

# WHAT IS SIGNAL AND WHAT IS NOISE IN THE BRAIN?

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## ABSTRACT

Talk about neural coding or neural information processing requires a few presuppositions which are made more explicit in this contribution. Among other things it involves a distinction between signal and noise which requires the perspective of some purpose (for which the signal is needed). The central, almost philosophical question is, what are the minimal requirements upon entities that are able to give and receive information? In which sense can we say that the eye gives information to the brain?

Our answer to these and related questions may even shed a light on the experimental procedures of measuring information in neural activation patterns. Some recent experiments will be discussed in this light.

**Keywords:** information, neural activation patterns, neural coding, surprise.

## References

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