

Brain fend off distractions

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Dutch researcher Harm Veling has demonstrated that our brains fend off distractions. If we are busy with something we suppress disrupting external influences. If we are tired, we can no longer do this.

Social-psychologist Veling proved that the brain selects incoming information to remember useful things. Distracting information is refused and neutral information may enter. In the event of tiredness, this system no longer seems to work.

Psychologists carry out a lot of research into the forgetting of distracting information. For this they use a standard test with words. Veling adapted this test to determine if the brain actually suppresses the distraction.

Veling asked study subjects to remember words that were strongly associated with each other. For example, fruit-mango, fruit-peach, animal-giraffe, animal-sheep. Subsequently all of these words passed by on a screen and the study subjects had to intend to press a button for a number of these words (for example, mango). Mango is referred to here as an 'intended' word. Peach is a very similar word and can confuse the study subject. Therefore Veling termed this a distracting word. Sheep has got nothing to do with mango and is therefore a neutral word.

The test revealed that the study subjects remembered distracting words less well than intended and neutral words. Moreover, people who were better at excluding these words from their brains performed the task quicker. Suppressing distraction is therefore useful.

People who were mentally fatigued were no longer able to suppress the distraction. Moreover they scored less well in their task. Suppression is therefore not automatic and costs energy. A humorous example of the principles Veling investigated is the Dutch TV quiz programme Rad van Fortuin (Wheel of Fortune). The candidates of this quiz are brutally distracted whilst answering the questions and can therefore scarcely answer the simplest of questions.

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