

# A Lingua Franca view on Swedish Pronunciation – A review and Pedagogical Implications

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## Abstract

Learners of Swedish as a second language need a meaningful pronunciation training. To achieve this, teachers need guidelines how to plan and perform meaningful teaching. This paper argues for a priority ranking among phonological and phonetic features for pronunciation teaching. The arguments are inspired by the concept of Lingua Franca Phonetic Core for English and is based on studies and experience concerning intelligibility. It highlights Swedish prosodic and segmental features on phonological, acoustical and strategic levels and ventures to outline an agenda for Swedish pronunciation teaching, incorporating the fact that Swedish is used in all constellations of L1 and L2 speakers from different language backgrounds, plus the fact that adult L2 learners are unlikely to achieve a nativelike L2 pronunciation. The suggested Swedish phonetic core gives priority to temporal prosodic features over tonal, and consonants over vowels.

## Introduction

Language proficiency includes skills in listening, speaking, reading, writing and pragmatics. Competence in pronunciation can involve both intelligible speech and listening with understanding. A foreign accent can affect how other competencies as well as the person's credibility are judged (Boyd & Bredänge 2013; Lev-Ari & Keysar 2010). According to Munro & Derwing (1995), perceived degree of foreign accent does not correlate strongly with degree of intelligibility. A mild foreign accent, as long as intelligible, does not seem to hamper communication and integration into a new com-

munity. However, an unclear pronunciation may do, possibly because it could impede communication considerably.

For second language speakers using English as a lingua franca, Jenkins (2000, 2002) has suggested “Lingua Franca Phonetic Core”, i.e. phonetic and phonological features that are thought to be most crucial for intelligibility. In the same vein, Brown (1991) and Catford (1987) promote the idea of “Functional Load” for phoneme contrasts, which is calculated based on the number of possible minimal pairs as well as how frequent the sounds occur in speech. The central point in the Lingua Franca Phonetic Core and Functional Load is that realizing certain features properly is sufficient for intelligible pronunciation.

This point could be applied to Swedish as a second language and some research has been carried out in this field, by e.g. Bannert (1984) and Abelin & Thorén (2015, 2017). This paper discusses what promotes intelligibility in Swedish L2 pronunciation. The reader is referred to Table 1 for an overview of Swedish phonology.

## Swedish as a Lingua Franca

Swedish does not have the role of a global Lingua Franca like English, but since inhabitants in Sweden nowadays have more than 150 different mother tongues (Parkvall 2016), Swedish actually serves as the means of communication between L2 and L1 speakers as well as between L2 speakers of different language backgrounds. The Lingua Franca situation for Swedish in Sweden calls for educational goals that promote communication efficiency, rather than nativelikeness. Moreover, research by Piske, MacKay & Flege (2001) and Abrahamsson & Hyltenstam (2009) shows

that a nativelike pronunciation in an L2 can be a realistic goal for young learners but a utopia for most adult learners.

Before the present multilingual situation had arisen and before we knew what we know today about realistic expectations for learners of Swedish as a second language, at least implicit curricula used to have as a main goal that L2 speakers should acquire a native-like Swedish pronunciation, irrespective of age or L1. If they could not, it was seen as a failure for teachers and for learners. A *Lingua Franca* view, on the other hand, focuses on mutual intelligibility and does not see the foreign accent per se as a problem.

### **Today's situation with respect to pronunciation teaching for learners of Swedish as an L2.**

My impression gained from being more than 40 years in the field is that pronunciation teaching gets lower priority than grammar and vocabulary training. More than 10 years of teacher training in three Swedish universities has given the impression that both in-service and pre-service teacher students know more about basic grammar concepts than they do about basic phonetics and phonology.

Zetterholm (2018) found that among 92 teachers of Swedish as a second language, prioritized learning goals were “communication, reading, writing, grammar and vocabulary” (p. 81), and pronunciation was seldom taught explicitly. The teachers in the study generally thought that a listener-friendly and intelligible pronunciation is important, and the reason given for not teaching pronunciation explicitly was mainly lacking knowledge of phonetics and competence in pronunciation teaching. Her result agrees with the situation for English, as found by Derwing & Munro (2005) and Murphy (2014). Teachers lack training for teaching pronunciation and therefore avoid doing it.

The situation in Sweden can be described as slowly realizing how L2 pronunciation instruction can be more prioritized, more realistic and more focused

on intelligibility. Here is not the place to grade teaching materials with respect to how “good” they are in this respect, but it should be pointed out that they often lack clear guidelines concerning important and less important phonetic features. Some features can be presented as important because they are “hard to learn”, but not necessarily because they are important for intelligibility. For example, the Swedish word accents (acute and grave) and the [ɧ] sound are hard to learn but not important for intelligibility.

### **The Swedish phonologic features' respective influence on intelligibility**

Earlier, Bannert (1980) suggested that some contrasts and other phonological properties in Swedish should be given higher priority than others, based on assumed importance for intelligibility. Although this was suggested on an intuitive basis, it was anyhow an important step into promoting intelligibility rather than nativelikeness as an acceptable and desirable learning outcome.

#### *Prosody vs segments*

In various teaching materials, e.g. Kjellin (1978), prosodic features in general are assumed to be more important for intelligibility than segmental features. Prosody is compared to syntax as a macro level and segmental properties are compared to morphology and defined as micro level. The macro level is assumed to be generally more important than the micro level, for intelligible speech. It may be true, but to my knowledge, there are no studies supporting that view. There are a couple of studies (Abelin & Thorén 2015, 2017) that show significantly higher perceptual weight for the prosodic contrasts of stress and quantity, compared to the tonal word accent contrast. Furthermore, the latter has at least five different tonal patterns in different regions (Gårding 1977), plus non-existent in a couple of regional varieties. This means that we know something about intelligibility *within* the prosodic field but not *between* prosody and segments.

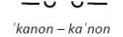
Prosody			Phonemes / allophones/segmental features		
Stress	Length/ quantity	Tone/ intonation	Vowels	Consonants	Fonotactics and phonological processes
 'kanon – ka'non 'racket – ra'ket 'Japan – ja'pan kaffe – kafé armen – armén 'planet – pla'net Stress can change meaning also on sentence level e.g. 'hälsa på någon – hälsa 'på någon	gl <u>ä</u> s – gl <u>ä</u> ss v <u>i</u> t – v <u>i</u> tt v <u>i</u> la – v <u>i</u> lla s <u>ö</u> t – s <u>ö</u> tt b <u>u</u> s – b <u>u</u> ss r <u>ö</u> t – r <u>ö</u> tt v <u>ä</u> g – v <u>ä</u> gg Swedish has a complementary length pattern in stressed syllables: Long vowel + short consonant as in <i>mäta</i> Or short vowel and long consonant as in <i>mätta</i>	Terminal fall  Continuation tone  Accent 1 (acute) <i>änden, tòmten</i> (tone defined mainly from phrase intonation) Accent 2 (grave) <i>änden, tòmten</i>  Has in most varieties a falling tone in the main stressed syllable. Rising tone occurs basically in connection with focal accent/nuclear stress, with different timing for accent 1 and 2	9 vowel phonemes <i>a o u ö</i> <i>e i y ä ö</i> Spectral differences between long and short allophones; Substantial for /a/ and /u/ Negligible for /ε/ and /ø/ Big variety regionally, with respect to spectral differences between long and short vowel allophone.	Voiced <i>b d g j l m n r</i> <i>v -ng-</i> Voiceless <i>f h k p s t sj- tj-</i> Manner of articulation: Stops /b/ /d/ /g/ /k/ /p/ /t/ Fricatives /f/ /h/ /j/ /s/ /ʃ/* /ç/ /ʎ/ Nasals /m/ /n/ /ŋ/ Liquids /l/ /r/ /j/ can be pronounced both as a fricative and as an approximant. Voiceless stops are aspirated in some contexts	Word initially max 3 consonants of which the first one must be /s/ <i>strid, spjut, skriv, skvätt</i> Word finally 5 but in practice seldom more than 4; <i>stockholmskt</i> Some cases of hiatus are allowed; <i>roa, sia, geo-, kaos</i> <b>Assimilations:</b> R + dental consonant = supradentals (retroflex): <i>bord svart kurs</i> Voicing assimilation <i>Onsdag &gt; onsta, snabbt &gt; snapp</i> Nasal assimilation <i>En bil &gt; embil</i> <b>Word boundaries:</b> Liaison: <i>Han hete rAnders</i> Final r-deletion before consonant: <i>Vad äte(r)Bengt?</i> Non-doubling of consonants: <i>Vad läseRickard</i> <i>Vet du &gt; Vetu m.m.</i>

Figure 1. Overview of Swedish phonology

Furthermore, a comparison between prosody and segments with respect to perceptual importance would be complicated since the three prosodic phonemic contrasts can be naturally dichotomized, allowing experimental distortions in a consistent way to test intelligibility: Trochaic stress pattern as opposed to iambic, /V:C/ as opposed to /VC:/ and accent 1 as opposed to accent 2 (Abelin & Thorén 2017). The phonemes on the other hand cannot be divided that way. More correctly, every vowel can be contrasted to every other vowel phoneme and every consonant phoneme can, with a few exceptions, be contrasted to every other consonant phoneme.

### Vowels vs consonants

By looking at the numbers of vowel and consonant phonemes; 9 and 18 respectively, plus the possibility for consonants to appear in clusters, we can assume that consonants carry more cues to meaning than vowels by virtue of their number. Some anecdotal evidence for this assumption is that you can replace vowel letters in a written text by hyphens

or asterisks and still read it with a fairly good understanding, while doing the same thing with consonant letters causes more struggling and guessing. Furthermore, there are “secret languages” often used by children, that distort the language in different but regular ways. One of those is “I-sprikt” (the I-language), where all vowels are replaced by /i/ and still rendering intelligible speech to at least a native Swedish listener who has had some training. The latter example is assumed to be more relevant to spoken language than the former, but the former illustrates the fact that there are over all more consonant than vowel sounds in Swedish speech.

### Phonotactics

Swedish phonotactics allow word initial consonant clusters of three consonants and up to five consonants in word final position. Allowing that heavy consonant clusters is unusual in a universal perspective. In medial position, in compounds, there can be at least up to six consonants in a sequence, e.g. *textstruktur* [ˈtek:stströk.tu:r].

### *Phonemes, allophones and dialects*

Although all phonemic contrasts are not equally important for intelligibility, we may agree that in general, phonematic variation, e.g. in L2 speech, is more detrimental to intelligibility than allophonic variation. Nevertheless, in educational contexts, allophonic rules are often presented as equally important as phonemes and phonemic variation. A typical example is that the long allophone of /a/ should have the back quality of [ɑ] or the back plus rounded [ɔ]. Back [ɑ]/ [ɔ] allophone is often equivalently classified as /o/ by L2 learners whose L1 has fewer vowel phonemes, which should result in higher priority to discern /a/ and /o/ than to achieve the “dark quality” of the long /a/. Articulating long and short vowels with different spectral quality has been suggested, e.g. by Bannert (1980), as a highly ranked feature although many in-Sweden regional varieties realize these spectral differences in many different ways and sometimes not. The spectral differences in long and short vowel allophones have been shown to be generally less contributing to quantity category perception than relative duration (Behne, Czigler & Sullivan 1997; Thorén 2003). In a similar way, articulating /ɛ/ and /ø/ as the more open /æ/ and /ɛ/ respectively, when followed by /r/, has been presented as a rule equal to discerning different phonemes, although the mentioned allophonic variation is absent in some regional varieties, meaning that the /ø/ and /ɛ/ phonemes are consistently open in all phonetic contexts in some regional varieties and consistently closed in others. In the province of Västergötland, where I currently live, I hear lots of [jø:rɛ] and [ø:rɛ].

In a similar way, much effort has been put into teaching and learning the “very Swedish and exotic” [ɸ] allophone as the only acceptable variant of a /ɸ/ [ɸ/ɸ] phoneme. One allophone of the same phoneme is the retroflex [ɸ], which is similar to English ‘sh-sound’ and German ‘sch-sound’ and has counterparts in a host of languages. This means that [ɸ]

should be an easier and fully acceptable target allophone. Furthermore, the learner who aims for the special Swedish [ɸ] allophone, to sound “standard Swedish”, anyhow has to use the [ɸ] allophone in syllable-final positions in words like *garage* [gʌ'ra:ɸ] and *dusch* [døɸ:] ‘shower’, meaning that it is not just a choice between the two allophones. A third allophone of /ɸ/ is a velar [x] or a uvular [χ], which are often associated with Arabic or Persian accents, but they are also found in native Swedish speech in Västergötland, e.g. the local pronunciation of *Skövde* as [ˈxœvdɛ] or even [ˈxʌvdɛ]. It does not sound beautiful in most native Swedish ears, but it does not cause ambiguity.

### *Phonology and acoustic correlates in a didactic perspective*

A few words about the two levels of phonemic contrast and acoustic/articulatory realization. As an example, we look at the already mentioned quantity contrast, that seems to rely on at least two acoustic perceptual cues: vowel duration related to subsequent consonant duration as well as to the duration of bigger units (Traunmüller & Bigestans 1988) and to some degree vowel spectrum (Hadding-Koch & Abramson 1964; Thorén 2003).

In an educational context, where neither teachers nor learners can be expected to be trained phoneticians, and learners cannot be expected to achieve nativelike pronunciation of the target language, it is necessary to aim for a limited number of simplified but efficient descriptions and rules, which put intelligibility as the central aim. In the case of the Swedish quantity contrast, it means that the complementary durational realization /V:C/ - /VC:/ is recommended as the overall safe way, while spectral differences between long and short vowel allophone can be optional.

Another area where it is fruitful to look at the phonological and the acoustic levels together, is the relationship between word stress and the quantity distinctions. Many languages use word

stress either to discern meaning (English, Swedish, Spanish) or to signal word boundaries (Polish, Finnish, Persian), but most of them do not have mandatory signaling of quantity category in stressed syllables, and hence no obligation to lengthen stressed syllables as much as is required in Swedish. When looking at the Swedish stress and quantity together, we learn from Fant & Kruckenberg (1994) and from Traunmüller & Bigestans (1988), that duration is the main acoustic perceptual cue to both stress and quantity. This is well expressed by Engstrand (2004): “Stressed syllables are long syllables; but in Swedish, syllables can be long in two different ways. The difference between these two ways form a distinctive contrast: *The quantity contrast*” (p. 183 My translation, italics by original author). Kjellin (1978) captured the same relationship in a self-illustrating slogan: “All-la starr-ka staaavelser måss-te va långng-nga”, ‘All strong syllables must be long’ (p. 30), showing the mandatory lengthening of stressed syllables as well as the complementary vowel-consonant length. If we look at the stress and the quantity contrasts separately, we may not see this possibility to promote both contrasts with one acoustic means, which is duration. This finesse has not been widely acknowledged or understood, and many teachers and academics seem to think it is safer to stick to long and short vowel.

To conclude, we still don’t know if prosody is more crucial for intelligible speech than segmental features, but we have findings indicating that the temporal phonemic contrasts of word stress and quantity are more important for intelligibility than the tonal word accent contrast. We also have some structural and anecdotal indications that consonants are more important for intelligibility than vowels.

### **Implications and suggestions for future language instruction**

We hope for a situation where teacher trainers and teachers share the ambition

to prioritize among phonetic and phonological features to optimize pronunciation teaching to promote intelligibility. Otherwise every single (known) detail in the pronunciation becomes equally important to learn and the task becomes overwhelming for most teachers and learners.

Like Bannert (1980) and Jenkins (2000, 2002), I would like to suggest a set of Lingua Franca Phonetic Core Features for Swedish. They should include 9 vowel phonemes and 18 consonant phonemes. In prosody, priority should be given to stress and quantity over the tonal word accent and temporal realization of quantity should have priority over spectral. Consonants in general should be given priority over vowels in general and consonant clusters should be highly ranked.

Finally, we can hope for more research contributing to deepening the knowledge of what phonological and phonetic properties are more or less crucial to make Swedish intelligible for all users of Swedish in all parts of the Swedish speaking community.

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