# Commentary on Auditory illusions in speech sound and voice perception and what they can teach us by Anna Drożdżowicz

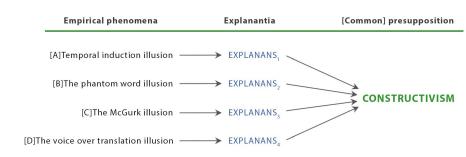


Tadeusz Ciecierski taci@uw.edu.pl

PLM Workshop on Delusion in Language and Mind

Amsterdam, October 2020

### Overview



#### Overview

#### **CONSTRUCTIVISM**

"(...) our expectations, assumptions and background knowledge about upcoming speech signal driven by linguistic context can steer the process of speech sound perception by filling the gaps that arise due to interference from other auditory sources and by making sense of the upcoming material (...) our expectations, assumptions and background knowledge about the source that is intentionally producing speech play an important role in shaping our experiences of hearing speech sounds in a particular voice." ('Auditory illusions in speech sound and voice perception and what they can teach us', p. 12)

#### Overview

Consequences for "epistemology of linguistic understanding".

"(...) biased background information, as any information about the speaker, can be exploited in speech perception leading to cases of biased interpretation. Recognizing that possibility is, I think, important for our conception of hearers as epistemic agents and for our communicative practices." (*ibid.* p. 15)

**The scope of constructivism:** Does constructivism apply to all speech (sound) events or only to some (involving, for instance, situations in which McGurk illusion or phantom word illusion arises)?

WEAK CONSTRUCTIVISM

No.

STRONG CONSTRUCTIVISM

Yes.

**The scope of constructivism:** Does constructivism apply to all speech (sound) events or only to some (involving, for instance, situations in which McGurk illusion or phantom word illusion arises)?

#### WEAK CONSTRUCTIVISM

No.

#### STRONG CONSTRUCTIVISM

Yes.

**The first question/problem:** is the view defended in the paper a weak or strong constructivism?

The second question/problem: According to constructivism defended in the paper the elements responsible for the speech sound perception are various attitudes (expectations, beliefs qua constituents of background knowledge etc.). This, among other things, justifies the application of the theory to "epistemology of linguistic understanding". However, it is rather unlikely that such propositional and cognitively transparent higher-order states are responsible for the sound perception construction.

Example: Take McGurk illusion. The constructive process in question seems unchanged for agents who know (were informed etc.) that the speech sound remains the same across situations (cf. Fodor's discussion of McGurk effect and informational encapsulation (Fodor (1983): 132). So attitudes seem to have a very limited impact on the construction of the speech sounds. The theory defended in the paper, however, attributes central role to them (temporal induction illusion might be an exception).

# Question 2 - cont.

A hint of speculation: can we show that the role of attitudes is similar to the role they play in cases of certain visual illusions, e.g. Pogendorff illusion? Here the presence of certain attitudes concerning the interpretation of the scenario might cancel the illusion.



**The third question/problem**: What is the relation between constructivism and the Voice Shaping Speech Model?

**Sound symbolism**: phonetic properties of speech sounds might be non-conventionally related to the semantic aspects of speech sounds (words, for instance).

In Drożdźwicz (2020) the Voice Shaping Speech Model is used to explain "(...) how information about the voice and speech sounds is jointly utilised in identifying the auditory objects of such experience and results in the phenomenological unity of the two." (p. 23)

However, *this* theoretical purpose seems independent of constructivism. In the commented paper the suggestion is that there is a direct relation between the two.

# Summary

## To sum up:

• The idea of constructivism requires additional explanation,

# Summary

#### To sum up:

- The idea of constructivism requires additional explanation,
- The account seem to exaggerate the role of attitudes is speech sound perception.

# Summary

#### To sum up:

- The idea of constructivism requires additional explanation,
- The account seem to exaggerate the role of attitudes is speech sound perception.
- What is the relation between constuctivism and the Voice Shaping Speech Model?

#### References

Drożdżowicz A.,(manuscript) 'Auditory illusions in speech sound and voice perception and what they can teach us'

Drożdżowicz A., 2020. Bringing back the voice – on the auditory objects of speech perception. Synthese.

https://doi.org/10.1007/s11229-020-02687-z

Fodor, J. A., 1983. The Modularity of Mind, Cambridge, MA: MIT Press.