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# Syllogism Solving Under Time Pressure

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## **Syllogism Solving Under Time Pressure**

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The effects of time pressure on syllogistic reasoning and the mental models theory in particular are investigated. Three experiments were done. In all three, half of the syllogisms were given under time pressure. This meant that subject only had 6s to choose the correct conclusion among four alternatives. When there was no time pressure, they could take all the time they wanted. In all three experiments, subjects performed worse for three-model syllogisms compared to one-model syllogisms. Also, they performed poorer when there was time pressure compared to when there was no time pressure. An interaction effect of time pressure with the number of models was expected. None of the three experiments showed this effect. However, only for Experiment 1, performance was above guessing level for three-model problems under time pressure. In Experiment 1, believability was also manipulated. Neither the time taken, nor the percentage of correct solutions was affected by believability. In Experiment 2, validity was manipulated. Only deterministic syllogisms were used. There was a trend to take more time when there was no valid conclusion among the alternatives. Performance was in this case significantly worse. In Experiment 3, the content of the syllogisms was manipulated: It could be specific or abstract. This manipulation had no effect on the reaction times or on the percentage syllogisms correctly solved.