

Title: Signal Detection Theory - Application and Criticism

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Abstract:

Signal detection theory (SDT) is arguably one of the most successful quantitative tools in scientific psychology that combines a general theoretical model of information processing with experimental research designs. It is mostly applied in situations in which participants are required to distinguish between signal and noise trials (such as recognition memory and visual perception). Based on hit and false alarm rates it allows researchers to distinguish the subject's sensitivity to detect a signal from subject's response bias towards one of the two response alternatives. To achieve a fundamental understanding of SDT in the first part of the present workshop, we will introduce basic principles, concepts, and practical procedures of SDT and have a look at concrete examples where these are applied. In the second part of the workshop, we will have a closer look at different SDT models and their respective criticism to allow for a well-considered application of SDT for future research.

Assignment: Active participation

Credits: 2 workshop days