

Pronunciationforteachers.com/ Key Concepts

What Do We Know About Comprehensibility?

Comprehensibility has been defined in several ways, but the definition used most often in L2 pronunciation circles (and first used this way by Varonis & Gass in 1982) is a listener's perception of how easy or difficult a given individual's speech is to understand. It is distinct from intelligibility, which has to do with whether a listener understands the intended message of a speaker, and accent, which is simply a measure of difference in the phonology between two speakers' productions. It is possible to listen to an L2 accented speaker, and understand everything he or she says very easily, but it is also possible to listen to accented speech, understand everything, and yet find it greatly effortful to do so. Many people confuse the terms comprehensibility and intelligibility, but the former is associated with effort, or processing fluency, while the latter has to do with the apprehension of the intended meaning.

In listening experiments, comprehensibility is usually measured by asking participants to rate speech samples on a scale ranging from 'very easy to understand' to 'very difficult to understand.' Researchers have used scales from 1-5, 1-7, 1-9, all the way up to 1000 points. Scales shorter than 1-9 may not give listeners enough latitude, but the results between a 1-9 scale and a thousand point scale are very similar (Munro, 2018).

Comprehensibility is very easy for listeners to judge; they do it naturally whenever they speak to another person for the first time. University students, for instance, make quick decisions about professors in a new course, deciding whether or not they are easy to understand. In fact, in some university contexts where students found their instructors difficult to understand, they complained to the administration, and ultimately the issue was raised in state legislatures. For example, state representative Bette Grande of North Dakota proposed a bill that would allow students to withdraw from classes with no penalty "if the instructor did not speak English clearly and with good pronunciation" (Gravois, 2005). The bill also suggested that the universities would have to move any instructor into a "nonteaching position" if ten percent or more of the students lodged complaints. The bill underwent several amendments and eventually passed.

However, communication is a two-way street; although the comprehensibility of a given speaker is clearly dependent in part on that speaker's pronunciation, it is also influenced by a listener's expectations. Rubin (1992), in a classic experiment, presented two groups of university students with an audio lecture in the same dialect of L1 English as spoken by the students themselves. One group listened to it while seeing a photo of a Caucasian face, while the other group heard it while looking at a photo of a Chinese face. The latter group complained about the difficulty they experienced understanding the lecture because of the speaker's (non-existent) foreign accent. Rubin

concluded that the students exhibited a bias; he and his colleagues later referred to this phenomenon as ‘reverse linguistic stereotyping’ (Kang & Rubin, 2014).

In a similar type of study, McGowan (2015) showed listeners Chinese and Caucasian faces, while playing an audio recording of Chinese-accented English. The listeners presented with the Chinese image found the speech easier to understand than the incongruent matching of Caucasian features with a Chinese accent, suggesting that listeners may have stored exemplars. In other words, they aren’t necessarily biased towards accented speech, but their expectations based on previous experience may influence how they perceive speech. It is likely that both the listener’s previous experience and individual biases can affect how easy or difficult it is to understand a speaker.

There are several factors other than the speaker’s pronunciation that can affect comprehensibility, including the following (see Crowther et al., 2014; Derwing & Munro, 2015; Saito, Trofimovich & Isaacs, 2017):

- lexical frequency (infrequent vocabulary may confuse the listener)
- grammatical accuracy (errors may cause increased processing time)
- speaker fluency (dysfluent speakers are more difficult to follow)
- use of familiar formulaic sequences (expectations are met if common chunks are employed)
- topic familiarity (familiar topics are easier to follow)
- familiarity with a particular accent (there are mixed findings on this, but in some instances, listeners perform better if they are familiar with the accent)
- ambient noise (noise has a negative effect on comprehensibility)
- age of listener (senior listeners generally have more difficulty)
- individual differences (some people are simply better at understanding accented speech).

The goal of pronunciation instruction for L2 speakers should be enhanced intelligibility and comprehensibility. Obviously, speakers want their listeners to understand their intended messages (intelligibility), but they should also be easy to understand (comprehensibility) so that the listeners will be willing to continue to engage with the speaker. If listening is too effortful, interlocutors may avoid further contact. To best help L2 learners with their speech, instructors should conduct a needs analysis to determine which aspects of their learners’ productions interfere with intelligibility and/or comprehensibility. Certain salient features of accent (e.g., the ‘th’ sounds in English) may not affect comprehensibility and thus should be low priority. Studies have shown that focusing solely on accent as opposed to comprehensibility and/or intelligibility may result in no appreciable improvement in the latter speech dimensions, and in fact, can result in less comprehensible speech. Derwing and Munro (2015) cite several instances of accent reduction that resulted in less comprehensible productions on the part of learners.

An instructor can ask learners to describe a picture, and/or to talk spontaneously about a familiar topic (e.g., favourite food) to elicit speech to be analyzed for comprehensibility. Such recordings will allow the instructor to listen carefully to identify segmental and suprasegmental problems that affect comprehensibility. Although more research is necessary to determine which aspects of L2 speech may be problematic for L2 learners, we know that the confusion of high functional load consonants and vowels (the number of minimal pairs separated by two phonemes) contributes to a lack of comprehensibility (see Derwing & Munro, 2014, for a list of functional load weightings for the segments of English). For instance, substituting a /b/ for a /p/ in word initial position is far more serious than substituting a /z/ for a /ð/. We also know that misplaced stress or monotone speech can have negative consequences (Hahn, 2004). Very slow speech can be made more comprehensible through the use of fluency enhancement tasks (Derwing 2017). Students should be made aware of where their problems lie, and they should be referred to helpful resources to work on their own, under an instructor's supervision, along with receiving support in class.

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