using it. Variants of and alternatives to the ANT will be discussed, recommendations made, and directions for research identified.

Measuring implicit cognitions in clinical and social sciences research: A review of the literature

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Cognitive theory posits that beliefs and attitudes directly influence behaviour. Accordingly, research examining clinically- (e.g., substance use) and socially- (e.g., stereotyping) relevant behaviours depends on proper assessments of these cognitions. Although frequently used, explicit, self-reports of beliefs/attitudes may be limited as they assume that behaviours are primarily a function of controlled, explicit cognitive processes. Conversely, theoretical and empirical evidence suggests that some behaviours are motivated by automatic, implicit cognitive processes (without conscious deliberation). The development of implicit cognition measures is a growing field in itself. The most promising, psychometrically sound, and widely used measures of implicit cognition will be reviewed.

Perspectives on the Ubiquity/Tyranny of Time

Cognitive workload affects duration judgments: Meta-analytic evidence

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Experiments investigating whether or not cognitive workload affects duration judgments of 3 sec or longer were meta-analyzed. Cognitive workload refers to the amount of nontemporal information-processing, or attentional, demands placed on a person. Effect sizes depend on whether or not participants were aware before the duration that a duration judgment was required (prospective vs. retrospective paradigms). With greater cognitive workload, the ratio of subjective to target duration decreases for prospective judgments (verbal estimates and reproductions shorten and productions lengthen), but it increases for retrospective judgments. The findings support an attentional-gate model of prospective timing and a contextual-change model retrospective timing.

Don't let the bathtub overflow

Peter Graf, University of British Columbia

Our days are filled with tasks, like filling the bathtub, that require some form of monitoring. The present research explored whether monitoring is attention demanding, whether all tasks evoke the same monitoring schedule, and whether all schedules are equally attention demanding? In a series of experiments, undergraduate students monitored either a clock that ran down in 12 minutes or a container that filled up in 12 minutes; their task was to turn off the clock or the tap when the target was reached. While monitoring, subjects were engaged in another activity (e.g., a recognition memory experiment). Across experiments, we manipulated the relative importance of the monitoring versus the simultaneously ongoing activity, the attentional demands of the latter, and the shape of the container (e.g., it looked either like a cylinder or a vase) that was being filled. The results showed that monitoring was affected by all of these factors.

Remembering duration retrospectively

Simon Grondin, Simon Tobin, and Andrélise Gosselin, Université Laval

The purpose of this talk is to discuss methods for experimentally investigating the memory of durations for past periods. The results of a first experiment, where 50 participants performed five different cognitive tasks (120 to 480 seconds) and used verbal estimates (VE), showed that the value of the power law exponent was about .47 for retrospective timing. In another experiment that involved performing a cognitive task or listening to music, three methods (VE, relative estimates and comparisons with a standard) for estimating duration were compared and led essentially to the same conclusion: longer remembered duration for the listening conditions.

The intention interference effect

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Goshke and Kuhl (1993) found that forming an intention to perform a prospective memory (pm) task facilitates performance on reading aloud pm-task-related words. They took this "intention superiority effect" as evidence that representations of task-related words are held in a highly accessible state. Cohen, Dixon, and Lindsay (2005) developed an interference measure of intention, demonstrating slowed Stroop colour-naming on pm-task-related words on trials on which subjects were instructed that they would later have to perform a task compared to trials on which they were told they could forget the task. We report new experiments using this intention interference procedure.

Discovery of ordinal timing

Donald Wilkie, University of British Columbia

Animals possess multiple timing systems. One is an ability to discriminate circadian, (time of day) information. In an early demonstration of this ability Saksida and Wilkie (1994) trained pigeons to peck one key in the morning and a second key in the afternoon. To rule out a non-temporal strategy such as alternation, morning or afternoon sessions were sometimes skipped. Skipping had no effect. We have recently trained rats on a similar task. Although the rats learned the task they were disrupted by skipped morning sessions (but not skipped afternoon sessions). Rather than