

Intonation

Introduction Many previous discussions in phonology have focused on phonemes, an area known as segmental phonology. However, phonology also encompasses other elements, including suprasegmental phonology, which deals with features that extend beyond individual phonemes. One such feature is stress, as discussed in earlier chapters. Another crucial aspect is intonation, the main subject of this lecture.

Defining Intonation Intonation can be broadly understood as the variation in pitch during speech. Unlike unusual cases where someone speaks with a fixed pitch, natural speech involves continuous pitch fluctuations. The ability to recognize and analyze these variations is a distinct skill from studying segmental phonetics.

Pitch is commonly described as "high" or "low," but these terms are arbitrary. Other metaphors like "light" and "heavy" or "left" and "right" could be used. Some learners struggle to perceive pitch changes, but this difficulty often stems from the challenge of relating auditory input to a scale rather than an actual inability to hear changes.

Linguistic Significance of Pitch Not all pitch variations are linguistically significant. For instance, a speaker's pitch may fluctuate due to external factors, such as riding a horse, but these variations are involuntary and thus irrelevant to linguistic analysis. Likewise, different individuals have naturally different habitual pitch ranges, determined by their physical structure, which does not carry linguistic meaning. However, speakers can deliberately control their pitch to convey meaning, making such variations significant.

It is important to distinguish between pitch and fundamental frequency. While pitch refers to an auditory sensation experienced by the listener, fundamental frequency is the measurable rate of vocal fold vibration. Despite this distinction, "pitch" is often used informally to refer to both aspects.

Form and Function in Intonation Understanding intonation requires addressing two fundamental questions:

1. What are the observable pitch variations? (Form)
2. What linguistic role do these variations play? (Function)

To explore these, we begin with the simplest unit: a one-syllable utterance. A continuous piece of speech bounded by pauses is called an **utterance**. Common one-syllable utterances like *yes* and *no* can be pronounced with either level or moving tones.

- **Level tone:** The pitch remains constant, though this is rare in English.
- **Moving tones:** The pitch either falls or rises.
 - **Falling tone** (\yes o): Often conveys finality and definitiveness.
 - **Rising tone** (/yes/no): Often indicates a question or an expectation of further dialogue.

For instance:

- Speaker A: *Excuse me.*
- Speaker B: /*Yes?* (inviting continuation)
- Speaker A: *Do you know John Smith?*
- Speaker B: /*Yes?* (expecting more information)

If Speaker B had responded with a falling tone, *Yes*, it would signal the end of the conversation rather than an invitation to continue.

Intonation in Tone and Non-Tone Languages English intonation differs from that in tone languages like Mandarin Chinese or Kono (a West African language), where pitch changes can alter word meanings. In English, tone does not determine word identity but plays a role in structuring meaning within an utterance.

Examples from tone languages:

- **Mandarin:** *mā* (mother), *má* (hemp), *mà* (scold)
- **Kono:**
 - High level: “*beg*” (‘uncle’), “*buu*” (‘horn’)
 - Low level: *beg* (‘greedy’), *buu* (‘to be cross’)

Since English is not a tone language, intonation functions differently, primarily in organizing speech and conveying attitudes or intentions.

Complex Tones and Pitch Height Beyond simple rising and falling tones, English also uses:

- **Fall-rise tone:** Pitch falls and then rises.
- **Rise-fall tone:** Pitch rises and then falls (less common).

Additionally, speakers have individual pitch ranges, using a normal pitch range for ordinary speech but extending beyond this range for emphasis. Extra pitch height can be marked using an upward arrow (*T*), distinguishing:

- \Yes (normal falling tone)
- T\Yes (extra-high falling tone for emphasis)

Some Functions of English Tones Different tones in English serve various communicative functions. Examples include:

- **Falling tone** (\yes, \no): Often signals finality, a definitive response.
- **Rising tone** (/yes, /no): Suggests expectation, openness to continuation, or uncertainty.
 - Example:
 - A: *You start off on the ring road...*
 - B: /*Yes?* (signaling readiness to listen to further instructions)
 - A: *Turn left at the first roundabout...*

- B: /Yes?

This pattern demonstrates how rising intonation keeps the conversation open-ended, while a falling tone would indicate closure.

Conclusion Intonation is a crucial aspect of English phonology, influencing communication far beyond segmental features like phonemes. While learners can be taught general rules, acquiring natural intonation requires extensive exposure to spoken English. Native-like use of intonation comes through listening and interaction, much like a child learning their first language. Understanding both the form and function of intonation helps learners navigate the subtleties of English speech more effectively.

The Tone-Unit

Languages can be categorized into tone languages and intonation languages. Tone languages, such as Chinese and Thai, use pitch variations to distinguish lexical meaning, whereas intonation languages, like English, utilize pitch primarily for discourse functions rather than for differentiating individual words. In English, intonation is analyzed using a unit larger than the syllable, known as the tone-unit.

2. Identifying the Tone-Unit

A tone-unit consists of a **prominent syllable** that carries a tone, referred to as the **tonic syllable**. Unlike in tone languages, where pitch variation occurs on each syllable, English intonation applies pitch selectively. A tone-unit may contain multiple syllables, but it must have at least one tonic syllable, which is the focal point of the unit. This syllable has a high degree of prominence as it carries both tonic stress and intonational tone. Some scholars refer to the tonic syllable as the nucleus and the associated stress as nuclear stress.

3. Structure of the Tone-Unit

The structure of a tone-unit is hierarchical, consisting of several key components. The tonic syllable is the central and obligatory part, as it carries the main intonational movement. The pre-head consists of unstressed syllables occurring before the first stressed syllable, while the head includes the stressed syllables preceding the tonic syllable. After the tonic syllable, any additional syllables form the tail. For example, in the phrase *"In a little less than an hour"*, the pre-head includes the unstressed syllables *"In a"*, the head contains *"little less than"*, and the tonic syllable is found in *"hour"*. In other cases, a tone-unit might consist only of a tonic syllable, as in *"those"*, or include a tail, as in *"Look at it"*, where the pitch movement extends beyond the tonic syllable.

Examples of Tone-Unit Structure:

1. *Simple tone-unit with only a tonic syllable:*
 - \those (TS only)

2. *Tone-unit with a head:*
 - **'Give me \those** (H + TS)
3. *Tone-unit with a pre-head and head:*
 - **In a 'little 'less than an \hour** (PH + H + TS)
4. *Tone-unit with a tail:*
 - **\Look at it** (TS + T)

4. Tone-Unit Boundaries

Tone-unit boundaries are marked by pauses or changes in intonation. These boundaries can be represented in transcription using double vertical bars (||) to indicate longer pauses and single vertical bars (|) for minor intonational breaks. For instance, in the phrase "*And then nearer to the front || on the left | there's a bit of forest | coming down to the waterside ||*", the tone-units are clearly separated by such markers.

5. Pitch Movement within the Tone-Unit

Pitch movement within a tone-unit begins on the tonic syllable and may extend across the tail. Different types of pitch movements convey different meanings. A **rising tone** starts at a lower pitch and moves upward with the rising intonation continuing across the tail.

- Example: /**What** → /**What did you say** (the pitch rises progressively).

In contrast, a **falling tone** starts high and drops where the falling movement is maintained through the tail.

- Example: **Why** → **Why did you go** (the fall continues in the tail).

Other patterns, such as level tones or more complex fall-rise and rise-fall movements, add further variation to spoken English.

In conclusion, the tone-unit plays a crucial role in English intonation, structuring speech into meaningful segments. It consists of a tonic syllable, often accompanied by a pre-head, head, and tail. Pitch movements within a tone-unit help to shape meaning and organize discourse. A clear understanding of tone-units is essential for analyzing spoken English, as it provides insight into key intonational patterns that influence communication.