# Article information:

Sine-wave speech - Scholarpedia  
<http://www.scholarpedia.org/article/Sine-wave_speech>

# Article summary:

1. Sine-wave speech is an intelligible synthetic acoustic signal composed of a few sinusoids that replicate the frequency and amplitude pattern of natural speech.

2. The perception of sine-wave speech depends on sensitivity to acoustic modulation independent of the specific elements composing the signal.

3. Sine-wave speech challenges traditional accounts of auditory perceptual organization and requires an alternative explanation based on sensitivity to coordinate variation rather than similarity in acoustic properties.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article provides a detailed explanation of sine-wave speech and its implications for speech perception. However, there are several potential biases and limitations in the article that should be considered.

Firstly, the article is written by Dr. Robert E. Remez, who is affiliated with Barnard College and Columbia University. This affiliation may introduce a bias towards supporting the author's own research and findings on sine-wave speech.

Additionally, the article does not provide a balanced view of the topic. It primarily focuses on the positive aspects of sine-wave speech and its potential applications in perceptual organization and analysis of spoken language. There is little discussion of any potential limitations or criticisms of this approach.

Furthermore, the article makes several unsupported claims without providing sufficient evidence or references to support them. For example, it states that proof of the intelligibility of sine-wave speech refutes many descriptions of speech perception that rely on acoustic cues to phonemes. However, no specific descriptions or theories are mentioned, making it difficult to evaluate this claim.

The article also fails to address potential counterarguments or alternative explanations for the findings on sine-wave speech. It does not discuss any conflicting research or theories that may challenge the conclusions drawn by Remez et al.

In terms of missing evidence, the article does not provide any empirical data or studies to support its claims about the effectiveness and limitations of numerical methods for synthesizing sine-wave speech. It simply states that these techniques are prone to error without providing any examples or references to back up this assertion.

There is also a lack of consideration for potential risks or drawbacks associated with using sine-wave speech in research or practical applications. The article focuses solely on its benefits and uses without acknowledging any possible negative consequences or limitations.

Overall, while the article provides an informative overview of sine-wave speech, it is important to critically evaluate its content and consider potential biases, unsupported claims, missing evidence, and unexplored counterarguments before accepting its conclusions.

# Topics for further research:

* Criticisms of sine-wave speech and its limitations
* Conflicting research on sine-wave speech
* Alternative explanations for the findings on sine-wave speech
* Empirical studies on numerical methods for synthesizing sine-wave speech
* Risks and drawbacks of using sine-wave speech in research and applications
* Acoustic cues to phonemes in speech perception

# Report location:

<https://www.fullpicture.app/item/55972cd61dfa7fab09154418d595de6c>