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What Mouse Movements Reveal About Cognitive Effort in Survey Responses

When a survey question is confusing or demanding, respondents often answer anyway, leaving no trace of the struggle. Their mouse movements, however, can reveal hesitation, detours, and indecision. I present a question paradigm that experimentally increases difficulty at different steps of answering, from understanding the question to choosing a response. About 4,000 Understanding America Study respondents answered these questions and rated the cognitive effort each step required. I first examine how closely these ratings track the manipulation, then explore how well feature-based and deep learning models detect both from mouse movements. Finally, I discuss implications for questionnaire design and pretesting.