

# The accentual system of Northern Kurdish

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6th International Conference on Kurdish Linguistics  
Frankfurt, Germany. September 2023



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# Research question

Do varieties of Kurmancî differ in strategies for word-level prominence marking?

Is this different from Central and Southern Kurdish?

- Until this study, Kurmancî has universally been described as a stress accent language (e.g. Hasan 2017), as well as Kurdish more broadly.
- Additionally, stress is described as predictable, i.e., not phonemic
- However, most descriptions are either intuition-based, lacking supporting data, or relying on problematic definitions of accentual types

# Definitions used in this talk

The definitions of “accent” and “stress” vary between scholars and sources. The following definitions are used here.

<b>accent</b>	A word-level system of prominence marking. This may be realised in contrastive differences in duration, pitch, or amplitude
<b>stress accent</b>	An accentual system reliant on amplitude as the <i>primary</i> correlate of an accented syllable
<b>pitch accent</b>	A system in which pitch (F0) is the <i>primary</i> acoustical correlate of accent marking
<b>HRT</b>	high rising terminal, a rising high intonational contour occurring on the phrase level

For the purposes of this discussion, the focus is on the **primary** means of marking prominence, and not merely the presence or absence of significant pitch.

# Background

Despite claims of a stress-accent system (amplitude-based prominence marking at the level of “word”)...

- Varieties spoken in Turkey appear to show an apparent pitch-based accentual system, similar to that of Turkish as analysed in Ipek & Jun (2013)
- A difference in this pitch pattern appears to exist between varieties of Kurmancî.

# Data sources

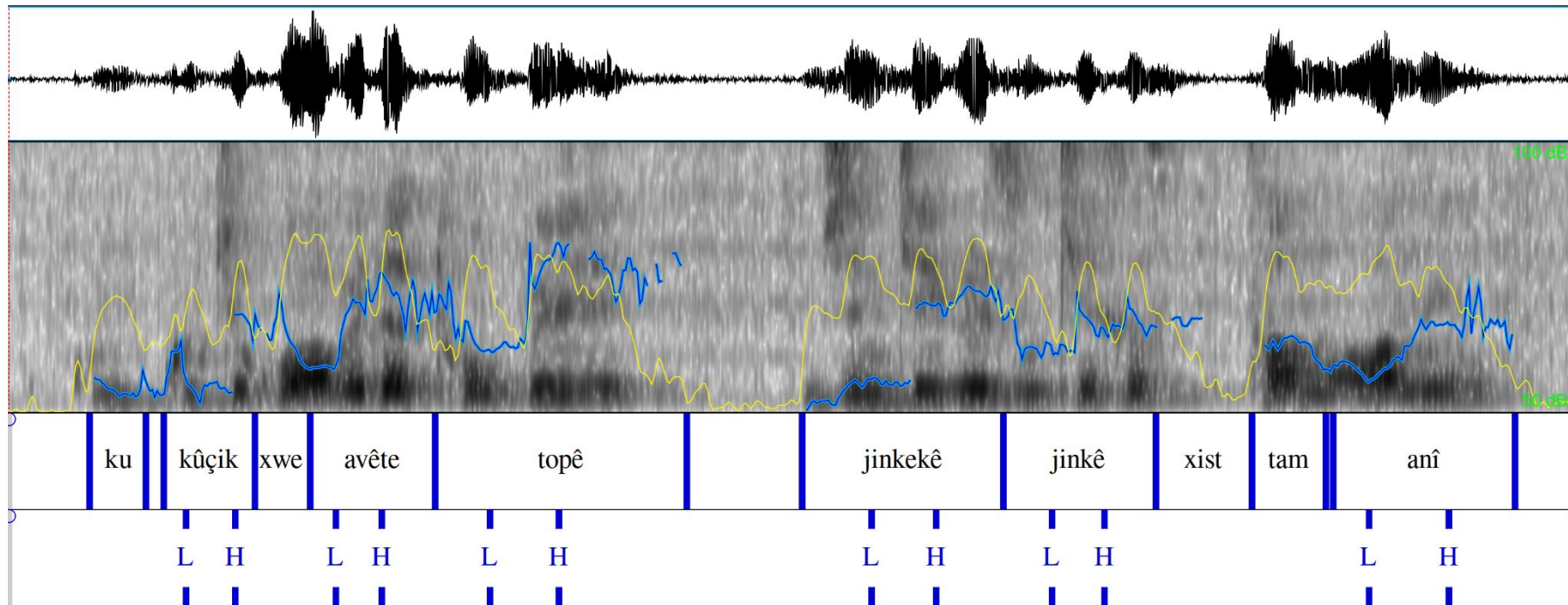
Recordings taken from

- The *Word Order in Western Asia* corpus (WOWA)
  - NK Ankara
  - NK Muş
- The Kurdish and Gorani Dialect Database (Cambridge)
  - NK Duhok
- *The Dialects of Kurdish* corpus (Manchester)
  - CK Suleymanî

These provide adequate data for an initial analysis of intonational tendencies for multiple KurmanjiKurmancî varieties

Ankara

# Analysis: Kurmancî Ankara



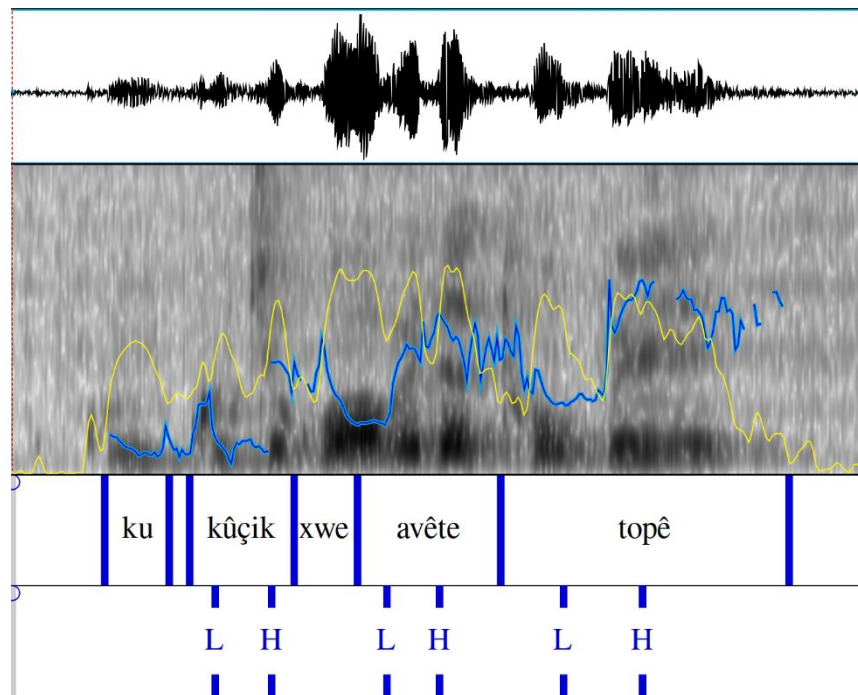


# Analysis: Kurmancî Ankara

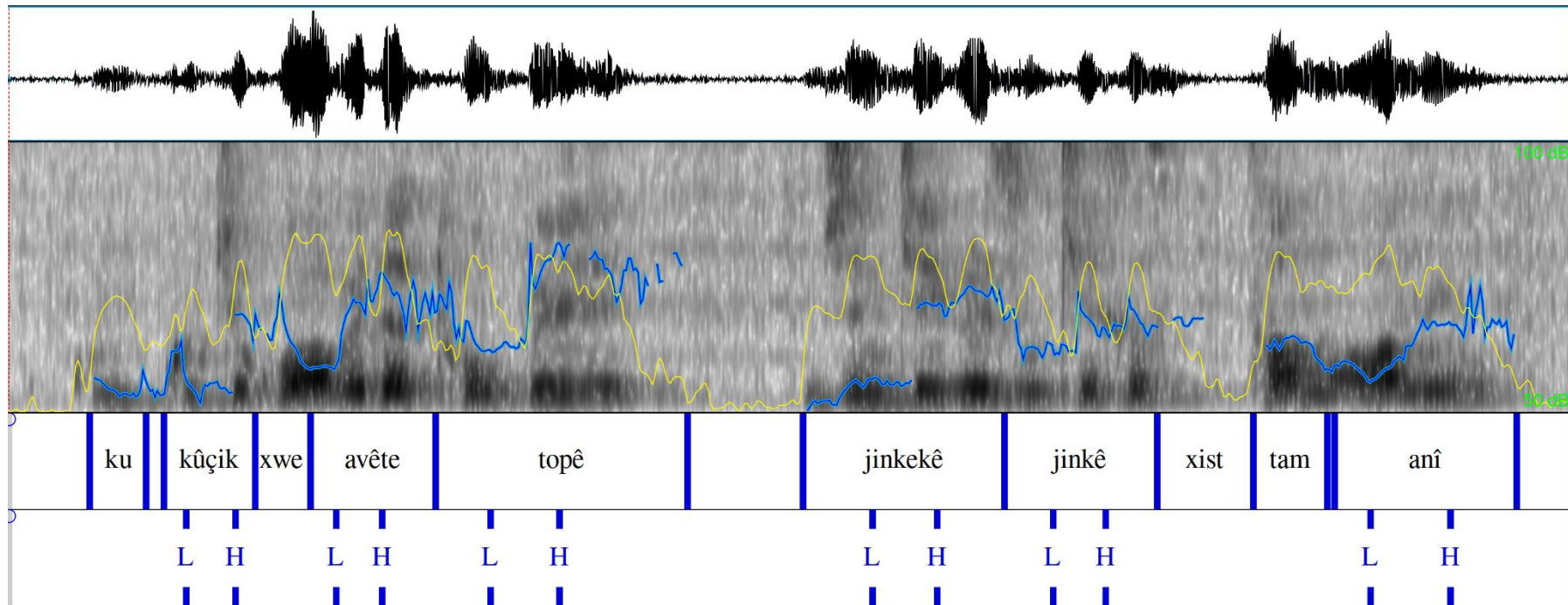
Amplitude is largely consistent, with regular final H pitch within the prosodic word.

The overall rise in the pitch (blue line) may be the result of HRT as part of the narrative structure, but occurs in combination with LH pitch patterns on the level of prosodic word.

Compare downdrift in in many languages of Africa.



# Analysis: Kurmancî Ankara

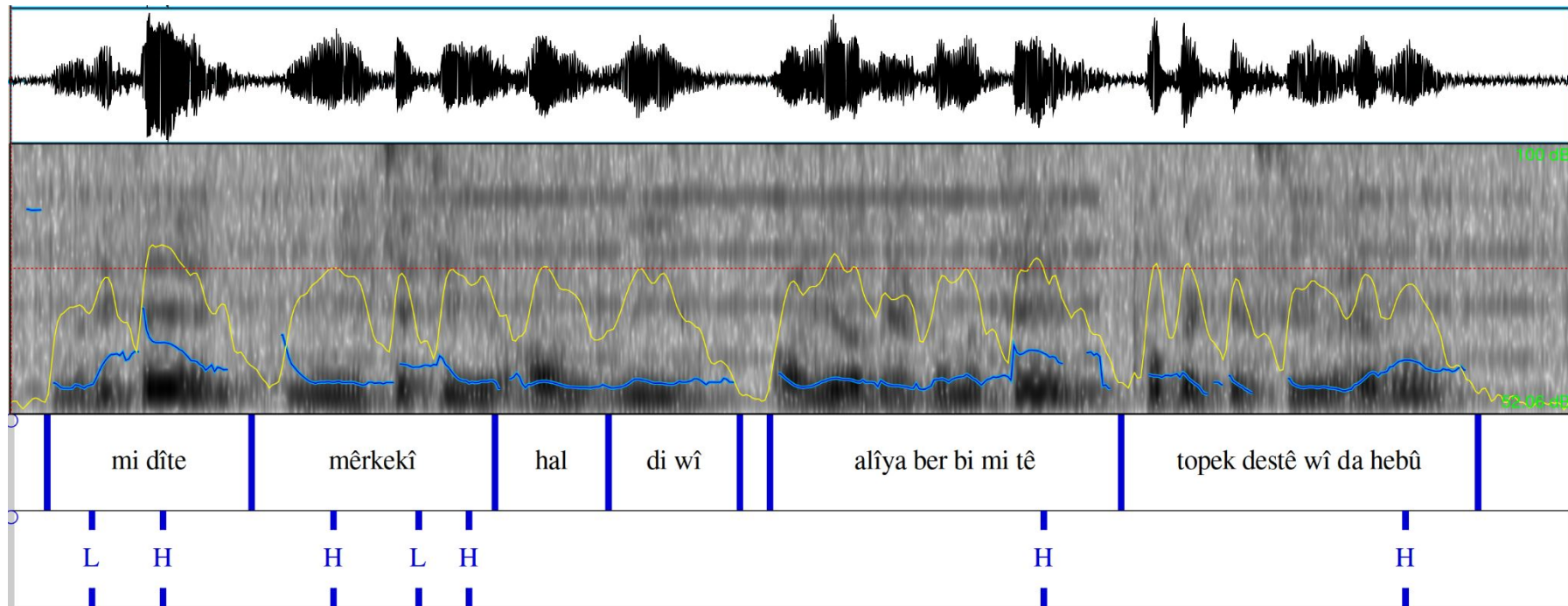


## Analysis: Kurmancî Ankara

High-rising terminal (HRT) as a narrative/discourse feature may be more significant in the Ankara recording shown.

The phrase as an intonational unit shows regular final High pitch, but not always at the level of “word”, as in the following example...

# Analysis: Kurmancî Ankara



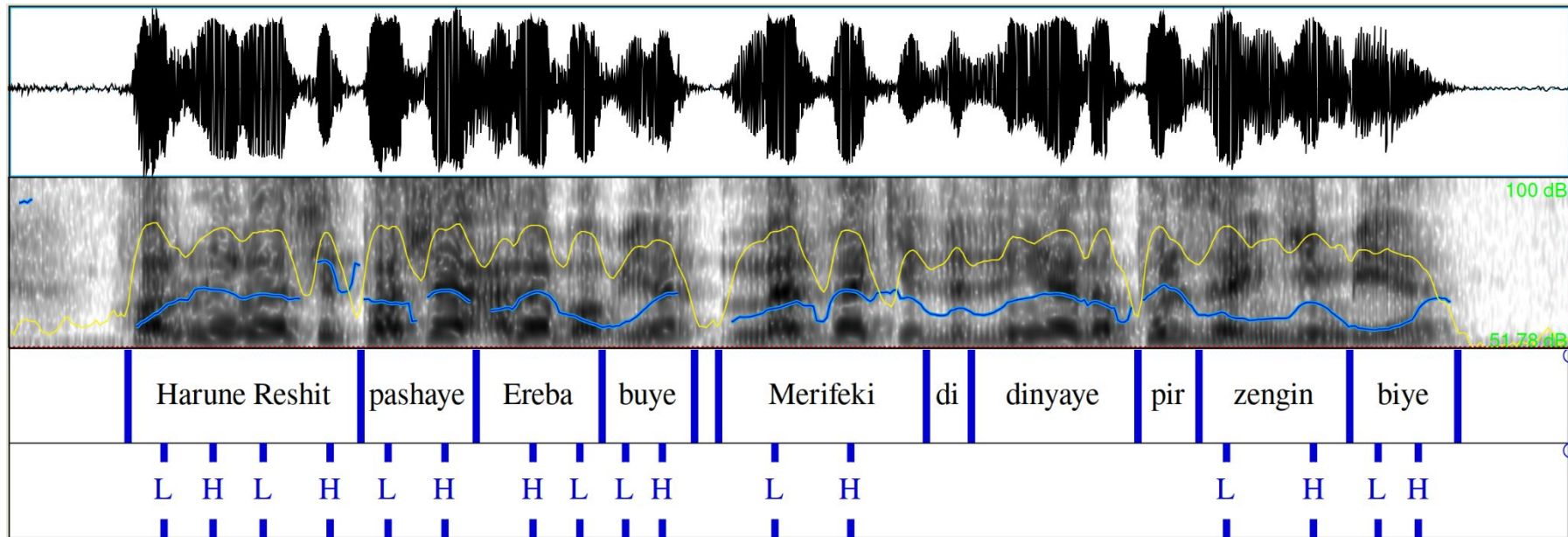
## Analysis: Kurmancî Ankara

Despite HRT serving a likely narrative function, the presence of LH pitch patterns on words throughout the recording support the presence of an overall final High target within the prosodic word.

In other words, the frequency of LH patterns is far greater than can be explained as simply HRT.

Mu\$

# Analysis: Kurmancî Muş



# Analysis: Kurmancî Muş

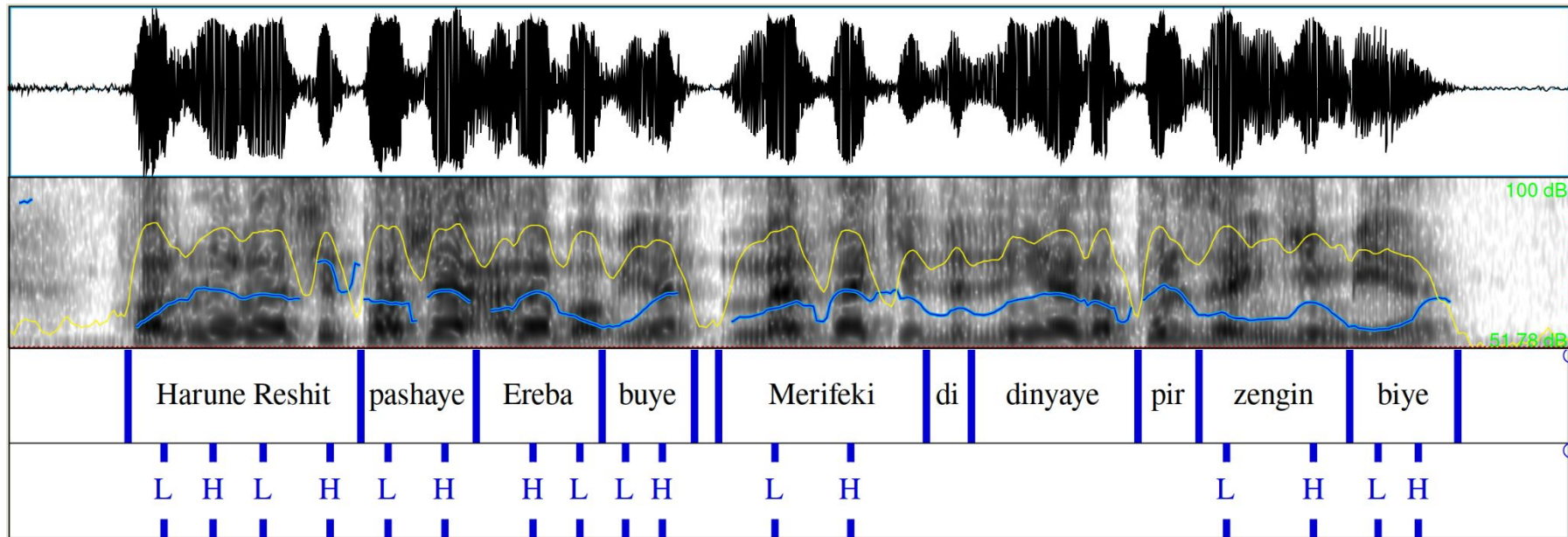
Notable features:

- Steady amplitude throughout the utterance, indicating amplitude is not a primary correlate of the accentual system
- Frequent use of a final H target on disyllabic words, with few exceptions

On these points, the variety spoken in Muş is largely consistent with the analysis given for Turkish (Ipek & Jun 2013).



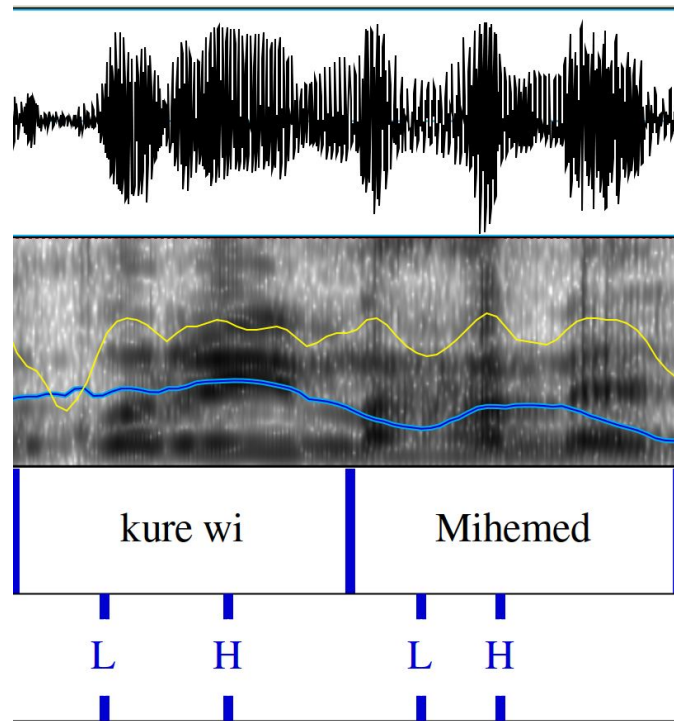
# Analysis: Kurmancî Muş



## Analysis: Kurmancî Muş

High targets may not always occur on the final syllable when stress occurs elsewhere, as in “Mihemed” where the second syllable takes the higher pitch.

In such cases, amplitude is still minimal and clearly secondary to pitch.



Duhok

# Analysis: Kurmancî Duhok

Duhok lacks the features found in Ankara and Muş:

- amplitude, not pitch, appears to be the more significant correlate of accent
- polysyllabic words lack the final H pitch target,
- the accentual pattern is often trochaic, not iambic as with Ankara and Muş

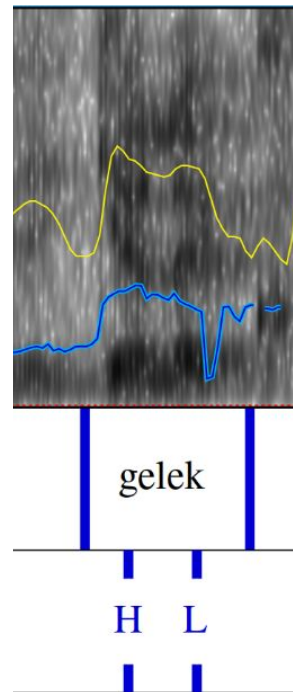


# Analysis: Kurmancî Duhok

On many words, an H-L pitch pattern is apparent, with amplitude (yellow) particularly clear (see *gelek*, right) as trochaic.

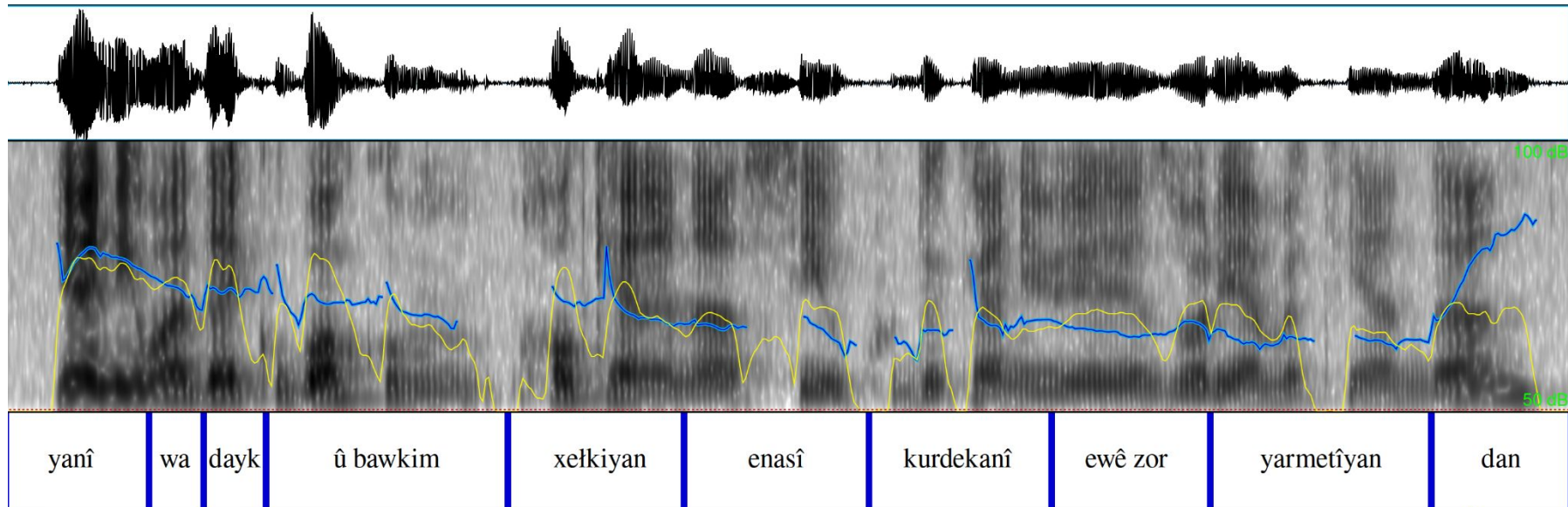
Pitch is far less consistently LH as in other varieties, but with some occurrences, and many many counter-examples.

**Duhok lacks the same consistency of LH patterns as seen further north.**



Soranî Suleymanieh

# Analysis: Soranî Suleymanieh





# Analysis: Soranî Suleymanieh

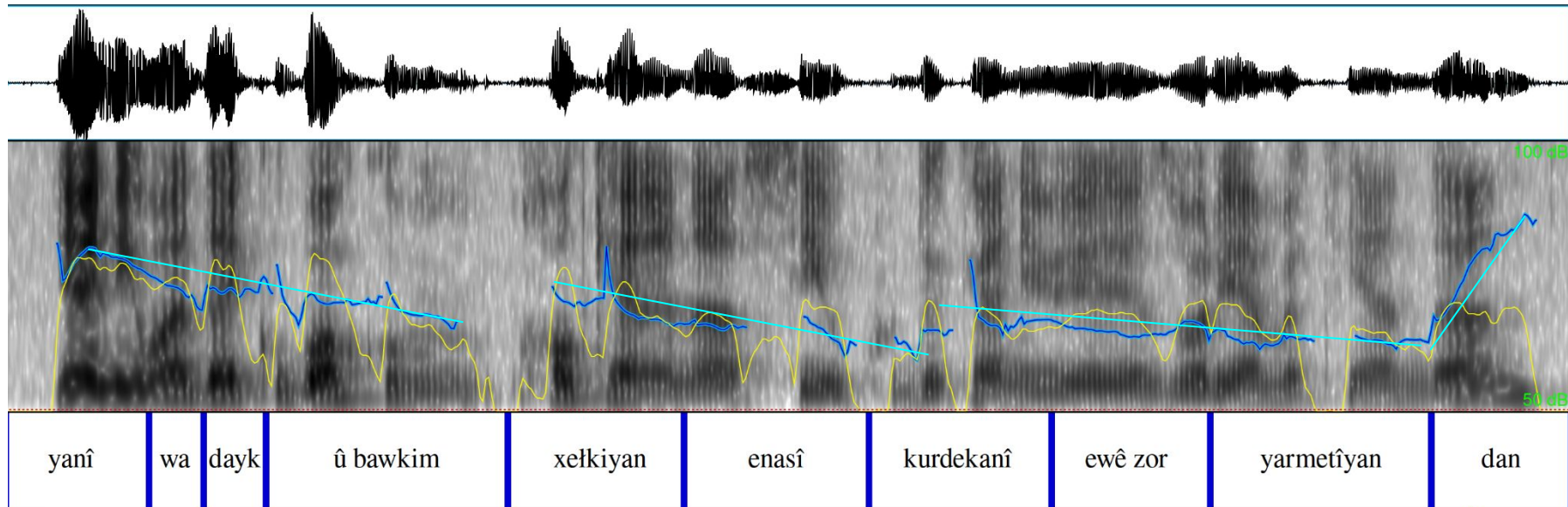
Recordings of Suleymanieh lack any clear evidence of pitch as a significant feature of accent.

Pitch is largely determined by intonational patterns.

No widespread indication of LH patterns – or indeed any significant pitch patterns – are found.

Amplitude may be significant, but from the available data such a conclusion can not be made, as trochaic patterns may be a result of loss of subglottal pressure, rather than contrastive stress.

# Analysis: Soranî Suleymanieh



Downdrift, followed by discursive HRT

# Conclusions

# Conclusions

- Word-level prominence marking strategies differ between varieties within Kurmancî
- Varieties in contact with Turkish appear to show a greater reliance on LH pitch patterns for polysyllabic lexemes, consistent with accent as described for Turkish in Ipek & Jun (2013)
- Such pitch patterns are not found in analysed Kurmancî varieties spoken elsewhere, such as Duhok, though high-rising terminal (HRT) is common as conversational marker, nor in Soranî
- Contact with Turkish is strongly suggested as a potential impetus for the presence of these patterns

## Future work: Large-scale survey of Kurmancî varieties

- Collection of additional glossed audio in Turkey & surrounding areas
- Determining placement of isoglosses
- Verify the likelihood of contact as a contributing factor
- Data to be controlled for a wider range of sentence types in controlled contexts, in order to eliminate confounding factors such as the use of pitch due to other factors.