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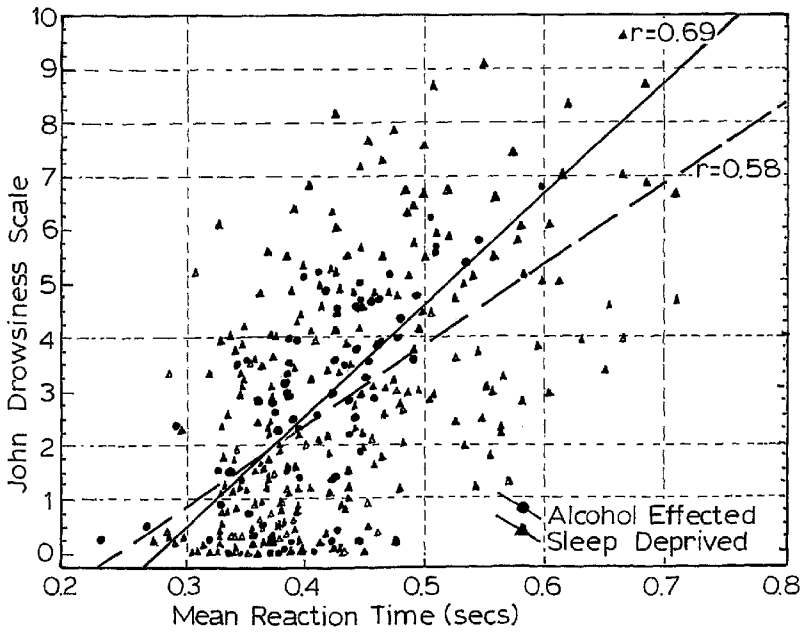
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(54) **Title:** MEASURING ALERTNESS



(57) **Abstract:** A method and apparatus for measuring drowsiness particularly in vehicle operators measures the amplitude to velocity ratio for eyelids closing and opening during blinking as well as measuring duration of opening and closing. The average values for the amplitude to velocity ratios for opening and closing are weighted and added to give a drowsiness measure that is compared to a scale of drowsiness based on data collected from alert and drowsy subjects. Other eye movements can be used in the weighted algorithm. The scale of drowsiness predicts the onset of drowsiness levels that render an operator unfit to continue.

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