The Effects of Prior Experience on Estimating the Duration of Simple Tasks

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Kevin E. Thomas, Simon J. Handley, and Stephen E. Newstead
University of Plymouth, Devon. UK.

Mailing Address:
School of Psychology, University of Plymouth, Drake Circus, Plymouth. Devon. United Kingdom. PL4 8AA.

Telephone: 44 (0)1752 233157
Fax: 44 (0)1752 233176

Electronic Mail Address: k.e.thomas@plymouth.ac.uk

Abstract

Previous research provides conflicting evidence regarding the effects of prior experience on estimates of task duration. Research supporting the planning fallacy suggests that people tend to ignore information about their previous task performance, whereas other work indicates that time estimates are influenced by the duration of a just-completed similar task. The present research examined whether information about previous tasks was linked to temporal misestimation on subsequent tasks. Experiment 1 revealed that the accuracy of completion time predictions on an anagram task was influenced by the degree of misestimation in the perceived duration of the preceding task. In Experiment 2, prospective estimates were found to exceed actual time, whereas the direction in which predictions were misestimated (under or overestimation) differed according to the duration of the just-completed task. These findings suggest that task-related information is not only used when predicting task duration but also affects temporal misestimation. This research is discussed in the context of bias in predictions of task duration and the allocation of attentional resources in dual task situations in the prospective time estimation paradigm.

Keywords: time prediction bias; temporal misestimation; prior task experience; planning fallacy; prospective and anticipated time estimates; attention to temporal and non-temporal information.

The process of estimating how much time an upcoming task will take to complete has been the focus of considerable research (e.g., Buehler, Griffin, & Ross, 1994; Byram, 1997; Josephs & Hahn, 1995). Such research has found that people are generally over-optimistic, that is, they tend to underestimate their task completion times. A closely-related and well-established cognitive judgement phenomenon is the planning fallacy, which was initially identified by Kahneman and Tversky (1979). Kahneman and Tversky found that experts (e.g., stockbrokers) were over-optimistic when predicting their task completion times despite being aware that previous similar activities had taken longer than they had anticipated.

Kahneman and Tversky propose that two distinct types of information are available to people when predicting task duration: distributional information, which concerns performance on previous similar tasks (e.g., previous task completion times); and singular information, which relates to the task at hand (e.g., the amount of work involved in task completion). Kahneman and Tversky suggest that the planning fallacy occurs because people treat the current task as a unique event, which is disassociated from previous similar activities. Thus, time predictions tend to be based on singular information at the expense of distributional information, which is ignored.

The applicability of the planning fallacy beyond the realm of expert judgement is evident in research where short (i.e., a few minutes) and long duration (i.e., several weeks) novel and familiar activities are performed in naturalistic and laboratory settings. For example, Buehler et al. (1994) found that students tended to underestimate the amount of time needed to complete their final year college dissertation. The temporal underestimation indicative of the planning fallacy has also been observed in the laboratory on tasks such as self-assembly furniture and paper folding (Byram, 1997). Likewise, Buehler, Griffin, and MacDonald (1997) found evidence of an optimistic time prediction bias on an anagram task. Buehler et al. suggest that the prospect of receiving a financial reward that was dependent on the speed of task completion motivated participants to underestimate task duration.

Although there is considerable evidence that people underestimate (and are thus inaccurate when judging) task duration, recent research indicates that such over-optimism may not be as prevalent as previously thought. Using short duration laboratory tasks (e.g., the Tower of Hanoi), Thomas, Newstead and Handley (2003) found evidence of pessimistically biased time predictions (i.e., the overestimation of task duration), with an optimistic judgement bias being mediated by the duration of the just-completed task.

Thomas et al. found that temporal underestimation only occurred on longer duration tasks when a shorter version of the same task was completed beforehand. There was also evidence of temporal overestimation being greater on shorter tasks when a longer duration task was performed beforehand. These findings led Thomas et al. to suggest that the anchoring and adjustment judgemental heuristics (Tversky & Kahneman, 1982) might be applicable to the time estimation process. That is, time predictions were based (or anchored) on the perceived duration of the just-completed task, with insufficient adjustment for the greater or lesser demands of the upcoming task.

A plausible explanation for these findings is that temporal misestimation occurs because of bias or error relating to the previous task. That is, the perceived duration of a recently-completed task is likely to be different from the actual duration when people possess no objective feedback about their completion times. Using such erroneous information as a basis for estimating the duration of an upcoming similar task would be expected to lead to inaccurate predictions. Moreover, if time prediction bias is influenced by the perceived duration of a previous task, the completion time of the preceding task relative to the duration of the upcoming task may also predict the degree of bias in temporal judgements. A key aim of Experiment 1 was to investigate whether time estimates given at the end of a previous similar task were linked to the accuracy of predictions on a current task. Specifically, Experiment 1 examined whether the degree of bias in previous temporal estimates carries forward to subsequent time predictions.

Experiment 1

In this study, participants performed six trials of an anagram task, which involved identifying three smaller words from the letters of one longer root word. Participants estimated their completion time immediately before starting each trial and immediately after finishing it. Having to give a time estimate at the end of each trial forced participants to think about the just-completed task, thus making task-related information salient in working memory (Zakay, 1989). Consistent with the findings of Thomas et al. (2003), it was hypothesised that information about the previous task (e.g., its perceived duration) would form the basis of time predictions on the current task. Hence, it was anticipated that there would be a link between the accuracy of the subsequent time prediction and information concerning the just-completed task.

Method

Participants. Fifteen (11 female and 4 male) students at the University of Plymouth participated voluntarily and were paid £2.50 each. No biographical information other than gender was recorded.

Materials. Each trial of the anagram task was presented on a sheet of A4 paper, which contained three 11-letter root words with three solid horizontal lines beneath each word. The task involved identifying three words (each comprising at least four letters) from each root word and writing them on the paper. One of the root words was *improvement*, from which can be derived a number of four-letter words such as *rope, time,* and *vine*. Each trial entailed identifying a total of nine words. A digital stopwatch was used to measure task duration.

Design and Procedure. A one factor (task) repeated-measures factorial design comprising six levels was used (i.e., trials 1 vs. 2 vs. 3 vs. 4 vs. 5 vs. 6). Participants gave spontaneous verbal estimates of task duration. As trial 1 served as a practice trial, participants estimated the duration of the upcoming task on trials 2 to 6 only. However, participants estimated the duration of the just-completed task on each of the six trials. Since participants were aware that they had to estimate task duration at the beginning of the study, judgements given at the end of each trial were labelled prospective time estimates in accordance with the terminology used in research into time perception (e.g., Block & Zakay, 1997; Brown, 1985; Macar, 2002). Temporal judgements given before the start of each trial were termed anticipated time estimates or time predictions. The order in which the trials of the anagram task were performed was held constant, with participants undertaking all six trials in the same sequence.

Participants were tested individually. After being briefed about the experimental rationale, participants were asked to remove their watches and place them out of sight. The task instructions were then presented, and participants were informed that they had to verbally estimate how much time it would take them to solve a series of anagrams. Participants were then informed of the nature of the task, and began performing the first trial once they understood what was required of them. The stopwatch was then activated and was stopped once participants had completed each trial. Before the second and subsequent trials, participants predicted the duration of the upcoming task, and after each of the six trials they gave a prospective time estimate. Both types of time estimate were given in seconds. Each testing session lasted approximately 30 minutes.

Results

As a measure of temporal judgement accuracy, time index scores were calculated by dividing actual by estimated completion time per participant on each trial. Time index scores have been used extensively in research into time perception (e.g., Brown, 1985), and provide a valid method for assessing time estimation accuracy as a function of task duration. That is, they are comparable over temporal intervals of different durations. Index scores that are greater than one are indicative of temporal overestimation, whereas scores of less than one denote temporal underestimation. Index scores of one are indicative of perfect time estimation accuracy. Basic descriptive statistics are presented in Table 1.

INSERT TABLE 1 ABOUT HERE

The majority of the anticipated and prospective time index score means were greater than one, suggesting that there was a general tendency for participants to overestimate task duration. The only descriptive evidence of temporal underestimation occurred on trial 3, where the mean time index score derived from anticipated estimates was less than one ($M = .90$). In order to ascertain whether temporal judgement accuracy differed according to the type of time estimate, time index scores were subjected to a paired-samples t-test. This revealed that anticipated time estimate scores were significantly greater than prospective time estimate scores across all trials ($Ms = 1.27$ and 1.12, respectively), $t(14) = 2.47$, $p < .05$ (two-tailed). Since the mean of the prospective scores was closer to one than the mean of anticipated scores, participants were more accurate at judging their completion times after rather than before the trials.

In order to determine the kind of information that was used when predicting task duration, the relative influence of information concerning the previous trial was examined. A series of multiple regression analyses were conducted using two predictor variables. One predictor was time index scores derived from prospective estimates on the previous trial. The other predictor was successive task discrepancy scores, which measured the magnitude of difference between sequential tasks (i.e., the amount of time each trial took relative to the previous trial in the sequence). Successive task discrepancy scores were calculated by subtracting the duration of each target trial from the duration of the previous trial. Both predictors were regressed onto time index scores derived from anticipated estimates on each of the five target trials.

Regression test statistics are presented in Table 2. The regression models accounted for high proportions of variability in anticipated time index scores on the five target trials (Adj. R^2s > .73). Prospective time index scores on trials 1 to 5 were found to be significant predictors (ts > 6, ps < .01, two-tailed), suggesting that the magnitude of inaccuracy in anticipated estimates on each of the target trials was linked to the extent of bias in estimates given at the end of the just-completed trial. Successive task discrepancy scores were found to be significant predictors of anticipated time index scores (ts > 4, ps < .01, two-tailed) on three out of the five target trials (i.e., trials 2, 4 and 5).

INSERT TABLE 2 ABOUT HERE

Discussion

These findings indicate that the extent to which anticipated time estimates were biased was linked to the degree of inaccuracy in prospective time estimates on the preceding trial, and the actual duration of the target trial relative to that of the previous trial. There was a tendency to overestimate task duration whether temporal judgements were made before or after each trial. The direction in which anticipated time estimates were biased is consistent with Thomas et al.'s research (2003), which produced evidence of temporal overestimation on other short duration laboratory tasks. The present findings demonstrate that the extent of temporal misestimation on a just-completed task transfers to anticipated time estimates on an upcoming task. The observed relationship between previous prospective and subsequent anticipated time estimates concurs with Thomas et al.'s suggestion that information such as the perceived duration of previous similar tasks is taken into account when predicting task completion times.

Although there is evidence that task-related information is considered when making subsequent time predictions, it is not known whether such findings will occur when individuals have greater experience of the to-be-completed task. The lack of prior experience of the anagram task could well explain the present general temporal overestimation. That is, participants tended to err on the side of caution because they were uncertain of what the upcoming task entailed. Consistent with this suggestion, there is evidence that individuals engage in defensive pessimism in order to bolster self-esteem when their task performance will be objectively evaluated (e.g., Norem & Cantor, 1986). Hence, it may be that participants engaged in defensive pessimism in order to appear competent at solving each set of anagrams. In order to further examine the issue of prior task experience, the number of practice trials of the anagram task was increased in Experiment 2.

In relation to prospective time estimates, the attention allocation model of time perception (Thomas & Weaver, 1975) would predict the occurrence of temporal underestimation in the present study. That is, solving each set of anagrams occupies cognitive capacity and thus limits participants' ability to monitor the passage of time, which results in prospective time estimates being shorter than actual task duration (Brown, 1997). Thomas and Weaver's model of psychological time states that time estimates are derived from the output of temporal and non-temporal information processing mechanisms in the brain, which compete for attentional resources. Hence, when a task is performed during a time interval, attentional resources are divided between the processing of temporal and non-temporal information (Hicks, Miller, Gaes & Bierman, 1977).

Consistent with Thomas and Weaver's model, there is considerable evidence of prospective time estimates being shorter than the actual duration of temporal intervals when various tasks are performed simultaneously (e.g., Burle & Casini, 2001; Franssen & Vandierendonck, 2002; Macar, Grondin & Casini, 1994). Such temporal underestimation has been attributed to the inability to store sufficient temporal information (e.g., time cues) in working memory when performing a non-temporal task during a time interval (Brown, 1997). It has also been suggested that task performance occupies much of the individual's cognitive capacity leaving few attentional resources available to monitor the passage of time (Curton & Lordahl, 1974).

Whilst it is not known why temporal overestimation (instead of temporal underestimation) was evident in prospective time estimates here, participants undoubtedly performed two tasks simultaneously before giving a judgement at the end of each trial. That is, they had to try to keep track of time whilst solving each set of anagrams. Thus, attentional resources would have been divided between monitoring temporal cues and completing each trial. Extrapolating from previous research (e.g., Brown, 1985), the misestimation of task duration would not be unexpected given such sub-optimal attentional processing of temporal information.

A key aim of Experiment 2 was to determine whether temporal overestimation would prevail in both prospective and anticipated time estimates when these judgements were made independently of one another. Experiment 2 also investigated whether information concerning previous tasks was linked to the accuracy of prospective as well as anticipated time estimates. It may be that prospective time estimates are more accurate than anticipated time estimates because the former are based on information such as the perceived duration of the just-completed task rather than on information about the previous (i.e., a different) task. Given that prospective estimates were less biased than anticipated estimates in the present study, the impact of the type of time estimate on temporal judgement accuracy was further explored in Experiment 2.

Experiment 2

This study used a between-groups design in which participants performed two target trials of the anagram task where time was estimated either before (anticipated condition) or after task completion (prospective condition). In order to increase the amount of prior experience, participants performed two practice trials of the anagram task on which no time estimates were requested or given. Four of the six trials from Experiment 1 were randomly selected and performed in the same sequence by all participants.

Method

Participants. Thirty (22 female and 8 male) students at the University of Plymouth participated voluntarily and were paid £2.50 each. No biographical information other than gender was recorded.

Materials. Trials 1, 3, 5 and 6 from Experiment 1 were employed. A digital stopwatch was used to measure task duration.

Design and Procedure. A 2 (task: trial 3 vs. trial 4) x 2 (time estimate: prospective vs. anticipated) mixed factorial design was used. The time estimate factor was manipulated between groups, with participants being randomly assigned to one of two equal-sized conditions. The task factor was a repeated measure. The procedure was similar to that of Experiment 1 except that spontaneous verbal time estimates were given on trials 3 and 4 only (trials 5 and 6 from Experiment 1). Each testing session lasted approximately 20 minutes.

Results

As was the case in Experiment 1, time index scores were calculated per participant on each trial where a temporal estimate was given (i.e., trials 3 and 4). Basic descriptive statistics are presented in Table 3. Three out of the four time index score means were greater than one, suggesting that there was a general overestimation of task duration. Scores in the prospective condition were greater than one on both trials, and temporal overestimation was also observed in the anticipated condition on trial 4. However, there was some descriptive evidence of temporal underestimation in the anticipated condition on trial 3, where the mean index score was less than one ($\underline{M}$ = .86). Hence, the direction in which time predictions were biased may have differed between the target trials, with temporal overestimation occurring on trial 4 and temporal underestimation occurring on trial 3.

INSERT TABLE 3 ABOUT HERE

In order to examine the impact of the type of time estimate on temporal judgement accuracy, time index scores were subjected to a 2 (task: trial 3 vs. trial 4) x 2 (time estimate: prospective vs. anticipated) split plot analysis of variance (ANOVA). This analysis produced a main effect of task, $\underline{F}(1,28) = 17.00$, $\underline{MSE} = .14$, $\underline{p} < .001$, with overall scores being lower on trial 3 than on trial 4 ($\underline{Ms}$ = 1.04 and 1.43, respectively). There was also a significant interaction, $\underline{F}(1,28) = 4.84$, $\underline{MSE} = .14$, $\underline{p} < .05$. This revealed that scores in the prospective condition were higher than scores in the anticipated condition on trial 3, but lower than scores in the anticipated condition on trial 4. Pairwise comparisons (LSD t-tests, all two-tailed) revealed that the means of the time estimation conditions did not differ significantly on trials 3 or 4 ($ts < 1.7$, $ps > .10$). However, scores in the anticipated condition were significantly lower on trial 3 than on trial 4 ($p < .05$), whereas scores in the prospective condition did not differ significantly between the trials ($p > .08$). The main effect on the time estimate factor was not significant ($F < 1$, $p > .10$).

As a further analysis of temporal judgement accuracy, time index scores per trial and time estimation condition were subjected to one-sample t-tests (all two-tailed) with a test value of one (i.e., perfect temporal judgement accuracy). Results revealed that prospective and anticipated time index scores did not differ significantly from one on trial 3 ($ts < 1.3$, $ps > .10$), whereas the time index scores from both time estimation conditions differed significantly from one on trial 4 ($ts > 2.5$, $ps < .05$). This finding suggests that both types of time estimate were more accurate (i.e., time index scores were closer to one) on the first target trial.

Discussion

The present study indicates that the direction in which anticipated time estimates were biased differed between the two target trials of the anagram task. Specifically, participants in the anticipated condition overestimated the duration of trial 4 but underestimated how much time trial 3 would take to complete. This finding concurs with that of Experiment 1, and suggests that participants based their next time prediction on the perceived duration of the just-completed task.

Using this kind of task-related information would be expected to result in an optimistic time prediction bias on trial 3 given the shorter duration of trial 2. Likewise, a pessimistic time prediction bias should be evident on trial 4 given the longer duration of trial 3. These results are also broadly consistent with the work of Thomas et al. (2003), which revealed that the direction of time prediction bias was influenced by the duration of the task that had just been completed. More importantly, the present study suggests that individuals do take account of their performance on previous similar tasks when predicting task duration.

There was no evidence that prospective time estimates were shorter than the actual duration of the target trials of the anagram task. In fact, participants who judged their completion time at the end of each trial tended to overestimate the duration of the just-completed task. The presence of temporal overestimation in the prospective estimation condition contrasts with previous studies, which have found that prospective time estimates are shorter than actual duration when non-temporal tasks are performed during temporal intervals (e.g., Franssen & Vandierendonck, 2002; Hicks et al., 1977). Such research provides support for the attention allocation model of time perception (Thomas & Weaver, 1975), and suggests that concurrent task performance occupies cognitive resources, which are unavailable to monitor temporal cues (Brown, 1997).

Given such research, it is surprising that in a dual task situation there was no evidence of temporal underestimation in the prospective time estimation condition on trials 3 and 4 in the present study. This finding concurs with that of Experiment 1, where prospective time estimates exceeded actual duration on all six trials of the same anagram task. In both studies, attentional resources would undoubtedly have been devoted to solving the anagrams, suggesting that the cognitive processing of temporal cues was likely to be less than optimal (Brown, 1997). The presence of temporal overestimation implies that participants who gave prospective judgements did not lose track of time, but perceived that the just-completed task took longer to finish than it actually did. Whilst further research is required to substantiate this suggestion, the present findings imply that participants allocated sufficient attentional resources to the processing of temporal information whilst solving each set of anagrams.

General Discussion

The present research indicates that information concerning the duration of a just-completed task is used when predicting completion times on a version of the anagram task originally employed by Buehler et al. (1997). These findings extend the work of Thomas et al. (2003) beyond the realm of problem-solving tasks such as the Tower of Hanoi to a different type of laboratory task. In general, participants overestimated the duration of the previous task and there was some evidence that this pessimistic time estimation bias extended to predictions on the current task. That is, the degree of inaccuracy in estimates given at the end of the previous task was found to be highly predictive of the magnitude of bias in anticipated estimates on the next task (Experiment 1). The direction in which time predictions were biased also differed between anagram tasks of different durations (Experiment 2), a finding that was not explored by Buehler et al. (1997). Importantly, the present research demonstrates that, in addition to the Tower of Hanoi, there is one other type of short duration task on which optimistically biased time predictions are not prevalent.

The present studies suggest that, with certain tasks at least, people take account of their performance on previous tasks when making time predictions that are inaccurate. This finding contrasts with Kahneman and Tversky's (1979) research into the planning fallacy, which states that optimistically biased time predictions occur because people focus attention on information about the task at hand and ignore information concerning previous tasks. Whilst there was a general tendency to overestimate time in the present research, anticipated temporal estimates were optimistically biased on longer duration tasks when shorter ones had been completed beforehand. That is, when participants predicted the duration of trial 4 having just completed trial 3 (Experiment 1) and trial 3 having just finished trial 2 (Experiment 2).

Contrary to the claim that using such task-related information can attenuate or eliminate the planning fallacy (Buehler et al., 1994), the present studies indicate that the relative duration of the previous task (rather than task-related information per se) is linked to the existence of temporal underestimation. Although it is important to ascertain whether these findings generalise to other tasks and settings, the link between such distributional information and time prediction bias may not be as clear as previously suspected.

There was little evidence of the planning fallacy in the present studies, a finding that contrasts with Buehler et al.'s (1997) research. However, the offer of monetary incentives dependent on the speed of task completion is a plausible explanation for the temporal underestimation observed by Buehler et al. That is, the prospect of receiving a monetary reward encouraged Buehler et al.'s participants to focus attention on information concerning the nature of the task at hand (e.g., the ease with which certain words might come to mind). Conversely, the absence of any motivational incentives in the present research may well have been responsible for the general overestimation of task duration that was evident in both studies. Specifically, participants had no incentive to make optimistically biased time predictions, and thus erred on the side of caution when estimating task duration.

The present research provides further evidence that there are certain tasks on which the temporal underestimation indicative of the planning fallacy does not prevail (and tends to be reversed). Consistent with the work of Thomas et al. (2003), task duration could be an important determinant of temporal misestimation, with an optimistic time prediction bias occurring on longer tasks than those used here. Our current research lends credence to this notion as we have recently found evidence of temporal underestimation on two different types of laboratory task with durations in excess of 10 minutes.

Given the present evidence that time predictions are made with reference to the perceived duration of previous similar tasks, an alternative interpretation of temporal misestimation suggests itself. It could be that although time predictions exceed the actual duration of shorter tasks, these estimates may be shorter than the actual duration of longer tasks. If people use information about previous tasks to make subsequent time predictions, as we suggest, this judgement strategy would lead to temporal overestimation on shorter duration tasks and temporal underestimation on longer tasks. This interpretation would not only imply that information about previous task performance is considered when predicting task duration, but that such information is in itself inaccurate. Whilst it is not known whether the present findings generalise to longer duration tasks performed in more naturalistic settings, there is evidence that information concerning previous tasks is used when predicting the duration of subsequent similar activities.

In relation to the prospective time estimates, there was evidence of temporal overestimation on anagram tasks of different durations in both studies. A plausible interpretation of this finding is that participants were able to allocate sufficient attentional resources to the processing of temporal cues in a dual task situation whereby the time interval and the resolution of a non-temporal task occupied cognitive capacity (Fortin & Rousseau, 1987; Hicks et al., 1977). The presence of temporal overestimation contrasts with previous research (e.g., Zakay, 1989), which has shown that prospective time estimates are shorter than actual task duration under such dual task conditions.

Whilst it is unclear why prospective time estimates exceeded actual task duration in the present studies, it has been demonstrated that temporal underestimation is not always evident in these judgements in dual task situations. In order to further explore the impact of concurrent performance of this anagram task on the length of prospective time estimates, a control condition should be included in future research. That is, a condition in which participants monitor the length of a temporal interval, but do not perform the anagram task during this period of time. Given the lack of such a control condition, it is perhaps unwise to make too much of the temporal overestimation that was evident in prospective time estimates in the present studies.

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Table 1

Experiment 1: Means (and standard deviations) of estimated and actual completion times (in seconds), and time index scores

	Anagram Trial					
	1	2	3	4	5	6
Actual Time	174.93 (92.71)	183.67 (86.10)	151.80 (74.29)	210.87 (137.37)	161.47 (71.69)	137.67 (48.14)
Anticipated Estimate	N/A	204.67 (145.88)	211.33 (151.95)	206.33 (146.20)	204.33 (135.21)	198.67 (135.94)
Prospective Estimate	204.33 (148.36)	218.33 (147.78)	200.00 (160.40)	223.00 (167.24)	185.67 (149.80)	164.33 (105.91)
Anticipated Index Score	N/A	.90 (.66)	1.41 (.95)	1.10 (.79)	1.29 (.83)	1.42 (.96)
Prospective Index Score	1.07 (.47)	1.12 (.57)	1.23 (.75)	1.07 (.51)	1.07 (.58)	1.18 (.68)

Table 2

Experiment 1: Multiple regression test statistics

Task	Model Adjusted R^2	Prospective Time Index Score (Previous Task)	Beta Weights	Successive Task Discrepancy Score	Beta Weights
Trial 2	.86	t(12) = 6.63**	.69	t(12) = 4.31*	.45
Trial 3	.73	t(12) = 5.80**	.83	t(12) = 1.18	.17
Trial 4	.74	t(12) = 4.99**	.70	t(12) = 4.86**	.68
Trial 5	.85	t(12) = 8.07**	.85	t(12) = 5.04**	.53
Trial 6	.78	t(12) = 6.02**	.82	t(12) = 2.07	.27

** $p < .001$ (two-tailed)

* $p < .01$ (two-tailed)

Table 3

Experiment 2: Means (and standard deviations) of estimated and actual completion times (in seconds), and time index scores

	Anticipated Condition			Prospective Condition		
	Actual Time	Estimated Time	Index Score	Actual Time	Estimated Time	Index Score
Trial 1	151.07 (80.13)	N/A	N/A	119.27 (41.41)	N/A	N/A
Trial 2	135.47 (67.56)	N/A	N/A	114.13 (36.78)	N/A	N/A
Trial 3	203.13 (86.72)	175.67 (82.57)	.86 (.47)	163.27 (73.69)	179.73 (101.02)	1.13 (.41)
Trial 4	153.27 (68.79)	218.00 (85.21)	1.42 (.58)	115.67 (45.60)	154.47 (75.04)	1.32 (.34)

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Correspondence and requests for reprints of this article should be addressed to: Dr Kevin Thomas, School of Psychology, University of Plymouth, Drake Circus, Plymouth. Devon. UK. PL4 8AA. Electronic mail may be sent via the Internet to: k.e.thomas@plymouth.ac.uk.