uptalk' (p. 101). For example, throughout the book he reviews studies that regard the 'continuation rise' and uptalk as the same thing (e.g. Shokeir 2008) along with studies that regard them as distinct (e.g. McGregor & Palethorpe 2008). (A comment on page 119 indirectly suggests that Warren himself would distinguish the two, but for the most part, he does not make judgements of this sort.) Similarly, at various places in the book he discusses apparent phonetic differences between uptalk statements and uptalk questions, citing authors who distinguish the two as L* H- H% vs. H* H- H% (e.g. McGregor & Palethorpe 2008) and authors who distinguish them as L* L- H% vs L* H- H% (e.g. Ritchart & Arvaniti 2014). He never proposes his own analysis, but merely concludes – in his chapter on methodology – that 'intonational transcription is not straightforward' and 'gives rise to quite a bit of disagreement between experts' (p. 184). By and large he simply treats as uptalk almost anything that has been studied as uptalk in past research. One might argue, of course, that Warren's inclusive approach is justified by the important differences between varieties of English in the phonetic form and/or pragmatic functions of phrase-final rises, but it would still have been useful to have more explicit comparison and discussion of how uptalk all fits together as a coherent phenomenon worth writing a book about.

What makes Warren's reluctance to deal with this issue especially noteworthy is that in at least one case he does appear to make a judgement that a certain intonational phenomenon is NOT uptalk. I refer to his treatment of 'Urban North British' (UNB) statement rises. Warren simply accepts (pp. 88, 103) the suggestion by Cruttenden (1995; also 1997: 129–136) that the statement rises found in Belfast, Glasgow, and a few other Northern urban centres in the UK are distinct from uptalk. He cites, but does not discuss, the *Language Log* post in which Liberman (2008b) not only casts doubt on the idea that the two are distinct, but also sets forth good evidence that the description of the phonetic difference suggested by Ladd (2008: 126ff.) is simply wrong.

Briefly, the issue is this. Descriptions of the UNB rise concur in treating it as a rise at the final accented syllable, often followed by somewhat declining pitch until the end of the phrase. (Cruttenden's label for this pattern is 'rise-plateau-slump', though he is careful to point out that this is not the only UNB pattern, and that the phonetic details vary from one city to another.) In Ladd 2008 (and in my comments on Liberman 2008a on *Language Log*), I claimed that, by contrast, the terminal rises in other varieties of English – including uptalk – '[keep] rising from the accented syllable to the end of the phrase' (Ladd 2008: 127). Liberman 2008b queried this claim at some length, with acoustic evidence: he presented clear examples of several different North American uptalkers, for whom the pitch rises on the accented syllable and then levels off to the end of the phrase. In the face of this evidence, I do not understand why Warren retains his confidence that UNB rises don't count as uptalk – but more importantly, I don't understand why he doesn't treat this issue more fully in the book. If there really is a difference between UNB rises and North American uptalk rises – which I continue to believe is plausible – then a careful attempt to describe the phonetic basis of the difference should lead us to a clearer understanding of uptalk, and ultimately, I think, of intonational phonetics and phonology in general. The rest of this review is devoted to a more general discussion of this issue.

Intonation certainly poses special descriptive problems. In the ordinary lexicon, word meanings are pretty much discrete, and if two words are different we have reasonably well-established ways of describing the phonetic properties that signal the difference. The subtlety of the phonetic distinctions doesn't matter: *ankle* and *uncle* are similar enough phonetically to cause problems for many second-language speakers of English, but we know they mean something different, and we can confidently conclude that the phonetic difference between their initial vowels is a systematic part of English segmental phonology.

https://doi.org/10.1017/S0025100316000323 Published online by Cambridge University Press

We can't proceed so confidently with intonation, because our metalanguage for describing intonational phonetics is not so well developed. And that, I believe, is due to the fact that the phonological categories of intonation – whatever they are – are subject to meaningful gradient variation, or 'gradience' for short (Bolinger 1961, and many others since then). The simplest example of this kind of variation involves pitch range: if we emphasise a word by putting a high accent peak on it, we can emphasise it even more by making the high accent peak higher. This kind of thing doesn't happen with ankles and uncles – phonetic variability in the quality of the first vowel may say something about where the speaker is from, but it doesn't affect the meaning of the words in the way that gradient pitch range modification affects the meaning of an accent.

This is a problem for uptalk. Consider the range of research findings suggesting that variation in the pitch level at the beginning of the rise is systematically related to various pragmatic factors such as whether the rise is intended as a statement or a question (Warren, pp. 40–45) or whether the utterance involves new or given information (pp. 62–64). These are empirical results, and we want to incorporate them into our understanding. However, because of the problem of gradience, it's not clear how to do this. For a number of investigators who use some version of the ToBI/autosegmental-metrical analysis of pitch contours, the obvious way to annotate this difference is to distinguish between an L* and an H* pitch accent, so that uptalk includes both L* H- H% (for statements, for given information, etc.) and H* H- H% (for questions, for new information, etc.). But any such analysis has serious problems.

First of all, it has the problem that the pragmatic findings are a matter of statistical generalisation, not categorical distinction. It is as if we discovered that when speakers intend to talk about the brother of one of their parents they use *uncle* 87% of the time and *ankle* 13% of the time, while references to the joint between lower leg and foot involve *ankle* in 79% of cases and *uncle* in 21%. Obviously, ordinary word meaning doesn't work this way; if intonational meaning does work like this, then we have to adjust our understanding of what a phonological notation system for intonation is supposed to tell us. Second, the phonetic data are often (though not always, especially recently) based on auditory analysis, and in particular I know of no instrumental acoustic evidence for a categorical distinction between L* and H*. It would be relatively straightforward, in a large corpus of uptalk utterances, to test whether the pitch level at the beginning of the rise is distributed in two clusters, one relatively low and one relatively high. But to my knowledge this has never been done, and when analogous studies of other putatively categorical intonational distinctions have been done (e.g. in Braun's 2006 study of contrastive and non-contrastive topics in German), they have tended to show that the phonetic generalisation is, once again, a matter of mean differences and probabilities. In the case of uptalk, I think it is likely that there is no bimodal distribution of pitch level at the beginning of rises, but simply that the starting pitch level in statements is lower on average than in questions. Again, there is an obvious difference between this situation and the phonetics of the stressed vowels of *ankle* and *uncle*, where we would indeed expect to find two clear clusters of vowel quality in a statistical distribution over many utterances of the two words.

The theoretical problem, in my opinion, is stark. If we believe (with e.g. Pierrehumbert & Hirschberg 1990, Steedman 2014) that the elements of a ToBI string are distinct phonological categories with distinct meanings, then L* H- H% and H* H- H% are simply different strings, like *ankle* and *uncle*, and they should not be regarded as variants of a single basic phenomenon ('uptalk') any more than *ankle* and *uncle* can be regarded as variants of the same word. But this is exactly what frequently happens in much of the work Warren reviews. The runaway success of ToBI-style transcription systems for intonation has meant that certain categorical notational distinctions (like L* vs. H*) are now widely taken for granted as a useful representation of PHONETIC reality; the notations L* H- H% and H* H- H% are used to express phonetic observations that may actually involve the extremes of a gradient continuum. Worse, the theoretical contradiction between strictly interpreting the notations as PHONOLOGICAL ANALYSIS and informally lumping the two types together as 'uptalk' goes unremarked. This

https://doi.org/10.1017/S0025100316000323 Published online by Cambridge University Press

theoretical incoherence is especially clear in analyses, like that of McGregor & Palethorpe 2008, in which 'continuation rise' is annotated L* L- H% and is considered distinct from uptalk. This entails that L* H- H% and L* L- H% are completely different categories, while L* H- H% and H* H- H% are mere variants of the same category, a conclusion that has no foundation in theory. (I don't mean to pick on McGregor and Palethorpe: their analysis at least has the virtue of making explicit which notational distinctions they draw.)

The way to resolve the theoretical contradiction seems obvious to me: we need to recognise fewer phonologically distinct intonational categories, and more dimensions of meaningfully gradient phonetic variation. I'm quite sure that uptalk really is a phenomenon, and we want to be able to describe it in such a way that we can separate uptalk from non-uptalk with the same kind of confidence that we can distinguish *ankle* from *uncle*. But in order to do this, we cannot also give categorically distinct labels to uptalk-starting-low and uptalk-starting-high; we have to be content to describe those nuances in gradient, statistical, phonetic terms. This is hard to do in a convenient notational system. The reason that (to quote Warren again) 'intonational transcription is not straightforward' (p. 184) is that the choice of one transcription symbol over another to express an audible phonetic difference inclines us to believe that we are dealing with two distinct phonological categories. In segmental transcription, this belief is often justified, but in intonational transcription it actively hinders the development of our understanding.

Mark Liberman makes essentially the same point in one of his early *Language Log* posts on uptalk, a post that Warren refers to more than once without exploring its implications for the phonology of uptalk:

> It's also worth mentioning that the form of final rises can vary a lot. The starting point and ending point can move around, with respect to the speaker's pitch range and also with respect to the immediately preceding material. The rate of rising and the alignment with the words of the message also vary. IT REMAINS UNCLEAR, IN MY OPINION, WHICH ASPECTS OF THIS VARIATION ARE PHONETIC DIMENSIONS THAT SPEAKERS CAN CHOOSE TO DEPLOY TO A GREATER OR LESSER DEGREE, LIKE THE CHOICE OF HOW FAST OR LOUD TO TALK, AND WHICH ASPECTS INVOLVE QUALITATIVELY DIFFERENT ALTERNATIVES, LIKE THE CHOICE BETWEEN TWO DIFFERENT WORDS. (Liberman 2006, emphasis added)

Liberman's frank acknowledgement that 'it remains unclear' which phonetic features of intonation are gradient and which categorical strikes me as exactly right. It also remains unclear how categorical pragmatic inferences (like 'this is a question' vs. 'this is a statement') emerge from the application of multiple dimensions of gradient variability to the same intonational category; as I have argued before (e.g. Ladd 2008: 151–156), the fact that an intonationally conveyed pragmatic distinction seems categorical does not entail that the corresponding intonational distinction involves categorically distinct phonological elements.

Studies of uptalk could shed some light on this, but for the most part they haven't. Warren could have explored the theoretical confusion and empirical uncertainty that lies behind the variety of notations used by different uptalk researchers, but for the most part he didn't. The book would have been richer if he had taken on issues of this kind. But it's still an extremely useful review of what has been written about uptalk so far.

References

Bolinger, Dwight L. 1961. *Generality, gradience, and the all-or-none*. The Hague: Mouton.

Braun, Bettina. 2006. Phonetics and phonology of thematic contrast in German. *Language and Speech* 49, 451–493.

Cruttenden, Alan. 1995. Rises in English. In Jack Windsor Lewis (ed.), *Studies in general and English phonetics: Essays in honour of Professor J. D. O'Connor*, 155–173. London: Routledge.

Cruttenden, Alan. 1997. *Intonation*, 2nd edn. Cambridge: Cambridge University Press.

https://doi.org/10.1017/S0025100316000323 Published online by Cambridge University Press

Fletcher, Janet & Jonathan Harrington. 2001. High-rising terminals and fall-rise tunes in Australian English. *Phonetica* 58, 215–229.

Ladd, D. Robert. 2008. *Intonational phonology*, 2nd edn. Cambridge: Cambridge University Press.

Lakoff, Robin. 1975. *Language and woman's place*. New York: Harper and Row.

Liberman, Mark Y. 2006. Uptalk is not HRT. *Language Log*, http://itre.cis.upenn.edu/~myl/languagelog/archives/002967.html.

Liberman, Mark Y. 2008a. Uptalk anxiety. *Language Log*, http://languagelog.ldc.upenn.edu/nll/?p=568.

Liberman, Mark Y. 2008b. The phonetics of uptalk. *Language Log*, http://languagelog.ldc.upenn.edu/nll/?p=586.

Lippi-Green, Rosina. 2012. *English with an accent*, 2nd edn. Abingdon: Routledge.

McGregor, Jeannette & Sallyanne Palethorpe. 2008. High rising tunes in Australian English: The communicative function of L* and H* pitch accent onsets. *Australian Journal of Linguistics* 28, 171–193.

McLemore, Cynthia. 1991. *The pragmatic interpretation of English intonation: Sorority speech*. Ph.D. dissertation, The University of Texas at Austin.

Pierrehumbert, Janet B. & Julia Hirschberg. 1990. The meaning of intonational contours in the interpretation of discourse. In Philip R. Cohen, Jerry Morgan & Martha E. Pollack (eds.), *Intentions in communication*, 271–311. Cambridge, MA: MIT Press.

Ritchart, Amanda & Amalia Arvaniti. 2014. The form and use of uptalk in Southern Californian English. *Proceedings of Speech Prosody* 7, Dublin.

Shokeir, Vanessa. 2008. Evidence for the stable use of uptalk in South Ontario English. *University of Pennsylvania Working Papers in Linguistics* 14, 16–24.

Steedman, Mark. 2014. The surface-compositional semantics of English intonation. *Language* 90, 2–57.

ERIC J. HELLER, *Why you hear what you hear: An experiential approach to sound, music, and psychoacoustics*. Princeton, NJ & Oxford: Princeton University Press, 2012. Pp. i–xxviii + 590. ISBN: 9780691148595
doi:10.1017/S0025100317000044

Reviewed by **Michael Ashby**
University College London (UCL)
m.ashby@ucl.ac.uk

Even if I were capable of attempting one, *JIPA* would not be the place for a comprehensive review of this huge, exuberant book of which the six sections and 28 chapters range over sound propagation, wave phenomenology, Fourier analysis, autocorrelation, sound sources, horns, sirens, strings, damped and driven oscillators, Helmholtz resonators, turbulence, musical instruments, the voice, the hearing mechanism, pitch perception, architectural acoustics, and long-range sound propagation in the atmosphere. The focus must rather be on what the book has to say about speech, and the value of the book for teachers and researchers in phonetics.

One will search in vain for Heller's name in the annals of acoustic or auditory research. He is by trade a quantum physicist and theoretical chemist, and the book arose from his teaching (with others) of a course on 'The physics of music and sound' for non-specialists within the 'General education' component of Harvard's degree programme. The teaching was evidently designed and delivered with enthusiasm and creativity, and students no doubt found the course inspiring. But as a result of its origins this book is to some extent the work of a physicist on vacation, and determined to enjoy himself.

It is far too big to be a coursebook. It is more like an encyclopaedic resource for a whole range of courses. It weighs almost 2 kg, is beautifully printed and bound, and has nearly 400 colour illustrations (Heller is an artist and photographer too). A website (http://www.whyyouhearwhatyouhear.com/), maintained by the author, rather than the publisher, has extensive supplements to each chapter, links to numerous online resources, and a 110-page 'problem book'. The book launched with a flotilla of endorsements already in

https://doi.org/10.1017/S0025100316000323 Published online by Cambridge University Press