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*General American and New York City English\**

*Résumé*

Le but de cet article est d'offrir une vue d'ensemble de la phonologie de l'anglais des Etats-Unis. Notre point de départ est ce qu'on appelle le General American (GA) ou Network English, dont le statut est très différent de la Received Pronunciation en Grande-Bretagne (voir Moore, ce vol.). Nous examinons la définition du GA, qui est fort complexe du point de vue géographique et social, et nous fournissons ensuite une description de ses principales caractéristiques phonologiques, en soulignant l'importance de la variation. Nous passons alors à une comparaison entre le GA et l'anglais de New York, accent qui a été au cœur des descriptions sociolinguistiques de l'anglais aux Etats-Unis depuis le travail fondateur de Labov (1966, 1972).

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## 0. Introduction

The aim of this paper is to offer an overview of aspects of the phonology of American English. We start with so-called General American (GA) or Network English, whose status is quite different from British English Received Pronunciation (RP, see Moore, this vol.). We examine the definition of GA, which is rather complex from a geographical and social point of view, and then provide a description of most of its core phonological characteristics, with due attention to the dimension of variation. Thereafter, we provide a comparison of General American and New York English, an accent which has received a great deal of attention in the wake of William Labov's seminal work in sociolinguistics (e.g. Labov 1966, 1972).

### 1. General American (GA)

#### 1.1. An historical perspective

As will be made abundantly clear in §2, the pronunciation of English in the United States is far from uniform. However, the reader will encounter in the literature a 'norm' which, while itself not fully uniform, is sufficiently stable to be taken as an object of description and has enough prestige to be adopted as a pedagogical model in the teaching of American English as a foreign language. This 'norm' is often called 'General American' (GA hereafter), although 'Network English' has also been mooted as a preferable term.

In the 2000 edition of the *Longman Pronunciation Dictionary*, John Wells summarily defines GA as follows: "This is what is spoken by the majority of Americans, namely those who do not have a noticeable eastern or southern accent" (p. xiv) (but, for more precisions, see Wells 1982: 467-473). Roach and Hartmann, who advocate 'Network English' in the 1997 edition of Daniel Jones' *English Pronouncing Dictionary*, are more explicit and, to set the scene, we shall quote them in full (note that these authors use the term 'dialect': we will take GA to be an accent; for details of the distinction, see Wells 1982, Carr 1999, Trudgill 2003):

"For American English, the selection also follows what is frequently heard from professional voices on national network news and information programmes. It is similar to what has been termed "General American", which refers to a geographically (largely non-coastal) and socially based set of pronunciation features. It is important to note that no single dialect - regional or social - has been singled out as an American standard. Even national media (radio, television, movies, CD-ROM, etc.), with professionally trained voices have speakers with regionally mixed features. However, "Network English" in its most colourless form, can be described as a relatively homogeneous dialect that reflects the ongoing development of progressive American dialects (Canadian English has several notable differences). This "dialect" itself contains variant forms. The variants included within this targeted accent involves vowels before /r/, possible differences in words like 'cot' and 'caught' and some vowels before /l/. It is fully rhotic. These differences largely pass unnoticed by the audiences for Network English, and are also reflective of age differences." (p. vi)

From these definitions, we can see that GA is mainly defined negatively. Geographically, it is a type of accent which is not eastern, not southern, not coastal. We are also told that it is a “socially based set of pronunciation features” but we are not told which social class(es) or groups are selected, although we can guess it will not be the lowest strata of society. In other words, what is being defined is a kind of “middle America” that does not draw attention to itself. The situation is therefore very different from what is found in many other parts of the world where the pronunciation of a group or a region (and usually both) is selected as a norm for a whole nation-state. For instance, Received Pronunciation, while it is often described as a social norm transcending regional boundaries, originally reflects the usage of a ruling élite in London and the counties surrounding it. As pointed out by Moore (this vol.): “The term *Received Pronunciation* is generally traced back to the second part of the nineteenth century, and the phonetician and dialectologist A. J. Ellis, who wrote that ‘in the present day we may [...] recognize a received pronunciation all over the country [...] It may be especially considered as the educated pronunciation of the metropolis, of the court, the pulpit, and the bar’ (Ellis 1869: 23). The term *received* should be taken here to mean *generally accepted or agreed upon by those fit to judge* (see Parsons 1998: 7) which of course lends the accent a prescriptive dimension”.

In the United States, the concept of a pronunciation standard was slow to emerge and is not, even as we write, fully delineated, as demonstrated by the above quotes. In his detailed and informative study of English phonology between 1776 and 1997, MacMahon (1998: 397-403) shows that quite early on American lexicographers and orthoepists refused to let the small minority dictate their phonetic behaviour to the majority. Webster stated forthrightly: “an attempt to fix a standard on the practice of any particular class of people is highly absurd” (1789.I: 25). He also added: “what right have a few men, however elevated their station, to change a national practice? They may say, that they consult their own ears, endeavor to please themselves” (Webster 1789.III: 165-166). The solution usually advocated by American specialists was to let common usage decide and, in cases of disagreement, look at the rules or patterns of the language. While there were occasional attempts to impose English English as a norm, they never were successful. One area where the British English norm might have won the battle was in the non-pronunciation of post-vocalic r’s (more technically, r’s which are not in the onset of a syllable). In a nutshell, in a fully rhotic accent, all orthographic ‘r’s are pronounced (e.g. Standard Scottish English, see Durand this vol.), whereas in a non-rhotic accent like RP, an ‘r’ which is not in the onset of a syllable is absent: cf. RP *rat* /ræt/, *carry* /kæri/ vs. *car* /kɑ:/, *carter* /kɑ:tə/. It is not the quality of the ‘r’ which defines an accent as ‘rhotic’ but the presence of /r/ in syllable-codas (see §2 for more detailed discussion). Non-rhoticity is well-attested historically in the United States, particularly in the north-east, a region which, through trade, remained close to the old mother country. Cities like Boston, New York and Philadelphia are historically non-rhotic and this feature has even been considered as prestigious in these cities (although the situation appears to have changed, see §2). Labov (1972: 64-65) notes, for instance, that until the second world war, the New York City schools were dominated by an Anglophile tradition which taught that the pronunciation of post-vocalic r’s was an incorrect inversion of the consonant ‘r’ and a provincial characteristic contrary to “international English”. He quotes what Rauchibek, Davis & Carll were claiming in a text written for schools in the forties:

“There are many people who feel that an effort should be made to make the pronunciation conform to the spelling, and for some strange reason, they are particularly concerned with *r*. We all pronounce *calm*, *psalm*, *almond*, *know*, *eight*, *night* and *there* without worrying ... Yet people who would not dream of saying *kni:* or *psai'k^IKdZi* insist on attempting to sound the *r* in words like *pA:k* or *fADK* just because an *r* marks the spot where our ancestors used a trill ... More often than not, people do not really say a third sound in a word like *pA:k* but merely say the vowel *A:* with the tongue tip curled back towards the throat. This type of vowel production is known as ‘Inversion’.” (1940: 336)

For complex socio-historical reasons (see Durand 1999 and §2 below), the current pronunciation norm in the United States is rhotic as reflected in all dictionaries of American English (recall the quote from Roach and Hartman above). This norm emerged in the first part of the twentieth century and the work of George Krapp should be especially noted for its influential role. As explained by MacMahon (1998: 401), George Krapp (1919: viii-ix) argued that despite “American speech being extraordinarily mixed”, it was appropriate to establish a division between “Eastern”, “Western” and “Southern”. If a “standard” accent were to be adopted, it would “perhaps best described...as the speech which is least likely to attract attention to itself as being peculiar to any class or locality” and this because, unlike the British, Americans “do not move in mutually exclusive and self-centered circles in their habits of speech”. By 1925, he was prepared to be more precise and coined the term ‘General American’ which applied to a “western” accent as the latter had “attained an unusual degree of currency” but with the caveat that it be “a composite type, more or less an abstraction of generalised speech habits” (1925 I: 37, 45-46). This composite standard (which is western mainly in a negative way as stressed earlier), is now well established as we saw from recent definitions in Wells’ *Longman Pronunciation Dictionary* (LPD hereafter) and Jones’s *English Pronouncing Dictionary* (EPD hereafter). It must, however, be remembered that American specialists have often been more open to diversity than their British counterparts. The reference dictionary for American English pronunciation for a good part of the twentieth century was Kenyon and Knott (1953), the dialect studied by Chomsky and Halle’s famous work *The Sound Pattern of English* (1968: ix). In their preface, Kenyon and Knott were at pains to stress that, while they were indebted to the pioneering example of Daniel Jones’ EPD, their task was rather different from his: “He records the pronunciation of a limited and nearly homogeneous class of people in England in a type of speech identical with that of the editor himself. Our problem has been to record without prejudice or preference several different types of speech used by large bodies of educated and cultivated Americans in widely separated areas and with markedly different backgrounds of tradition and culture” (1953: v). This diversity has led some specialists to reject the term ‘General American’. But terms like ‘American English’, often used without qualification, are hardly better since they imply an even more abusive generalization; and a term like ‘Network English’, while arguably more precise, does not say which country is being targeted. We have therefore retained the label ‘General American’ (GA) here but the reader will have to bear in mind that it is an abstraction defining a set of accents which have much in common (see 1.2); and describing GA while useful cannot replace detailed work on variation, part of which is explored in §2.

## 1.2 The main phonological characteristics of GA

For reasons of space, we will deal almost exclusively with the segmental properties of GA and, for convenience, provide a comparison with RP which is covered by Moore (this vol.). The main features of the stress system - both at lexical and utterance level - are very close to English English; but the intonation would certainly require a separate treatment. We briefly mention here one difference in word stress patterns, concerning words ending in *-ary* and *-ory*. Like RP and many other accents of English spoken in Britain and elsewhere, rhythmic structure is based on the trochaic metrical foot, defined as a unit which consists of a stressed syllable and any unstressed syllables which follow it. Thus, in both British and American accents, the word *generalisation* consists of two feet: *generalis-ation*. The first contains the initial stressed syllable and the three unstressed syllables which follow it. The second contains the stressed syllable of *-ation* and the unstressed syllable which follows it. In British accents of English, the endings *-ary* and *-ory* do not form separate feet. Thus, *secretary* and *laboratory* contain a single foot. However, in most American accents of English, the *-ary* and *-ory* endings often constitute a separate foot. Thus, both *secretary* and *laboratory* contain two feet: *secretary* has a stress on the initial syllable, but also on the first syllable of the *-ary* ending. It therefore consists of the two feet *secre-tary*. The first of the two feet is perceptually more salient than the second. We will return to foot structure and morphological structure below in our discussion of /t/ and /d/ realisations.

In dealing with the segmental system, we will use the classical descriptive framework often associated with ‘phonemic theory’: we will analyse the system in terms of its inventory of distinctive phonological categories (phonemes), the realizations of these phonemes (the allophones), their sequencing within syllables, morphemes and words (the phonotactics) and their lexical distribution (or incidence).

### 1.2.1 The consonant system

The consonantal phonemic inventory of GA is the same as that of RP (see Moore this vol.) with the possibility of one extra-phoneme. GA is usually analysed as including 24 consonantal phonemes listed in (1) to which one can add, arguably, /ɱ/ (a voiceless labial-velar fricative).

(1) GA consonants /p b t d k g m n ŋ f v θ ð s z ʃ ʒ h tʃ dʒ l r h w/ (± /ɱ/).

The sound [ɱ] is used by a number of GA speakers in *wh*-words: *when*, *where*, *which*, *while*, *why* (but the reader should recall that in the words *who(m)*, *whose*, *whole* and *whore* the <wh> stands for /h/). These speakers therefore oppose *which* and *witch*, *what* and *watt*. It is possible not to postulate a separate /ɱ/ phoneme but to interpret [ɱ] as being derived from the phonemic sequence /hw/. Since /h/ is already used before the glide /j/ in words such as *hue* /hju:/ or *huge* /hju:dʒ/, the biphonemic interpretation of [ɱ] as deriving from /hw/ is arguably a more parsimonious phonological analysis than the postulation of a separate phoneme (though there are counter-arguments to this analysis). We will make this analytical assumption here, and, from this point of view, the difference between GA and RP will be located in the phonotactics. Whatever the status of [ɱ], it should be noted that, while often pointed out as a clear feature of American English, it is probably being progressively

eroded away throughout the United States. Already, Kenyon and Knott's 1953 pronouncing dictionary warned the reader that "In the words below pronounced with **hw**, many speakers replace **hw** with plain **w**" (p. 473). Wells (1982, vol. I: 228-229), who describes the change /hw/ → /w/ as "Glide Cluster Reduction", tells us: "The Linguistic Atlas shows plain /w/ in *whip* and *wheelbarrow* in three large areas: a large area around New York, including not only the metropolitan New York City itself but also Albany, Philadelphia, Harrisburg, and Baltimore; and two much smaller coastal areas in Massachusetts - Maine and South Carolina - Georgia, including the ports of Boston, Portland, Charleston, and Savannah". If this geographical distribution suggests that Glide Cluster Reduction represents an innovation brought in from England via the eastern seaports, Wells notes that "by now it has spread well away from the east coast". I have been struck by /w/ for /hw/ in the speech of Californians, not least in words of Spanish origin, as in /mɛrə'wænə/ *marijuana*, the *San /wɑ'kin/ (Joachim) Valley*. Indeed, in our PAC investigation of Californian English, the lack of the /hw/-/w/ contrast is by far the dominant pattern.

One phenomenon which is characteristic of GA is what is sometimes called 'Yod Deletion' or 'Yod Dropping' (Wells 1982: 206-208). These terms refer to pronunciations of words like *tune* or *dune* without a [j] between the initial consonant and the vowel /u:/: cf. RP /tju:n/, /dju:n/ vs. GA /tu:n/, /du:n/. We know that, historically, /ju:/ (or perhaps /u:/) had a greater freedom of distribution than in current RP (MacMahon 1998: 470-473). For instance, whereas in #CCC initial clusters only /spj-/ (*spew*), /stj-/ (*stew*) and /skj-/ (*skew*) are now attested in RP, 18th and early 19th century English allowed pronunciations such as /plju:m/ (*plume*) or /blju:/ (*blew*). Moreover, in the same period, many words beginning with a single consonant which now exhibit Yod Deletion could be (variably) pronounced with /ju:/: *shoe*, *rue*, *rule* (Kenrick 1784: 54 quoted by MacMahon 1998: 471). Since then, many of these /ju:/ sequences have been reduced to /u:/ in English and Yod Deletion is more and more common in RP for words like *absolute(ly)*, *lute*, *salute*, *revolution*, *enthusiasm*, *pursuit*, *suit*, *suet*, *suitable*, *superstition*, *supermarket*, *consume*, *presume* (Cruttenden 1994). In GA, Yod Deletion has been more extensive and, as a result, many speakers of GA do not have a [j] after a coronal consonant: *tune*, *dune*, *alluring*, *nude*, *suitable*, *zeugma*, *enthusiasm*, etc. (as opposed to words like *pure* and *cure*, which contain non-coronal initial stops, and which therefore retain the Yod). There is, however, a fair amount of variation across the United States and, although this is not always noticed, Yod Deletion does not always apply in post-stress position: e.g. *annual* is /'ænjʊəl/ in GA as it is RP. In pre-stress position, Yod Deletion seems to be variable in GA: *nutrition* can be /'nju:'trɪʃən/ or /nu:'trɪʃən/.

There are also differences between the consonants of RP and those of GA at the realizational level. We will only mention three characteristics of GA here: (i) /l/ is often dark in all syllabic positions (both in syllable onsets and in syllable rhymes), (ii) /r/ is very often a post-alveolar approximant [ɹ] or a retroflex [ɻ], (iii) /t/ and /d/ may undergo Flapping/Tapping: they can be realized as a flap/tap [ɾ], and the opposition between them thus neutralized. Phonologically, Flapping/Tapping is the most interesting of these three characteristics and somewhat more complex than suspected at first sight. A basic description

(e.g. Kreidler 1989: 109) is that “speakers produce a voiced tap of the tongue-tip [ɾ] for /t/ and /d/ when these consonants occur between a stressed vowel and an unstressed vowel”: *city* ['sɪɾi], *wedding* ['wɛɾɪŋ]. As a result, GA speakers might not distinguish pairs of words such as the following: *atom-Adam*, *shutter-shudder*, *petal-pedal*, *coated-coded*, *conceited-conceded*. Others (e.g. Carr 1999) prefer to describe the basic context for Flapping as intervocalic and foot-internal (see above for a definition of the metrical foot). The word *pretty*, for instance, constitutes a metrical foot, in which the /t/ is intervocalic and foot-internal, and thus is likely to undergo Flapping. In the word *attack*, on the other hand, the /t/ is intervocalic, but it is foot-initial. It therefore fails to undergo Flapping, and is instead aspirated. As noted by Kreidler, the context on the left might allow the tapped consonant to be preceded by ʌ/: e.g. *party* ['pɑ:ɾɪ]. The context on the right might also allow the sonorants ʌ, ɹ/, when syllabic, instead of a vowel: e.g. *battle* ['bæɾɪ], *better* ['bɛɾɪ]. Note that word boundaries play no role in Flapping: the /t/ in *witty* undergoes Flapping, but so does the first /t/ in *hit it*, since *hit it* constitutes a foot, and the first /t/ is both foot-internal and intervocalic. Similarly, Flapping can occur in a phrase such as *New today*, which consists of the two feet *New to-day*, with a foot-internal intervocalic /t/ in the first foot. We leave open the question whether foot-final stops undergo Flapping (as in the case of the final /t/ in *Hit it!*)

Another issue here is the role of the morphological relatedness of words. Consider the words *capitalist* and *military*. The first /t/ in *capitalist* undergoes Flapping because it is foot-internal and intervocalic. However, the /t/ in *military* is foot-initial since, as we have seen, the endings –ary and –ory tend to form separate feet in GA: *military* has two feet in GA. Since the /t/ here is foot-initial, it fails to undergo Flapping. Now consider the words *capitalistic* and *militaristic*. In both American and British accents of English, the –ic suffix is stress-shifting, so that there is a stress in the syllable immediately preceding the suffix. This means that *capitalistic* has two feet: *capital-istic*. The –ic suffix also shifts stress in *militaristic*, which contains the two feet *militar-istic*. Thus, the first /t/ is now in foot-internal position, and since it is also intervocalic, it ought to undergo Flapping. But it typically fails to do so. The explanation normally given is that the morphological relatedness of *military* and *militaristic* is kept more transparent if the /t/ is realised as a stop in the derived word. This phenomenon is widespread, not only in many accents of English, but in the world’s languages as a whole. It is known, in current parlance, as paradigm uniformity (see Downing, Hall and Raffelstein, in press).

Finally, for certain speakers or accents, the quality of the vowel preceding the tap may reflect an underlying /t/ vs. /d/ through length or quality (or both). For instance, the word *rider* might be pronounced [ˈɹaɪɾə] whereas *writer* might be pronounced [ˈɹaɪɾə] (or [ˈɹaɪɾə] or [ˈɹaɪɾə]). Ever since Chomsky (1964), this has often been interpreted in generative phonology to mean that speakers ‘know’ that there is an underlying distinction between these words /ˈɹaɪdə/ vs. /ˈɹaɪtə/ and that they apply processes (‘rules’) in a specific order to derive the surface forms. One way speakers might be able to reconstruct the underlying form is through alternations. For instance, the word *writer* is derived from *write* (GA /aɪt/), whereas the word *rider* is derived from *ride* (GA /aɪd/). But many monomorphemic items do not alternate in a way that can help speakers reconstruct an

underlying form (e.g. *petal* and *pedal*) and school teachers in the United States report spelling errors which suggest that speakers do not always ‘know’ whether it is a /t/ or a /d/. These questions are controversial but clearly important for the study of phonology and of variation and their psychological status (see Carr 2000 for discussion). It should be noticed that pronunciation dictionaries often steer clear of this issue by either keeping to the orthographical system or adopting mixed conventions. For instance, both Wells’ LPD (2000) and Roach and Hartman’s EPD (1997) transcribe *Adam* as (GA) /<sup>h</sup>ædəm/ and *atom* as (GA) /<sup>h</sup>ætəm/. The symbol /t̬/, where the diacritic underneath the /t/ represents voicing, is clearly an allophone of a /t/ and should not be included in a phonemic transcription (see Durand 2001 on these questions). Unless one invokes tension to distinguish /t/ and /d/, it could be argued that a voiced [t] is a [d]! These transcriptions appear to reflect an admission that a neutralization may well exist but a reluctance to depart too drastically from the written system or the underlying system.

### 1.2.2 The vowel system

The contrastive vocalic system of GA is simpler than that of RP. The major reason for this is that GA is a rhotic accent: in non-rhotic accents such as RP, the historical loss of ‘r’ has led to more complex systems through the appearance of long vowels and diphthongs. One specificity of the GA vowel phonemes is that length is often treated as not part of the phonemic system. The non-inclusion of length is a rather complicated issue as the notion of length (suitably reinterpreted within modern phonology as involving two skeletal positions or two morae) is not just a surface property of phonological systems but related to various features (morphophonological alternations, stress-attraction, phonotactic constraints, etc.). We remain non-committal on this issue here but, for comparison purposes, it is useful to adopt symbols which are close to those of RP in order to stress that, structurally, the GA and RP systems are cut very much to the same pattern. For example, for both GA and RP, the so-called ‘lax’ vowels are not allowed under stress in open final position. Note that in both varieties one cannot have monomorphemes such as: \*/pɪ te kɒ læ rʊ sʌ/ (RP symbols). By contrast, the so-called ‘tense’ vowels and the diphthongs are permissible in open syllables under stress: e.g. /ti:/ *tea*, /tu:/ *too*, /baɪ/ *buy*, /bɔɪ/ *boy*, etc. There are slight distributional differences between GA and RP, but in both varieties the following vowels are possible in open stressed monosyllables: *me*, *moo*, *ma*, *maw*, *may*, *my*, *boy*, *bow* (v). These distributional constraints are often used as an argument in favour of treating the so-called ‘tense’ vowels as bimoraic (e.g. possessing two units of weight) exactly like the diphthongs (see Montreuil, this vol. for further discussion).

The vowel symbols adopted here are the same as in the LPD-2000 and EPD-1997 and practically identical to the ones used in Carr (1999). We will first consider the monophthongs then the diphthongs, mainly by reference to stressed positions. The keywords given opposite each symbol (e.g. FLEECE, KIT, DRESS, etc.) are borrowed from Wells (1982). These keywords are based on the concept of standard lexical sets, i.e. words which enable us to refer concisely to large groups of words which tend to share the same vowel. As there is a fair amount of variability within GA, all our examples are taken from Hammond’s (1999) study of American English. In §1.2.2.2, we make further general

observations about the vocalic inventory of GA before turning in 1.2.2.3 to vocalic contrasts before 'r'.

### 1.2.2.1 Inventory of GA vocalic phonemes

#### (3) Monophthongs

1. /i:/ FLEECE: athlete, cashmere, eaves, heed, smear, tweed
2. /ɪ/ KIT: hid, milk, pin, rhythm, risk, sphincter, sting
3. /e/ DRESS: dwell, edge, head, help, shred, threat
4. /æ/ TRAP, BATH: flat, lash, lass, latch, laugh, giraffe, grass
5. /ɑ:/ PALM, CLOTH: adopt, bog, bronze, fall, father, lodge, stolid
6. /ɔ:/ THOUGHT: auction, dog, draw, small, solve, want, watch, throng
7. /ʊ/ FOOT: cook, hood, hook, push, put, took, wood, wolf
8. /u:/ GOOSE: blue, bruise, cool, glue, lose, prove, roof, youth, tool
9. /ʌ/ STRUT: abrupt, among, brother, bulb, hug, hulk, love, snub
10. /ɜ:/ NURSE: berg, bird, burst, curt, firm, mirth, purr, stir, turn

#### (4) Diphthongs

1. /eɪ/ FACE: cave, eight, bathe, lathe, pay, rain, wage
2. /aɪ/ PRICE: lithe, live, rife, rice, realize
3. /ɔɪ/ CHOICE: coin, coy, choice, poise, toy
4. /oʊ/ GOAT: doze, clothe, loathe, rose, rove, show, sew
5. /aʊ/ MOUTH: bound, lounge, mouse, mouthe, rouse

Of course, these examples are based on stressed positions. Schwa, as in comma, is also present in GA and most specialists seem to agree that it is more extensively used in GA than in RP. Conservative varieties of RP allow a clear opposition between *Lenin* /'lenɪn/ and *Lennon* /'lenən/ and would not rhyme *rabbit* /'ræbɪt/ and *abbot* /'æbət/. According to Wells (1982: 167-168), this difference would not be necessarily made in GA but is potentially available to speakers. It is at least interesting to note that in transcriptions given by American phonologists many examples which would have /ɪ/ in (conservative) RP are transcribed with a schwa. Hammond (1999), from which we borrowed earlier examples, transcribe *intrepid* as /'ɪntrepəd/ (vs RP /'ɪntrepɪd/), *neglect* as /nə'glekt/ (vs. RP /nɪ'glekt/) and *olive* as /'ɒləv/ (vs. RP /'ɒlɪv/). This issue would require extensive developments since even within RP vowel reduction follows complex courses and offers much interspeaker and intraspeaker variation. We will not dwell either on other oppositions in unstressed contexts, but merely note that in happy words, GA favours [ɪ]-like realizations. Current trends in RP seem to have gone in the same direction and reference dictionaries such as the LPD et the EPD now offer /'hæpi/ as the transcription of *happy* (admittedly with the final /i/ as a symbol of neutralization: cf.

Durand 1999). By contrast, earlier editions of Jones' EPD adopted /'hæpi/ as the default RP option.

### 1.2.2.2 Some general observations

The terms 'monophthongs' and 'diphthongs' used above are not neutral terms. Not all linguists agree on the classification presented here. Some specialists treat /eɪ/ and /oʊ/ as 'tense' (or long) monophthongs: /e/ and /o/, in which case the DRESS vowel will be transcribed as /e/. On the other hand, the long high monophthongs /i/ and /u/ are often treated as diphthongal (e.g. /ij/ and /uj/ in the IPA tradition or /iy/ and /uw/ in a notation used by many American linguists). Issues of transcription are complicated and unless one examines the relevant work carefully one cannot know whether the differences are superficial or hide profound theoretical differences. For ease of reference, we provide below a comparison of symbols in some well-known dictionaries or textbooks. K&K stands for Kenyon & Knott (1953), F&R for Fromkin & Rodman (1998), MH for Hammond (1999), PL for Ladefoged (1993), EPD for Roach & Hartman (1997) and LPD for Wells (2000).

#### (5) A comparison of some transcription systems for GA

Key-word	K&K	F&R	MH	PL	EPD	LPD
heed	i	i	i	i	i:	i:
hid	ɪ	ɪ	ɪ	ɪ	ɪ	ɪ
hayed	e	e	e	eɪ	eɪ	eɪ
head	ɛ	ɛ	ɛ	ɛ	e	e
had	æ	æ	æ	æ	æ	æ
hod	ɑ	a	ɑ	ɑ	ɑ:	ɑ:
hawed	ɔ	ɔ	ɔ	ɔ	ɔ:	ɔ:
hoed	o	o	o	oʊ	oʊ	oʊ
hood	ʊ	ʊ	ʊ	ʊ	ʊ	ʊ
who'd	u	u	u	u	u:	u:
bud	ʌ	ʌ	ʌ	ʌ	ʌ	ʌ
bird	ɜ	--	ɪ	ɜ˞	ɜ:	ɜ:
sof <u>ɑ</u>	ə	ə	ə	ə	ə	ə
bite	aɪ	aj	aɪ	aɪ	aɪ	aɪ
bout	aʊ	aw	aʊ	aʊ	aʊ	aʊ
boy	ɔɪ	ɔj	ɔɪ	ɔɪ	ɔɪ	ɔɪ

The symbols listed above by no means exhaust the range of solutions adopted in the technical literature. The matter is further complicated by the fact that American speakers exhibit a great deal of variation in the way they deal with some of these oppositions, in particular among the low vowels. Not all speakers allow a contrast such as *hod-hawed*

above and it is not infrequent to observe the same vowel (e.g. [ɑ(:)] or [ɒ(:)]) in words of the lexical sets PALM, CLOTH and THOUGHT (respectively pronounced in RP with /ɑ:/, /ɒ/ and /ɔ:/). Even for speakers that make the two-way *hod-hawed* opposition, there is no necessary agreement on the items which belong to each class. Very often the opposition is presented in a way which correlates with orthography. For some dialects, it is said that one would have /ɑ:/ in *collar, cot, stock, don* and *knotty* but /ɔ:/ in *caller, caught, stalk, dawn* and *naughty*; but the examples quoted above from Hammond's 1999 book show that the situation can be much more complex (at least with respect to the spelling) since /ɑ:/ is given in *adopt, bog, bronze, fall, father, lodge, stolid* as opposed to /ɔ:/ in *auction, dog, draw, small, solve, want, watch* and *throng*.

### 1.2.2.3 Vocalic contrasts before 'r'

Three interconnected issues will be mentioned here. One concerns the vowel in the NURSE set. Let us consider in turn four transcriptions of the word *nurse*:

(6) *nurse*

Kenyon & Knott (1953): /nɜːs/

Hammond (1999): /nɪrs/

Roach & Hartman (1997): /nɜːrs/

Wells (2000): /nɜːrs/

Kenyon and Knott's transcription is intended to be faithful to phonetics as it would be argued that, in NURSE words, speakers articulate a vowel which is rhotacized (r-coloured) throughout. Hammond's transcription is making the same point in a different way in considering that the sound observed is nothing other than the consonant /r/ ([ɹ] or [ɻ]) in its syllabic form. By contrast, Roach and Hartman's transcription is a structural one: it brings NURSE words into line with other 'r' words - NEAR, SQUARE, START, NORTH, FORCE, CURE - which are transcribed by the four authors quoted above in the same way. That is, they posit that there is a non-rhotacized vowel followed by the 'r' phoneme (although it is likely that for many GA speakers the vowel in a word like *start* has retroflexion throughout). Wells' transcription combines phonetic realism (the vowel is rhotacized) with structural symmetry (the vowel is followed by /r/). Arguably, in terms of phonemic theory, it is inconsistent since the rhotacized vowel preceding /r/ is an allophone of /ɜ/ (which itself may be grouped with /ə/ and /ʌ/ in GA, a solution adopted by a number of American linguists). An adequate treatment of this question requires more precision about distinctive features and how they link up with morphological and syllable structure. In accordance with traditional phonemic theory, we shall treat NURSE words as being made up of /ɜ/ + /r/.

The second point concerns putative schwa + r sequences in words like *collar, colour, caller*, etc. Structurally, such words are often analysed as ending in /əɹ/ but again one might go for more phonetic realism and transcribe the endings as /ɜː/, a solution adopted by

Kenyon & Knott and Roach & Hartman. Once again, purely for descriptive purposes, we shall adopt the transcription /əɹ/ in what follows.

The third issue concerns the status of contrasts before /ɹ/. It has been pointed out earlier that the historical attrition of 'r' in non-rhotic accents like RP has been one of the factors leading to complex vocalic systems favouring length and diphthongization. At the same time, even within RP, a number of historical oppositions before /ɹ/ have been neutralized and lost, so that words like *bird*, *word*, *blurred*, *heard* have the same vowel. We know that an accent like SSE (Scottish Standard English) still allows the whole range of its vowel phonemes to contrast before /ɹ/ (see Durand, this vol.). GA is a system which, while closer to SSE in being rhotic, is like RP in neutralizing a number of historical oppositions before /ɹ/. The diagram in (7) is intended to show that GA, like SSE, can distinguish words from the NEAR, SQUARE, START, NORTH, FORCE sets. On the other hand, it is like RP in treating *stir*, *bird*, *heard*, *err*, *fur*, *word* as belonging to the NURSE lexical set. It should however be pointed out that not all GA speakers contrast NORTH words and FORCE words. While some GA speakers differentiate *war* and *wore* or *horse* and *hoarse*, others pronounce these words identically.

(7) Oppositions before /ɹ/ in closed syllables

---- r #	---rC	GA	SSE	RP
fear	fierce	/i:/	/i/	/iə/
stir	bird	/ɜ:/	/ɪ/	/ɜ:/
fair	scarce	/eɪ/	/e/	/eə/
err	heard	/ɜ:/	/ɛ/	/ɜ:/
bar	hard	/ɑ:/	/ɑ/	/ɑ:/
war	horse	/ɔ:/	/ɔ/	/ɔ:/
wore	hoarse	/oʊ/	/o/	/ɔ:/
poor	gourd	/ʊ/	/ʊ/	/ʊə/
fur	word	/ɜ:/	/ʌ/	/ɜ:/

The question of possible contrasts before /ɹ/ is just as complicated in open syllables. Because of lack of space, we shall simply point out that while RP distinguishes the pre-r vowels in *Syria* /ˈsɪriə/ and *serious* /ˈsɪəriəs/, *merry* /ˈmeri/ and *Mary* /ˈmeəri/, *furry* /ˈfɜ:ri/ and *hurry* /ˈhɜ:ri/, *story* /ˈstɔ:ri/, *sorry* /ˈsɔ:ri/ and *starry* /ˈstɑ:ri/, a number of these contrasts are not present in GA. For example, the GA transcriptions provided by Roach and Hartman (1997) for these words exemplify many neutralizations: *Syria* /ˈsɪriə/ = *serious* /ˈsɪriəs/, *merry* /ˈmeri/ = *Mary* /ˈmeri/, *furry* /ˈfɜ:ri/ = *hurry* /ˈhɜ:ri/, *story* /ˈstɔ:ri/ ? *sorry* /ˈsɑ:ri/ = *starry* /ˈstɑ:ri/. Our PAC survey in California reveals even more extensive neutralizations since many speakers identify *merry*, *Mary* and *marry*. But rather than pursue these questions here, we will confront variation much more squarely in looking at New York City English.

2. GA and New York City

We cannot offer an overview of accent variation in the United States here (see Trudgill & Hannah 2002 for a brief overview, and Wells 1982 for considerably more detail). Instead, we provide a sketch of a non-standard American English accent which has been much studied, especially in the sociolinguistic literature (which we refer to below). We will refer to this accent as New York City (henceforth, NYC). By this, we mean an accent, or cluster of similar accents, which are spoken in predominantly working class boroughs of New York City, such as Brooklyn, Queens, or the Bronx (the accent is often referred to as ‘The Brooklyn accent’ or ‘The Bronx accent’). NYC shares many features with GA, such as Flapping, dark /l/ in both onsets and rhymes, and Yod Dropping. But the differences are sufficiently salient for a broad NYC accent to be immediately recognisable to most Americans. We will begin by considering rhoticity and non-rhoticity. We will then consider other aspects of consonant phoneme realisation, and then proceed to consider the vowels. We will also briefly consider some of the sociolinguistic literature on the NYC accent.

## 2.1 Rhoticity

One way of defining a non-rhotic accent is to say that it is an accent where the /r/ phoneme may only be realised in the onset position of a syllable, never in coda position. What is referred to as ‘linking r’ is a phenomenon one often encounters in non-rhotic accents, as in ‘The car always breaks down’, where the /r/ of ‘car’ may be realised in a non-rhotic accent, since it occurs in onset position in the first syllable of ‘always’. In contrast, in ‘The car broke down’, the /r/ of ‘car’ may not be realised in a non-rhotic accent, since there is no available syllable onset position for it to occupy (the onset of ‘broke’ is occupied). The phenomenon known as ‘intrusive r’ is often attested in non-rhotic accents, as in the phrase ‘law and order’, where an ‘r’ may occur between ‘law’ and ‘order’, despite the fact that there was no /r/ phoneme in ‘law’ historically. One way of explaining the ‘intrusive r’ phenomenon is to say that it stems from an analogical extension of ‘linking r’ (see e.g. Durand 1990: 126-128, Durand, 1997). One diagnostic for telling whether an accent is (or has been, historically) non-rhotic is the presence of ‘intrusive r’: while not all non-rhotic accents will necessarily have ‘intrusive r’, it is extremely likely that, if an accent does exhibit ‘intrusive r’, it is (or has been, historically) non-rhotic. The fact that NYC speakers exhibit ‘intrusive r’ suggests very strongly that the accent made the transition, historically, from being rhotic to being non-rhotic, and scholars agree that this is the case (see Wells 1982).

However, contemporary NYC speech is variably rhotic, and most observers put this down to sociolinguistic factors. Although there are non-rhotic American accents (in the North East of the USA) whose speakers have social prestige, the NYC accent has very low social prestige, and speakers often shift towards rhoticity, which, as we have seen, is a feature of GA. This variable rhoticity was one of the features studied by Labov (1966), who found that the following factors affected the extent of rhoticity: degree of formality, social class, and age. Labov was able to demonstrate the influence of formality by requiring his informants to engage in tasks which elicit different degrees of formality, such as reading a list of words (typically fairly formal), reading a passage (a little less formal), engaging in an interview (a little less formal still) and engaging in casual conversation (informal). The more formal the context, the more rhoticity was observed. Labov was also able to demonstrate the validity of the idea that social class plays a role in variable rhoticity in NYC by eliciting potentially non-rhotic

utterances from the staff of department stores whose status reflected social class differences. As one would expect, degree of non-rhoticity was shown to reflect social class: the lower the social class, the greater the degree of non-rhoticity. Labov also showed that degree of rhoticity was age-related: younger speakers were more rhotic than older speakers. Additionally, conscious judgements about rhoticity were shown to be age-related: NYC speakers under the age of 40 reacted more favourably to rhoticity than did older speakers.

## 2.2 Other consonantal features of NYC

A striking feature of broad NYC speech is what Wells (1982) refers to as ‘TH Stopping’, whereby the dental fricatives /θ/ and /ð/ are realised as the dental stops [t̪] and [d̪] respectively, as in [t̪ɛŋks] for ‘thanks’. The phenomenon is not unique to NYC speech; it is attested in Southern Irish English and in Liverpool English, for instance. But it does serve to single out the NYC accent as being distinct from GA.

Another consonantal difference between NYC and GA speech is that Glottaling occurs in a wider range of contexts in NYC, for instance before a syllabic /l/, as in *bottle*, *shuttle*, etc.

The two phenomena are related: a fricative phoneme which has undergone ‘TH Stopping’ may then undergo Glottaling, as in [nʌŋ̺ŋ] (*nothin’*).

## 2.3. NYC vowels

There is an NYC diphthongal realisation of the NURSE vowel which is often transcribed as [ɜi], as in [nɜis] for ‘nurse’. This realisation has become increasingly stigmatised, and is now taken to be a mark of working class speech. The same diphthong sometimes occurs in some words of the Wells (1982) lexical set CHOICE, as in the word *oil*. It is therefore possible for pairs such as *earl/oil* and *first/foist* to be homophonous.

Wells (1982) reports that the /aɪ/ diphthong often has a back starting point among working class and lower-middle class NYC speakers.

The /æ/ phoneme in Wells’ TRAP and BATH lexical sets is often raised in NYC, and may be diphthongal. Wells (1982) reports realisations as including [ɛ], [ɛə], or even [ɪə]. Since NYC, with its non-rhotic history, has centring diphthongs such as /ɛə/ and /ɪə/, there is the possibility that pairs such as *bad* and *bared* may be homophonous: [bɛəd]. Similarly, with the most raised realisations of /æ/, pairs such as *bad* and *beard* may be homophonous: [brɛəd].

However, no phonemic merger has taken place, since there are clear allophonic contexts in which raising occurs. Firstly, it occurs before a word-final voiced stop or affricate, as in *cab*, *mad*, *rag*, *badge*. Secondly, it occurs before a word-final voiceless fricative, as in *laugh*, *bath*, *grass*, *cash*. Thirdly, it occurs before word-final /m/ and /n/, as in *ham* and *man*. Raising does not occur before a word-final voiceless stop or affricate, as in *cap*, *hat*, *back*, *match*. The syntactic category of the word plays a role: raising fails to apply with auxiliaries,

even if they have a word-final voiced stop or /n/. Thus the auxiliaries *had* and *can* fail to exhibit raising, whereas the non-auxiliaries *bad* (adjective) and *can* (noun) do exhibit it.

Raising of this vowel is also sociolinguistically sensitive. Labov found that the degree of raising varies both with degree of formality and social class: the less formal the style, the more raised the vowel is. Similarly, the lower the social class of the speaker, the more raising there is.

Finally, Wells (1982) also reports that in his lexical sets CLOTH and THOUGHT, the vowel quality is often diphthongal [ɔə], or even [oə], as in [koəfi] for *coffee*.

### 3. Conclusion

We have seen that GA differs from RP in certain striking respects, notably with respect to rhoticity and related phenomena. And NYC differs equally strikingly from GA. Perhaps one of the most noticeable differences between accent variation in Britain and accent variation in the USA is that there appears to be no parallelism, in the USA, to the role that the speech of London plays in Britain. Additionally, there seems to be little or no evidence that aspects of the phonetics and phonology of varieties of American English are having any influence on accents of English in Britain: it is London speech, and not American speech, which continues to influence accent change in Britain.

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