# An Attentional Blink for Non-patterned Visual Information

by

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## ABSTRACT

This series of experiments demonstrates the occurrence of an attentional blink (AB) for two types of non-patterned information: chromatic information and location information. In Experiments 1 - 4, subjects identified an H or S (T1) in an RSVP stream containing coloured letters, and then detected the presence of a specific colour (T2) in the remainder of the stream. When T2 followed within approximately 500 ms after T1, a dramatic deficit in T2 detection resulted. In Experiment 5, T2 was presented in either green or red, and the remainder of the stream alternated between the two colours. Task 2 was to report whether green or red appeared first in the display. This produced an even larger AB than in the previous experiment. In Experiment 6, subjects attended three disks and reported, the location of a missing disk (T1), and the first colour to appear in the display (the middle disk was presented in green or red (T2), and then that disk alternated between green and red throughout the remainder of the display). In Experiment 7, the order of presentation of T1 and T2 was reversed so that Task 1 required subjects to identify the first colour, and Task 2 required subjects to identify the location of the first missing disk. In both cases, a dramatic deficit in Task 2 resulted when T2 followed within less than 500 ms after T1. Experiments 1 - 5 demonstrate that the AB can occur for chromatic information. Experiments 6 and 7 demonstrate that the AB can occur for location information. The implications of these results for various theories of the AB are discussed in the General Discussion.

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"I can do everything through Him who gives me strength." Philippians 4:13

## DEDICATION

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**The attentional blink**

When people are presented with streams of letters in rapid serial visual presentation (RSVP), identifying a target in the stream interferes with detection of a second target that is presented within approximately half a second after the first target. This deficit in detection of the second target has been labeled an attentional blink (Raymond, Shapiro, & Arnell, 1992).

Typical characteristics of the attentional blink (AB) phenomenon are best described through an example. In the experimental condition of the second study reported by Raymond et al. (1992), subjects were presented with an RSVP stream of black letters on a grey background, and were asked to identify the one white letter (T1) and to report whether a black X (T2) was present in the stream following the white letter. Performance in this dual task condition was compared with performance in a control condition where subjects were instructed to ignore the white letter and only report on the presence or absence of the black X. The most important characteristic of the AB is the deficit in report of T2 when T2 follows closely after T1 in the experimental condition. Performance in the current example was clearly impaired when T2 followed between 180 and 450 msec after the white letter.

A second critical characteristic of the AB phenomenon is the lack of impairment in the control condition. In the above example, average performance in the control condition was about 92%, and was independent of the time between the white letter and the X. The fact that control performance was not influenced by the temporal asynchrony between the white letter and the black X ruled out a sensory masking account of the deficit in the experimental condition, and led to the "attentional" explanation which is implied in the currently popular label for the phenomenon.

Two further characteristics have been associated with the AB phenomenon. When T1 is an identification task and participants in Raymond et al.'s second study misidentified the first target, they tended to report the item immediately following T1 in its place. (This item is often referred to as the +1 item or T1+1.) Furthermore, when the item immediately following T1 was T2, (i.e., when T2 followed 90 msec after T1), report of T2 was less impaired. (This is why the deficit described above was said to occur between 120 and 450 msec after T1.) This advantage for T2 when it falls in the serial position just following T1 is a fourth characteristic of the AB pattern. These last two characteristics are not always evident when an AB is produced, but because of the frequency with which they do occur, and because their presence has been particularly troubling for most theories of the AB, they have been included as "important characteristics" of the AB phenomenon.

## Theories of the attentional blink

### *Attentional suppression mechanism*

Raymond et al. (1992) argued that the attentional blink is the result of an attentional suppression mechanism that is initiated when posttarget stimulation interferes with T1 identification. According to this theory, detection of T1 occurs relatively effortlessly, but in order for the more demanding process of identification to be completed, processing of subsequent items in the stream must be inhibited. This theory postulates that posttarget processing of information presented between 180 and 450 msec after correct T1 identification is suppressed by the mechanism. Because the deficit occurred when posttarget processing required only detection of an X in the stream, Raymond et al. (1992) concluded that the mechanism operates at a relatively early stage of visual processing. Raymond et al. (1992) suggested that posttarget stimulation acts as a trigger for the inhibitory mechanism. They demonstrated that posttarget interference is necessary to produce an AB in their third experiment. When a blank interval was inserted immediately following T1 (i.e., no letter appeared at serial position T1+1), the magnitude of the deficit was dramatically reduced. They argued that this suppression mechanism is ballistic in nature -- once initiated, it must carry out to completion -- because in this same study, when blank intervals were inserted later in the stream (the letters at serial positions T1+2, or T1+3 were removed from the stream), the AB was still as large as when no blank intervals had been inserted at all.

*Similarity theory*

Shapiro, Raymond, and Arnell (1994) challenged the hypothesis that AB is the result of a suppression mechanism that is initiated by posttarget stimulation interfering with T1 identification. In several studies they demonstrated that detection of T1 was sufficient to produce a deficit in later processing. When subjects were instructed to detect the presence of a white letter (T1) and/or a black X (T2) in an RSVP stream of black letters on a grey background, mere detection of the white letter produced an AB pattern of results (Shapiro et al., 1994, Experiment 2). Further, when subjects were asked to detect a simple dot pattern target (which had no "meaning" beyond being a target, and therefore, arguably, could not be identified), this was also sufficient to produce the deficit in T2 detection (Shapiro et al., 1994, Experiment 4). Identification of T1, therefore, is not necessary to produce the attentional blink.

The alternative account for the phenomenon provided by Shapiro et al. (1994) was inspired to some extent by the visual search literature, where targets and distractors are presented simultaneously (not serially as in RSVP). Duncan and Humphreys (1989) describe target detection under these conditions as the result of two sequential stages. In stage 1, a perceptual representation of the entire visual field is created. Then in stage 2, the target is selected from among the distractors in this perceptual representation by matching the template of the target to the inputs in this representation.

Shapiro et al. (1994) suggest that in dual task RSVP studies, a similar two stage process could account for the AB phenomenon. In this account, templates are established for T1 and for T2. As the RSVP stream is presented, stage 1 processing creates a perceptual representation of each item. Then, in stage 2, the T1 input and T2 input are isolated as potential matches for the templates, and are entered into visual short term memory (VSTM). Due to the rapid rate at which items are presented, the items which immediately follow the targets are entered into VSTM as well, due to their temporal proximity to the targets.

In order to explain the frequency at which T1 and T2 are correctly selected, Shapiro et al. (1994) add a weighting component to their application of the Duncan and Humphreys model. As items are entered into VSTM, the T1 item receives a large weight because of its good match to the T1 template. The item following T1 receives a smaller weight because its match to the T1 template is not as good. Next, T2 receives a limited weight even though it matches the T2 template well, because weighting resources are drained by the previous two items. The lowest weighting would, therefore, be attached to the item following T2. It is selected because of its temporal proximity to T2, but it is not a good match to the T2 template and fewer resources are left. Report from VSTM is based on the relative weights attached to these items when they are entered into the short term store.

Sometimes this competition in VSTM leads to incorrect identification of T1. As this model would predict, T1 identification errors are most frequently one of the other three items that supposedly gain input to VSTM (T1+1, T2, T2+1). In fact, most frequently T1 identification errors are T1+1 intrusions. Also, recall that T2 performance is often better when T2 immediately follows T1 than when the T2 follows within approximately the next half a second after T1. According to the logic of this theory, this increased probability of selection results from the fact that fewer weighting resources would have been used prior to the presentation of T2, and therefore more weight can be assigned to it.

It should be noted that this theory assumes that visual pattern information in the targets is necessary to produce an AB (because the theory locates the interference in a VSTM system). This assumption was supported by two experiments in which blank intervals were used as T1 stimuli (Shapiro et al., 1994, Experiments 5a and 5b) and little evidence for an AB resulted. The authors conclude "the blink must occur whenever a target containing pattern information is encountered in a continuous RSVP stream and that it is the presence of this pattern information ....that contributes to the production of the AB." (pp. 367)

Further support for this model is reported by Raymond, Shapiro, and Arnell (1995) in a series of experiments where they explore the importance of the categorical, featural, and spatial similarity of T1 and the item immediately following T1. Shapiro et al. (1994) argue that the greater similarity between the items competing for VSTM should lead to a greater AB deficit. Raymond et al. (1995) found that categorical similarity between T1 and the T1+1 item did not appear to influence the AB. However, featural and spatial similarity (types of visual similarity) did influence the AB such that the more similar the T1 and T1+1 items are, the greater the magnitude of the interference.

*Attentional Dwell Model*

According to Ward, Duncan, and Shapiro (1996), focal attention has been misconstrued as a high speed serial process requiring less than 50 msec per item in a display. In their experiments subjects were required to respond to one target presented briefly (and masked) at one of two locations, and then at variable SOAs following the first target, subjects were required to respond to a second target presented briefly (and masked) at one of two different locations. Just as has been found with the RSVP procedure, subjects often misreported the second target when it followed within approximately 500 msec of the first target.

These authors propose that the AB is the result of limited visual processing capacity to encode items into a representation that can be used for higher levels of processing, such that the more objects subjects must attend to, the greater the demand on resources. This idea is supported by Experiment 3 of their series, in which subjects must attend to up to three objects. A greater deficit results when subjects must attend to three objects than when subjects must attend to two objects. Objects are said to compete for the limited visual processing resources based on their match to a target templete. The best matches to the target template win the visual processing resources, and the processing of subsequent objects must wait until resources are free again.

*Two stage model*

On the other hand, a very different two stage model has been proposed by Chun and Potter (1995) to explain the AB phenomenon. In the first stage, according to this theory, very short lived conceptual representations of each stimulus are constructed (in parallel) and can only be preserved if they are selected for further processing. This stage of processing has essentially unlimited capacity. When the first stage selects a candidate T1, the second stage begins. This second stage is capacity limited. It operates on whatever representations of items are available when processing begins (so sometimes the T1+1 item is processed along with T1). The deficit ensues when second stage processing lasts longer than the temporal interval between the first target and the second target because, while the T1 item is processed, the T2 item is subject to rapid decay when subsequent RSVP stimuli mask the first stage representation of T2.

The idea that the item following T1 often goes through stage 2 processing with T1 is supported by the observation that, when T2 is presented immediately following T1, T2 performance is sometimes more accurate (than when it occurs later in the stream), but T1 is also more frequently missed (e.g. Raymond et al., Exp 2. In this case, T1 is misidentified as T2).

The duration of this second stage of processing is related to the difficulty of distinguishing the targets from the +1 items. The more difficult it is to distinguish between these items, the greater the attentional blink. Evidence in support of this point was provided in Chun and Potter (1995), Experiment 4. Subjects were instructed to identify two letters in an RSVP stream of digits. The T1+1 and T2+1 items could be either digits or symbols. Presumably, the digit stimuli were harder to distinguish from the letter stimuli than were the symbols (<, >, =, #, %, ?, /, and *). The largest AB resulted in the condition where both the item following the first target, and the item following the second target were digits (digit-digit condition). Next in magnitude of AB was the condition where the T1+1 item was a symbol, and the T2+1 item was a digit (symbol-digit). When the T1+1 item was a digit and the T2+1 item was a symbol (digit-symbol), a still smaller blink was evident, and finally, when both +1 items were symbols (symbol-symbol) the smallest AB was found.

These results, taken with the results on manipulations of T1 to T1+1 similarity reported by Raymond et al. (1995) support the notion that the less discriminable the T1+1 (and T2+1) items are from the targets, the greater the magnitude of the AB. As discussed above, Similarity Theory predicts this finding. However, this is also consistent with the idea that visual masking of the targets plays an important role in producing the AB. Therefore, this result does not provide unequivocal support for Similarity Theory. The importance of visual masking will be discussed further below.

It is interesting to note, comparing the importance of the T1+1 and the T2+1 items, that the magnitude of the attentional blink in Chun and Potter (1995, Experiment 4) appears at least as large (perhaps even larger) when the T2+1 item is particularly hard to distinguish from T2 than when the T1+1 item is particularly hard to distinguish from T1 (compare symbol-digit condition to digit-symbol condition). Theories of AB that have been discussed thus far place little emphasis on the role of the item following the second target, but this result hints that this item may in fact be more important in producing the attentional blink than previous theories have allowed.

In a recent series of studies, Giesbrecht and DiLollo (1996) have explored the importance of the items following the second target. In one experiment, when all of the items following the second target were omitted from the stream (i.e., nothing followed T2), the AB was completely eliminated. Further experiments revealed that a single item following T2 was enough to produce an AB of the same magnitude as when multiple trailing items follow T2. This suggests that the T2+1 item plays a critical role in producing the AB pattern of results. These results provide support for the model described by Chun and Potter (1995) to explain the attentional blink.

According to Chun and Potter (1995), while T1 is being processed in stage 2, T2 is subject to rapid decay due to interference from the subsequent items in the RSVP stream, which leads to reduced T2 detection. Giesbrecht and DiLollo demonstrated that the AB is eliminated when the items following T2 in the stream were eliminated and, in fact, one trailing item following T2 was sufficient to produce the AB. Again, visual masking of the target items plays a vital role in producing the deficit (in these non-speeded paradigms).

*Dual Task Interference Theory*

Another theory of the attentional blink has been proposed by Jolicoeur (1996), intended to explain the AB deficit within the context of a general information processing framework. According to DTI theory, information passes through several stages of processing en route to a response. First, information enters into the sensory encoding

(SE) stage which is very much like iconic memory. Here, the information is maskable by other sensory events in the same modality. Information that survives sensory encoding enters perceptual encoding (PE). This representation is not susceptible to masking but is very short lived if it is not selected for further processing. Next, the selective control (SC) stage compares the representation to selection criteria (these criteria can range from physical attributes, such as size or colour, to specific identities, such as H vs S).

When a delayed response is required, information must be passed on to a short term consolidation (STC) stage (which can last from 50 - 1000 ms depending on the information being processed). After STC the representation enters durable storage (DS), where information is maintained until the response is made. When a speeded response is required, information must procede from the selective control stage to the response selection stage rather than to short term consolidation.

According to this model, the AB phenomenon is the result of the same mechanism as the psychological refractory period (PRP). The earlier stages of sensory encoding and perceptual encoding are not susceptible to dual task interference, but the stages of selective control, short term consolidation, and response selection all require central resources.

*Psychological refractory period*

When subjects are asked to make speeded responses to two stimuli, (e.g., a tone and a letter), response times to the second stimulus are typically delayed when the two stimuli are presented at short SOAs, relative to when the two stimuli are presented at longer SOAs. Also at the shorter SOAs, the response time to the second stimulus (RT2) appears to depend to some extent on the length of the response time to the first stimulus (RT1), such that longer responses to the first stimulus lead to longer responses to the second stimulus. This dual task interference is often discussed under the heading of the psychological refractory period, after Telford, (1931). Telford (1931) coined the term psychological refractory period to refer to the slowing of RT2 by analogy to the refractory period that follows a spike potential in a single nerve cell. Although we now believe that the analogy is not correct (e.g., see Pashler, 1994), the expression has remained with us as a short-hand name for dual-task slowing phenomena.

Researchers who have studied PRP effects have often argued that this type of interference results from a bottleneck in information processing (e.g., Welford, 1952; Pashler, 1984; Pashler, 1989; Pashler, 1991; McCann & Johnton, 1992; Fagot & Pashler, 1992; Van Selst & Jolicoeur, 1994; Ruthruff, Miller, & Lachmann, 1995; Carrier, & Pashler, 1995). Only one stimulus can be processed through this central bottleneck at a time, and therefore processing of the second stimulus must wait until the first stimulus has been completely processed through the bottleneck.

In order to determine which stages of processing might be limited by such a bottleneck, the following procedure has been employed. Two stimuli requiring a response are presented at varied SOAs. The bottleneck in information processing produces the following effect: at shorter SOAs, when there is a high degree of overlap between the processing of each stimulus, there is a much greater delay in subjects' responses to the second stimulus than at longer SOAs, when there is little or no overlap between the processing of each stimulus.

Presumably, processing that precedes this bottleneck can take place for both stimuli at once, regardless of the degree of overlap between them. This pre-bottleneck processing takes place in parallel to the degree that the processing for the two stimuli overlaps. That is, when the two stimuli are presented at shorter SOAs, this processing takes place in parallel, but when the two stimuli are presented at longer SOAs, this processing takes place serially to the extent that the first stimulus is completely processed before the presentation of the second stimulus.

Consider what happens if the pre-bottleneck processing of the second stimulus is manipulated (see Figure 1). Stimulus 1 (S1) is presented, and pre-bottleneck processing takes place. If stimulus 2 (S2) is presented before S1 processing has been completed, (i.e., at shorter SOAs) then the pre-bottleneck processing of S2 will take place in parallel with S1 processing. However, the S2 processing that requires the bottleneck will have to wait until S1 has been processed through the bottleneck. Therefore, at shorter SOAs, increasing the amount of pre-bottleneck processing required for S2 will not increase the overall response time to S2, because S2 processing had to wait for the bottleneck to be free. However, if S2 is presented after S1 has been completely processed (i.e., at longer SOAs), then increasing the pre-bottleneck processing of S2 will increase the response time to S2 accordingly.

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Insert Figure 1 about here

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This interaction between SOA and manipulations of pre-bottleneck processing has been labelled an underadditive interaction, because these factors produce a pattern which is "underadditive with decreasing SOA," as illustrated in Figure 2a. On the other hand, when the duration of processing that requires the bottleneck, or the duration of processing that follows the bottleck is increased, this manipulation is evident to the same degree at all SOAs, producing what are called "additive effects," as illustrated in Figure 2b (see McCann & Johnston, 1992.)

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Insert Figure 2 about here

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Pashler (1984) has argued for a bottleneck at response selection because factors that affect stages before response selection produce underadditive effects with decreasing SOA, while factors that affect response selection, or stages after response selection typically produce additive effects with SOA. It should be noted that other stages of processing might also be influenced by such a central bottleneck, as has been suggested in the PRP literature (e.g. De Jong, 1993, arguing for a response initiation bottleneck; Carrier & Pashler, 1995, arguing for a memory retrieval bottleneck)

*The attentional blink and PRP effects*

Previously, theorists have argued against the idea that AB and PRP effects might reflect the same underlying mechanism (e.g. Shapiro & Raymond, 1994; Ward et al., 1996). Certainly, there are a number of differences between the two paradigms. First, PRP effects are observed in response times, whereas AB is reflected in accuracy scores. Second, subjects are required to make both responses as quickly as possible in the PRP paradigm, but typically neither response is speeded in the AB paradigm. Third, the stimuli are not masked in the PRP paradigm, whereas the intervening distractor items in the AB paradigm serve as masks for the target information. However, the fact that there are differences in the two paradigms does not necessarily lead to the conclusion that different mechanisms are causing the RT2 delay in the PRP paradigm and the T2 accuracy deficit in AB paradigm.

Shapiro and Raymond (1994) based their argument that these two phenomenon reflect different mechanisms primarily on the results of three experiments in which blank intervals were inserted into the RSVP stream. These authors argue that if AB is the result of the same mechanism as PRP effects, then entering a blank interval in the RSVP stream at the T1+1 position should not have attenuated the AB as it did in Raymond et al. (1992, Experiment 3). Furthermore, inserting the blank interval later in the RSVP stream had much less impact on the magnitude of the AB. In the PRP paradigm, the entire SOA is a blank interval. These researchers claim that these results are difficult to explain in terms of PRP effects. The same two responses are required when T1+1 is a blank interval and when T1+1 is a pattern stimulus, so if a bottleneck at response selection were responsible for AB, these authors argue the same effect should occur under both conditions. Shapiro and Raymond (1994) also point again to the two experiments where T1 is a blank interval, (to be detected in Experiment 5a and to be identified as short or long in Experiment 5b of Shapiro et al., 1994) the AB is dramatically attenuated. Again, two responses are required so these authors argue that if AB and PRP effects are the result of the same mechanism, it is unclear why the AB seems to disappear under these conditions.

These findings can be explained, however, by taking a closer look at the implications of requiring a speeded response to an unmasked stimulus (as in the PRP literature) as opposed to requiring an unspeeded response to a masked stimulus (as is typically the case in the AB literature). In the case of a speeded response, because their responses are being timed, subjects must also process the information provided by the first stimulus "online" (as quickly as possible). In the case of an unspeeded but masked stimulus, subjects must process the information provided by T1 "online" to some degree, or else that information will be masked by subsequent items and essentially lost. However, if this information is not masked by subsequent items, then processing is not necessarily "online" and the results can no longer be compared to the results from PRP experiments.

In Raymond et al., (1992, Experiment 3), inserting a blank interval in the T1+1 position essentially gives subjects longer to process T1, and therefore attenuates the AB. This is comparable to giving subjects an extra 90 msec to process the first stimulus in the PRP literature before a speeded response is required. It is likely that PRP effects would be attenuated under these conditions as well. Furthermore, in Shapiro et al. (1994, Experiments 5a and 5b), the information to be processed in T1 is "the absence of pattern information," but the items which follow T1 are all pattern stimuli. Pattern stimuli do not provide a mask for this T1, and therefore, subjects are probably able to remember the T1 stimulus even after the entire display has been presented. Subjects are not processing T1 "online." An AB should not be expected under these conditions. This is tantamount to allowing subjects in a PRP experiment to take as long as they like to respond, and then expecting to find an effect in response times. In such a PRP experiment, subjects would not be required to process the information "online". Instead, since the stimuli are not masked, subjects could process the information as long as the sensory representation remained available.

On the other hand, as reported above, Ward et al. (1996) have argued that manipulating the duration of the response selection stage does not influence the magnitude of the AB deficit. This conclusion was based on the finding in Experiment 2 of their series in which they manipulated the number of attributes of a given item subjects were required to report, and found no effect of this increased response selection requirement. If AB and PRP reflect the same underlying mechanism, then how can it be that requiring multiple responses to a single item did not increase the AB? It can be argued that although subjects were forced to process the critical items online because they are masked, they were not necessarily forced to process those items through the response selection stage, because a speeded response was not required. Therefore, it is not surprising that manipulating the duration of the response selection stage did not influence the AB here. Perhaps if speeded responses had been required, the manipulation of response selection would have shown up in either the response times to each target, or in the accuracy of reports.

In fact, Jolicoeur (1996) introduced a new empirical technique in the study of the AB phenomenon that makes it possible to look for further similarities between the AB and PRP effects. By requiring a speeded response to T1, it becomes possible to examine the extent to which T2 accuracy depends on the length of time it took to process T1. In the PRP literature, longer responses to T1 are associated with longer responses to T2. Jolicoeur (1996) predicted that, in his paradigm longer responses to T1 would be associated with less accurate responses to T2. This is exactly what he found in each of the 10 experiments in his paper that made the comparison possible.

Furthermore, Jolicoeur (1996) examined the effects of a number of other manipulations which have been considered manipulations of the duration of the response selection stage in the PRP literature (e.g. go/no-go procedures, 2 alternative vs 4 alternative forced choice procedures) and unlike Ward et al. (1996) found that (with the requirement of a speeded response to T1) these manipulations did influence the magnitude of the AB deficit.

Some might argue that requiring a speeded response to T1 fundamentally changes the paradigm (i.e., an AB experiment that requires a delayed response measures something different than an experiment which requires a speeded response). In fact, according to DTI Theory, processing of T1 must proceed through different stages when a speeded response is required (SE, PE, RS, RE), than when an unspeeded response is required (SE, PE, SC, STC, DS). However, Dual Task Interference Theory argues that the same mechanism is responsible for the effect, whether the deficit is observed after a speeded response to T1 or after a delayed response, because both types of response require that critical information in T1 be processed through the bottleneck before T2 processing can be completed. In the case of a speeded response it is response selection for T1 that requires the bottleneck and therefore delays processing of T2, whereas in the case of an unspeeded response, it is short term consolidation of T1 that delays processing of T2. Thus, the same fundamental cause produces the deficit observed in Task 2.

**The present experiments**

Various predictions can be made concerning the susceptibility of non-pattern information to the AB, based on each of the theories of the AB reported above. According to the attentional suppression model described by Raymond, et al. (1992), the AB is the result of an attentional suppression mechanism that is activated when post-target stimulation interferes with T1 identification. The model does not make explicit predictions as to how non-pattern information might fair in a dual task paradigm. In as much as a non-patterned stimulus might require attention in order to be identified, and subsequent non-patterned stimuli might interfere with the identification of this stimulus, the same suppression mechanism might produce an AB for non-patterned information. However, as was discussed above, the findings of Shapiro, et al. (1994) challenged the central assumption of this theory, that the deficit was due to the requirement that T1 must be identified rather than merely detected.

Similarity theory, on the other hand, does make more specific predictions about the vulnerability of non-patterned information to the AB. Recall that similarity theory proposes that T1, T1+1, T2 and T2+1 are all entered into VSTM, with varied weightings depending on their match to target templates. It is not clear whether Shapiro et al. (1994) would describe these target templates as capable of representing non-patterned information. If they are not capable of representing non-patterned information, then no AB should result for non-patterned information. Some other means of representing the non-patterned information must be hypothesized. Based on the findings of two experiments (Shapiro et al., 1994, Experiments 5a and 5b) in which blank intervals were used as T1 stimuli, and little evidence for an AB resulted, Shapiro and Raymond (1994) propose that VSTM stores only visual pattern information and that other types of information must be stored separately .

The attentional dwell model also espouses the idea that potential target items compete for visual processing resources, according to their match to target templates. Those items which receive processing resources eventually resolve into a representation in which "the selected objects and all of their properties are available to control behaviour, for example to guide and generate responses," (Ward, Duncan, and Shapiro, 1996, pp. 36). This model would therefore predict that when non-patterned information requires a response, that information would have to be processed to this level of representation and therefore would also be susceptible to the AB.

According to the two-stage model proposed by Chun and Potter (1995), very short lived, conceptual representations of each item in the RSVP stream are created, but these representations are subject to rapid decay unless they are selected for further processing. Appealing to Duncan's (1980) notion of level 1 and level 2 processing, Chun and Potter argue that these representations cannot serve as the basis for a response. Duncan explicitly states that in order to report any attribute of a stimulus, or in order to make a decision about any attribute of the stimulus (including colour and location), the stimulus must be subjected to the limited-capacity processing required to reach the level 2 representation. Therefore, this model predicts that an AB will result for non-patterned information.

Dual Task Interference theory also predicts that non-patterned information should produce an AB. DTI theory predicts that any task requiring subjects to process information online will lead to a deficit in performance on another task that requires subjects process information online provided that central bottleneck mechanisms are engaged by the processes required to perform both tasks. Furthermore, DTI theory predicts that, when a speeded response is required to the first stimulus, accuracy on the second task will depend, to some degree, on the speed of that response. That is, faster responses to T1 should lead to more accurate responses to T2.

The current series of experiments has two main purposes. The first purpose is to demonstrate that certain types of non-pattern information are also vulnerable to the AB. Experiments 1-6 demonstrate an AB for chromatic information, and in Experiment 6, paying attention to location information is what makes chromatic information susceptible to the blink. In Experiment 7, attending to chromatic information leads to an AB for location information.

The second purpose of this series is to test the prediction of DTI theory, that faster responses to T1 will lead to more accurate responses to T2. In each experiment in this thesis longer responses to T1 also led to less accurate responses on T2. It should be noted that this finding is basically correlational in nature, and it is possible that some other third variable is responsible for the dependency. However, to anticipate, this seems unlikely, due to the nature of the interaction produced between RT1 and Task 2 accuracy. This is discussed in more detail in the General Discussion.

## General Methods

In the following section is an outline of several aspect of the methods and analyses that remained constant across all experiments.

*Minimum motion test for luminance*

Because these experiments were carried out on a number of different computer systems, an initial "luminance test" was run at the beginning of every session, allowing each participant to set the colours so that luminances for each colour employed in that session would be constant. The following technique, based on a methodology developed by Anstis and Cavanagh (1983) was used to establish the appropriate luminance setting for the red used in this experiment.

A repetitive sequence of four coloured gratings was presented. The first grating was made of alternating darker grey and lighter grey bars (darker and lighter than the standard grey). The second grating, displaced half a bar-width to the right, contained red (test colour) and grey bars (standard). The third grating contained the darker grey and lighter grey bars again, displaced half a bar to the right from the red/grey grating. (They were now displaced a full bar width from their original placement). The fourth grating displayed the test/standard grating once again, displaced half a bar further to the right. The test colour appeared to jump to the left if the standard bars were lighter than the test bars, or to the right if the test bars were lighter than the standard bars. Subjects used the z key to indicate motion to the left, and the ?/ key to indicate motion to the right. The computer added red to the test colour if motion was detected to the left (increasing the luminance of the test colour), and subtracted red from the test colour if motion was detected to the right (decreasing the luminance of the test colour). If the test colour and standard were of equal luminance, no motion was observed. This cycle of four gratings is repeated continuously until subjects indicated that no clear motion was present (by pressing the q key). This procedure was also carried out for the green and blue colours used in this experiment.

By this means, the specific red coordinates for each colour were determined by each individual subject. The green and blue coordinates for each colour were selected ahead of time with the aim of producing four colours which were all approximately equiluminant, but which also produced a T shaped pattern when plotted in colour space, with green, grey, and red forming the top bar of the T, and grey and blue forming the vertical bar (see Figure 3). Average luminance values for each colour (averaging across subjects) for each Experiment in this thesis are reported in Appendix A.

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Insert Figure 3 about here

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*Excluded subjects*

Because some subjects had difficulty with the rapid presentation of stimuli, occasionally subjects produced near chance performance in Task 2 when there was no T1 in the stream (or when subjects were instructed to ignore T1.) Rather than recalibrating the parameters of the experiment for each subject, a predetermined criterion was used (65% mean accuracy in Task 2 when T1 was absent or ignored), and subjects who did not meet this criterion were excluded from the analyses below.

*RT1 dependency analysis*

According to the Dual-Task Interference Theory, the AB magnitude should also be related to the response time in Task 1 (RT1). In other words, faster responses to T1 should lead to more accurate responses to T2. In order to test for this dependency statistically, the following procedures were carried out in each analysis. First, the response times for correct responses to T1 were sorted by SOA separately for each subject. Next, the response times were screened for outliers (see Appendix C). Then, a median split on the RT1s in each cell defined short and long RTs. Task 2 performance was then computed for each cell for short vs long RTs. An ANOVA including T2-colour (green/red), SOA (1-8), and RT1(short/long) tested for the interaction between SOA and RT1(short/long).

## Experiment 1

An earlier attempt to demonstrate that chromatic information was susceptible to AB failed to produce evidence of an AB for colour. In one of a series of experiments designed to explore the importance of the T2 stimulus, Shapiro, Arnell, and Drake (1991) required subjects to identify a white letter in a stream of black letters (T1) and then identify the colour of a filled square (T2). Participants had no difficulty identifying the colour of the square in the stream, regardless of the amount of time between T1 and T2. However, this experiment is not a particularly good test of the susceptibility of chromatic information to the AB. As was reported above, Geisbrecht and DiLollo (in press) have demonstrated that an AB will not be evident unless an appropriate mask for the T2 stimulus is employed. In Shapiro et al. (1991) no effort is made to mask the chromatic information present in T2, allowing processing of T2 to take place "offline." Processing of T2 is not taking place "online." It is possible that the AB is still happening (i.e., the information presented immediately after T1 cannot be processed at that time), but once the attentional limitation has passed (after T1 has been processed), that chromatic information is still clearly available for processing and subsequent report because it has not been masked.

Experiment 1 demonstrates that, with a more appropriate mask for chromatic information in T2, an AB pattern of results can be found. In this experiment, subjects are asked to identify a blue H or S (T1) and then detect the presence of a green or red letter in an RSVP stream of letters. The non-target letters alternated in colour (between red and grey for subjects detecting a green T2, and between green and grey for subjects detecting a red T2), thereby increasing the chromatic variation in the stream and producing a mask for the chromatic information present in T2.

## Method

### *Subjects*

Thirty-five students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. Based on the criterion for Task 2 accuracy described in the General Methods section above, three subjects were excluded from the analyses below.

### *Minimum motion test for luminance*

After the data for half of the subjects in each condition had been collected, the average CIE(x,y) values for each colour were examined in order to determine whether the values that subjects were producing did, in fact, maintain this pattern in colour space. It appeared that the red colour was slightly out of place, so the blue coordinate for the red colour was increased slightly to correct for this problem. The colours used before this adjustment were called Set A; those after the adjustment were called Set B.

### *Stimuli*

Stimuli were upper-case letters presented in green, red, or grey on a black background, on an SVGA colour computer screen controlled by a 486, or 586 CPU. The letters were presented in RSVP, (sequentially in the same location at the center of the screen) at a rate of approximately 7.5 letters/s. Each letter was exposed for 130 ms with no interstimulus interval.

There were 6-9 letters prior to T1, and T2 could occur in any of the 8 positions following T1, with equal probability. A further 9-12 letters followed T1, so that even when T2 was in the 8th serial position following T1, there were between 1-4 letters following T2. On every trial, the background stream items were selected at random, without replacement, from the letters of the alphabet, excluding H, S, X, and Y. The letters subtended about $1^{\circ}$ of visual angle.

*Procedure*

A fixation mark at the beginning of every trial also provided feedback on the previous trial. The fixation mark appeared much like two plus signs presented side by side, with the first plus sign corresponding to performance on the first task, and the second plus sign corresponding to performance on the second task. When an incorrect response was made, the plus symbol corresponding to that task was replaced with a minus symbol. Each trial was initiated by pressing the space bar on the computer keyboard, which caused the fixation symbols to disappear and the RSVP stream to begin. There was no feedback for the last trial of each block, because a set of instructions for the next block immediately followed the completion of that trial. The fixation mark preceding the first trial of every block was always two plus signs.

Each subject completed 10 blocks of 64 trials. Half of the trials in each block contained both T1 and T2, and half contained only T2. Subjects were asked to make their response to T1 (the blue letter) as quickly as possible (even before the remainder of the stream was presented), responding with the >. key if they saw an H, with the ?/ key if they saw an S, and with the space bar at the end of the stream if they did not see a blue letter. Subjects made their response to T2 at the end of the stream, and were instructed that these responses would not be timed. If T2 was present, subjects pressed the X key. If subjects did not see T2 in the stream, they pressed the C key. The keys used to respond to T1 are side by side on the keyboard, so that subjects could use their right hand to respond to the first task. The keys used to respond to T2 are also side by side on the keyboard, so that subjects could use their left hand to respond to the second task.

The background stream items varied in colour in order to increase chromatic variation in the stream and mask the chromatic information in T2. For those subjects who were instructed to detect a green letter in the stream, the rest of the non-target items in the stream alternated in colour between grey and red. For those subjects who were instructed to detect a red stimulus, the rest of the non-target items in the stream were grey and green.

## Results

*Adjusted colour coordinates*

After the data for the second half of the subjects in each condition had been collected, the average CIE(x,y) values for each colour were examined in order to determine whether the corrected values did improve the hoped for T pattern in colour space. It appeared that the changed coordinates for the red colour over corrected for the originally observed displacement in colour space. This essentially made any effects of this change on the AB pattern at worst uninteresting, and at best, difficult to interpret from a theoretical standpoint. For this reason, the ANOVA comparing performance before the change to performance after the change is discussed in a separate section (see Appendix B)

*Analysis of Task 2 accuracy*[1]

Figure 4 shows Task 2 accuracy when T1 was present or absent (including only trials where the response to T1 was correct and T2 was present). Performance in the T1 absent condition was consistently high across SOA, with an average of 91%. However,

[1]For every analysis in this thesis, the response times were screened for outliers using a procedure that is a slight modification of the one described by Van Selt and Jolicoeur (1994). For the exact number of points removed in each analysis, see Appendix C.

when T2 followed within 520 ms of the blue letter (T1), a clear deficit in T2 detection resulted. In a 2 (T2-colour) x 2 (T1 presence/absence) x 8 (SOA) ANOVA, the main effect of T1 presence/absence was significant, $F(1, 30) = 23.61, p < .0001, MS_e = .054$, the main effect of SOA was signficant, $F(7, 210) = 32.70, p < .0001, MS_e = .009$, and the interaction between SOA and whether T1 was present or absent was also highly significant, $F(7, 210) = 34.42, p < .0001, MS_e = .011$.

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Insert Figure 4 about here

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Figure 5 illustrates that the colour of T2 had an effect on T2 performance. When T2 was a red letter, T2 accuracy was better over all, and less of a deficit occurred in T2 detection when T1 was present. The main effect of T2 colour was signficant, $F(1, 30) = 18.42, p < .001, MS_e = .113$, the interaction between T2 colour and T1 presence/absence was signficant, $F(1, 30) = 24.05, p < .0001, MS_e = .054$, the interaction between T2 colour and SOA was signficant, $F(7, 210) = 15.57, p < .0001, MS_e = .009$, and the three way interaction between target presence/absence, SOA and T2 colour was also highly significant, $F(7, 210) = 12.33, p < .0001, MS_e = .011$.

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Insert Figure 5 about here

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Separate ANOVAs were carried out for green and red T2 performance, to determine whether the interaction between SOA and T1 presence/absence was significant for both colours, or whether the interaction between SOA and T1 presence/absence was being driven by the effect in the green-T2 condition. The interaction was significant in both cases, $F(7, 105) = 34.54, p < .0001, MS_e = .013$, for green; $F(7, 105) = 4.72, p < .001, MS_e = .008$, for red. However, this interaction in the red T2 condition should perhaps be interpreted with caution. Closer examination of the red T2 condition of Figure

5 makes it unclear whether this interaction has resulted because there is an AB deficit at earlier SOAs or whether this interaction has resulted because of the crossover between the experimental and control conditions at later SOAs[2]. For SOAs of less than 390 msec, subjects show a deficit in T2 detection in the experimental condition, but for SOAs greater than 390 msec, subjects appear to perform better in the experimental condition than in the control condition.

*False alarms*

Only T2 colour and target presence or absence had a significant effect on the rate of false alarms in Task 2, $F(1, 30) = 9.08, p < .01, MS_e = .07$; $F(1,30) = 16.18, p < .001, MS_e = .013$, respectively. The rate was .14 for the green T2, and .07 for the red T2, further illustrating that the task was more difficult when T2 was green than when T2 was red. The rate was .08 for target present trials, and .12 for target absent trials.

*Analysis of Task 1 accuracy and response times*

Considering only those trials where subjects were required to respond to T1, it is possible to examine Task 1 accuracy, and response times to T1 as a function of SOA and/or T2 colour. Neither SOA nor T2 colour influenced Task 1 accuracy, $F < 1$; $F < 1$, nor did they interact, $F < 1$.

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[2] This type of crossover interaction, which may seem surprising at first glance, has been reported previously and explained in the context of subjects' preparation for each task (Jolicoeur, 1996.) When T1 is not present in the stream, subjects must remain prepared for T1 during the entire trial. However, when T1 is present in the stream, but separated by a longer SOA from T2, the initial interference caused by the processing of T1 has passed by the time T2 is presented. Therefore, at longer SOAs subjects can concentrate entirely on T2, leading to the result that performance on these T1-present trials exceeds performance on T1 absent trials. Preparation effects have been studied in the PRP literature as well (e.g., De Jong & Sweet, 1994.)

In an 8 (SOA) x 2 (T2 colour) ANOVA, with RT1 as the dependent variable, the main effect of T2 colour approached significance, $F(1, 30) = 2.54$, $p < .14$, $MS_e =$ 1796575.7. The fact that this variable has produced even a remotely significant result might appear curious at first, because T2 colour is not evident until T2 is presented, after RT1 has been completed. However, it must be kept in mind that the variable "T2 colour" also tells us what the distractor colours were for that condition. This hint at a significant effect possibly reflects the influence of the distractor colours on subjects' ability to respond correctly to T1. It appears that, on average, subjects may have taken longer to respond to T1 when the distractor colours were grey and red, than when the distractor colours were grey and green (767 vs 578 msec, respectively.)

SOA also produced significant differences in RT1, $F(7, 210) = 3.11$, $p < .01$, $MS_e =$ 1547.13. This also seems mysterious at first glance, because subjects should not be aware of the SOA at the time they are presented with T1. However, it is likely that in many cases, when T2 is presented at one of the earlier SOAs, subjects were still in the process of responding to T1. In the context of the overall pattern of results, it does not appear that SOA had any particularly meaningful impact on Task 1 performance. Not only is the effect of SOA small, but it also appears to be primarily in the red T2 condition, where a smaller AB was found. The interaction between SOA and T2 colour was also significant, $F(7, 210) = 2.24$, $p < .05$, $MS_e = 1547.13$, allowing a closer look at the simple effects of SOA in each condition (see Figure 6). When the effect of SOA was examined separately for each T2 condition, it was marginally significant in the green T2 condition, $F(7, 105) =$ 2.04, $p < .10$, $MS_e = .994.6$, and clearly significant in the red T2 condition $F(7, 105) =$ 2.98, $p < .01$, $MS_e = 2099.6$.

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Insert Figure 6 about here

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*Dependency of AB on RT1*

According to the Dual-Task Interference Theory, the AB magnitude should also be related to the response time in Task 1 (RT1). Figure 7 shows that this appears dependency appears to be present in these data. Following the procedure described in the General Method section above, an ANOVA including T2-colour (green/red), SOA (1-8), and RT1(short/long) produced the following results.

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Insert Figure 7 about here

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The two way interaction between SOA and RT1(short/long) was significant, confirming that the magnitude of the AB was larger for slower responses to T1 and smaller for faster responses to T1, $F(7, 210) = 4.43, p < .001, MS_e = .009$. Also, the three way interaction between T2-colour (green/red), SOA, and RT1(short/long) was significant, $F(7, 210) = 2.38, p > .05, MS_e = .009$. The interaction between SOA and RT1(short/long) was greater in the green T2 condition than in the red T2 condition.

The main effect of T2-colour (green/red) was signficant, $F(1, 30) = 29.33, p < .0001, MS_e = .226$, the main effect of SOA was signficant, $F(7, 210) = 39.24.1, p < .0001, MS_e = .035$, and the main effect of RT1(short/long) was also significant, $F(1, 30) = 21.81, p < .001, MS_e = .021$. The interaction between T2 colour and RT1(short/long) was not significant, $F(7, 210) = 16.06, p < .001, MS_e = .035$.

## Discussion

The results reported above demonstrate that speeded processing of a blue H or S in an RSVP stream can lead to a deficit in subsequent colour detection. Also, just as the Dual Task Interference theory predicts, shorter response times to the blue letter tended to lead to a smaller deficit in colour detection.

One surprising result was that the detection of green letters in this paradigm appeared to be more difficult than the detection of red letters (in both target present and target absent conditions.) Further, a greater deficit resulted in the target present condition when T2 was green than when T2 was red. This puzzling difference is explored in more detail in Experiment 3.

These results support the claim that the attentional blink also occurs for chromatic information. However, an alternative explanation for these results is that the presence of the blue H or S (T1) in the stream produced a sensory mask for the stimuli following it. Raymond et al. (1992) ruled out a sensory masking account of their results by presenting T1 on every trial of the experiment, but instructing subjects to ignore T1 in one condition (control) and respond to T1 in another condition (experimental). The fact that the deficit is entirely absent in their "ignore T1" condition argues strongly against a sensory explanation for the AB, because the very same sensory experience is provided on control vs experimental trials.

Nonetheless, because chromatic information is potentially different from pattern information on this point, the possibility remains that sensory masking is causing the deficit in colour detection reported above. Experiment 2 was designed to rule out a sensory masking explanation for the results of Experiment 1, by using a control condition in which T1 was presented but not processed.

## Experiment 2

Experiment 2 was the same as Experiment 1 except for the following amendments. Every trial in this experiment contained a blue H or S. Subjects were instructed to ignore the blue letter for half of the blocks (control trials), and to respond to it just as in Experiment 1 for the other half of the blocks (experimental trials).

### Method

*Subjects*

Thirty-two students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. Based on the criterion for Task 2 accuracy described in the General Methods section above, the data from four subjects was excluded analyses below.

*Stimuli*

Stimuli used in this Experiment were the same as in Experiment 1, except that T1 was always present in the stream, and on half of the blocks subjects were instructed to ignore it, while on the other half of the blocks, subjects were instructed to respond to it.

### Results

*Analysis of Task 2 accuracy*

Figure 8 shows Task 2 accuracy for both control and experimental trials where subjects responded to T1 correctly. When T2 followed within 520 ms of the blue letter (T1), a clear deficit in T2 detection was evident. However, the critical result in this experiment is the absence of a deficit in the control condition. For the most part, when subjects were instructed to ignore the presence of T1 in the stream, and only respond to T2, performance was very high, and essentially constant across all of the 8 SOAs tested although for some reason there appears to be a slight deficit at the earliest SOA.

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Insert Figure 8 about here

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In a 2 (T2-colour) x 2 (control/experimental condition) x 8 (SOA) ANOVA, the main effect of condition was significant, $F(1, 26) = 26.40$, $p < .0001$, $MS_e = .012$, the main effect of SOA was signficant, $F(7, 182) = 4.21$, $p < .001$, $MS_e = .016$, and the interaction between SOA and condition was also significant, $F(7, 182) = 2.94$, $p < .01$, $MS_e = .007$.

Figure 9 illustrates that, once again, the colour of T2 had an effect on T2 performance. When T2 was a red letter, less of a deficit occurred in T2 detection when T1 was present. The three way interaction between condition, SOA and T2 colour was significant, $F(7, 182) = 2.07$, $p < .05$, $MS_e = .007$. The interaction between T2 colour and SOA was marginally significant, $F(7, 182) = 1.89$, $p < .10$, $MS_e = .016$. The main effect of T2 colour, and the interaction between T2 colour and condition were not significant, $F < 1$; $F < 1$.

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Insert Figure 9 about here

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Separate ANOVAs were carried out for green and red T2 performance, to determine whether the interaction between SOA and T1 presence/absence was significant for both colours, or whether the interaction between SOA and T1 presence/absence was being driven by the effect in the green-T2 condition. The interaction was significant for the green T2 condition, $F(7, 91) = 3.65$, $p < .01$, $MS_e = .008$, but did not approach significance for the red T2 condition, $F(7, 91) = 1.19$, $p < .40$, $MS_e = .007$. There was a main effect of condition (experimental/control) for the red T2 condition, however, $F(1, 13) = 34.73$, $p < .0001$, $MS_e = .006$.

*False alarms*

T2 colour had a marginal effect on the false alarm rates in Task 2, $F(1, 26) = 4.06$, $p < .10$, $MS_e = .18$. The rate was .07 for the green T2, and .14 for red T2.

*Analysis of Task 1 accuracy and response times*

Once again, for those trials where subjects responded to T1, it is possible to examine Task 1 accuracy, and response times to T1 as a function of SOA and/or T2 colour. SOA had a significant effect on Task 1 accuracy, such that subjects appeared to be less accurate on Task 1 when T2 was presented earlier in the stream, $F(7, 182) = 2.12$, $p < .05$, $MS_e = .003$. The influence of SOA also appears in the analysis of Task 1 response times; subjects appeared to take slightly longer to respond to T1 when T2 was presented at one of the earlier SOAs, $F(7, 182) = 3.21$, $p < .01$, $MS_e = 3673.6$. The main effect of T2 colour on Task 1 response times was marginally significant, $F(1, 26) = 3.39$, $p < .10$, $MS_e = 1046137.3$. In this case, however, it appears that it took longer to respond to T1 when the distractor colours were grey and green than when the distractor colours were grey and red (663 vs 485 msec, respectively.)

The interaction between SOA and T2 colour was also significant $F(7, 182) = 3.72$, $p < .001$, $MS_e = 3673.6$, permitting an analysis of the simple effects of SOA for each T2 condition. This interaction is illustrated in Figure 10. The effect of SOA was not significant for the green T2 condition, $F(7, 91) = 1.29$, $p = .27$, $MS_e = 678.4$, but was again significant for the red T2 condition, $F(7, 91) = 3.89$, $p < .001$, $MS_e = 3152.5$.

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Insert Figure 10 about here

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*Dependency of AB on RT1*

Figure 11 shows that these data also appear consistent with the prediction that shorter response times to the first target will lead to better performance on the second task. In order to test this apparent dependency statistically, the same procedures described in the General Methods section were carried out.

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Insert Figure 11 about here

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The three way interaction between T2-colour (green/red), SOA and RT1(short/long) was not significant, $F < 1$. However, the two way interaction between SOA and RT1(short/long) was significant, supporting the prediction of Dual Task Interference Theory that the magnitude of the AB would vary depending on the response time to T1, $F(7, 182) = 2.23, p < .05, MS_e = .012$.

The main effect of SOA was signficant, $F(7, 182) = 3.77, p < .001, MS_e = .03$, the main effect of RT1(short/long) was signficant, $F(1, 26) = 13.17, p < .01, MS_e = .011$, as well as the interaction between T2-colour (green/red) and SOA, $F(7, 182) = 2.72, p < .05$, $MS_e = .03$. The main effect of T2-colour (green/red) and the interaction between T2-colour (green/red) and RT1(short/long) were not significant, $F < 1$; $F < 1$.

## Discussion

The results show that the AB deficit occurs for chromatic information as well as for pattern information, and disconfirm the hypothesis that the deficit observed in Experiment 1 is driven by sensory masking caused by the T1 stimulus. The AB was reflected in the interaction of condition, with SOA (which would not be significant if sensory masking were causing the deficit), and the AB is once again moderated by long vs short RT1s, such that a larger AB is found for longer RT1s. However, there is a slight hint of a deficit in the control condition which might suggest that sensory masking by the

T1 stimulus is playing a minor role in the pattern of results. This problem is further addressed by Experiment 3.

Once again, the colour of T2 appears to have a large impact on the magnitude of the AB found. In fact, in Experiment 2, no significant AB is found for the red T2. One possible explanation for this result is that the blue of T1 is interacting with the other colours in the display, producing these confusing results. This explanation was inspired by some work by Ware and Cowan (1982). These authors examined how the perceived hue of various test colours changed after subjects adapted to a number of different inducing colours. They found that a blue inducing colour led subjects to judge stimuli as more red and less green.

Perhaps the blue T1 in Experiments 1 and 2 was interacting with the red T2 in such a way as to make it more salient. It is also possible that the blue of T1 was interacting with the green T2, making it appear greyer. This would make the red T2 easier to detect, and the green T2 harder to detect. Further, the blue of T1 could have been interacting with the distractor colours, making the red distractors more salient (and therefore perhaps better masks for a green T2), and the green distractors less salient (and therfore worse masks for a red T2).

The distractor colours used in each condition again appeared to have an effect on RT1. However, it is puzzling that in this study, longer RT1s resulted when the distractor colours were grey and green than when the distractor colours were grey and red. This is actually opposite to the pattern which was present, but not significant in Experiment 1. It should be noted that it is performance when the distractors were grey and red which has changed between experiments (mean of 766 msec in Experiment 1, and mean of 485 msec in Experiment 2) -- performance when the distractors were grey and green has remained fairly similar in both Experiment 1 (584 msec) and Experiment 2 (663 msec).

In Experiment 3, a different colour was used for T1, in order to avoid the potential interaction between the blue T1 and the green or red T2s.

## Experiment 3

Experiment 3 was the same as Experiment 2 except that T1 was yellow, and on experimental blocks, subjects were instructed to identify whether the yellow letter was an H or an S.

### Method

#### *Subjects*

Twenty-two students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. No subjects had to be excluded on the basis of the criterion for Task 2 accuracy established in the General Methods section.

#### *Stimuli*

Stimuli used in this Experiment were the same as in Experiment 2, except for the use of a yellow T1 instead of a blue T1.

### Results

#### *Analysis of Task 2 accuracy*

Figure 12 shows Task 2 accuracy for both control and experimental trials where subjects responded to T1 correctly. In this Experiment as in previous experiments, when T2 followed within 520 ms of the blue letter (T1), a clear deficit in T2 detection was evident. In this Experiment, when subjects were instructed to ignore the presence of T1 in the stream, and only respond to T2, performance was very high, and virtually constant across all of the 8 SOAs tested including the earliest SOA.

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Insert Figure 12 about here

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In a 2 (T2-colour) x 2 (control/experimental condition) x 8 (SOA) ANOVA with Task 2 accuracy as the dependent variable, the main effect of condition was signficant, $F(1, 20) = 16.57$, $p < .001$, $MS_e = .020$, the main effect of SOA was signficant, $F(7, 140) = 7.47$, $p < .0001$, $MS_e = .007$, and the interaction between SOA and condition was also highly significant, $F(7, 140) = 5.96$, $p < .0001$, $MS_e = .006$.

Figure 13 illustrates that the colour of T2 did not have an effect on T2 performance when T1 was a yellow letter. None of the effects including the T2-colour variable were significant, $F < 1$ for main effect of T2-colour; $F < 1$ for T2-colour x condition interaction; $F(7, 140) = 1.19$, $p < .30$, $MS_e = .007$ for T2-colour x SOA interaction; $F(7, 140) = 1.05$, $p < .39$, $MS_e = .006$ for T2-colour x condition x SOA interaction.

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Insert Figure 13 about here

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*False Alarms*

Experimental condition had a significant effect on false alarm rates in Task 2, $F(1, 20) = 13.16$, $p < .01$, $MS_e = .008$. The rate of false alarms was .05 for the experimental condition and .08 for the control condition.

*Analysis of Task 1 accuracy and response times*

Neither SOA nor T2 colour had significant effects on Task 1 accuracy $F(7, 140) = 1.24$, $p = .29$, $MS_e = .002$; F < 1, nor was the two way interaction significant, $F < 1$. No main effects of SOA, or T2 colour were found on RT1, nor an interaction between SOA and T2 colour, $F(7, 140) = 1.4$, $p = .2$, $MS_e = 1838.4$; $F < 1$; $F(7, 140) = 1.0$, $p = .41$, $MS_e = 1838.4$, respectively.

*Dependency of AB on RT1*

Figure 14 shows that the results were consistent with the prediction that shorter response times to the first target will lead to better performance on the second task. In order to test this apparent dependency statistically, the same procedures described in the General Methods section were carried out.

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Insert Figure 14 about here

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In support of Dual Task Interference theory, the interaction between RT1(short/long) and SOA was significant, $F(7, 140) = 3.82, p < .001, MS_e = .009$, along with the main effects of RT1(short/long), $F(1, 20) = 22.27, p < .001, MS_e = .011$, and SOA, $F(7, 140) = 7.04, p < .0001, MS_e = .022$. No other effects were significant: $F < 1$ for T2-colour; $F(7, 140) = 1.11, p < .37, MS_e = .022$ for T2-colour x SOA interaction; $F(1, 20) = 1.32, p < .27, MS_e = .011$ for T2-colour x RT1(short/long) interaction; $F < 1$ for T2-colour x SOA x RT1(short/long) interaction.

## Discussion

Experiment 3 demonstrated once again that the AB deficit occurs for chromatic information, and further disconfirms the hypothesis that the deficit observed in Experiments 1 and 2 was driven by sensory masking caused by the T1 stimulus. This is evident both in the interaction of condition with SOA and in the interaction of long vs short RT1s with SOA. There is no hint of a deficit in the control condition in this case, suggesting that the slight deficit observed in Experiment 2 was due either to an interaction between the blue T1 and the T2 colours, or to chance.

The colour of T2 appeared to have no impact on the magnitude of the AB in this experiment. Furthermore, RT1 did not differ depending on T2 colour in this experiment. These results are consistent with the hypothesis that the discrepancy between the magnitude of the AB in the two different colour conditions of Experiments 1 and 2 was due to an interaction with the blue T1.

As a further test of this hypothesis, in Experiment 4 the colour of T1 was changed once more. If the discrepancy between the magnitude of the AB in two different colour conditions was due to an interaction with a blue T1, then if T1 is displayed in the same colour as the stream items, no difference in AB magnitudes should occur.

## Experiment 4

Experiment 4 was the same as Experiment 2 except that the T1 item was no longer presented in a unique colour. T1 could now be presented in either of the distractor colours. For example, for subjects who were searching for a green T2, all stream items other than T2 alternated between grey and red, so the colour of T1 did not help subjects to locate it in the stream, as in previous experiments. On the other hand, for subjects who were searching for a red T2, all stream items other than T2 alternated between grey and green.

### Method

#### *Subjects*

Twenty-eight students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. Based on the criterion for Task 2 accuracy described in the General Methods section, 2 subjects were excluded from the following analyses.

#### *Stimuli*

Stimuli used in this Experiment were the same as in Experiment 2 and 3, except that T1 was neither blue nor yellow. Instead, T1 was in the same colour as the other stream letters (red or grey if T2 was green; green or grey if T2 was red). On half of the trials, T1 was grey; on the other half, it was in the colour that alternated with grey.

## Results

*Analysis of Task 2 accuracy*

Figure 15 shows Task 2 accuracy for both control and experimental trials where subjects responded to T1 correctly. When T2 followed within 520 ms of T1, a deficit in T2 detection was evident. When subjects were instructed to ignore the presence of T1 in the stream, and only respond to T2, performance was very high, and essentially constant across all of the 8 SOAs tested.

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Insert Figure 15 about here

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In a 2 (T2-colour) x 2 (control/experimental condition) x 8 (SOA) ANOVA, the main effect of condition was signficant, $F(1, 44) = 30.82, p < .0001, MS_e = .032$, the main effect of SOA was signficant, $F(7, 308) = 13.36, p < .0001, MS_e = .007$, and the interaction between SOA and condition was also significant, $F(7, 308) = 5.93, p < .0001, MS_e = .007$.

Figure 16 illustrates that the colour of T2 had an effect on T2 performance, challenging the prediction that the difference observed between green and red T2s was due to an interaction with the blue T1. When T2 was a red letter, accuracy was higher over all, and less of a deficit occurred in T2 detection when T1 was present. The main effect of T2-colour was significant and the three way interaction between condition, SOA and T2 colour was also significant, $F(1, 44) = 37.47, p < .0001, MS_e = .074$; $F(7, 308) = 2.80, p < .01, MS_e = .007$. The interaction between T2 colour and condition, and the interaction between T2-colour and SOA were both significant, $F(1, 44) = 12.46, p < .001, MS_e = .032$; $F(7, 308) = 4.41, p < .001, MS_e = .007$.

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Insert Figure 16 about here

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Separate ANOVAs were carried out for green and red T2 performance. The interaction between SOA and condition was significant for the green T2 condition, $F(7, 154) = 5.20$, $p < .0001$, $MS_e = .011$, but was not significant for the red T2 condition, $F(7, 154) = 1.49$, $p < .18$, $MS_e = .003$.

*False Alarms*

There was a main effect of T2 colour, $F(1, 44) = 35{,}63$, $p < .0001$, $MS_e = .061$, a main effect of experimental condition, $F(1, 44) = 25.85$, $p < .0001$, $MS_e = .026$, and an interaction between T2 colour and experimental condition in this false alarm analysis, $F(1, 44) = 4.62$, $p < .05$, $MS_e = .026$. For the green T2, the rate of false alarms was .17 in the experimental condition and .09 in the control condition. For the red T2, the rate of false alarms was .05 in the experimental condition and .02 in the control condition.

*Analysis of Task 1 accuracy and response times*

No main effects of SOA or T2 colour were found in subjects accuracy on Task 1 $F < 1$; $F(1, 44) = 1.25$, $p < .28$, $MS_e = .054$; nor was the interaction between SOA and T2 colour significant, $F < 1$. In subjects' response times to T1, there was no main effect of SOA, $F < 1$, and no interaction between SOA and T2 colour, $F < 1$. However, the main effect of T2 colour was once again significant, $F(1, 44) = 6.29$, $p < .05$, $MS_e = 887427.99$. As in Experiment 1 (and unlike Experiment 2) subjects appeared to take longer to respond to T1 when the distractors were grey and red (711 msec), than when the distractors were grey and green (536 msec).

*Dependency of AB on RT1*

Figure 17 shows that these data also appear somewhat consistent with the prediction that shorter response times to the first target will lead to better performance on the second task. The same procedures described in the General Methods section were carried out to test this prediction.

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Insert Figure 17 about here

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The three way interaction between T2-colour (green/red), SOA and RT1(short/long) was not significant, $F < 1$. Also, the two way interaction between SOA and RT1(short/long) was not significant, $F(7, 308) = 1.50, p < .17, MS_e = .015$. However, the main effect of RT1(short/long) was significant, $F(1, 44) = 36.09, p < .0001, MS_e = .023$, as well as the main effect of T2-colour, $F(1, 44) = 31.06, p < .0001, MS_e = .169$, the main effect of SOA, $F(7, 308) = 11.34, p < .0001, MS_e = .023$, and the interaction between T2-colour and SOA, $F(7, 308) = 4.61, p < .0001, MS_e = .023$.

The RTs in Experiment 4 were dramatically more variable than the RTs produced in Experiments 1 - 3 (a variance of 70007.1 in the Green T2 condition of Experiment 4 vs a variance of 14209.8 in the Green T2 condition of Experiment 3, for example). Possibly, the lack of an interaction between SOA and RT1(short/long) was due to some exceptionally long RT1s. DTI theory predicts that as long as the first task is carrying out processing which requires the central bottleneck, T2 cannot be processed through the bottleneck. If Task 1 processing is sometimes taking even longer than the longest SOA, then it might be the case that for these exceptionally long RT1s, no interaction will occur with SOA. In order to test this hypothesis, a quartile split of the RTs in Experiment 4 was entered into an ANOVA with SOA. This 4-way split provided a better representation of the variability in RT1s. It was predicted that this analysis would produce the interaction between RT (quartile) and SOA for that reason. Further, it was expected that this interaction would be most evident for the fastest three quartiles, but that the quartile containing the longest RTs would be less influenced by SOA.

In a 2 (T2 colour) x 8 (SOA) x 4 (RT quartile) ANOVA, the interaction between SOA and RT quartile was marginally significant, $F(21, 924) = 1.46, p < .10, MS_e = .025$. This interaction is illustrated in Figure 18. T2 colour, SOA and RT quartile all produced significant main effects, $F(1, 44) = 30.02, p < .0001, MS_e = .341$, $F(7, 308) = 12.03, p < .0001, MS_e = .045$, $F(3, 132) = 22.22, p < .0001, MS_e = .030$. Also, as in the main analysis above, T2 colour produced a signficant interaction with SOA, $F(7, 308) = 4.75, p < .0001, MS_e = .045$.

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Insert Figure 18 about here

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It is clear from Figure 18 that the interaction between RT quartile and SOA is primarily observed in the three fastest quartiles. If only these three quartiles are entered into a 2 (T2 colour) x 8 (SOA) x 3 (fast RT quartiles) ANOVA, the interaction between SOA and RT quartile is highly signficant, $F(14, 616) = 7.07, p < .0001, MS_e = .028$. Furthermore, SOA and RT quartile produces a marginally signficant three way interaction with T2 colour, $F(14, 616) = 1.64, p < .10, MS_e = .028$. If the SOA x RT quartile interaction is examined separately for each T2 colour, it is signficant for green T2s, $F(14, 308) = 4.15, p < .0001, MS_e = .044$, but does not even approach signficance for red T2s, $F < 1$. See Figures 19 and 20 for an illustration of the effect for green and red T2s, respectively.

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Insert Figure 19 about here

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Insert Figure 20 about here

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**Discussion**

Experiment 4 provides further evidence of an attentional blink for chromatic information, at least in the green-T2 condition. The fact that there remains a significant difference between green and red T2s suggests that an interaction with the blue T1 may not be the appropriate explanation for the difference reported in Experiments 1-3. Further research will be necessary in order to clarify what is going on here, but that will not be the focus of the remainder of this thesis.

The interaction between RT1 quartile and SOA was at least marginally signficant, and was clearly signficant when only the fastest three quartiles were analyzed. Also, this interaction was primarily evident in the green T2 condition, which is consistent with the prediction that this interaction will be observed whenever an AB is observed.

## Experiment 5

Throughout this thesis, I have argued that the use of an appropriate mask is critical in producing an AB. Chromatic variation in the background stream of letters has been used to mask the chromatic information in T2. It seemed possible that this chromatic variation was not completely masking the information in T2, because the T2 colour was always unique in the stream. When T2 was green, perhaps some trace of "green-ness" remained even after the entire display had been presented, assisting subjects in their task of reporting whether green had been presented anywhere in the stream. The same kind of "trace" might be possible when T2 was red, allowing subjects (on some trials) to make use of this partial information that remained.

Therefore, an even better mask for the chromatic information in T2 was created by using the following procedure. Chromatic variation in the stream prior to T2 is superfluous, because Task 1 has typically required subjects to process only pattern information. The information subjects must glean from T1 can be masked by a pattern stimulus which does not differ from T1 in colour. Therefore, the items prior to T2 were presented in the standard grey colour, so that the first discrepant colour to appear in the RSVP stream was T2. Then, instead of asking subjects to report the presence or absence of a specific colour in the stream of letters following T1, subjects could be asked to report which of two colours was presented first in the remainder of the stream. Furthermore, the items following T2 could alternate between the two potential T2 colours, so that, if subjects did not attend to the information presented in T2 at the time it was presented, it would be exceedingly difficult to retrieve that information from any trace of "colour-ness" at the end of the display. Experiment 5 employed this procedure, testing the hypothesis that this modified procedure would produce an even larger deficit than in the green T2 condition of the previous experiment, because of its improved masking of T2.

## Method

### *Subjects*

Nineteen students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. The data from 2 subjects had to be excluded from the following analyses on the basis of the criterion for Task 2 performance established in the General Methods section.

### *Stimuli*

Stimuli used in this Experiment were the same as in Experiment 2, except for the following changes in colours. Stimuli prior to T2 were presented in grey, and Task 1 was to identify the grey H or S. T2 could be presented in green or red, and the items following T2 alternated between green and red. Task 2 was to identify whether T2 -- the first coloured item -- green or red.

## Results

### *Analysis of Task 2 accuracy*

Figure 21 illustrates the results of Experiment 5 for the control and experimental conditions, for trials where subjects were accurate on Task 1. In the control condition performance was consistently high across SOAs. In the experimental condition a pronounced deficit in T2 identification resulted for SOA's of up to 650 ms.

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Insert Figure 21 about here

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In a 2 (condition) x 8 (SOA) x 2 (T2 colour) ANOVA, the main effect of condition was signficant, $F(1, 25) = 194.65, p < 0001, MS_e = .038$, the main effect of SOA was signficant, $F(7, 175) = 41.95, p < .0001, MS_e = .012$, and the interaction between condition and SOA was also significant, $F(7, 175) = 19.86, p < .0001, MS_e = .013$. There was no main effect of T2 colour, $F(1, 25) = 2.64, p < .12, MS_e = .089$, and no interaction between T2 colour and condition, $F(1, 25) = 2.45, p < .13, MS_e = .035$. However, the three way interaction between T2 colour, condition, and SOA was marginally significant, $F(7, 175) = 1.98, p < .10, MS_e = .008$, and the interaction between SOA and T2 colour was also significant, $F(7, 175) = 2.60, p < .05, MS_e = .010$. See Figure 22 for an illustration of the three way interaction.

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Insert Figure 22 about here

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Separate ANOVAs examining the simple interaction effects of SOA and condition for each T2 colour separately reveal that the interaction is signficant for both T2 colours, $F(7, 175) = 8.47, p < .0001, MS_e = .012$, for green T2, and $F(7, 175) = 19.04, p < .0001, MS_e = .009$ for red T2.

*Analysis of Task 1 accuracy and response times*

Neither SOA nor T2 colour had significant effects on Task 1 accuracy, $F(7, 175) = 1.51, p < .17, MS_e = .003$, $F(1, 25) < 1$, nor was the interaction between them significant, $F(7, 175) = 1.18, p < .32, MS_e = .003$. Also, neither SOA nor T2 colour had significant effects on Task 1 response times, $F(7, 175) = 1.50, p < .17, MS_e = 6390.91$, $F(1, 25) < 1$, and again the interaction between them was not signficant, $F(7, 175) = 1.28, p < .27, MS_e = 8004.68$.

*Dependency of AB on RT1*

Figure 23 shows that these data also appear consistent with the prediction that shorter response times to the first target will lead to better performance on the second task. Testing this interaction statistically, the analysis described in the General Methods section produced the following results.

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Insert Figure 23 about here

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The three way interaction between SOA, RT1(short/long) and T2 colour was not significant, $F < 1$. Also, the two way interaction between SOA and RT1(short/long) was not significant, $F < 1$. However, the main effect of RT1(short/long) was significant, $F(1, 25) = 28.97$, $p < .0001$, $MS_e = .036$, as well as the main effect of T2-colour, $F(1, 25) = 10.15$, $p < .01$, $MS_e = .014$, and the main effect of SOA, $F(7, 175) = 37.43$, $p < .0001$, $MS_e = .039$. The interaction between T2-colour and SOA was not signficant, $F < 1$.

As in Experiment 4, the RTs in Experiment 5 were much more variable than the RTs in the first three experiments (a variance of 39573.5 in the Green T2 condition of Experiment 5 vs a variance of 14209.8 in the Green T2 condition of Experment 3). Just as was outlined in Experiment 4, it seemed likely that the lack of an interaction in the median split analysis was due to the effects of some extremely long RTs. Again, a quartile split of the RTs in Experiment 5 was entered into an ANOVA with SOA. As in the last experiment, it was predicted that this analysis would produce the interaction between RT (quartile) and SOA, and that this interaction would be most evident for the fastest three quartiles, but that the quartile containing the longest RTs would be less influenced by SOA.

In a 2 (T2 colour) x 8 (SOA) x 4 (RT quartile) ANOVA, the interaction between SOA and RT quartile was marginally significant, $F(21, 525) = 1.53$, $p < .10$, $MS_e = .047$. This interaction is illustrated in Figure 24. T2 colour, SOA and RT quartile all produced significant main effects, $F(1, 25) = 7.82, p < .01, MS_e = .029$, $F(7, 175) = 37.61, p < .0001, MS_e = .078$, $F(3, 75) = 22.48, p < .0001, MS_e = .059$.

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Insert Figure 24 about here

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It is clear from Figure 24 that the interaction between RT quartile and SOA is primarily observed in the three fastest quartiles. If only these three quartiles are entered into a 2 (T2 colour) x 8 (SOA) x 3 (fast RT quartiles) ANOVA, the interaction between SOA and RT quartile is signficant, $F(14, 350) = 2.08, p < .05, MS_e = .052$. Furthermore, SOA and RT quartile produces a highly signficant three way interaction with T2 colour, $F(14, 350) = 3.48, p < .0001, MS_e = .051$. If the SOA x RT quartile interaction is examined separately for each T2 colour, it is signficant for both green T2s, $F(14, 350) = 6.36, p < .0001, MS_e = .049$, and for red T2s, $F(14, 350) = 5.83, p < .0001, MS_e = .055$. See Figures 25 and 26 for an illustration of the interaction between RT quartile and SOA for green T2s and red T2s respectively.

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Insert Figure 25 about here

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Insert Figure 26 about here

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*Comparison to green T2 condition of Experiment 4*

Figure 27 illustrates that there is a larger AB in Experiment 5 than in the condition of Experiment 4 that produced an AB (the green T2 condition). In order to determine whether the deficit observed in this experiment was signficantly larger than the deficit found in the previous experiment, the data from Experiment 4 (green T2 condition only) was combined with the data from Experiment 5 in a 2 (Experiment) x 8 (SOA) x 2(condition) ANOVA, with Task 2 accuracy as the dependent measure. A marginally signficant three way interaction resulted between Experiment, SOA, and condition, $F(7, 329 = 1.72, p < .10, MS_e = .008$.

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Insert Figure 27 about here

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**Discussion**

Experiment 5 produced a dramatic deficit in T2 identification when subjects were also required to respond to T1. Furthermore, this deficit is larger than that observed in the green T2 condition of the previous experiment, because of the improved mask produced by alternating the two potential T2 colours in the stream following T2. Also, the interaction between RT quartile and SOA demonstrates once more that the AB is larger for longer RTs.

Even though Task 2 was changed to a forced choice task, there was still a influence of T2 colour on the magnitude of the blink, such that green T2s produced a larger AB than red T2s. However, the AB was significant for both T2 colours in this experiment.

Experiments 1-5 have each demonstrated an AB for a colour stimulus. Although previous research failed to find an AB pattern of results for a colour stimulus (Shapiro, Arnell, and Drake, 1991), I have argued that this null result was due to the lack of an appropriate mask for the chromatic information in T2. The fact that an AB has been found in each of these Experiments where the critical information was chromatic information (and therefore not pattern information), suggests that pattern information is not necessary to produce an attentional blink. This challenges the assumption of Similarity theory that the AB will only happen for pattern information because it is taking place in VSTM. Experiments 6 and 7 present stronger case against the idea that pattern information is necessary to produce a blink.

## Experiment 6

It stands to reason that an AB might be found when Task 1 or Task 2 require subjects to respond to other types of non-pattern information as well, as long as that information must be processed online (i.e., the information is appropriately masked or a speeded response is required.) Experiments 6 and 7 test the hypotheses that an AB might be found when subjects a) attend to location information and then must identify a colour (Experiment 6) or b) attend to chromatic information and then must respond to a location (Experiment 7).

Furthermore, in each of the Experiments reported thus far, the T2 stimulus has not only been distinguishable from the rest of the stream on the basis of colour, but it has also been distinguishable from the rest of the stream on the basis of pattern information. Note: T2 is clearly not distinguishable as T2 on the basis of pattern information, but it is presented as a unique letter on every trial. Although it seems unlikely, it is possible (for example) that the use of different letters for each SOA automatically engages mechanisms that respond to pattern information, and the AB is somehow produced by these mechanisms, even though the letter information is not critical for the task. In Experiments 6 and 7, all of the stimuli presented are the same pattern: disks which subtend approximately $4^{o}$ of visual angle. T2 is no longer distinguishable from the stream on the basis of pattern information, further challenging the idea that pattern information is necessary to produce a blink.

### Method

#### *Subjects*

Twenty-two students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. The data from 1 subject was excluded from the following analyses on the basis of the criterion for Task 2 accuracy established the General Methods section.

*Stimuli*

Stimuli were three disks displayed side by side on a black background, on an SVGA colour computer screen controlled by a 486, or 586 CPU. Each disk subtended approximately $1^{\circ}$ of visual angle, and the disks were separated by approximately $.4^{\circ}$ of visual angle. For each stimulus in the RSVP sequence, all three disks alternated between light and dark grey, except for the following changes. For T1, either the disk on the left or the right disappeared. Then for T2, the middle disk changed to either green or red. For each SOA following T2, the middle disk alternated between green and red until the end of the display.

There were 6-9 stimuli prior to T1, and T2 could occur as any of the 8 stimuli following T1, with equal probability. A further 9-12 stimuli followed T1, so that even when T2 was in the 8th position following T1, there were between 1-4 stimuli following T2. This length and ordering of the stimuli matched the RSVP displays used in previous experiments as closely as possible, except for the use of disks as stimuli instead of letters.

The same fixation mark was used in this experiment as was used in the previous experiments to give feedback on each trial.

Each subject completed 8 blocks of 64 trials. As in previous experiments, half of the trials in each block contained both T1 and T2, and half contained only T2. Task 1 was to report the side of the missing disk, and Task 2 was to report the colour of the first coloured disk. Subjects were asked to make their response to T1 as quickly as possible, responding with the >. key if the disk on the left was missing, and with the ?/ key if the disk on the right was missing. Subjects made their response to T2 at the end of the stream, and were instructed that these responses would not be timed. If T2 was green, subjects pressed the X key. If T2 was red, they pressed the C key. These are the same response keys used in all previous experiments.

## Results

*Analysis of Task 2 accuracy*

Figure 28 illustrates the results of Experiment 6 for the control and experimental conditions, for trials where subjects were accurate on Task 1. In the control condition performance was fairly consistently high across SOAs. In the experimental condition a pronounced deficit in T2 identification resulted for SOA's of up to 520 ms.

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Insert Figure 28 about here

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In a 2 (condition) x 8 (SOA) x 2 (T2 colour) ANOVA, the main effect of condition was signficant, $F(1, 34) = 53.92, p < .0001, MS_e = .008$, the main effect of SOA was signficant, $F(7, 238) = 24.55, p < .0001, MS_e = .012$, and the interaction between condition and SOA was also significant, $F(7, 238) = 37.86, p < .0001, MS_e = .009$. T2 colour did not produce a main effect, $F(1, 34) < 1$, nor did it interact with condition, or SOA, $F(1, 34) < 1$, $F(7, 238) = 1.04, p < .41, MS_e = .010$, but it did produce a three way interaction with condition and SOA, $F(7, 238) = 2.27, p < .05, MS_e = .011$. This interaction is illustrated in Figure 29.

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Insert Figure 29 about here

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Separate ANOVAs examining the simple interaction effects of SOA and condition for each T2 colour separately reveal that the interaction is signficant for both T2 colours,

$F(7, 238) = 18.99, p < .0001, MS_e = .010$, for green T2, and $F(7, 238) = 17.01, p < .0001$, $MS_e = .010$ for red T2.

*Analysis of Task 1 accuracy and response times*

SOA has a signficant effect on Task 1 accuracy, $F(7, 238) = 12.91, p < .0001, MS_e = .002$. However, this is not a meaningful effect. Since there is very little variability in subjects' accuracy throughout each condition, this main effect produces a range in accuracy was from .985 to .989. T2 colour did not produce a main effect on Task 1 accuracy, $F < 1$, nor did SOA and T2 colour interact, $F < 1$. Neither SOA nor T2 colour had a signficant effect on response times to Task 1, $F < 1$, $F < 1$. Nor did they produce a significant interaction in response times to Task 1, $F (7, 238) = 1.60, p < .14, MS_e = 2661.58$.

*Dependency of AB on RT1*

Figure 30 shows that these data also appear consistent with the prediction that shorter response times to the first target will lead to better performance on the second task. The same procedures described in the General Methods section were carried out to test this prediction.

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Insert Figure 30 about here

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The three way interaction between SOA, RT1(short/long) and T2 colour was not significant, $F(7, 238) = 1.48, p < .18, MS_e = .013$. Athough the two way interaction between SOA and RT1(short/long) was not significant, $F(7, 238) = 1.41, p < .21, MS_e = .017$, it does show a clear trend in the right direction. The main effect of RT1(short/long) was significant, $F(1, 34) = 23.17, p < .0001, MS_e = .033$, as well as the main effect of SOA, $F(7, 238) = 33.30, p < .0001, MS_e = .022$. The main effect of T2-colour was not signficant, $F < 1$, but the interaction between T2 colour and SOA was signficant, $F(7, 238) = 2.29$, $p < .05$, $MS_e = .026$.

Unlike Experiments 4 and 5, the RTs in Experiment 6 were actually slightly less variable than in the first three experiments (a variance of 8870.6 in the Green T2 condition of Experiment 6 vs a variance of 14209.8 in the Green T2 condition of Experment 3). Therefore a quartile split of the RTs is unlikely to be helpful.

## Discussion

Processing location information online can lead to an AB in colour identification. Reporting the location of a missing disk produced a considerable deficit in subsequent identification of a green or red disk when the coloured disk followed closely after T1. Although SOA did not produce a signficant interaction with the RT median split, the trend was clearly in the direction predicted by DTI theory. Shorter response times were consistently associated with better accuracy on Task 2. Figure 28 illustrates that the AB appears to end at an SOA of 390 msec, suggesting that the interference caused by processing of Task 1 ended sooner in this experiment than in Experiment 5, for example. Possibly the shorter AB made it more difficult to produce the interaction between RT and SOA which has been found in the previous 5 experiments. Nonetheless, a signficant AB was observed in subjects' performance on Task 2.

This result is particularly important for two reasons. First, an AB has been found for chromatic information under conditions where pattern information does not distinguish T2 from the rest of the stream. This finding argues conclusively that at least one type of non-pattern information is susceptible to the AB phenomenon. This is problematic for Similarity Theory (Shapiro, Raymond & Arnell, 1994), because that theory assumes that non-pattern information does not produce an AB, because the phenomenon is the result of competition between patterns in VSTM.

Second, an AB has been found when T1 was the "absence of a stimulus." Shapiro et al. (1994, Experiments 5a and 5b) failed to find an AB when T1 was the "absence of a stimulus," but I have argued that the processing of the T1 item in their case was not carried out online (see Introduction). No mask for the "absent" information was provided, and no speeded response was required. In Experiment 6, however, a speeded response to the blank interval required that T1 be processed online, and this led to an AB, as expected.

Once again, T2 colour influenced the magnitude of the AB. However, in this case it appears that the AB lasted slightly longer for red T2s than for green T2s.

## Experiment 7

In Experiment 7, the targets were presented in reverse order, so that Task 1 was to identify the first colour to appear in the stream, and Task 2 was to identify which of two disks disappeared first. In this case, the locating the missing disk was not a speeded Task, so an appropriate mask for the "missing" information was created by adding blank disks alternating from one location to the other following T2.

### Method

*Subjects*

Twenty students at the University of Waterloo volunteered to participate for pay or for course credit. All had normal or corrected-to-normal visual acuity, and all reported having normal colour vision. The data from 1 subject was excluded from the following analyses on the basis of the criterion for Task 2 performance established in the General Methods section.

*Stimuli*

Stimuli were the same as in Experiment 6 except for the following amendments. For T1, the middle disk was either green or red, and the middle disk continued alternating between green and red throughout the remainder of the display. For T2, the missing disk could be on the left or the right. For each stimulus following T2, the side of the missing disk alternated from left to right, in order to mask T2. Task 1 was to report which colour appeared first in the display, and Task 2 was to report which side of the display the missing disk was on. Subjects were asked to make their response to T1 as quickly as possible, responding with the >. key if T1 was green, and with the ?/ key if T1 was red. Subjects made their response to T2 at the end of the stream, and were instructed that these responses would not be timed. If the first missing disk was on the left, subjects pressed the X key. If the first missing disk was on the right, they pressed the C key.

## Results

*Analysis of Task 2 accuracy*

Figure 31 illustrates the results of Experiment 7 for the control and experimental conditions, for trials with a correct response in Task 1. In the control condition performance was consistently high across SOAs. In the experimental condition there was a pronounced deficit in T2 identification at the earlier SOAs.

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Insert Figure 31 about here

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For this experiment, because the colour manipulation which has caused so many interactions in previous experiments was in Task1, T1 colour was included in each ANOVA. In a 2 (condition) x 8 (SOA) x 2 (T1 colour) ANOVA, the main effect of condition was significant $F(1, 38) = 33.64, p < .0001, MS_e = .012$, the main effect of SOA was significant, $F(7, 266) = 61.66, p < .0001, MS_e = .018$ and the interaction between condition and SOA was significant, $F(7, 266) = 53.34, p < .0001, MS_e = .013$. There was no main effect of T1 colour, nor interactions with condition, or SOA, nor a three way interaction, *F*s all < 1.

*Analysis of Task 1 accuracy and response times*

SOA had a signficant effect on Task 1 accuracy, $F(7, 266) = 83.84, p < .0001$, $MS_e = .019$. However, as in Experiment 6 this does not appear to be a meaningful effect. Again, there is very little variability in subjects' accuracy throughout each condition, so this main effect produces a range in accuracy from .886 to .904. SOA had a marginal effect on response times to Task 1, $F(7, 266) = 1.85, p < .10, MS_e = 63694.6$. Again, it is unclear how this could be meaningful, because it appears to be driven by longer RTs for the SOAs of 390 msec and 910 msec (592 msec and 589 respectively, as compared to a mean of 556 for the other SOAs).

*Dependency of AB on RT1*

Figure 32 shows that these data also appear somewhat consistent with the prediction that shorter response times to the first target will lead to better performance on the second task. The same procedures described in the General Methods section were carried out to test this prediction.

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Insert Figure 32 about here

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As in Experiments 4 and 5, the RTs in Experiment 7 had much more variance than the RTs in the first three experiments (a variance of 58467.5 in the Green T2 condition of Experiment 5 vs a variance of 14209.8 in the Green T2 condition of Experment 3). Again, a quartile split of the RTs in Experiment 7 was entered into an ANOVA with SOA. As in the last experiment, it was predicted that this analysis would produce the interaction between RT (quartile) and SOA, and that this interaction would be most evident for the fastest three quartiles, but that the quartile containing the longest RTs would be less influenced by SOA.

In a 2 (T1 colour) x 8 (SOA) x 4 (RT quartile) ANOVA, the interaction between SOA and RT quartile was significant, $F(21, 798) = 2.14, p < .01, MS_e = .061$. This interaction is illustrated in Figure 33. SOA and RT quartile both produced significant main effects, $F(7, 266) = 37.31, p < .0001, MS_e = .074$, $F(3, 114) = 12.09, p < .0001, MS_e = .080$, but T1 colour did not, $F < 1$.

Insert Figure 33 about here

It is clear from Figure 33 that the interaction between RT quartile and SOA is primarily observed in the three fastest quartiles. If only these three quartiles are entered into a 2 (T2 colour) x 8 (SOA) x 3 (fast RT quartiles) ANOVA, the interaction between SOA and RT quartile is signficant, $F(14, 532) = 2.46, p < .01, MS_e = .064$. Furthermore, SOA and RT quartile produces a highly signficant three way interaction with T2 colour, $F(14, 532) = 2.58, p < .01, MS_e = .066$. If the SOA x RT quartile interaction is examined separately for each T2 colour, it is signficant for both green T2s, $F(14, 532) = 5.00, p < .0001, MS_e = .067$, and for red T2s, $F(14, 532) = 5.92, p < .0001, MS_e = .061$. See Figure 34 and 35 for the interaction between RT quartile and SOA for green T1s and red T1s respectively.

Insert Figure 34 about here

Insert Figure 35 about here

## Discussion

Processing chromatic information online can lead to an AB in location identification. Reporting the colour of a disk produced a considerable deficit in subsequent identification of the location of a missing disk when the missing item followed closely after the coloured item. An RT quartile by SOA interaction demonstrated once again that faster responses to Task 1 lead to less of an AB.

These results provide further support for the argument that non-pattern information is susceptible to the AB phenomenon. The deficit has been found for location information, where pattern information does not distinguish T2 from the rest of the stream. Both colour and location information can produce an AB. Furthermore, an AB has been found when T2 was the "absence of a stimulus." This "absence of a stimulus" was masked by having blank intervals alternate from one location to the other throughout the remainder of the stream, forcing processing of T2 to be carried out online.

Again, these results are problematic for Similarity Theory (Shapiro et al., 1994), because that theory assumes that non-pattern information does not produce an AB, because the phenomenon is the result of competition between items in VSTM.

## General Discussion

Experiments 1 - 4 demonstrated that an attentional blink can be found when Task 2 required the detection of a unique colour embedded in an RSVP stream. Experiments 5 and 6 extended this result from detection to a discrimination task by requiring a discrimination between red and green. These results show that the processing of chromatic information is susceptible to the AB phenomenon.

In a previous attempt to demonstrate an AB for chromatic information, Shapiro, Arnell, and Drake (1991) used colour patches as T2 and found no evidence for an AB. Shapiro and Raymond (1994) cite this result, (along with the results of Experiments 5a and 5b of Shapiro et al, 1992), as support for the idea that pattern information may be necessary to produce an AB. However, the critical difference between the methodology employed by Shapiro et al., (1991) and the methodology employed in this thesis, is the mask that follows the coloured stimulus. In Shapiro et al, (1991), no attempt was made to mask the chromatic information in T2 (subsequent RSVP items were all black letters) whereas in the experiments reported above, the items following T2 also contained chromatic information. As was described in the introduction to Experiment 1, it is possible that the AB was occurring in the experiment reported by Shapiro et al., (1991), but because the chromatic information in T2 was not masked, it was still available to be used as the basis for report even after T1 processing was complete.

In Experiment 1, when subjects had to identify a patterned T1, detection of a colour change was impaired if T2 followed closely after T1, relative to when there was no T1 in the stream. A sensory masking account of the deficit in Experiment 1 was ruled out by the results of Experiment 2, in which the T1 was always present, and subjects had to either respond to it or to ignore it. A similar deficit was observed when subjects had to respond to the patterned T1, but not when subjects had to ignore T1 and only respond to T2. If the results of the T1 present condition in Experiment 1 were due to sensory masking, then a deficit would have been found in both the experimental and the control conditions of Experiment 2.

In both Experiments 1 and 2, a larger AB was found when the second target was green than when it was red. Experiment 3 was designed to test the hypothesis that this difference in blink magnitude was produced by an interaction between the colour of T1 (blue in Experiments 1-2) and the colour of T2. In Experiment 3, T1 was presented in yellow rather than blue, to avoid the hypothesized interaction. This change appeared to eliminate the difference between green and red T2s. No significant differences resulted between these two conditions in this study.

However, as a further test of the hypothesis that the difference in blink magnitude in the two T2 conditions was the result of an interaction with the blue T1, in Experiment 4 the colour of T1 was changed once again. In this case, T1 could be presented in either of the distractor colours used for the background stream. If the difference in blink magnitude that was observed in Experiments 1 and 2 was due to an interaction with a blue T1, then no difference should be found between these two conditions in Experiment 4, because blue was never presented. However, a large difference in blink magnitude was observed again in Experiment 4 (larger AB for green T2 than for red T2). Also, the colour of T2 played a less dramatic role in the results of Experiments 5 and 6 as well. For the moment, the difference between these two conditions remains puzzling.

Although the red-green T2 differences are potentially interesting, I chose to focus on a different issue -- namely on whether visual patterning is necessary in order to observe an AB. Furthermore, I wished to develop a better paradigm to demonstrate the AB phenomenon for non patterned visual information. One way to think about the results of Experiments 1-4 is that the masking of T2 was less effective for a red T2 than for a green T2. Perhaps more effective masking could be achieved if the stimuli that followed T2 alternated in colour between the two possible colours for T2 in the experiment. It was expected that the rapid alternation of the two possible target stimuli following T2 would require subjects to process T2 at the time of its presentation. Any delay in processing T2 beyond its presentation would likely result in confusion with the information that was presented subsequently, given that this information could, in principle, have been presented instead of T2 (that is, all stimuli starting with T2 were possible task-relevant stimuli). Thus, in Experiment 5, the alternation between the two task-relevant stimuli following T2 created a situation in which the processing of T2 became time-critical -- the stimuli following T2 thus provided more effective masking of T2 in the present paradigm.

Experiment 5 also tested the hypothesis that chromatic variation in the RSVP stream prior to T2 was unnecessary. Chromatic variation in the RSVP was introduced in order to provide a mask for the chromatic information in T2. Therefore it seemed reasonable to predict that an AB would still result if only the items following T2 varied in colour. Removing chromatic variation prior to T2 made another modification possible: T2 was changed to a discrimination task rather than a detection task. A dramatic AB resulted in Experiment 5, demonstrating that chromatic variation in the RSVP stream following the critical chromatic information was sufficient to produce a large deficit in Task 2 performance.

The last two experiments in this series explored the possibility that location information might also be susceptible to the attentional blink. Experiment 6 tested the hypothesis that attending to location information would produce an AB in colour identification. Experiment 7 tested the complementary hypothesis that attending to colour information would produce an AB in location identification. In both cases, dramatic deficits in T2 identification were observed when subjects were required to respond to T1, and T2 was presented within approximately half a second after T1.

It is also worth noting that when subjects were required to respond to the location of an item, it was in fact the absence of pattern information they had to locate. The fact that an AB can be found when either T1 or T2 are blank intervals, taken together with the finding that processing both chromatic and location information is sufficient to produce an AB, disconfirms the hypothesis proposed by Shapiro et al. (1994) that visual pattern information in the targets is necessary to produce an AB.

In all but one of the experiments reported here, a dependency was found between response times to T1, and accuracy on Task 2 (with the exception being Experiment 6, where the dependency only approached significance). Longer response times to the first target tended to lead to less accurate responses to the second target. This is consistent with the prediction of Dual Task Interference Theory, that the magnitude of the AB will be directly related to the amount of time taken to process T1.

Some caution should be taken in interpreting this finding, since it is basically correlational in nature. Dual Task Interference Theory argues that this dependency is the result of a bottleneck in information processing, but it is possible that some other variable is producing the effect. For example, task preparedness might be worth considering as such a variable. Perhaps on some trials, subjects are simply more prepared for both tasks, and therefore performance on both tasks is better than on other trials, thus producing a correlation between RT1 and Task 2 accuracy. But here, only a main effect of RT1 split (median or quartile) would be expected, that does not differ across SOAs.

However, it is unlikely that such a variable would produce the exact pattern of interaction between RT1 split and SOA that is predicted by DTI theory (and found in each of the experiments reported here that find an interaction). It is difficult to imagine how overall preparedness, for example, might lead to the pattern of interaction where long and short RT1s lead to similar Task 2 performance for the shortest SOAs, but lead to differential performance for the intermediate SOAs, and then again lead to similar performance for the longest SOAs. It seems much more likely that this interaction would be produced by a bottleneck in processing. The bottleneck argument predicts that at the shortest SOAs, no matter how quickly subjects respond to T1, they are very likely still processing T1 when T2 is presented, so performance should not differ for short vs long RT1s. On the other hand, at the longest SOAs, processing of T1 is likely completed by the time T2 is presented, so once again, performance should not differ for short vs long RT1s. The difference between short and long response times is only predicted where it was found: for the intermediate SOAs.

The results of this series of experiments are problematic for similarity theory for a number of reasons. First, this theory argues that it is the presence of pattern information in the RSVP stream which produces the AB deficit. Instead, it appears that any kind of information which must be processed to produce a response can be susceptible to the AB, when subjects are forced to process that information online (either due to a speed requirement or because the information is masked after presentation).

Another result which seems difficult to explain according to similarity theory, is the fact that the AB resulted in these experiments where there is little similarity between T2 and T1. In Experiments 1 - 4, T2 was the only colour of its type when it was shown. In Experiments 6 and 7, there is very little similarity between T1 and T2, and in fact, the two tasks require processing of entirely different stimulus dimensions. Clearly, T1 and T2 would have very different templates. According to similarity theory, less similarity between these two templates should produce less interference in VSTM and therefore, less of a deficit.

The even stronger prediction made by this model is that the similarity between the T1+1 item and T2 will critically influence the magnitude of the AB, because it is assumed that the T1 item receives the highest weighting, but the T1+1 item competes for the remaining resources with the T2 item. And yet in each of these experiments, the T1+1 item has been very dissimilar to the T2 item (especially in Experiments 6 and 7, where the T1+1 item is in an entirely different location and colour than the T2 item). Despite all of these differences which set the critical items apart, very large AB magnitudes were found in these experiments.

Similarity theory predicts that, in addition to featural dissimilarity, spatial dissimilarity will also reduce the AB. Evidence in support of this point is reported in Raymond et al, (1995), Experiment 3, where the T1+1 item is displaced approximately 1° to the right of the remainder of the stream, and an attenuated AB is found. However, Ward et al., (1995) demonstrate that spatial dissimilarity per se does not eliminate the blink. Recall that in these experiments subjects were required to respond to one target presented briefly (and masked) at one of two locations, and then at variable SOAs following the first target, subjects were required to respond to a second target presented briefly (and masked) at one of two entirely different locations. Just as has been found with the RSVP procedure, subjects often misreported the second target when it followed within approximately 500 msec of the first target. It is probable that the reduction in the AB reported by Raymond et al, (1995) was due to the fact that the displaced T1+1 item provided less of a mask for the information in T1.

The results of Experiments 6 and 7 also address the question of the importance of spatial similarity in producing the blink. In Task 1 of Experiment 6, subjects view three disks and report which of the two outer disks disappears in the display, and then in Task 2 they attend to the middle disk and report which colour appears first. In Experiment 7, the tasks are reversed. Subjects report which colour the middle disk is presented in first, and then report which of the outer disks dissappears from the display first. These two items are extremely dissimilar, both spatially and featurally. And yet an AB is produced in both cases.

Dual Task Interference Theory offers the most complete account of these results, because it predicts not only the interference in attending to two non-patterned stimuli, but also the influence of RT1 on Task2. The two-stage model proposed by Chun and Potter

(1995) could easily be extended to predict influence of RT1 on Task 2 performance, if it can be assumed that RT1 reflects the amount of time take by Task 1 to clear the capacity-demanding second stage, allowing Task 2 processing to reach stage 2.

The attentional dwell model does not address the influence of RT1 on Task 2, but the authors do argue against the idea that AB might be the result of the same mechanism as PRP effects. This argument, discussed in the introduction section, is based on their finding that manipulating the demands on the response selection stage of Task 1 did not influence the magnitude of the AB (in Experiment 2 of Ward et al., 1996). However, as was discussed above, it makes sense that no effects of lengthening the response selection stage should be revealed when the first task is not speeded. Subjects have unlimited amounts of time to complete their response selection under these conditions.

The fact that the duration of RT1 has such a consistent influence on the magnitude of the AB suggests that a general information processing model may be one step ahead of the previous models in explaining the AB phenomenon.

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**Figure Captions**

Figure 1. The effects of manipulating pre-bottleneck processing. When there is a high degree of overlap between the two tasks, increasing pre-bottleneck processing required for Task 2 will not increase the response time to Task 2. The increased pre-bottleneck processing can be completed while Task 2 waits for Task 1 to be processed through the bottleneck.

Figure 2. Theoretical underadditive pattern, vs additive effects. When Task 2 processing prior to the bottleneck is manipulated, this typically produces an underadditive interaction, such that, as SOA decreases, so does the effect of the manipulation. When Task 2 processing after the bottleneck is manipulated, this typically produces additive effects. The effect of the manipulation is constant accross SOAs.

Figure 3. Theoretical spacing of colours in CIE (xy) space. The colour coordinates used in these experiments were selected so that when they were plotted in CIE (xy) space, they would produce a pattern similar to this one.

Figure 4. Mean proportion correct in Task 2 for T2 present trials as a function of SOA in Experiment 1.

Figure 5. Mean proportion correct in Task 2 for T2 present trials as a function of SOA, and T2 colour, in Experiment 1.

Figure 6. Response times to Task 1 as a function of SOA and T2 colour, in Experiment 1.

Figure 7. Mean proportion correct in Task 2 for short and long response times to Task 1 in Experiment 1.

Figure 8. Mean proportion correct in Task 2, as a function of SOA, in Experiment 2.

Figure 9. Mean proportion correct in Task 2, as a function of SOA and T2 colour, in Experiment 2.

Figure 10. Response times to Task 1 as a function of SOA and T2 colour, in Experiment 2.

Figure 11. Mean proportion correct in Task 2 for short and long response times to Task 1, in Experiment 2.

Figure 12. Mean proportion correct in Task 2, as a function of SOA, in Experiment 3.

Figure 13. Mean proportion correct in Task 2, as a function of SOA and T2 colour, in Experiment 3.

Figure 14. Mean proportion correct in Task 2 for short and long response times to Task 1, in Experiment 3.

Figure 15. Mean proportion correct in Task 2, as a function of SOA, in Experiment 4.

Figure 16. Mean proportion correct in Task 2, as a function of SOA and T2 colour, in Experiment 4.

Figure 17. Mean proportion correct in Task 2 for short and long response times to Task 1, in Experiment 4.

Figure 18. Mean proportion correct in Task 2 for each response time quartile in Experiment 4.

Figure 19. Mean proportion correct in Task 2 for each response time quartile in Experiment 4, green T2s only.

Figure 20. Mean proportion correct in Task 2 for each response time quartile in Experiment 4, red T2s only.

Figure 21. Mean proportion correct in Task 2, as a function of SOA, in Experiment 5.

Figure 22. Mean proportion correct in Task 2, as a function of SOA and T2 colour, in Experiment 5.

Figure 23. Mean proportion correct in Task 2 for Experiment 4 (green T2 condition only) and Experiment 5.

Figure 24. Mean proportion correct in Task 2 for short and long response times to Task 1, in Experiment 5.

Figure 25. Mean proportion correct in Task 2 for each response time quartile in Experiment 5.

Figure 26. Mean proportion correct in Task 2 for each response time quartile in Experiment 5, green T2s only.

Figure 27. Mean proportion correct in Task 2 for each response time quartile in Experiment 5, red T2s only.

Figure 28. Mean proportion correct in Task 2, as a function of SOA, in Experiment 6.

Figure 29. Mean proportion correct in Task 2, as a function of SOA and T2 colour, in Experiment 6.

Figure 30. Mean proportion correct in Task 2 for short and long response times to Task 1, in Experiment 6.

Figure 31. Mean proportion correct in Task 2, as a function of SOA, in Experiment 7.

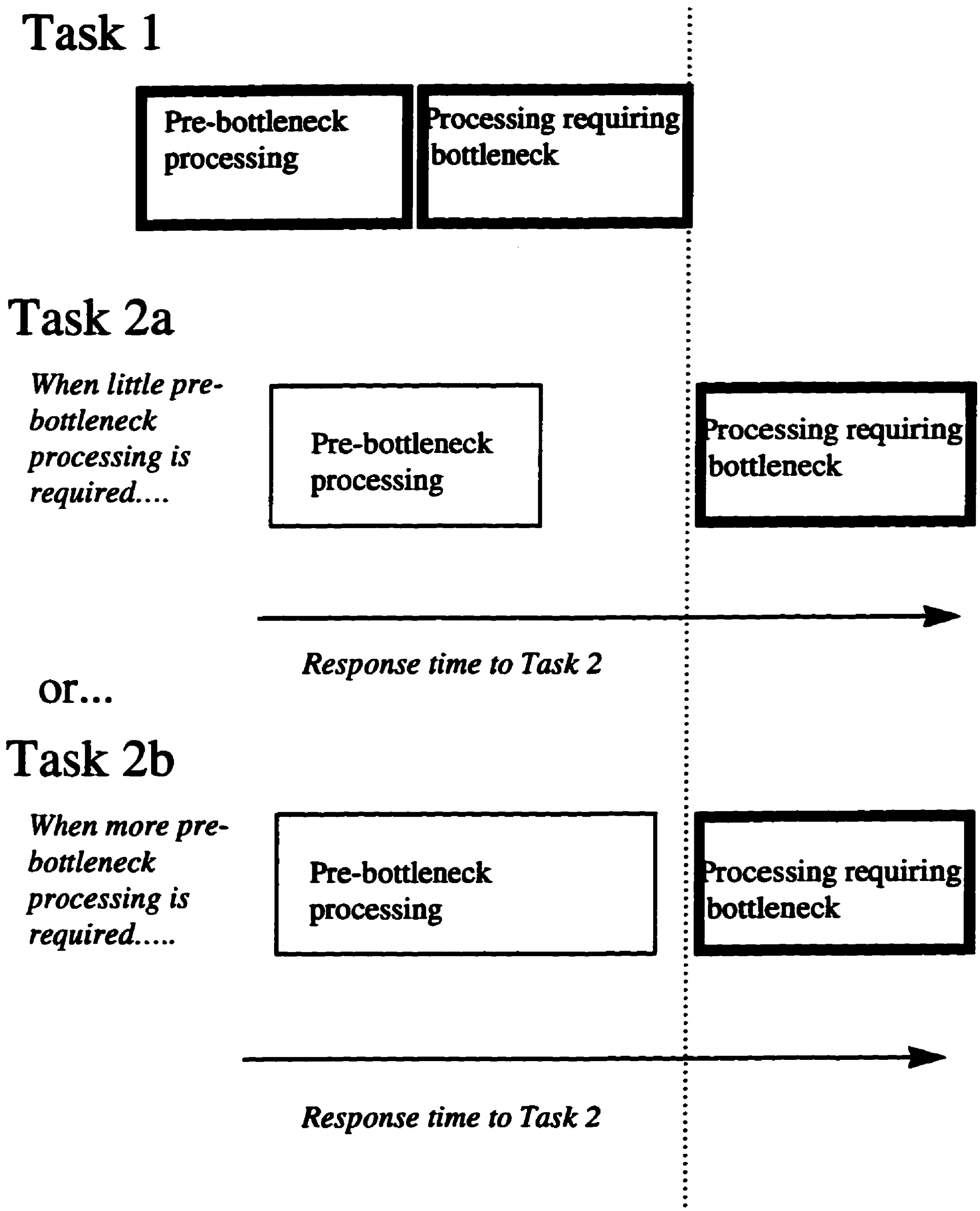
Figure 32. Mean proportion correct in Task 2 for short and long response times to Task 1, in Experiment 7.

Figure 33. Mean proportion correct in Task 2 for each response time quartile in Experiment 6.

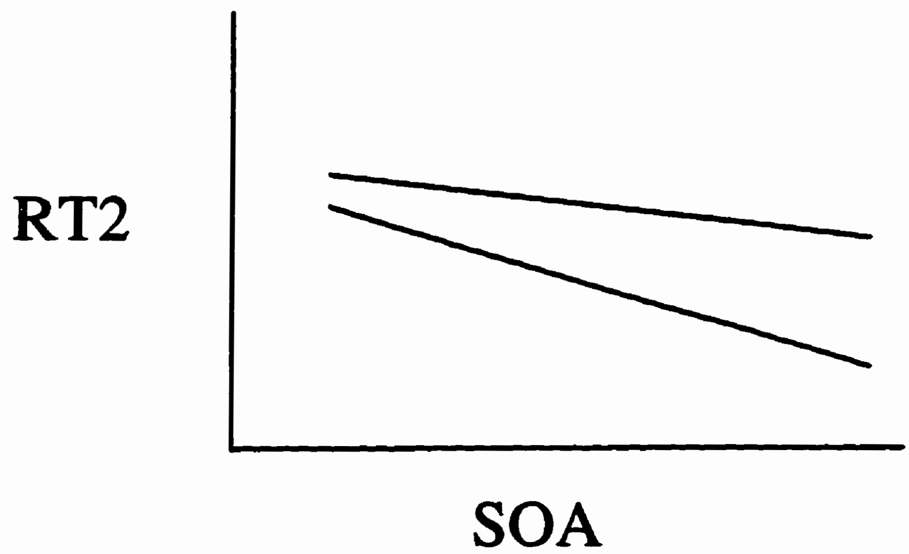
Figure 34. Mean proportion correct in Task 2 for each response time quartile in Experiment 7, green T2s only.

Figure 35. Mean proportion correct in Task 2 for each response time quartile in Experiment 5, red T2s only.

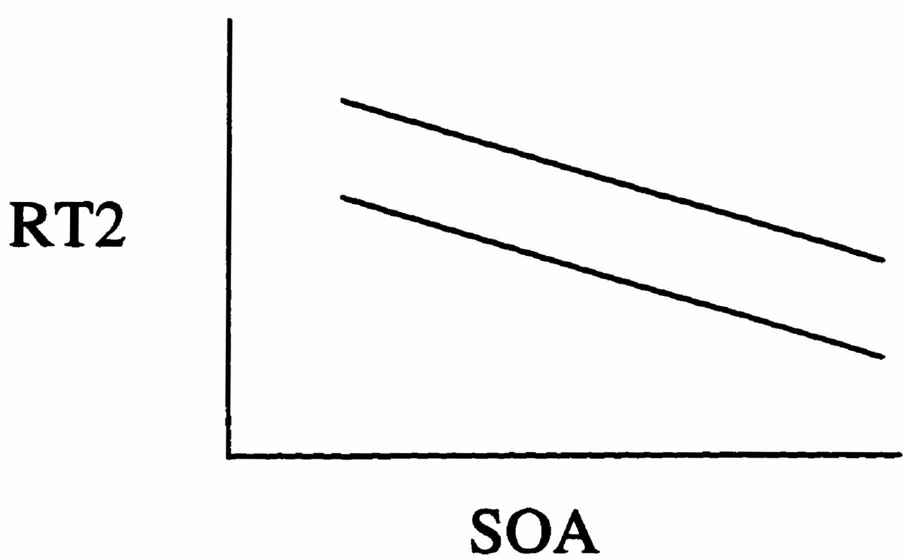
# Manipulating Pre-bottleneck Processing



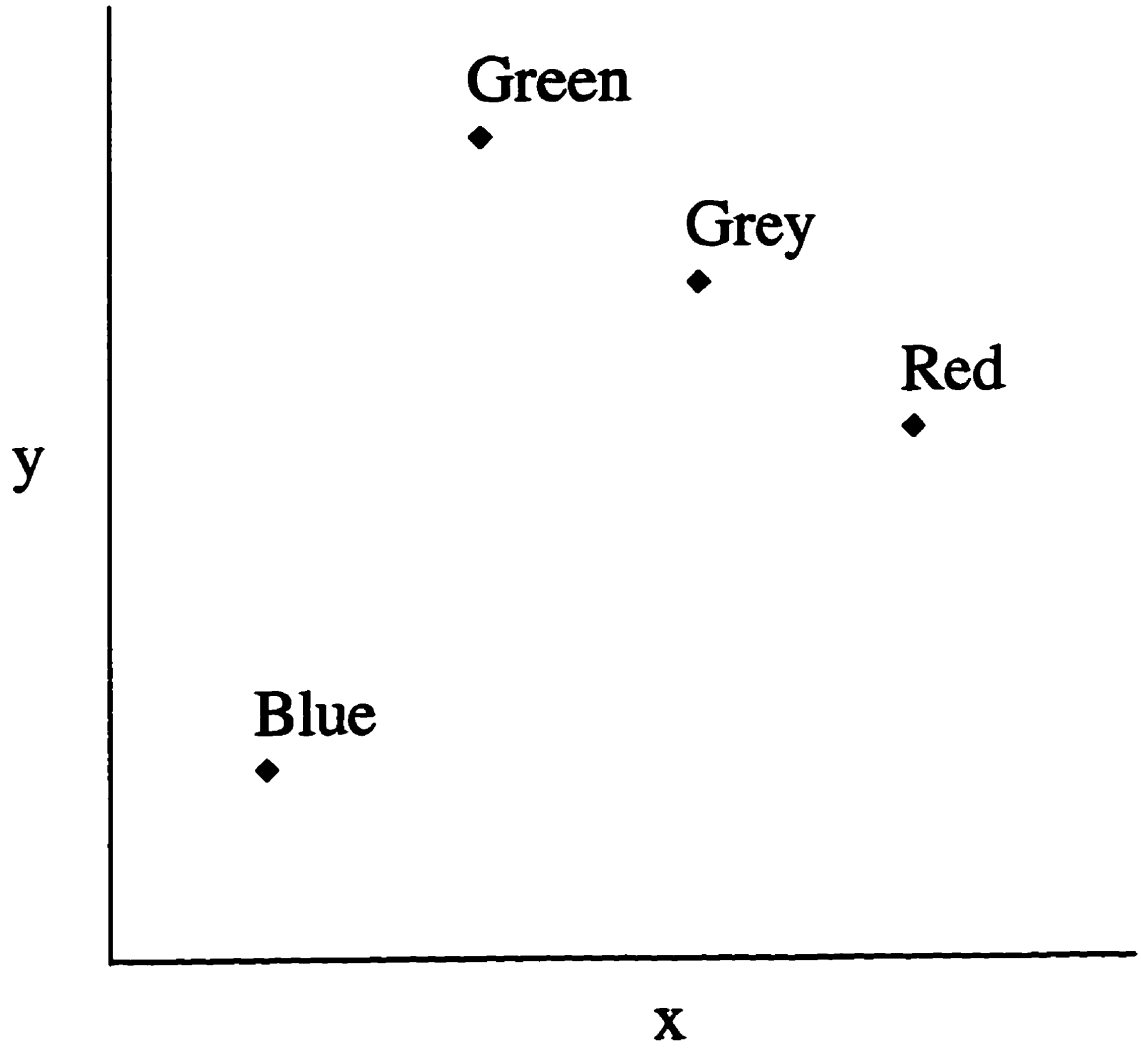
Underadditivity (with decreasing SOA)

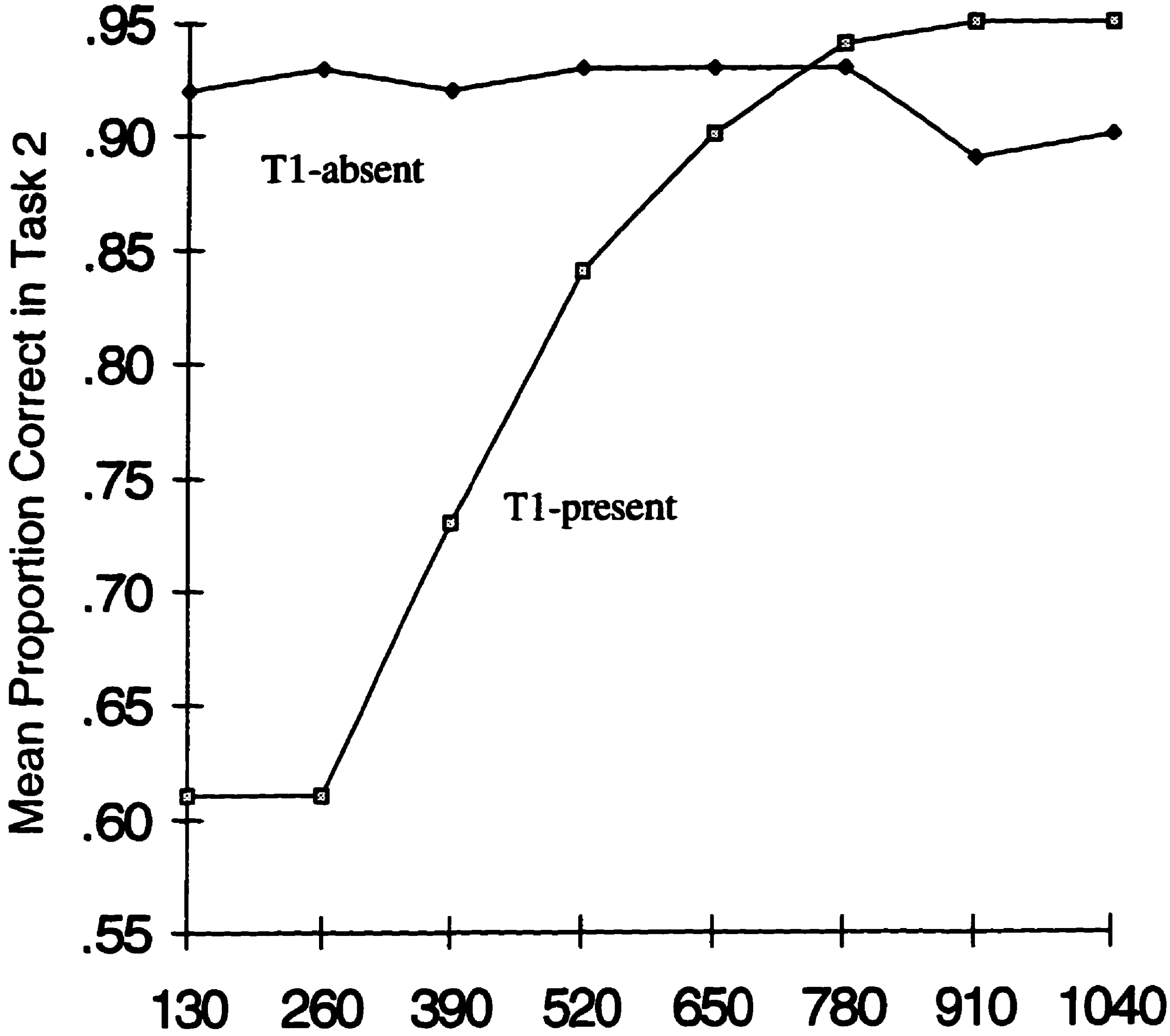



Additive effects

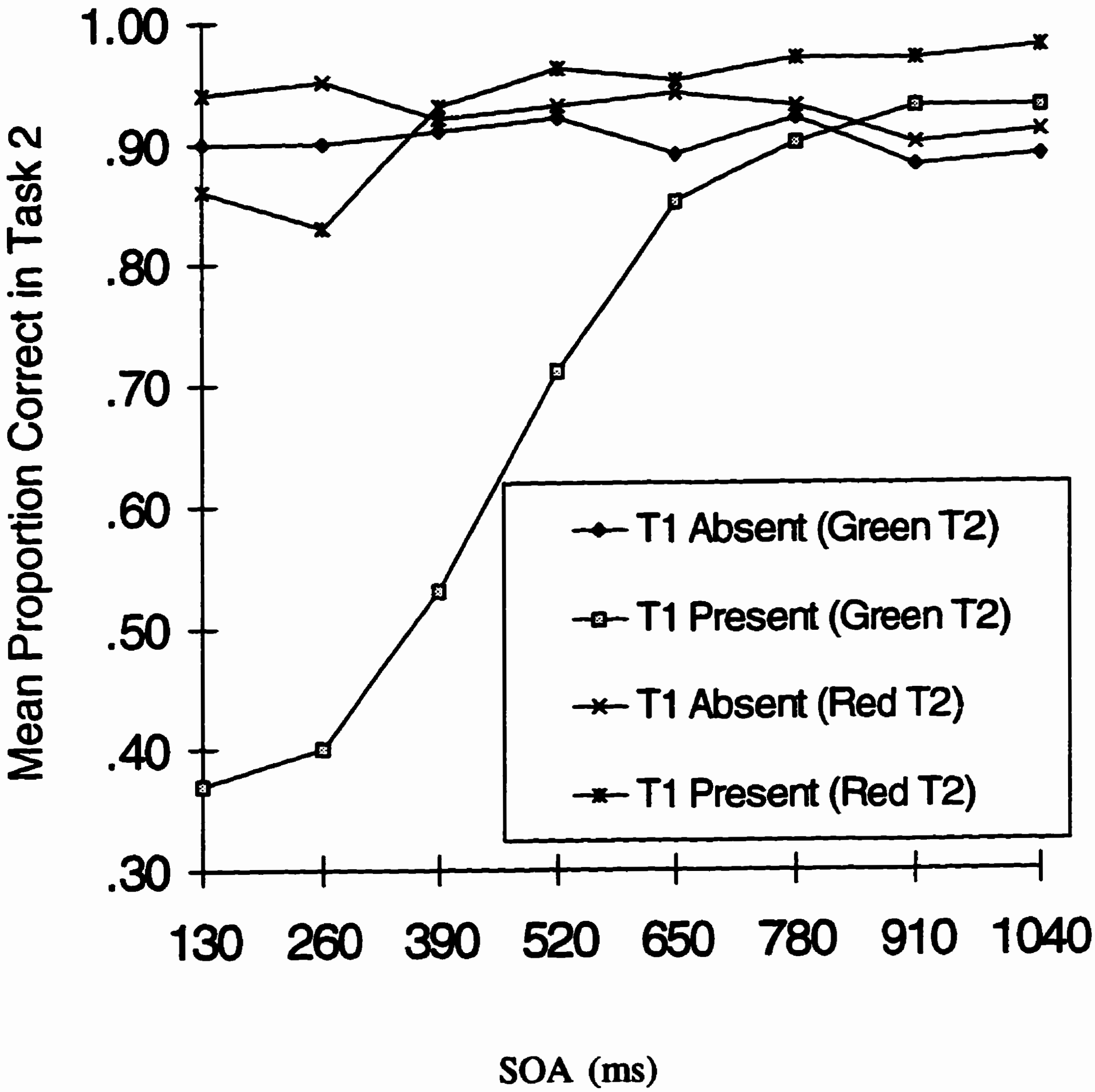


# Theoretical Spacing of Colours in CIE(xy) Space

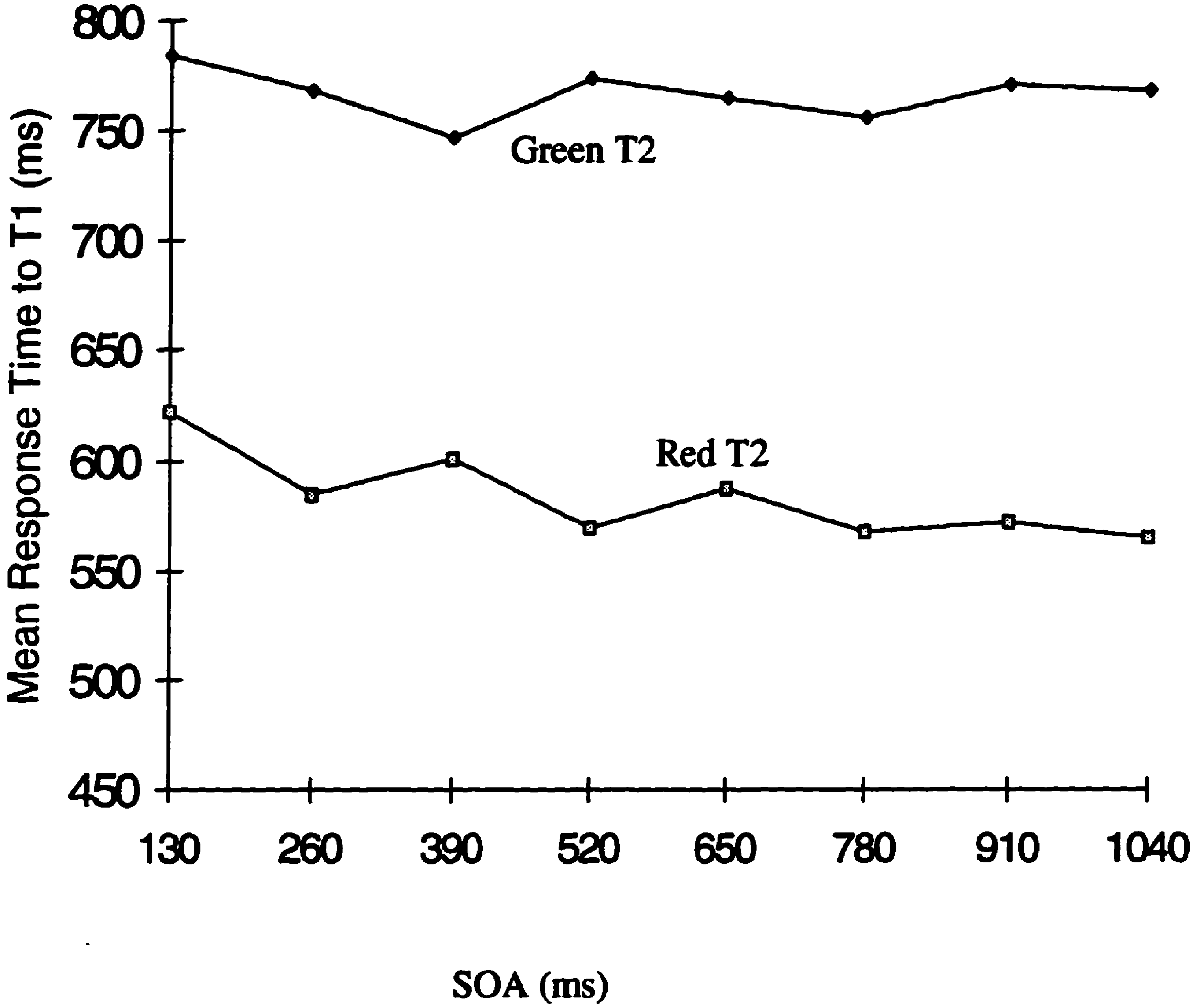


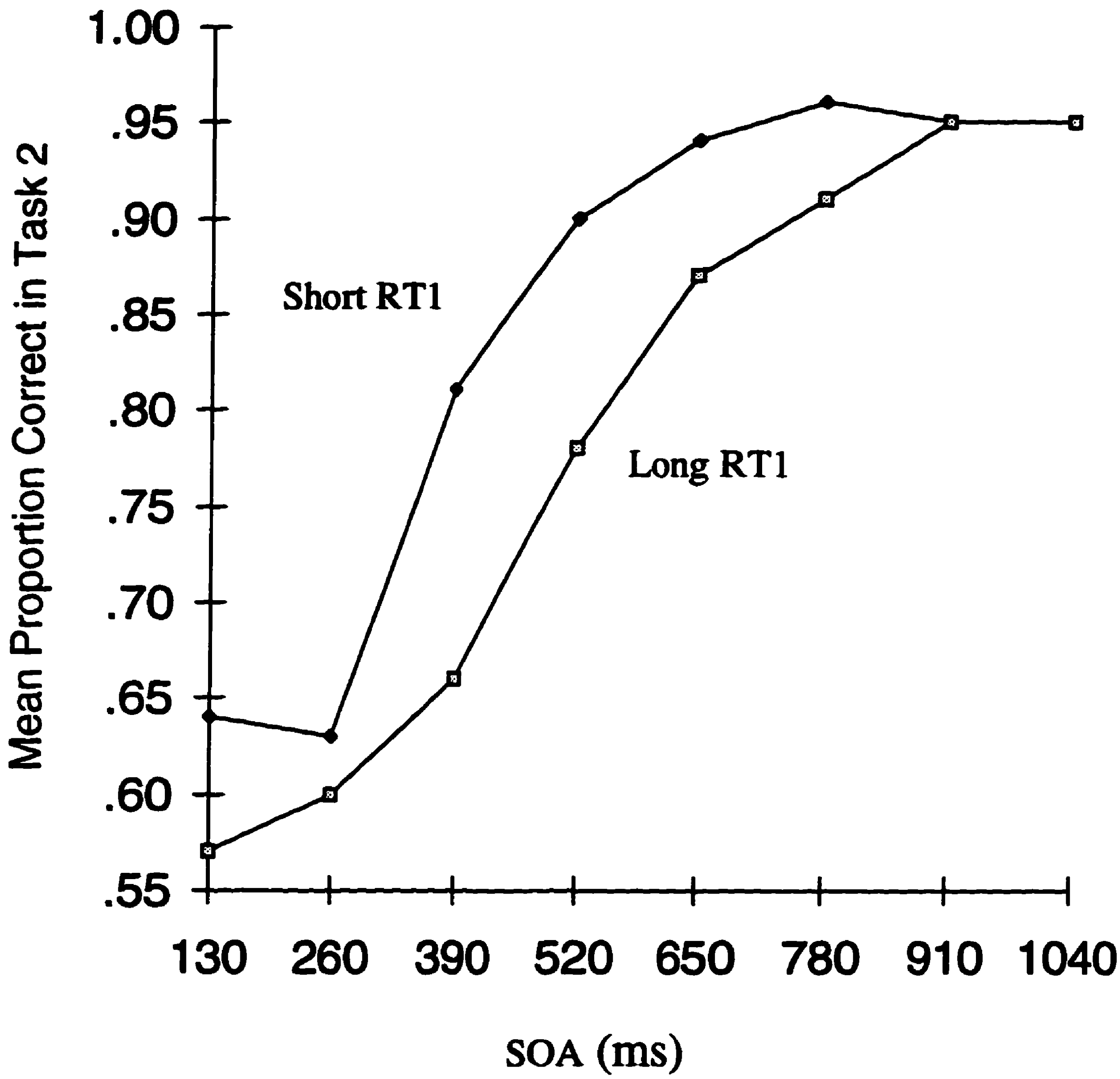

.95
.90
.85
.80
.75
.70
.65
.60
.55
Mean Proportion Correct in Task 2
T1-absent
T1-present
130
260
390
520
650
780
910
1040

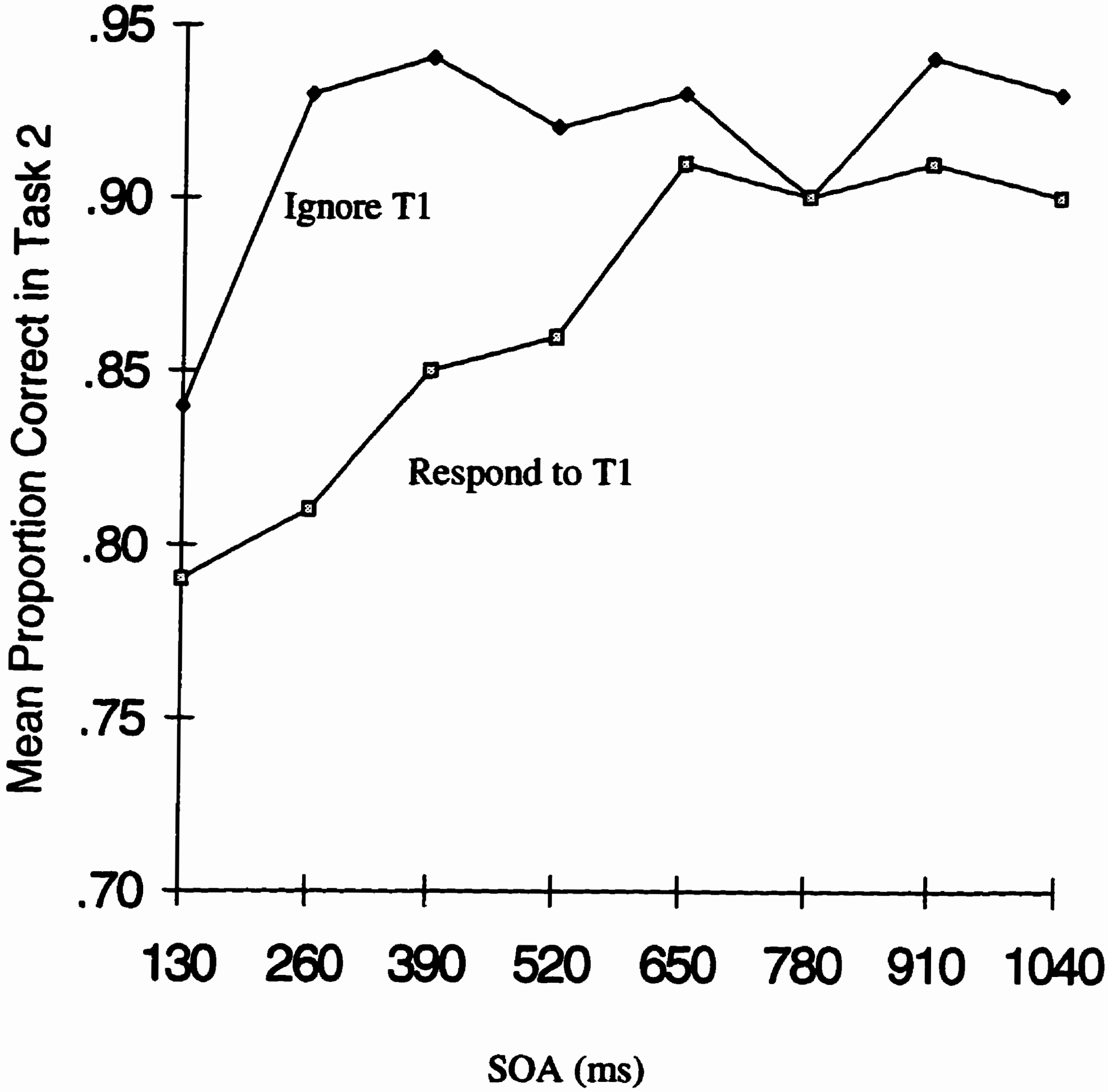
SOA (ms)

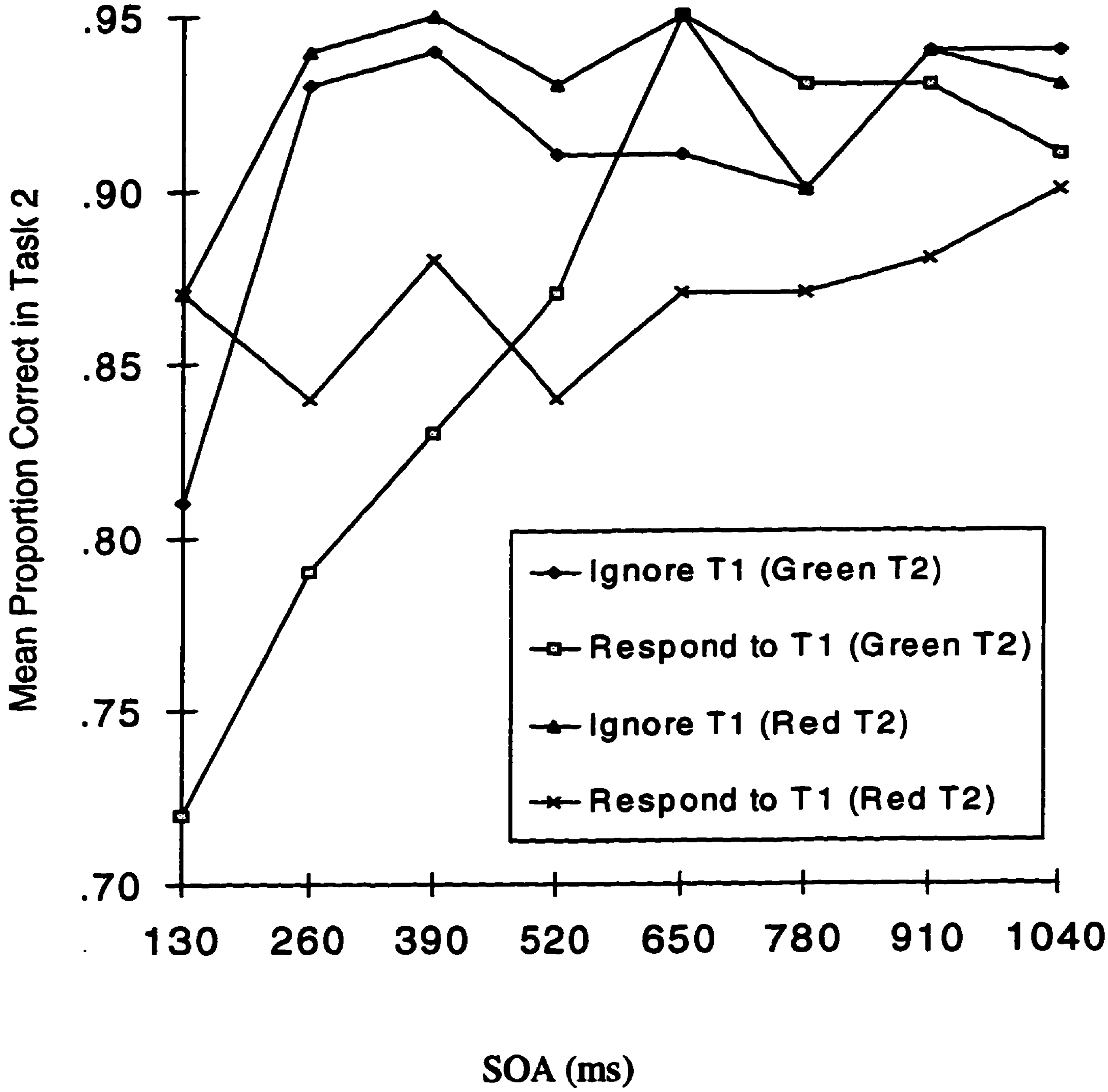


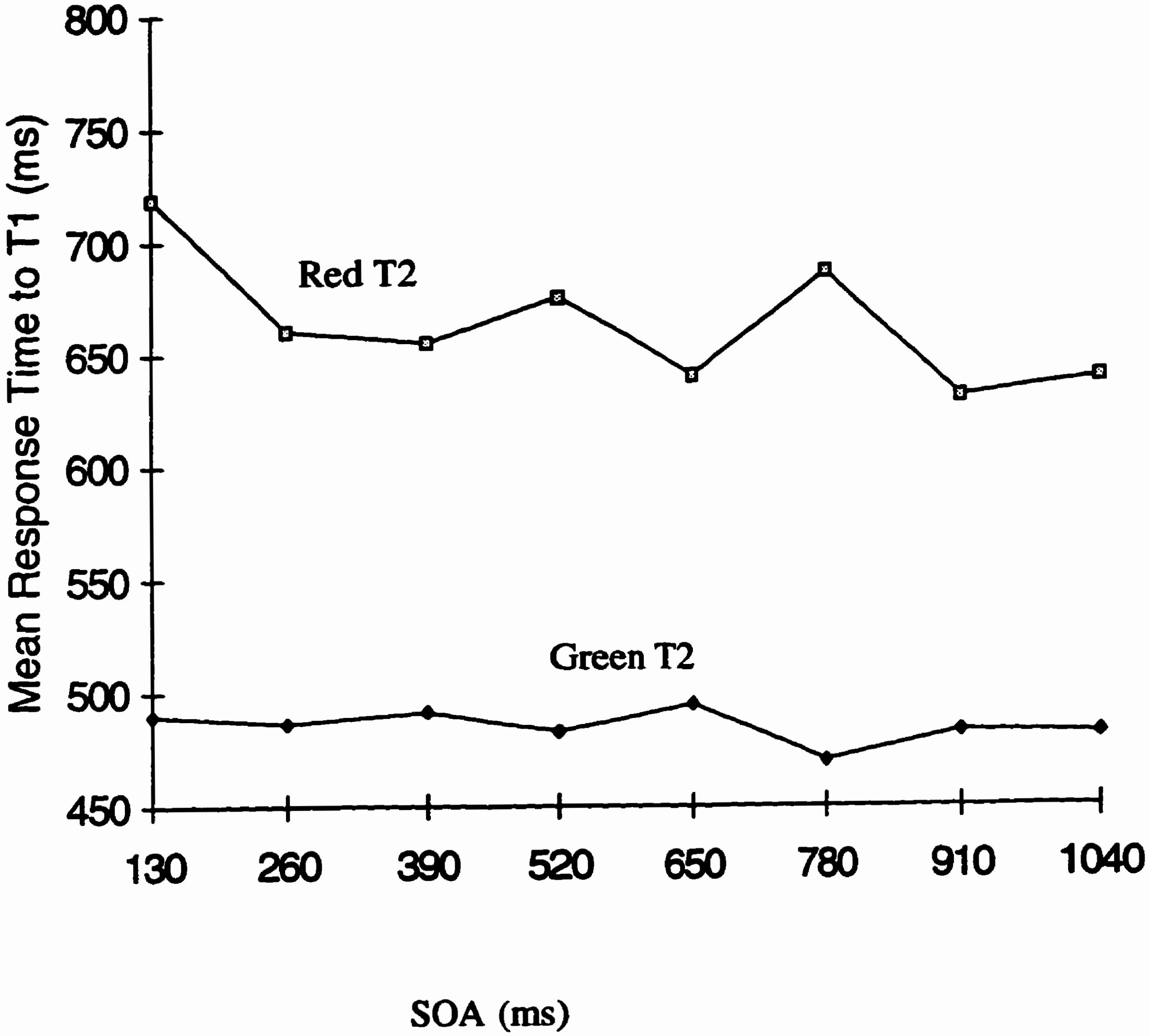
1.00
.90
.80
.70
.60
.50
.40
.30
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
SOA (ms)
T1 Absent (Green T2)
T1 Present (Green T2)
T1 Absent (Red T2)
T1 Present (Red T2)


800
750
700
650
600
550
500
450
Mean Response Time to T1 (ms)
Green T2
Red T2
130
260
390
520
650
780
910
1040
SOA (ms)

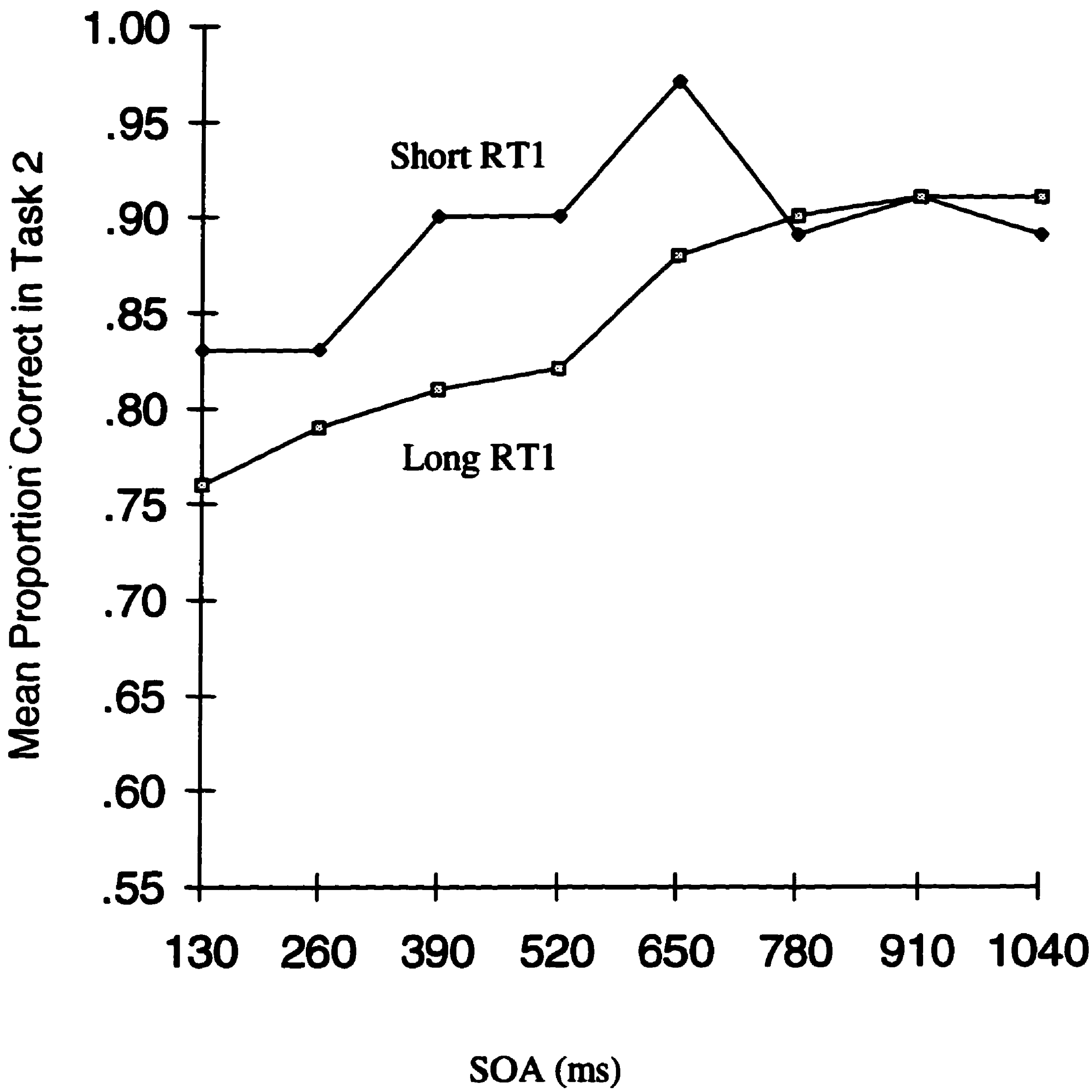

1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
Mean Proportion Correct in Task 2
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)

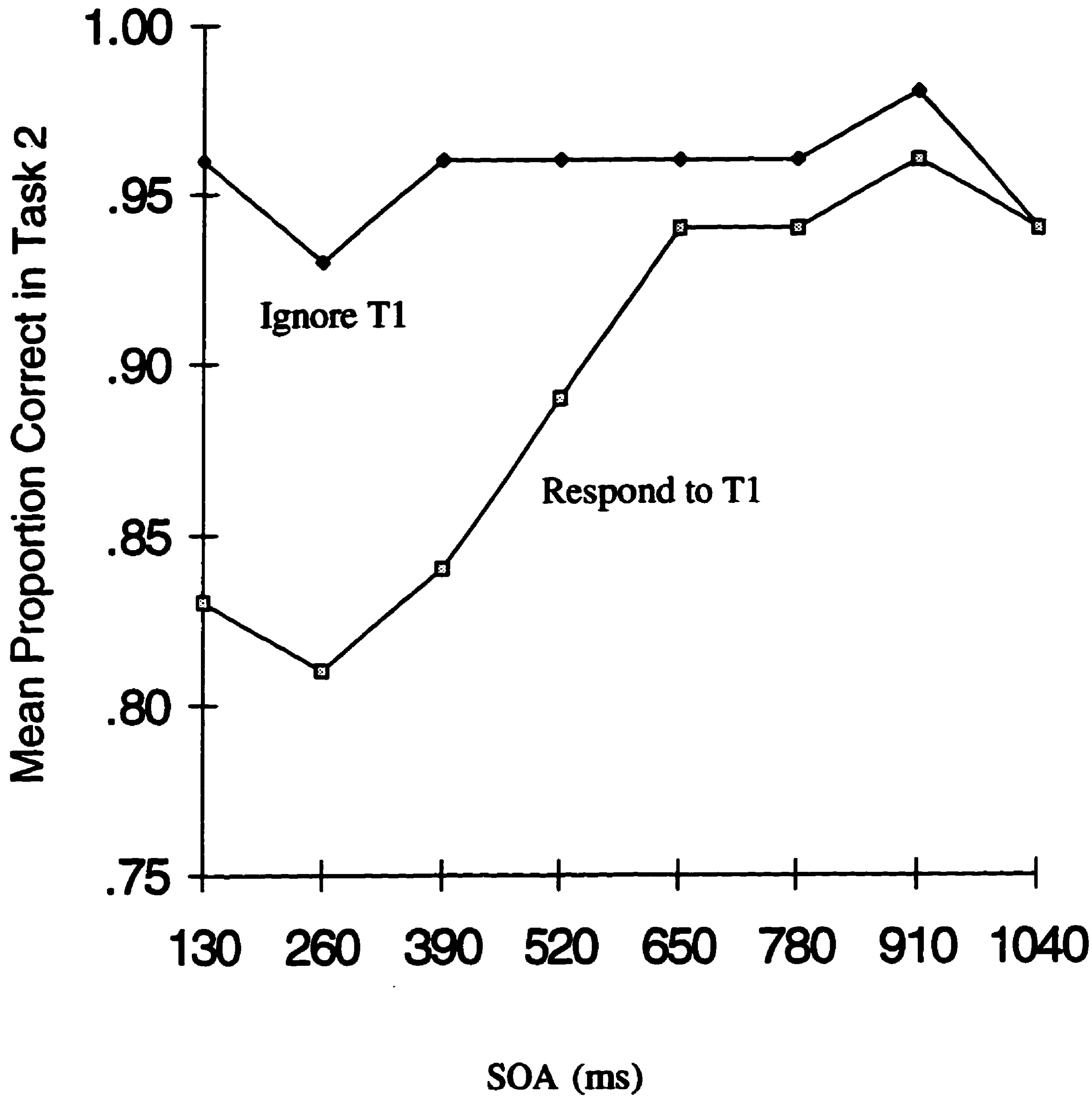

Mean Proportion Correct in Task 2
.95
.90
.85
.80
.75
.70
Ignore T1
Respond to T1
130
260
390
520
650
780
910
1040
SOA (ms)

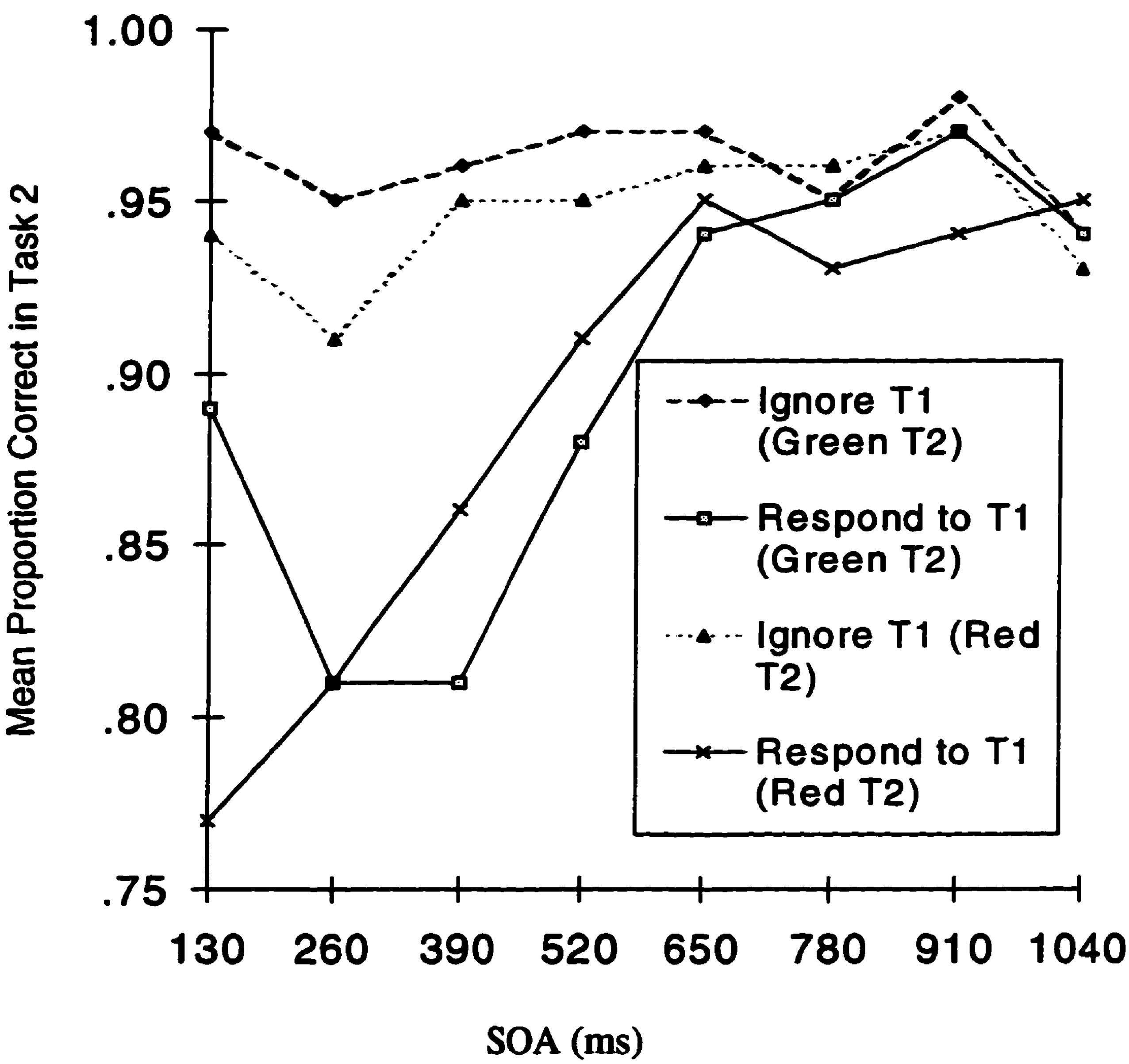

.95
.90
.85
.80
.75
.70
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
SOA (ms)
Ignore T1 (Green T2)
Respond to T1 (Green T2)
Ignore T1 (Red T2)
Respond to T1 (Red T2)

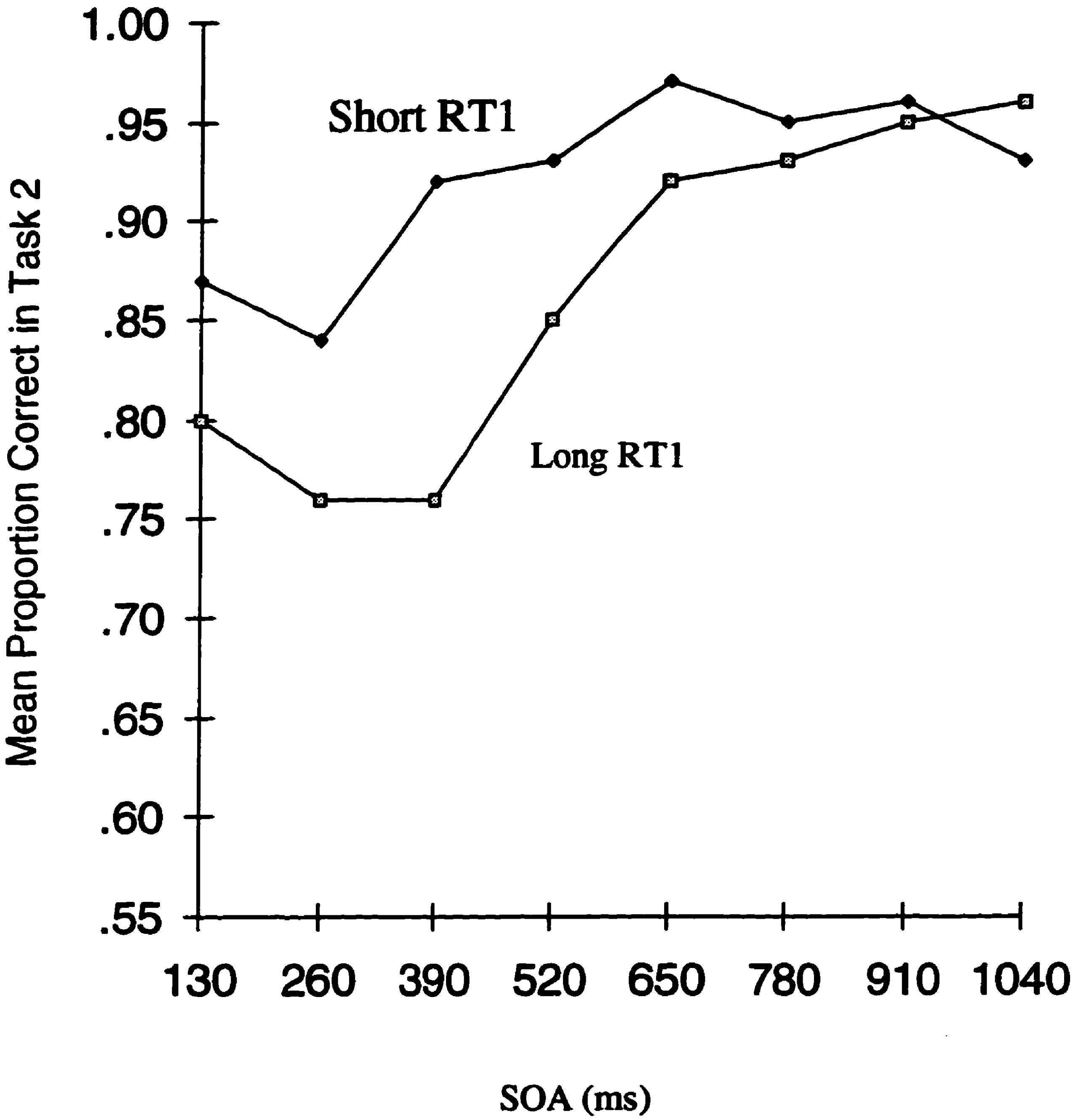


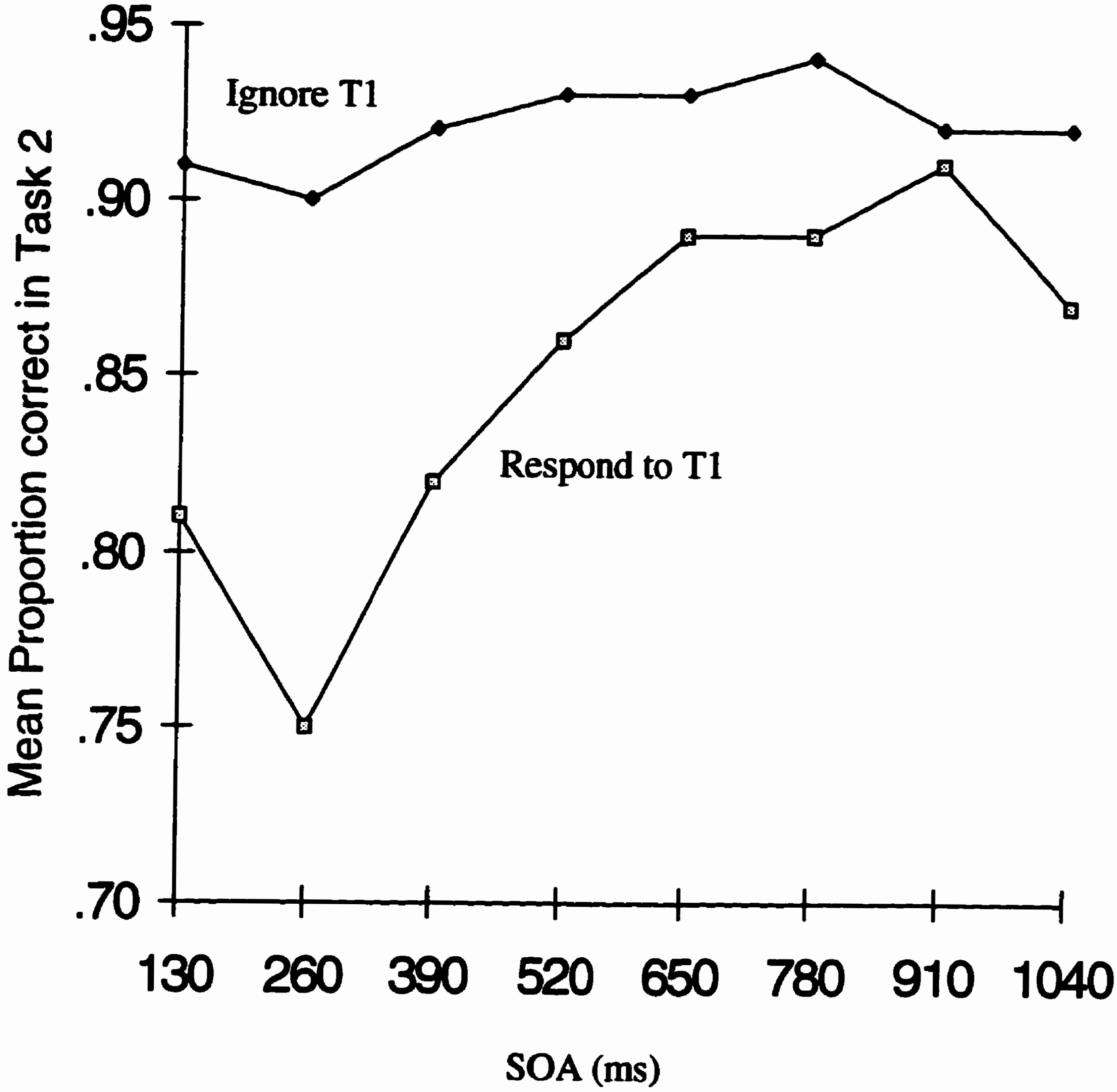
800
750
700
650
600
550
500
450
Mean Response Time to T1 (ms)
Red T2
Green T2
130
260
390
520
650
780
910
1040
SOA (ms)

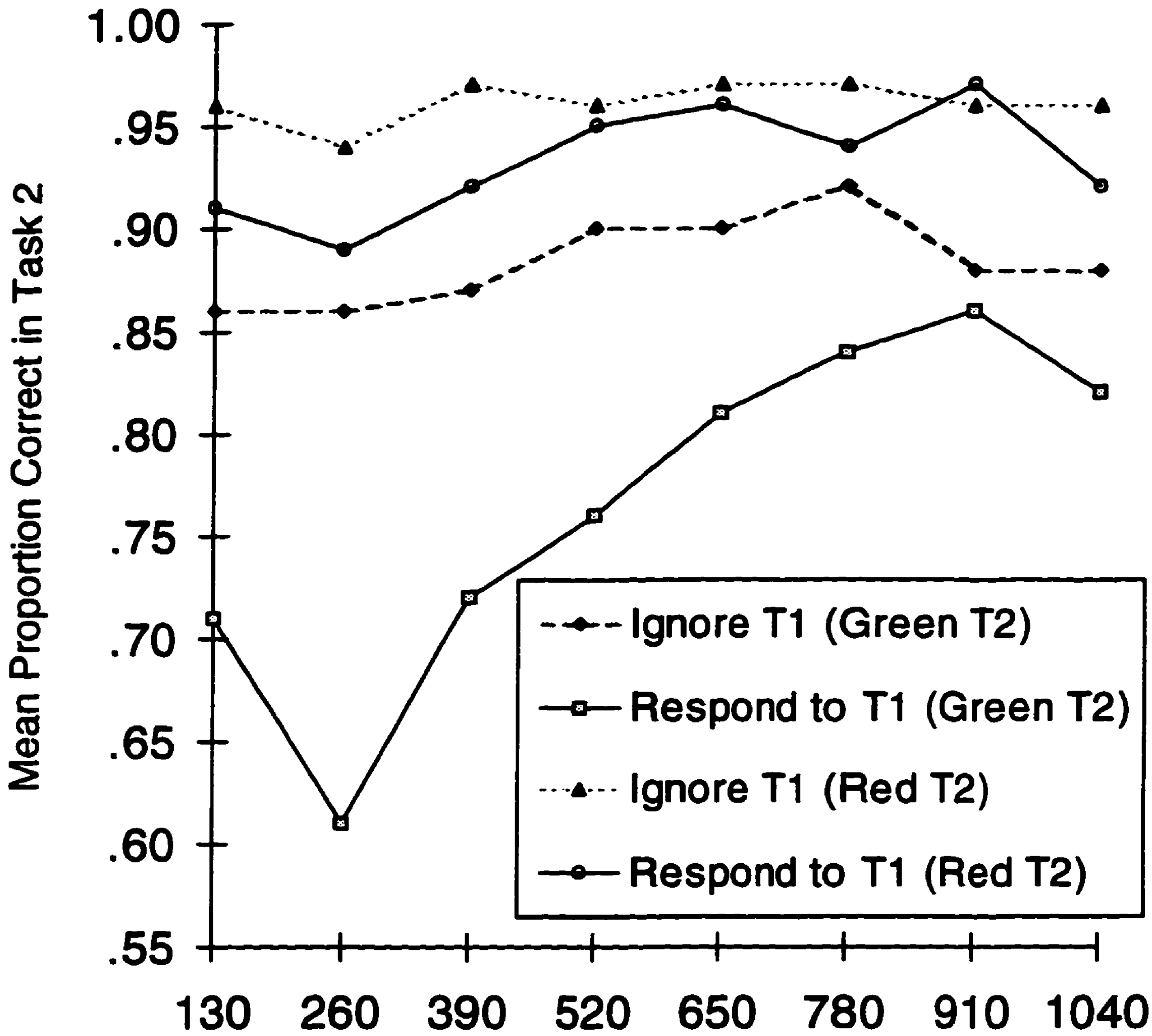

1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
Mean Proportion Correct in Task 2
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)


1.00
.95
.90
.85
.80
.75
Mean Proportion Correct in Task 2
Ignore T1
Respond to T1
130
260
390
520
650
780
910
1040
SOA (ms)

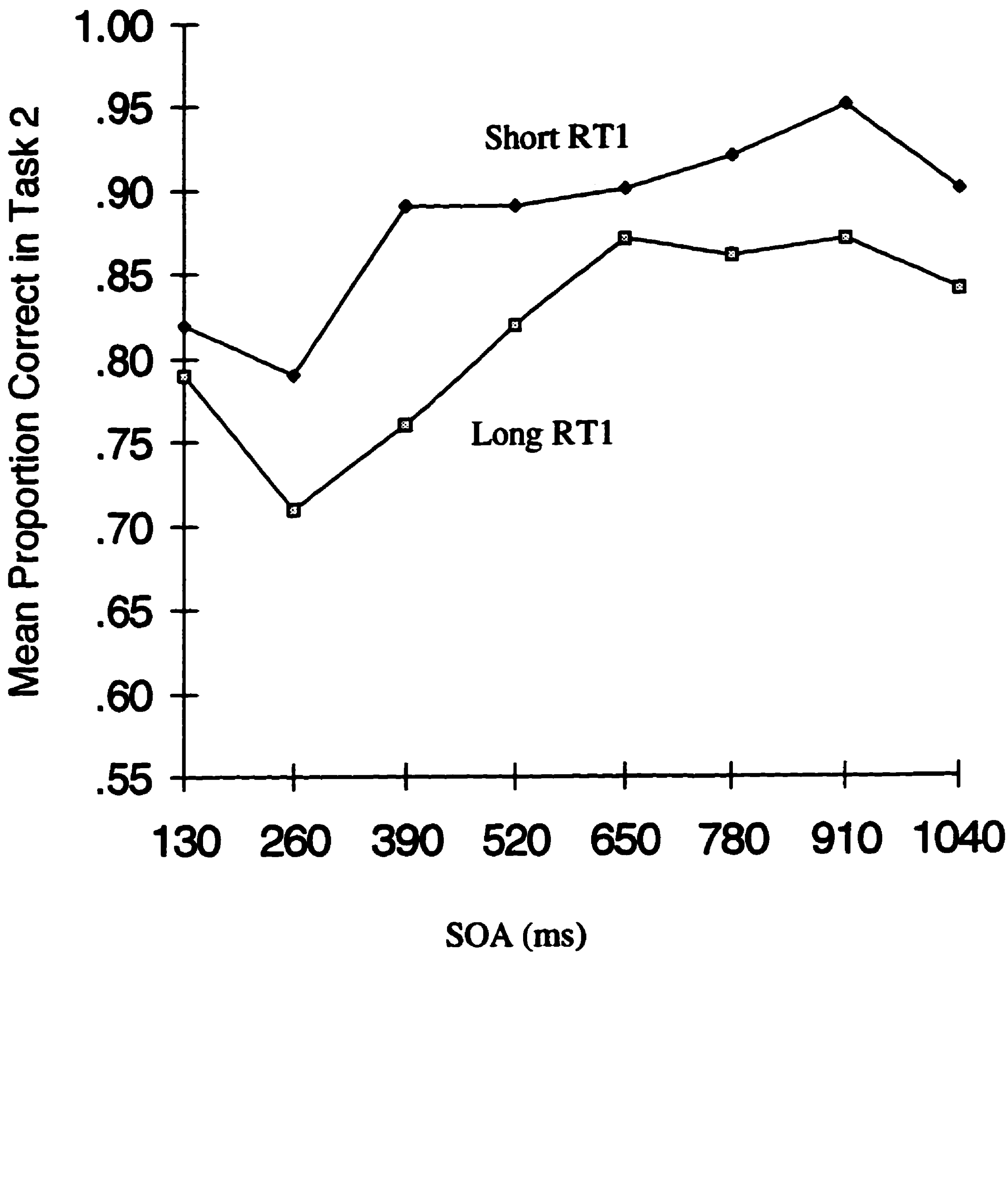

1.00
.95
.90
.85
.80
.75
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
SOA (ms)
Ignore T1 (Green T2)
Respond to T1 (Green T2)
Ignore T1 (Red T2)
Respond to T1 (Red T2)

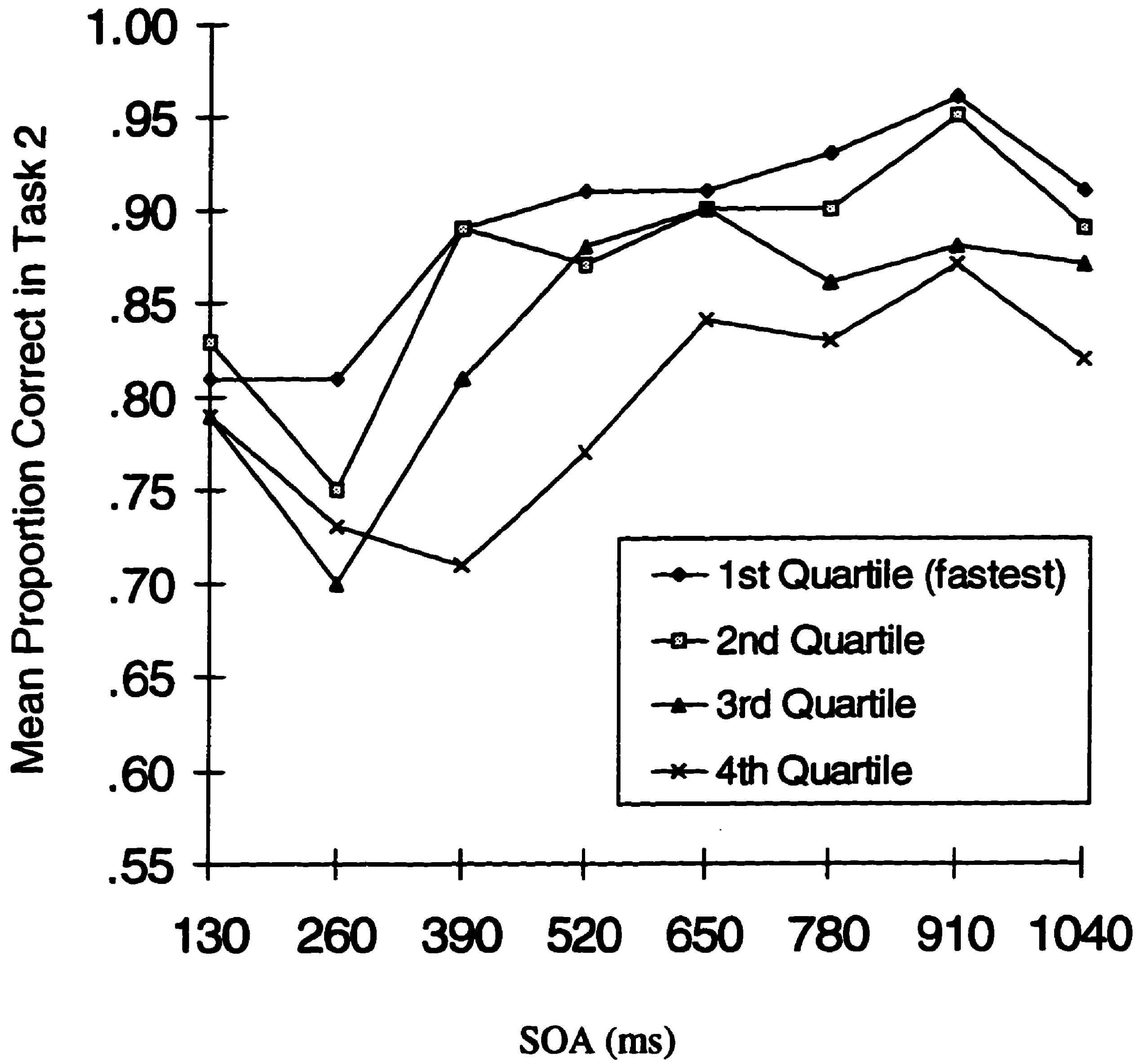

Mean Proportion Correct in Task 2
1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)

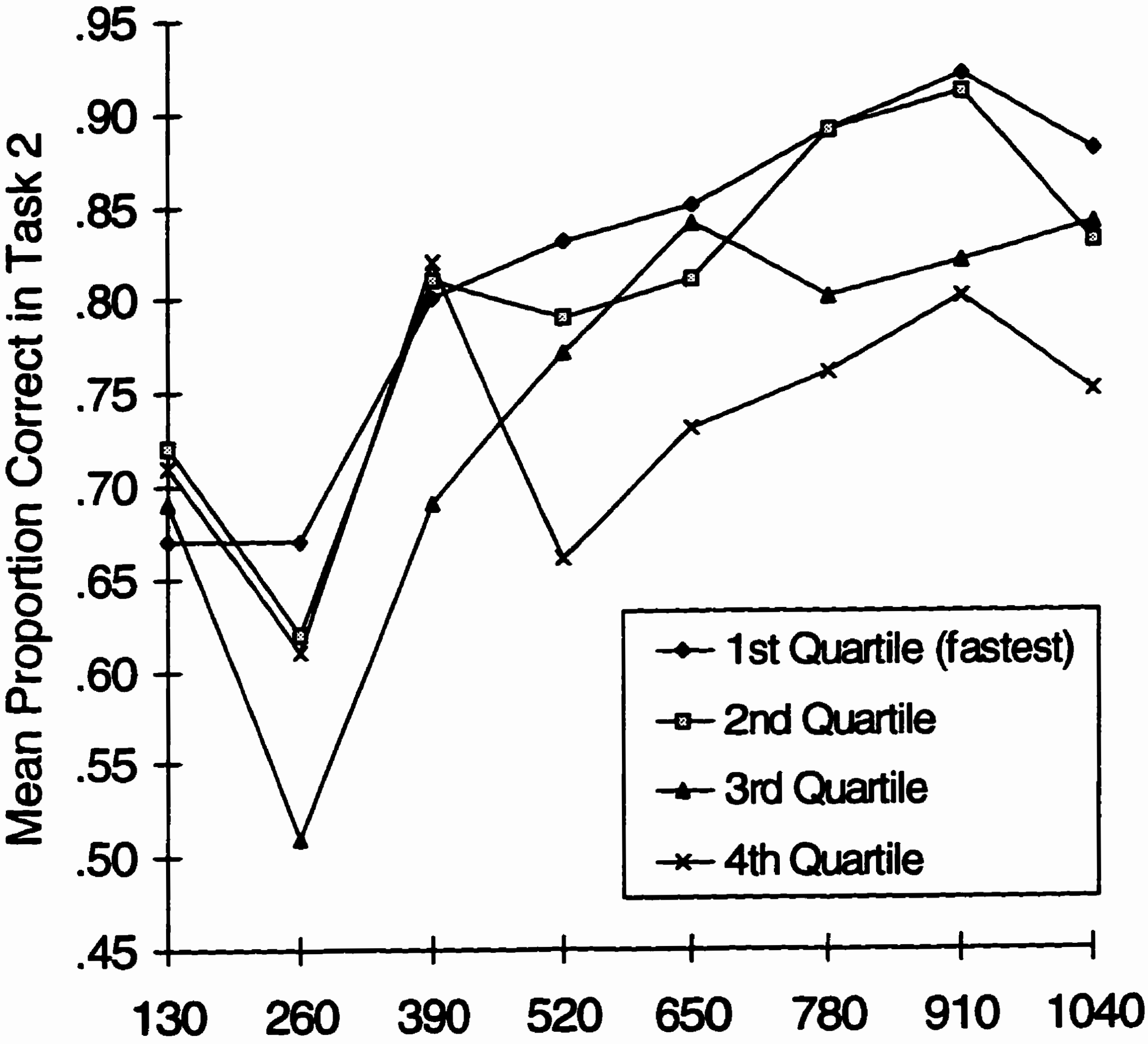

.95
.90
.85
.80
.75
.70
Ignore T1
Respond to T1
Mean Proportion correct in Task 2
130
260
390
520
650
780
910
1040
SOA (ms)


1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
Ignore T1 (Green T2)
Respond to T1 (Green T2)
Ignore T1 (Red T2)
Respond to T1 (Red T2)

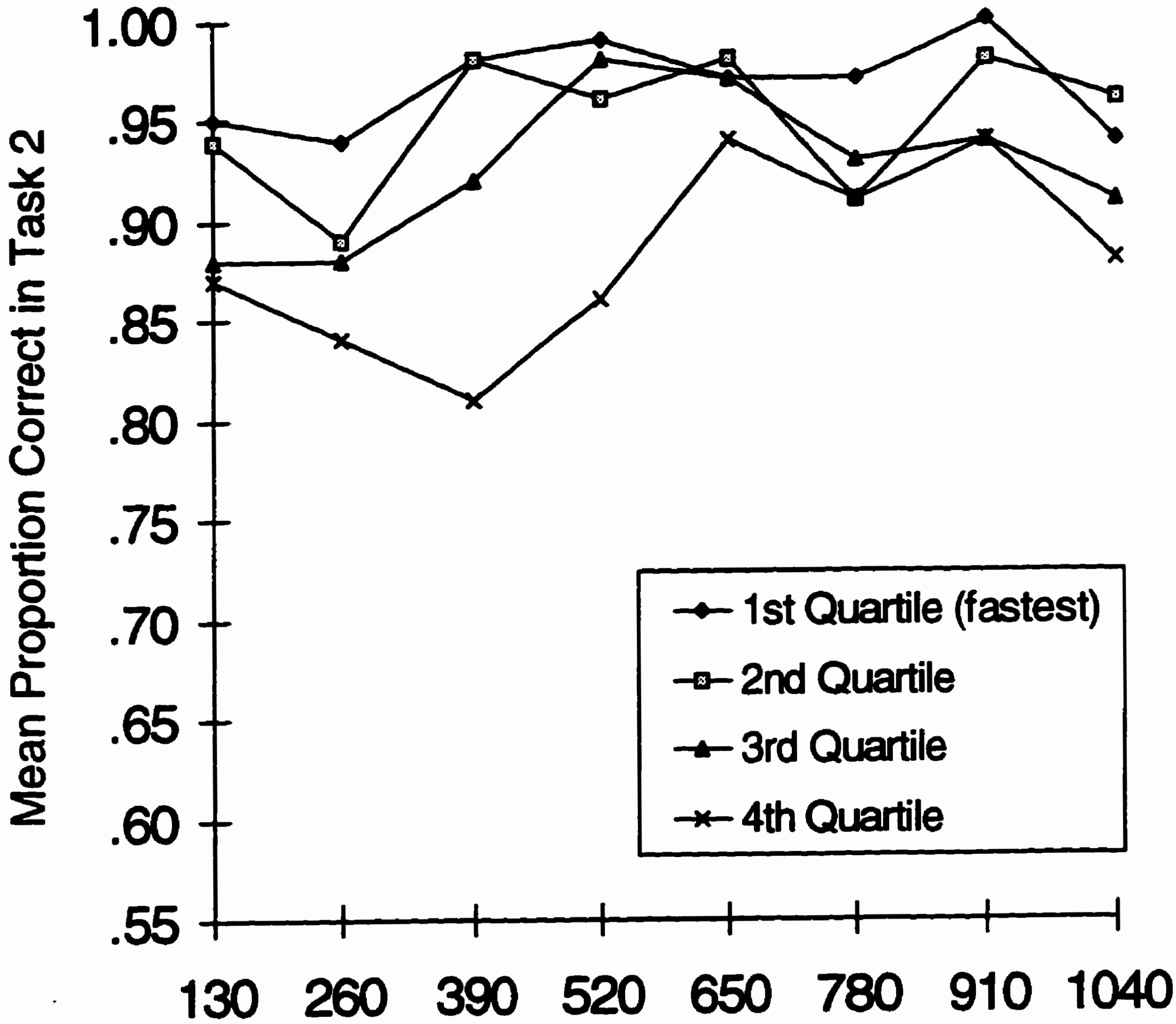
SOA (ms)


Mean Proportion Correct in Task 2
1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)


Mean Proportion Correct in Task 2
1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
130
260
390
520
650
780
910
1040
SOA (ms)
1st Quartile (fastest)
2nd Quartile
3rd Quartile
4th Quartile

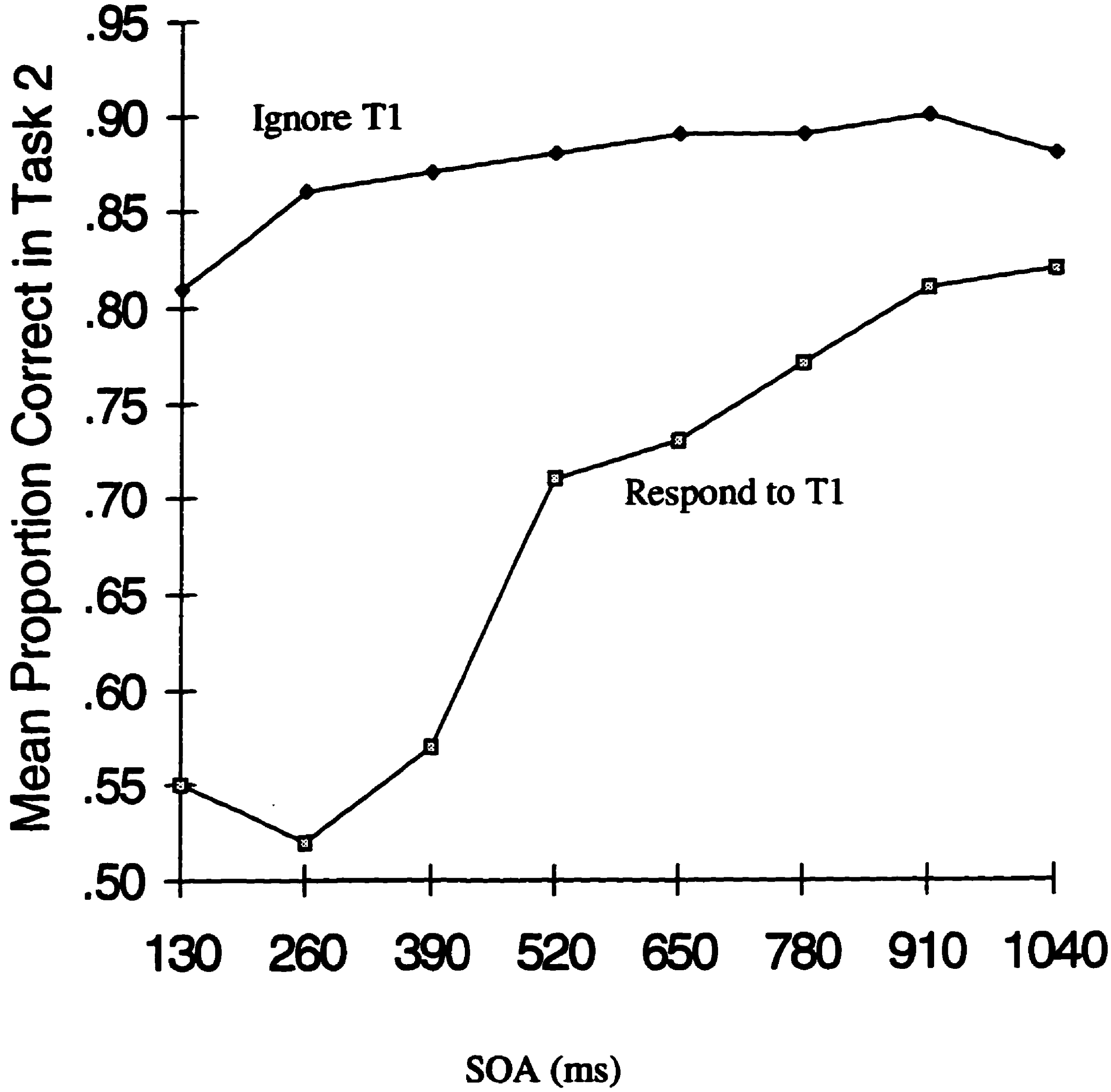

.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
Mean Proportion Correct in Task 2
1st Quartile (fastest)
2nd Quartile
3rd Quartile
4th Quartile
130
260
390
520
650
780
910
1040

SOA (ms)

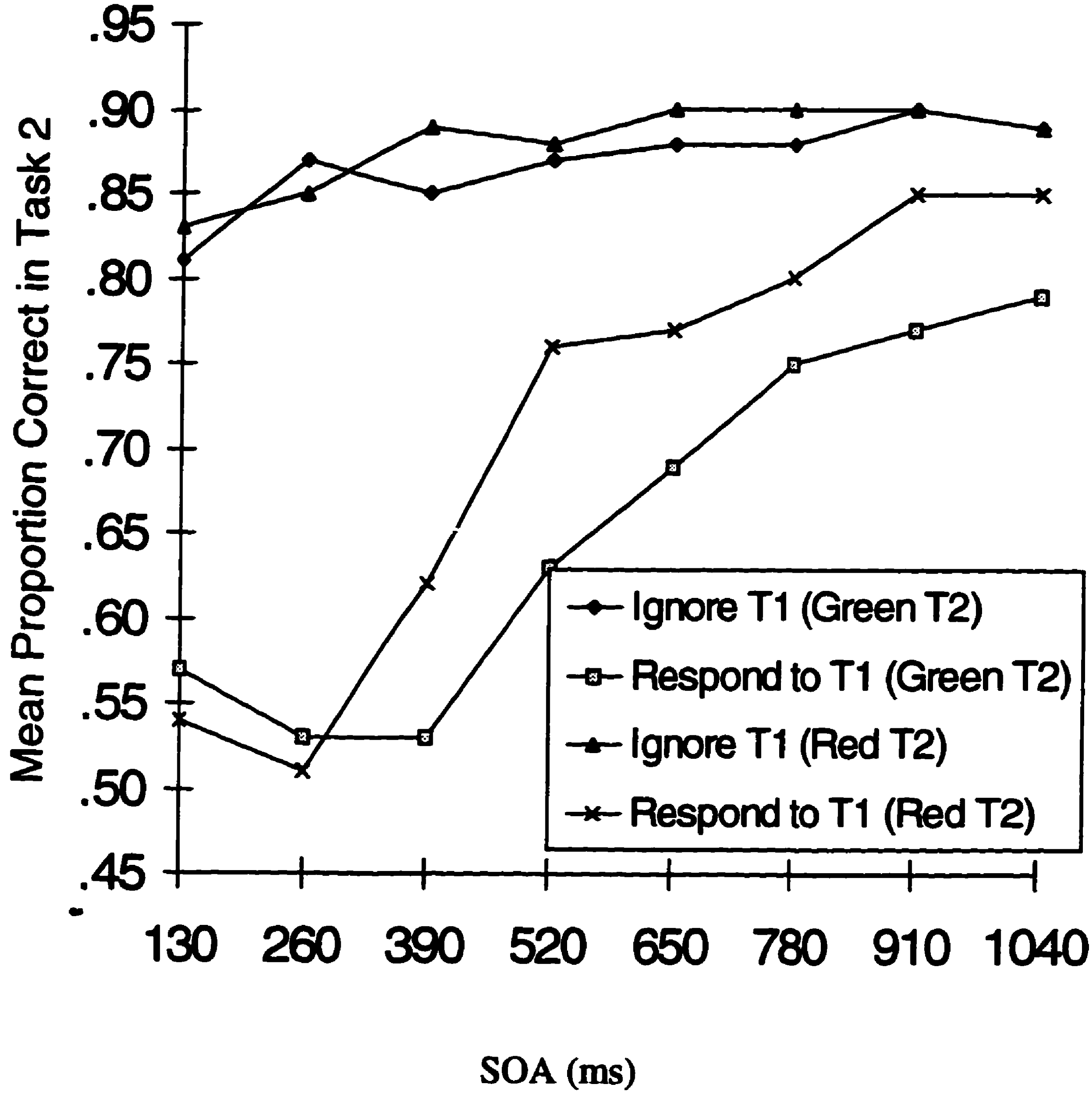


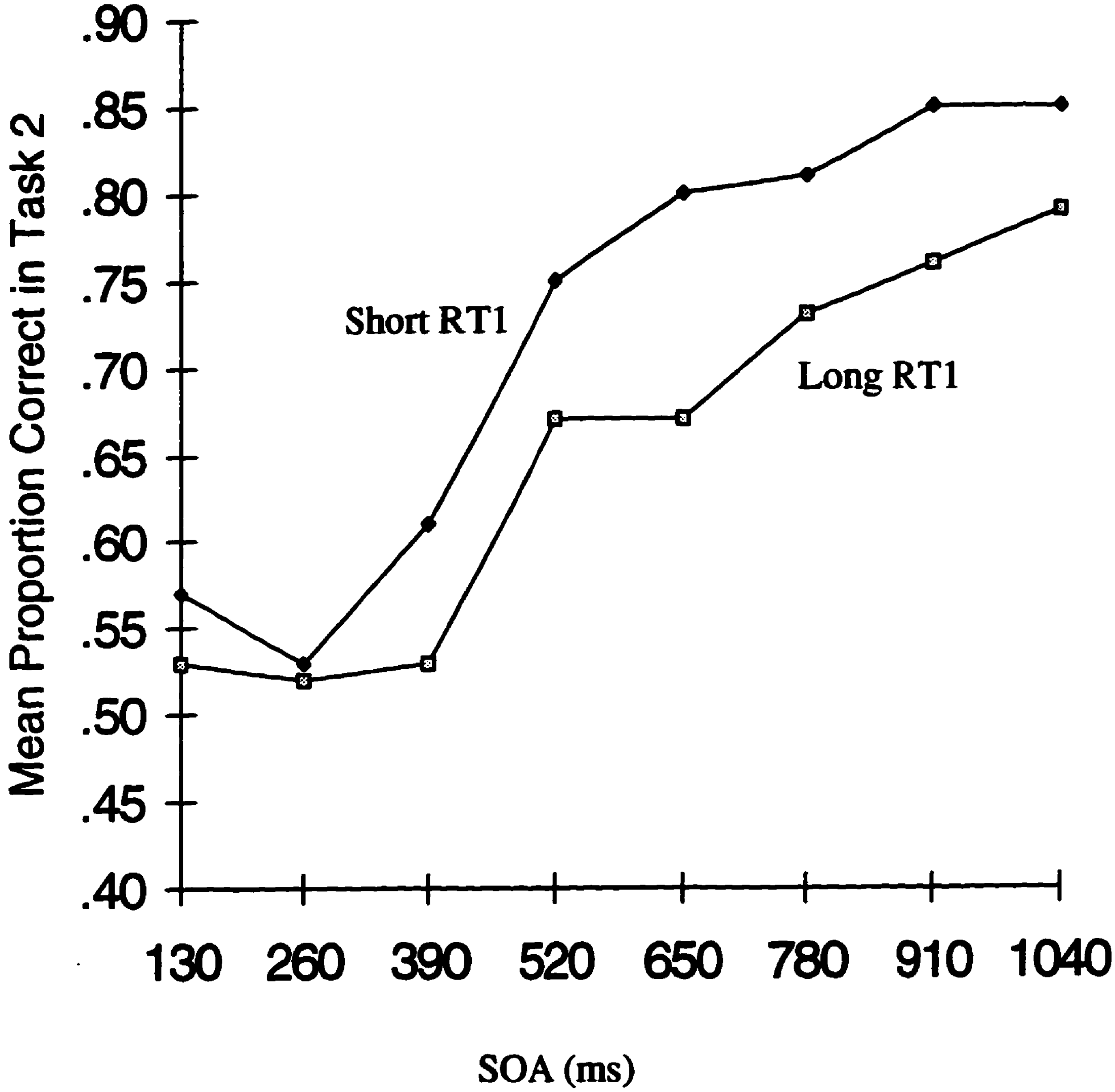
Mean Proportion Correct in Task 2
1.00
.95
.90
.85
.80
.75
.70
.65
.60
.55
130
260
390
520
650
780
910
1040
1st Quartile (fastest)
2nd Quartile
3rd Quartile
4th Quartile


SOA (ms)

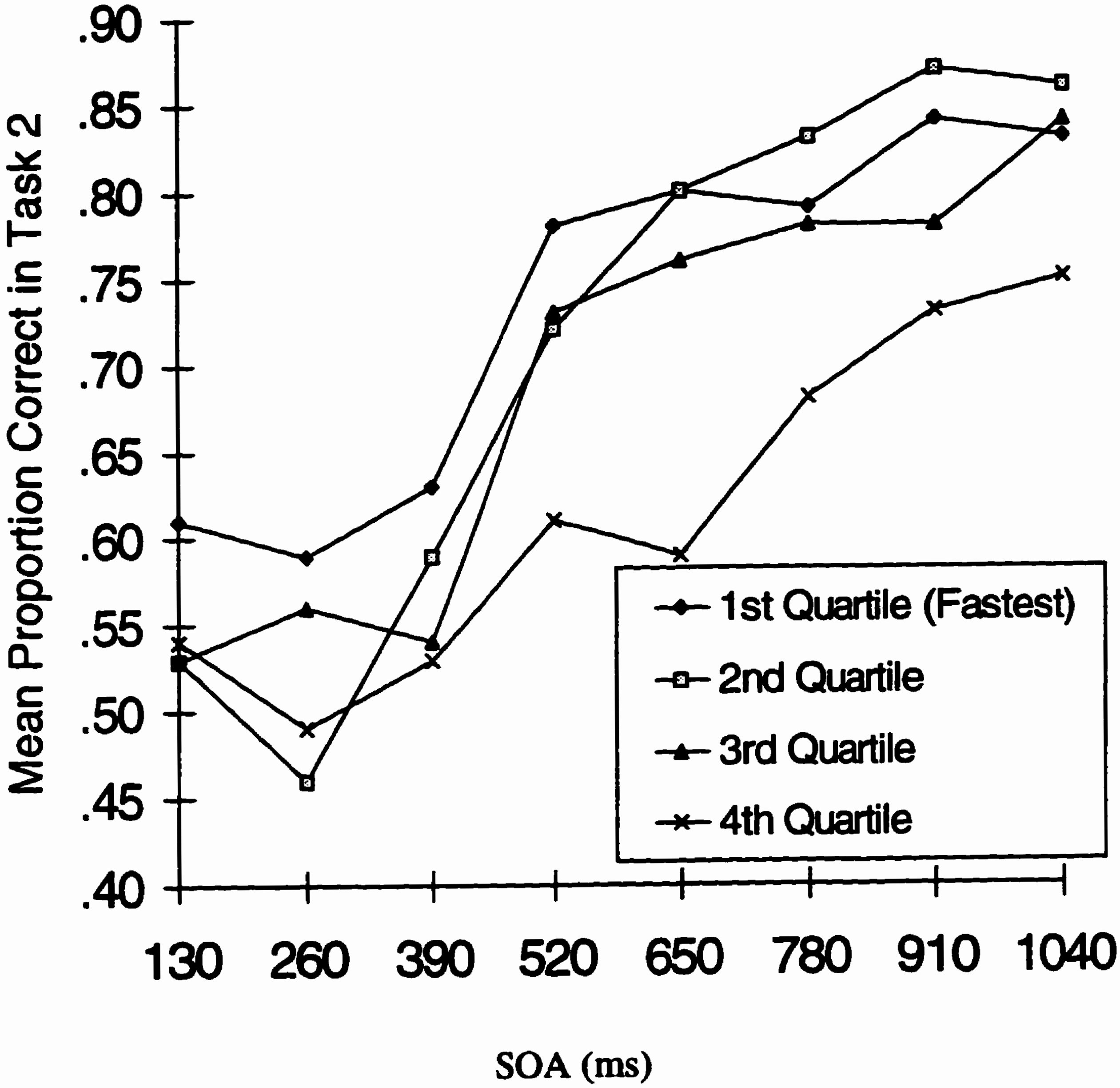


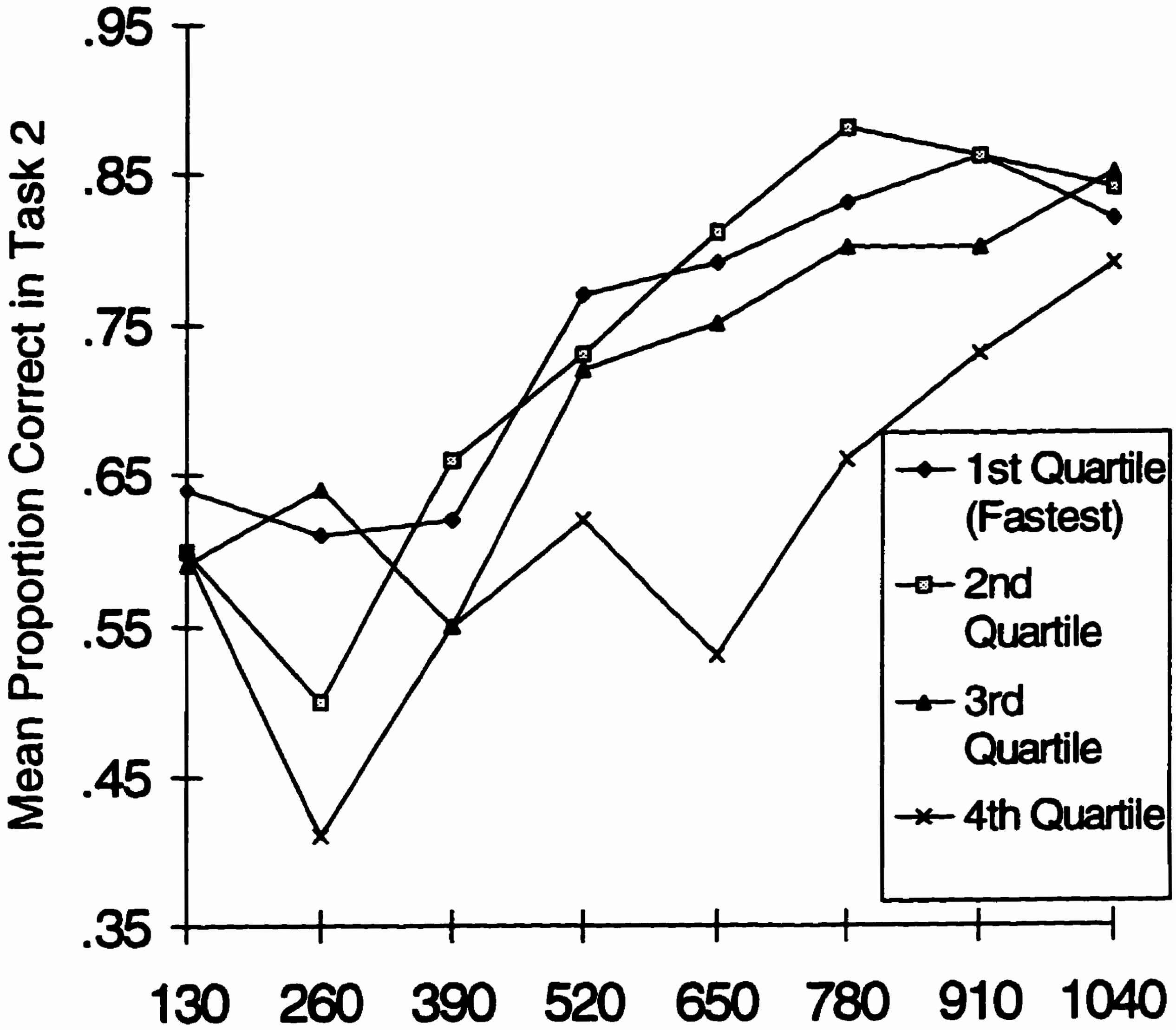
.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
Mean Proportion Correct in Task 2
Ignore T1
Respond to T1
130
260
390
520
650
780
910
1040
SOA (ms)


.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
Ignore T1 (Green T2)
Respond to T1 (Green T2)
Ignore T1 (Red T2)
Respond to T1 (Red T2)
SOA (ms)



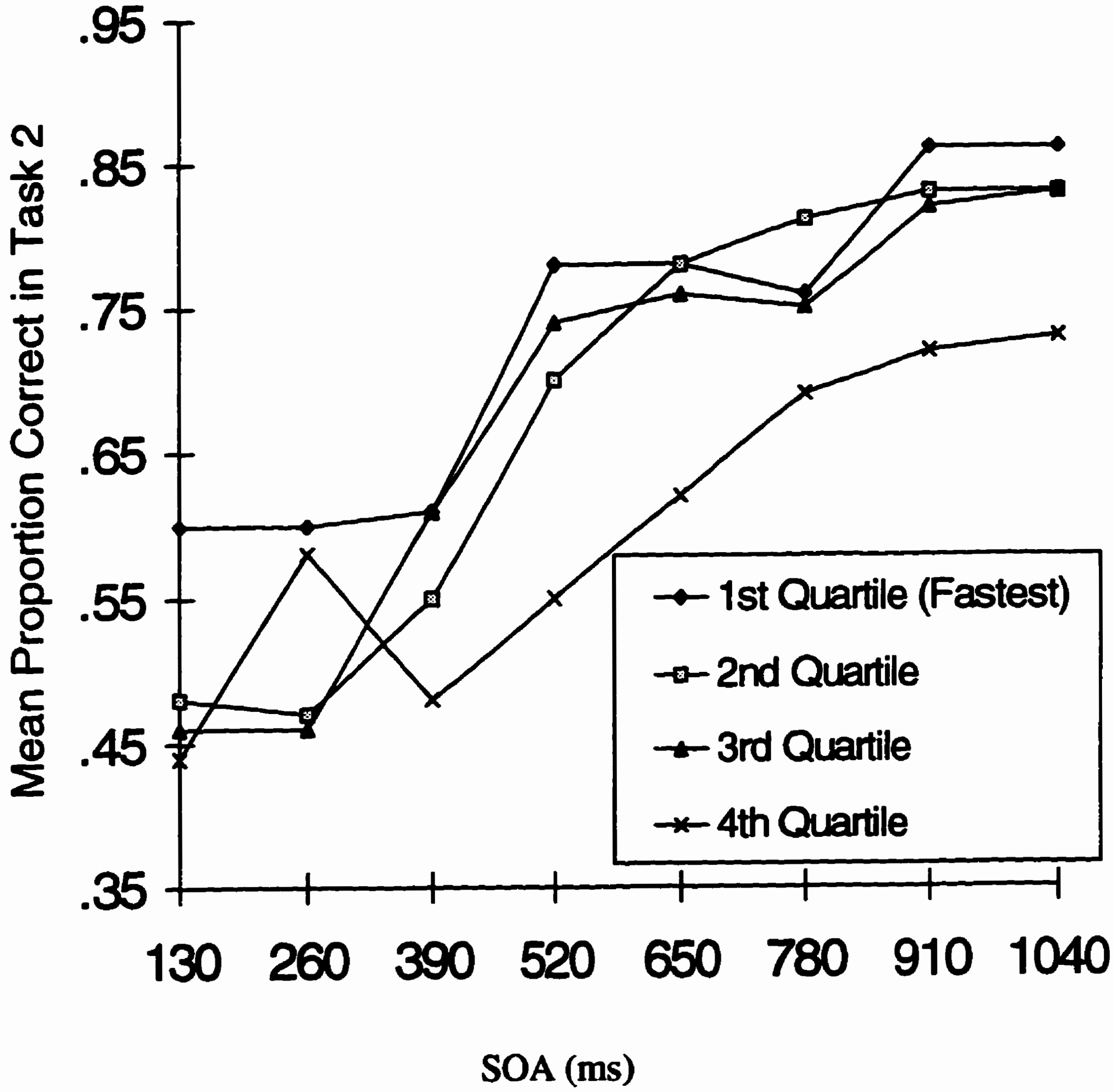
Mean Proportion Correct in Task 2
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)

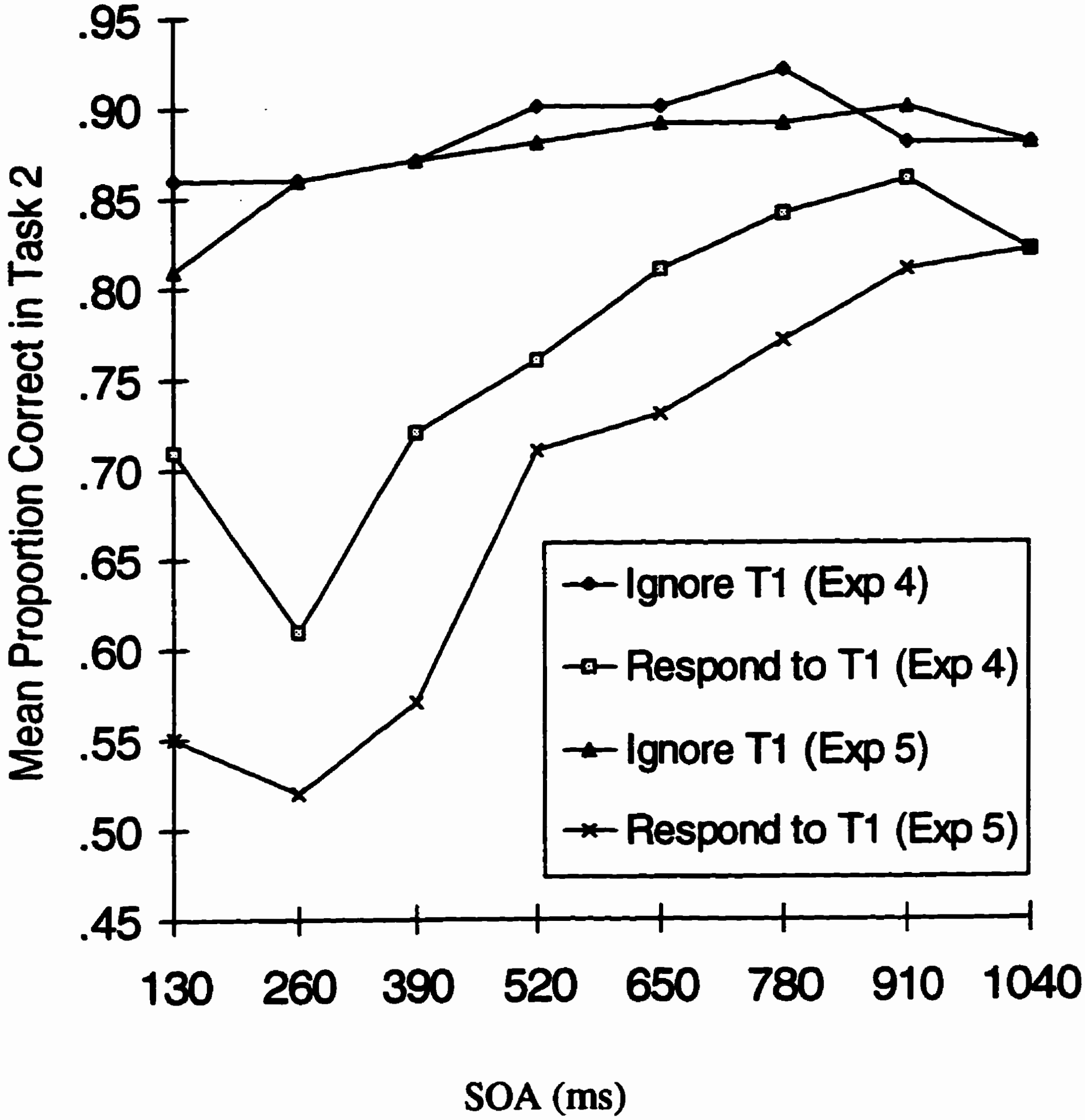

Mean Proportion Correct in Task 2
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
130
260
390
520
650
780
910
1040
1st Quartile (Fastest)
2nd Quartile
3rd Quartile
4th Quartile
SOA (ms)

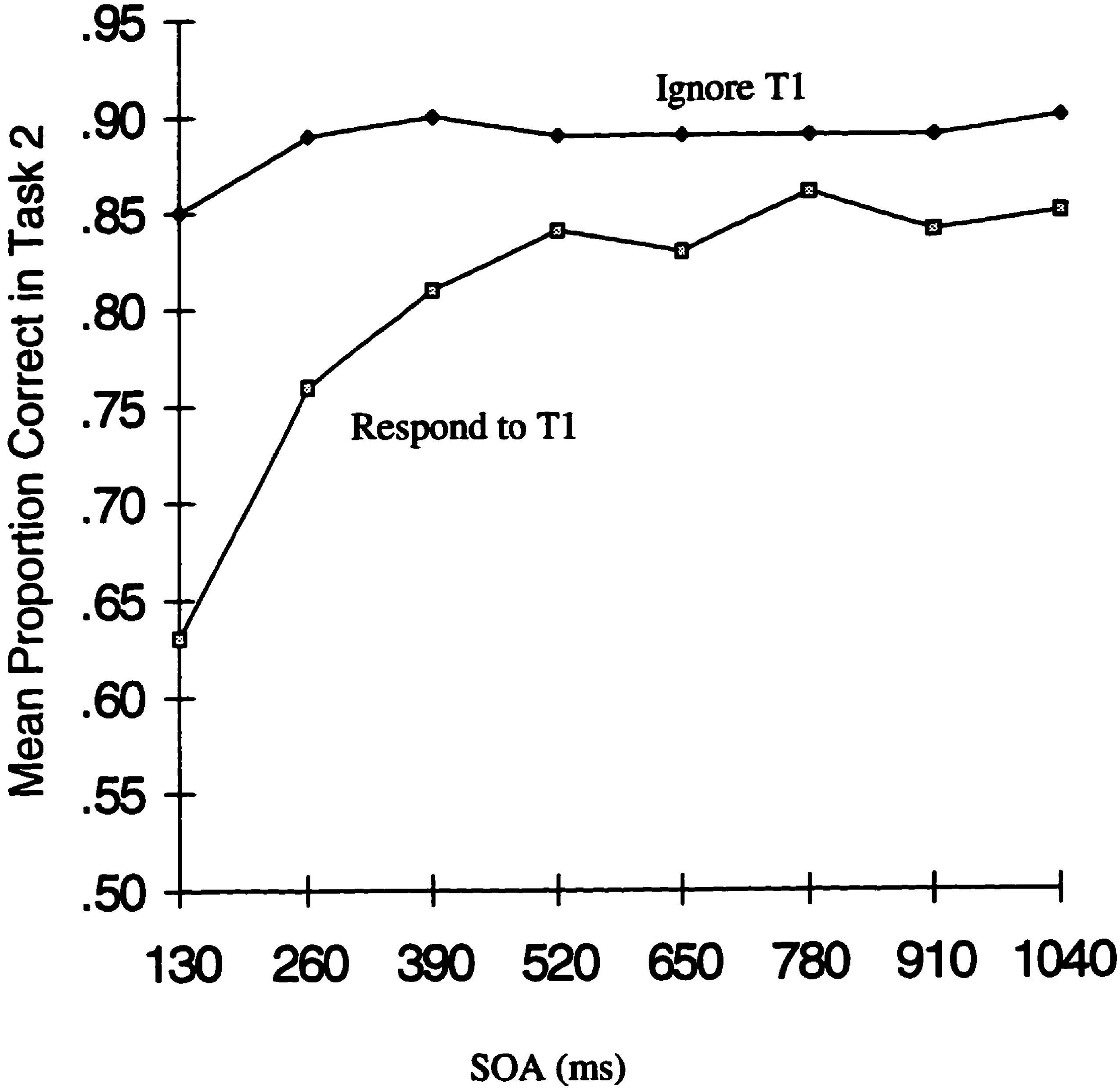


.95
.85
.75
.65
.55
.45
.35
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
1st Quartile (Fastest)
2nd Quartile
3rd Quartile
4th Quartile

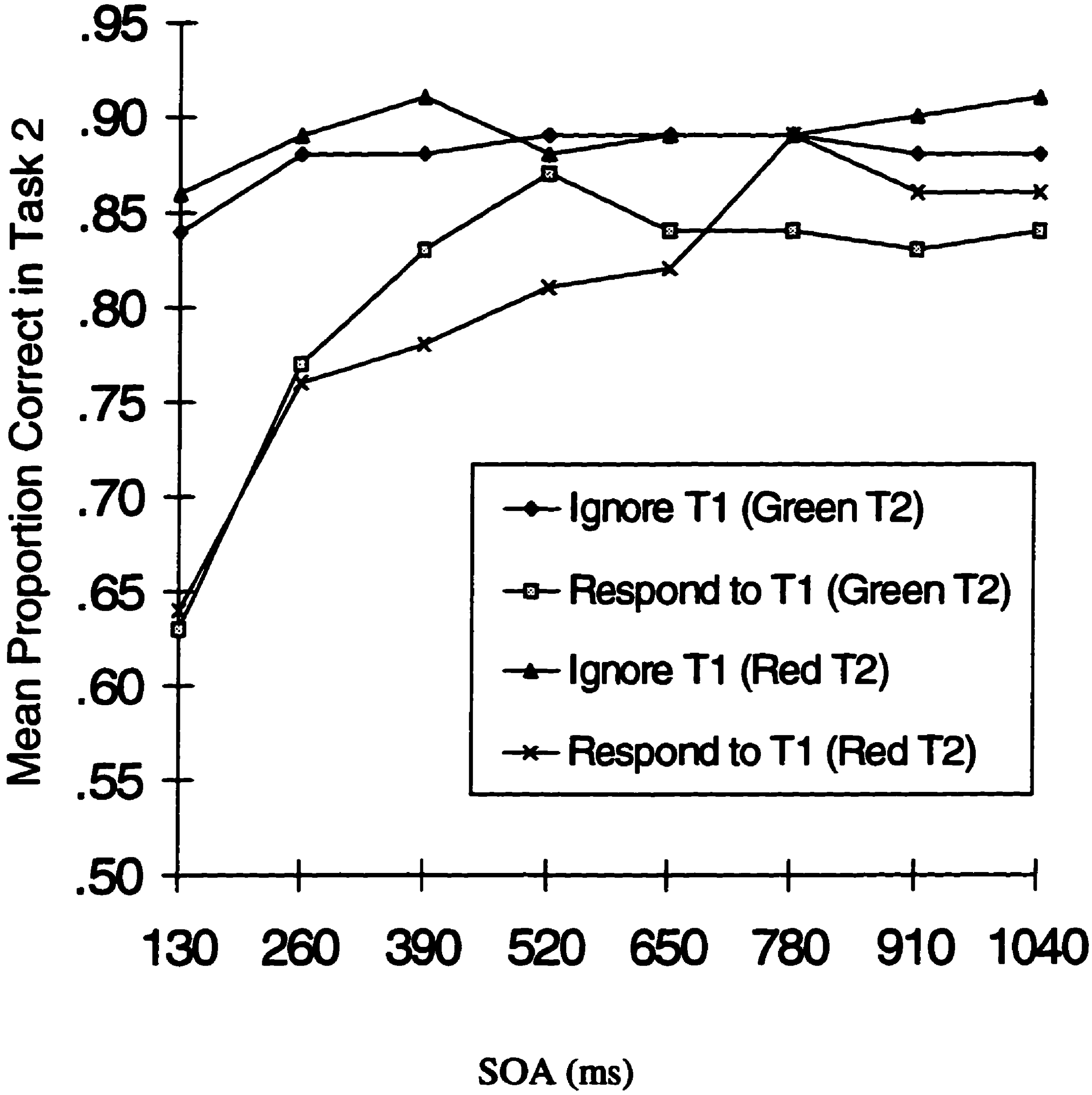

SOA (ms)


.95
.85
.75
.65
.55
.45
.35
Mean Proportion Correct in Task 2
1st Quartile (Fastest)
2nd Quartile
3rd Quartile
4th Quartile
130
260
390
520
650
780
910
1040
SOA (ms)

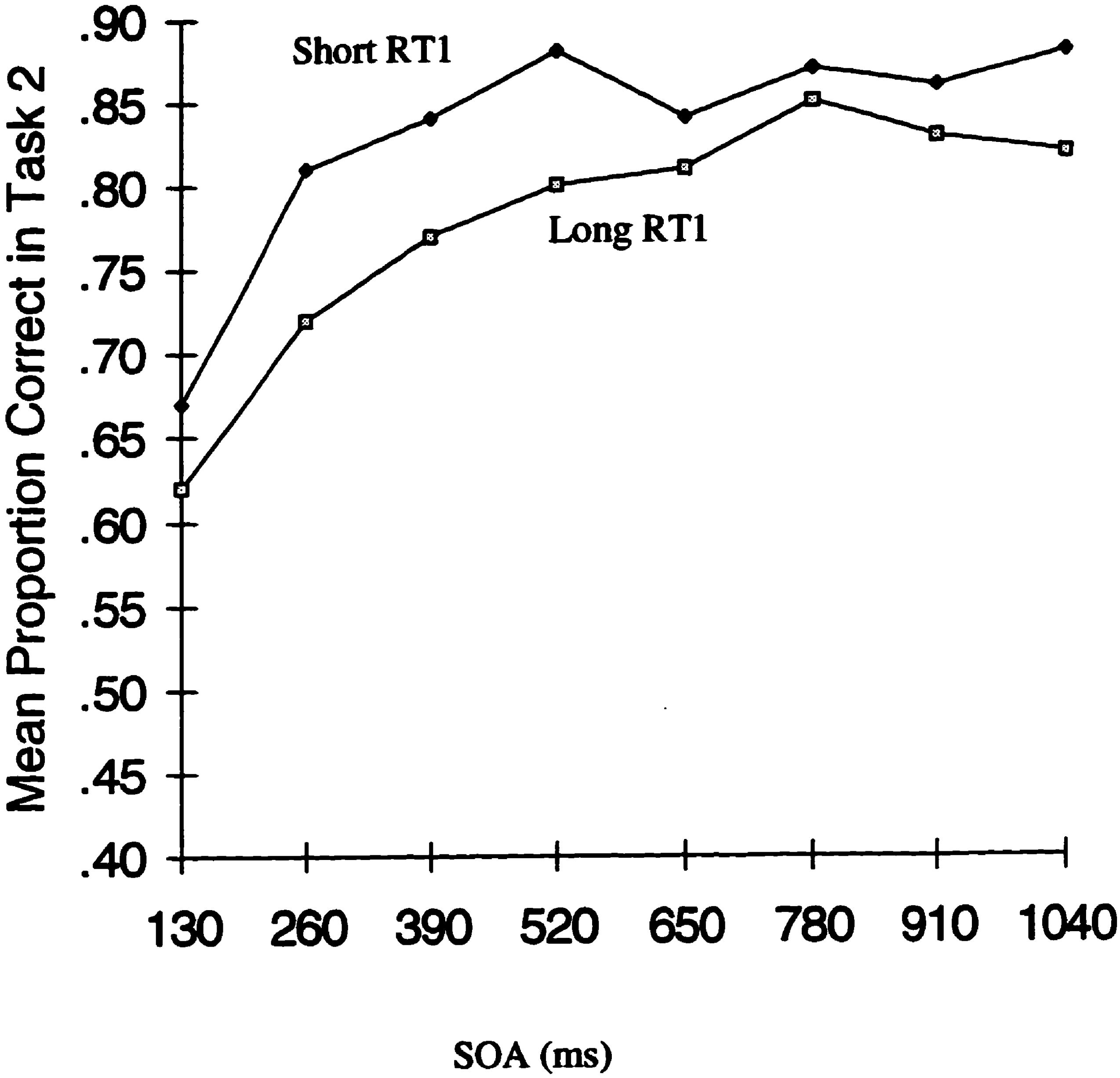

.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
Mean Proportion Correct in Task 2
Ignore T1 (Exp 4)
Respond to T1 (Exp 4)
Ignore T1 (Exp 5)
Respond to T1 (Exp 5)
130
260
390
520
650
780
910
1040
SOA (ms)

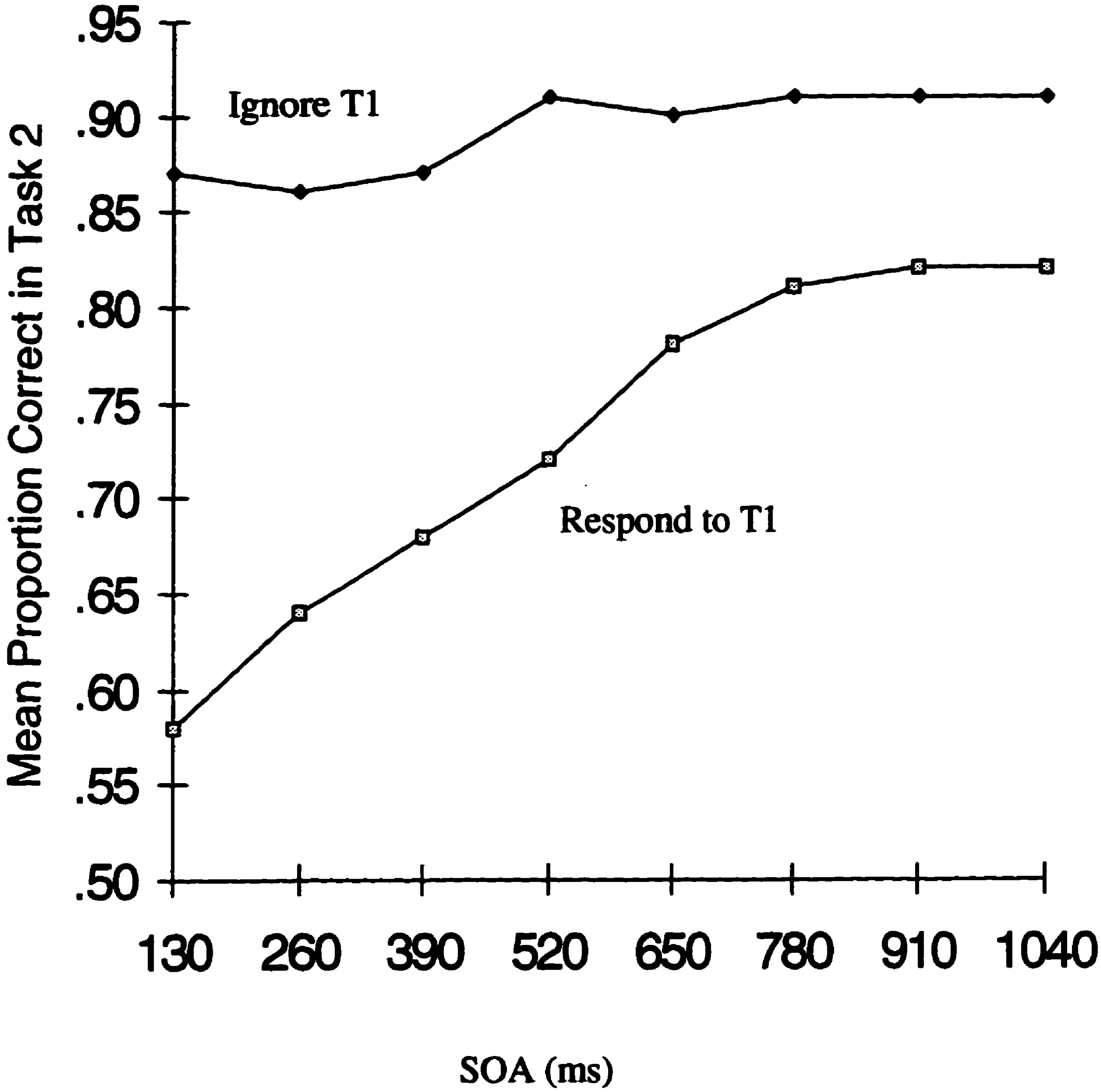


.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
Mean Proportion Correct in Task 2
Ignore T1
Respond to T1
130
260
390
520
650
780
910
1040
SOA (ms)

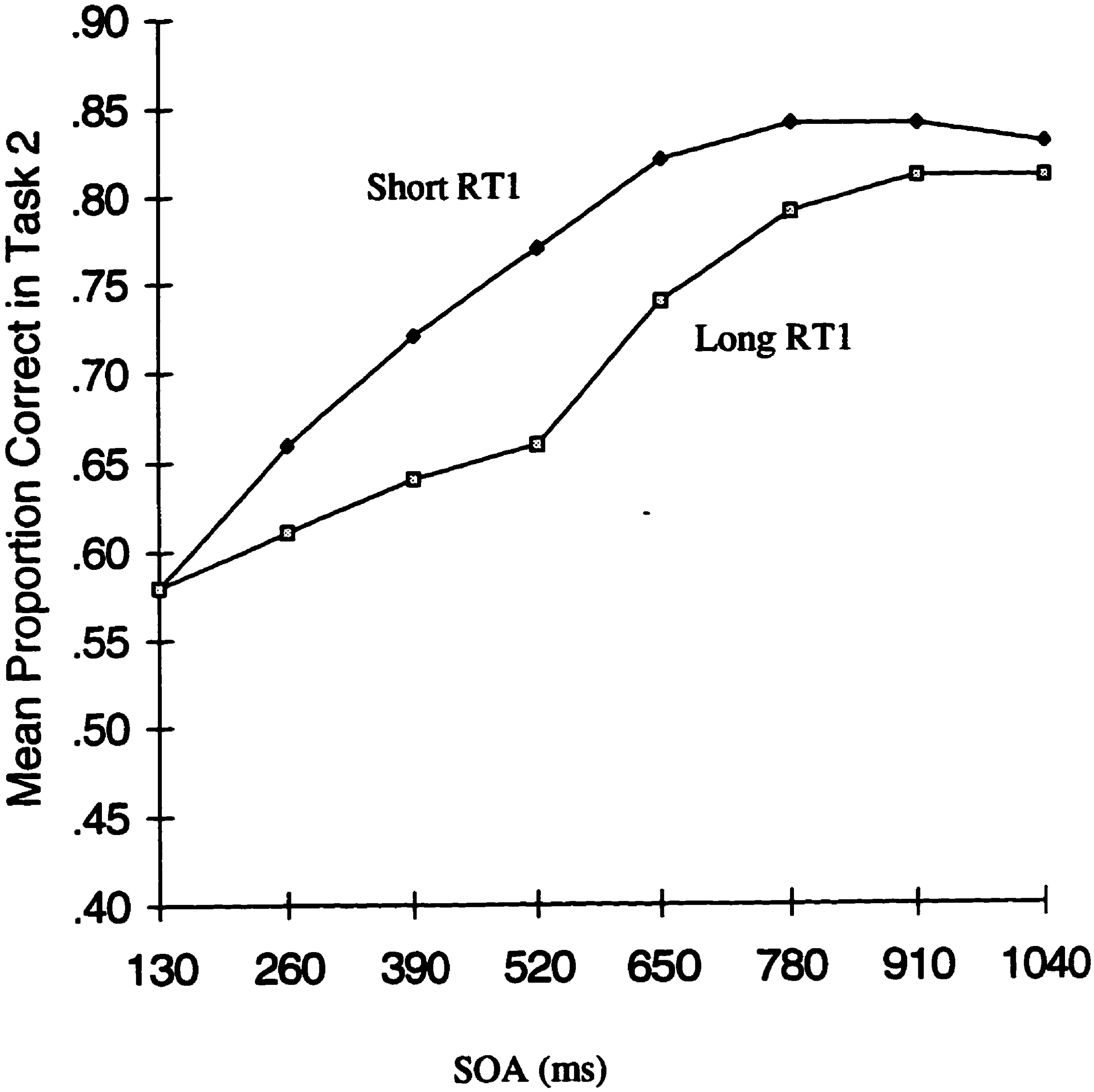


Mean Proportion Correct in Task 2
.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
130
260
390
520
650
780
910
1040
Ignore T1 (Green T2)
Respond to T1 (Green T2)
Ignore T1 (Red T2)
Respond to T1 (Red T2)
SOA (ms)

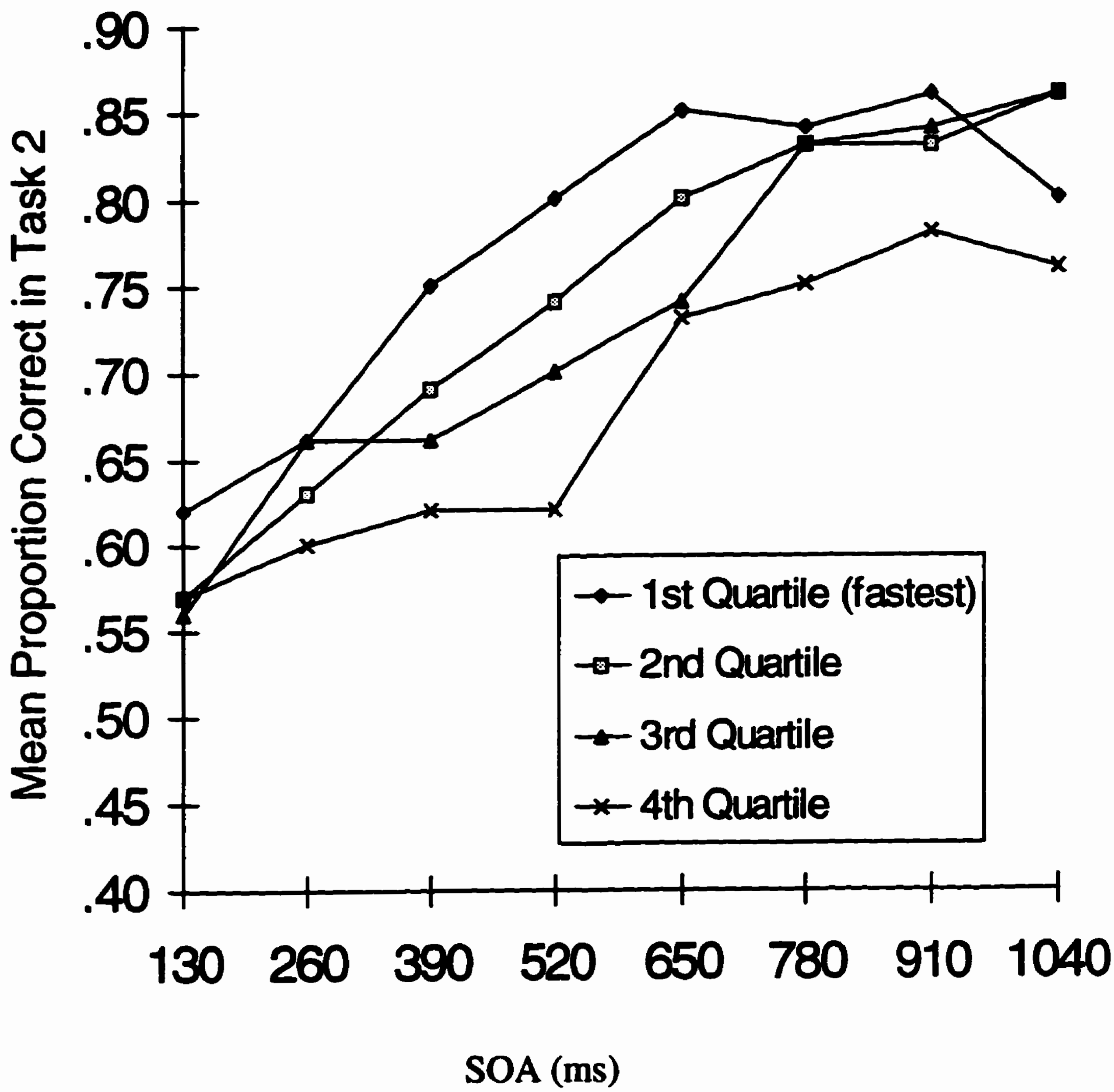

Mean Proportion Correct in Task 2
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)

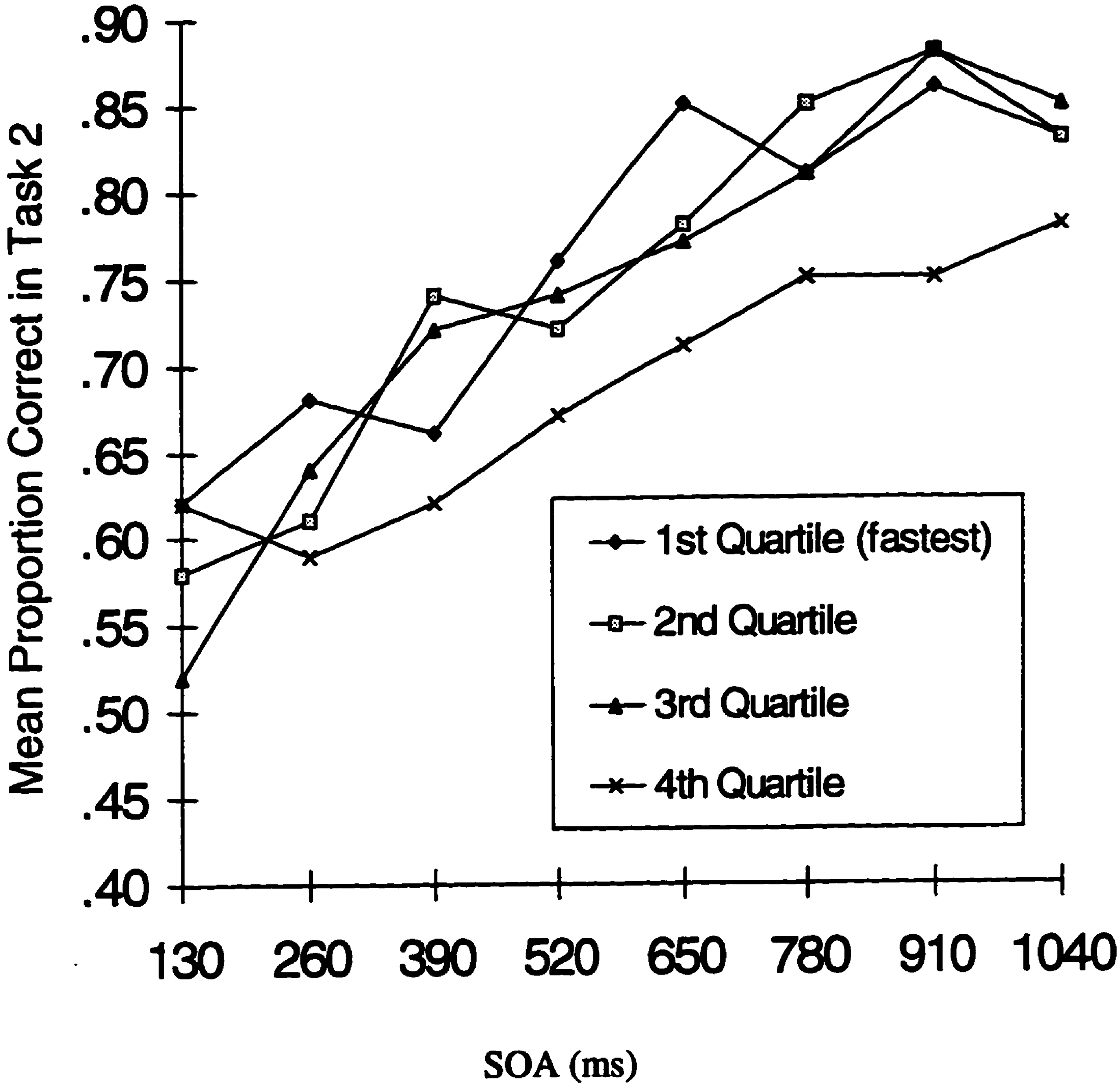


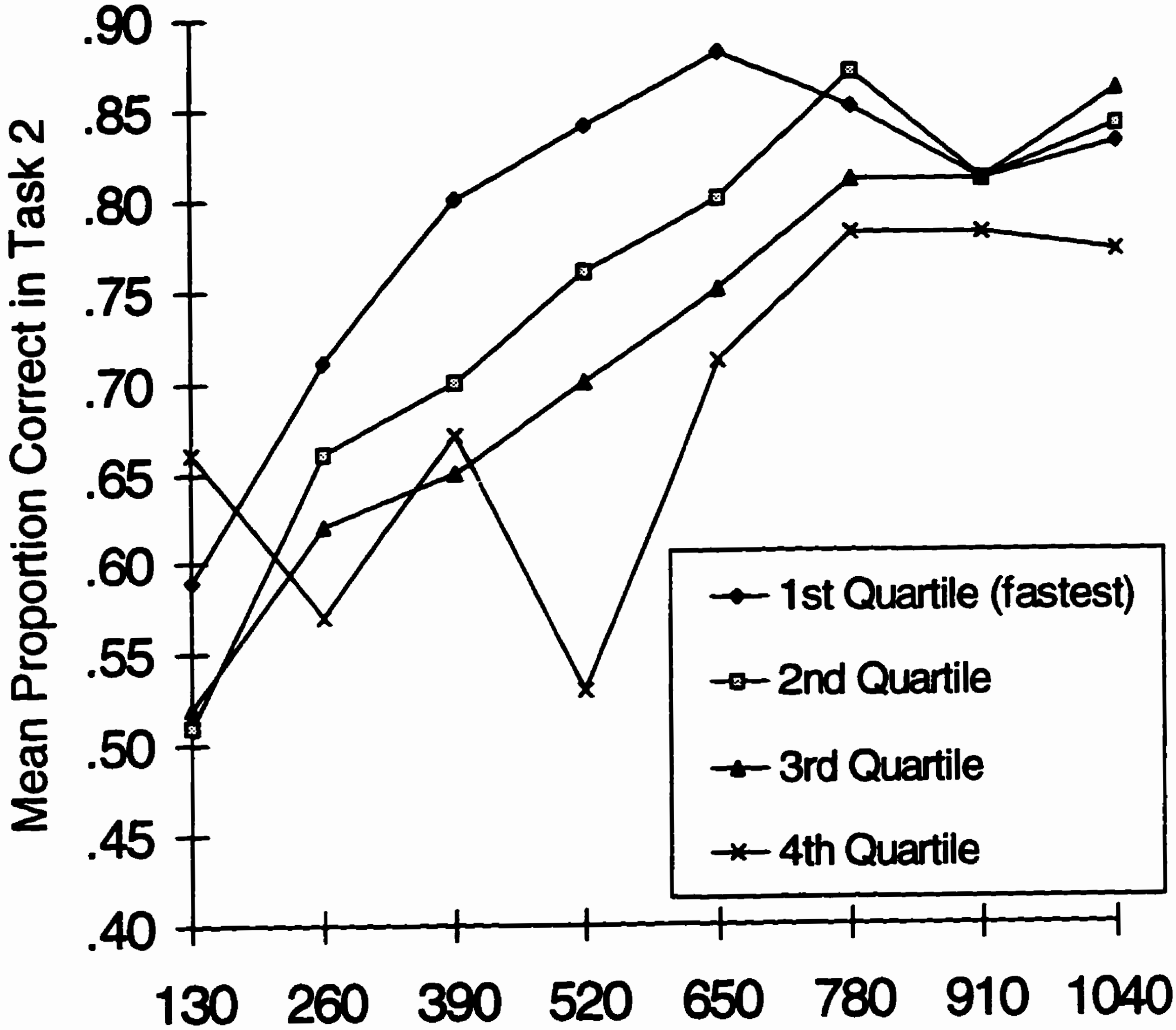
.95
.90
.85
.80
.75
.70
.65
.60
.55
.50
Mean Proportion Correct in Task 2
Ignore T1
Respond to T1
130
260
390
520
650
780
910
1040
SOA (ms)



.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
Mean Proportion Correct in Task 2
Short RT1
Long RT1
130
260
390
520
650
780
910
1040
SOA (ms)


.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
Mean Proportion Correct in Task 2
130
260
390
520
650
780
910
1040
SOA (ms)
1st Quartile (fastest)
2nd Quartile
3rd Quartile
4th Quartile


Mean Proportion Correct in Task 2
.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
1st Quartile (fastest)
2nd Quartile
3rd Quartile
4th Quartile
130
260
390
520
650
780
910
1040
SOA (ms)



.90
.85
.80
.75
.70
.65
.60
.55
.50
.45
.40
Mean Proportion Correct in Task 2
1st Quartile (fastest)
2nd Quartile
3rd Quartile
4th Quartile
130
260
390
520
650
780
910
1040


SOA (ms)

## Appendix A

In the following table are the approximate values of the CIE(x,y) and Y (in cd/$m^2$) coordinates for each colour used in each experiment, as measured by a CS-100 Minolta meter. It should be noted that these values are very approximate, because subjects were run on a number of different machines, and these values are based on the mean coordinates used on each of those terminals, but measured on only one machine.

| | *x* | *y* | *Y* |
|---|---|---|---|
| *Experiment 1* | | | |
| Set A | | | |
| Green | .258 | .329 | 42.3 |
| Red | .308 | .293 | 37.9 |
| Blue | .213 | .212 | 40.2 |
| Grey | .282 | .309 | 38.3 |
| Set B | | | |
| Green | .258 | .330 | 41.9 |
| Red | .287 | .272 | 36.9 |
| Blue | .215 | .213 | 40.3 |
| Grey | .282 | .309 | 38.3 |
| *Experiment 2* | | | |
| Green | .256 | .330 | 41.9 |
| Red | .291 | .273 | 37.9 |
| Blue | .212 | .212 | 40.1 |
| Grey | .282 | .309 | 38.3 |

| | | | |
|---|---|---|---|
| *Experiment 3* | | | |
| Green | .254 | .330 | 41.3 |
| Red | .300 | .275 | 38.9 |
| Yellow | .387 | .486 | 40.8 |
| Grey | .282 | .309 | 38.3 |
| *Experiment 4* | | | |
| Green | .257 | .330 | 41.6 |
| Red | .300 | .276 | 38.9 |
| Grey | .282 | .309 | 38.3 |
| *Experiment 5* | | | |
| Green | .232 | .303 | 32.0 |
| Red | .297 | .259 | 32.6 |
| Grey | .282 | .309 | 38.3 |
| *Experiment 6* | | | |
| Green | .245 | .370 | 20.0 |
| Red | .401 | .294 | 22.7 |
| Grey | .282 | .309 | 38.3 |
| *Experiment 7* | | | |
| Green | .245 | .370 | 20.0 |
| Red | .401 | .294 | 22.7 |
| Grey | .282 | .309 | 38.3 |

**Appendix B**

The slight modification of the blue coordinate for the red colour used in Experiment 1 apparently attenuated the AB. In a 2 (T2 colour) x 2 (Pre-change vs post-change coordinates) x 2 (target present/absent) x 8 ANOVA, the following effects involving new vs old coordinates were found:

Pre vs post-change coordinates interacted with SOA
($F(7,196) = 5.46$, $p < .0001$, $MS_e = .008$)

Pre vs post-change coordinates interacted with target presence/absense and SOA
($F(7,196) = 3.36$, $p < .01$, $MS_e = .010$)

Below is a chart of Task 2 accuracy to illustrate this three way interaction:

| | Prechange coordinates | Postchange coordinates |
|---|---|---|
| SOA(msec) | T1 present/absent | T1 present/absent |
| 130 | .90/.49 | .93/.73 |
| 260 | .93/.53 | .93/.70 |
| 390 | .90/.65 | .93/.81 |
| 520 | .92/.82 | .94/.85 |
| 650 | .92/.90 | .92/.91 |
| 780 | .93/.93 | .92/.94 |
| 910 | .90/.94 | .89/.96 |
| 1040 | .88/.95 | .92/.95 |

## Appendix C

The following chart describes the results of a slight modification of the outlier procedure described by Van Selst and Jolicoeur (1994), which is briefly described here. The most extreme observation is found, and temporarily removed. The mean and standard deviation of the remaining data is computed. A multiplier factor is selected, depending on sample size. This multiplier is 3.5 for large samples (i.e., N > 100), and becomes larger for smaller Ns (see Van Selst and Jolicoeur (1994). The smallest and largest values are then checked against the mean plus or minus M*(standard deviation), where M is the multiplier factor. If either or both values are outliers, then it/they are eliminated. If anything is eliminated, then the entire sequence starts over. When nothing more is eliminated, the temporarily removed value is added back into the set and the cell mean is computed.

It should be noted that removing outliers is actually likely to attenuate any Task 2 dependency on RT1 because some of the RTs that will be excluded will have been associated with poor performance on Task 2.

| **Analysis:** | **Number of trials rejected** | **% of trials rejected** |
|---|---|---|
| *Experiment 1* | | |
| Task 2 accuracy | 230/9886 trials | 2.327% |
| Task 1 accuracy | 181/5120 trials | 3.535% |
| RT analyses | 121/4827 trials | 2.507% |
| *Experiment 2* | | |
| Task 2 accuracy | 140/8585 trials | 1.631% |
| Task 1 accuracy | 168/4535 trials | 3.705% |
| RT analyses | 137/4161 trials | 3.292% |

| | | |
|---|---|---|
| *Experiment 3* | | |
| Task 2 accuracy | 99/6881 trials | 1.439% |
| Task 1 accuracy | 113/3360 trials | 3.363% |
| RT analyses | 99/3201 trials | 3.093% |
| *Experiment 4* | | |
| Task 2 accuracy | 303/13899 trials | 2.180% |
| Task 1 accuracy | 393/7456 trials | 5.271% |
| RT analyses | 303/6635 trials | 4.567% |
| *Experiment 5* | | |
| Task 2 accuracy | 349/15492 trials | 2.253% |
| Task 1 accuracy | 492/18560 trials | 2.651% |
| RT analyses | 315/6916 trials | 4.555% |
| *Experiment 6* | | |
| Task 2 accuracy | 335/17687 trials | 1.894% |
| Task 1 accuracy | 428/19456 trials | 2.200% |
| RT analyses | 335/8407 trials | 3.985% |
| *Experiment 7* | | |
| Task 2 accuracy | 269/17903 trials | 1.503% |
| Task 1 accuracy | 419/19968 trials | 2.098% |
| RT analyses | 250/8047 trials | 3.107% |

Appendix D. Mean T2 accuracy conditionalized on correct T1 report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 1, as a function of T1 absence/presence and SOA.

**Experiment 1 -- Green T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | False Alarm | T1 Accuracy |
| 1 | T1 absent | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.08 | 1.00 |
| | T1 present | 0.11 | 0.47 | 0.55 | 0.80 | 0.95 | 0.89 | 0.94 | 0.94 | 0.05 | 0.97 |
| 2 | T1 absent | 0.80 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 0.85 | 0.90 | 0.12 | 1.00 |
| | T1 present | 0.06 | 0.11 | 0.42 | 0.58 | 1.00 | 1.00 | 0.95 | 1.00 | 0.04 | 0.94 |
| 3 | T1 absent | 0.70 | 0.85 | 0.84 | 0.89 | 0.90 | 0.85 | 0.74 | 0.70 | 0.06 | 1.00 |
| | T1 present | 0.13 | 0.07 | 0.11 | 0.25 | 0.50 | 0.81 | 0.56 | 1.00 | 0.06 | 0.92 |
| 4 | T1 absent | 0.90 | 0.85 | 0.90 | 0.90 | 0.75 | 0.85 | 0.95 | 0.89 | 0.15 | 1.00 |
| | T1 present | 0.25 | 0.26 | 0.26 | 0.44 | 0.65 | 0.74 | 0.94 | 0.84 | 0.28 | 0.96 |
| 5 | T1 absent | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 0.13 | 1.00 |
| | T1 present | 0.21 | 0.37 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.19 | 0.99 |
| 6 | T1 absent | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.13 | 0.99 |
| | T1 present | 0.26 | 0.11 | 0.30 | 0.63 | 0.95 | 1.00 | 1.00 | 0.94 | 0.18 | 0.96 |
| 7 | T1 absent | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.08 | 1.00 |
| | T1 present | 0.05 | 0.20 | 0.35 | 0.79 | 1.00 | 1.00 | 1.00 | 1.00 | 0.07 | 0.99 |
| 8 | T1 absent | 0.63 | 0.63 | 0.56 | 0.59 | 0.63 | 0.78 | 0.58 | 0.50 | 0.10 | 0.97 |
| | T1 present | 0.42 | 0.50 | 0.59 | 0.89 | 0.83 | 0.70 | 0.78 | 0.78 | 0.12 | 0.97 |
| 9 | T1 absent | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 0.90 | 1.00 | 1.00 | 0.02 | 1.00 |
| | T1 present | 0.59 | 0.89 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.11 | 0.96 |
| 10 | T1 absent | 0.95 | 0.88 | 0.95 | 0.90 | 0.89 | 0.90 | 0.94 | 0.94 | 0.06 | 0.98 |
| | T1 present | 0.63 | 0.67 | 0.89 | 0.85 | 0.95 | 1.00 | 1.00 | 0.94 | 0.14 | 0.92 |
| 11 | T1 absent | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.85 | 1.00 | 0.32 | 0.99 |
| | T1 present | 0.42 | 0.40 | 0.71 | 0.80 | 0.94 | 1.00 | 1.00 | 0.94 | 0.38 | 0.94 |

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Appendix D. Mean T2 accuracy conditionalized on correct T1 report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 1, as a function of T1 absence/presence and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 12 | T1 absent | 0.79 | 0.78 | 0.80 | 0.85 | 0.89 | 0.89 | 0.82 | 0.84 | 0.12 | 0.95 |
| | T1 present | 0.74 | 0.75 | 0.63 | 0.84 | 0.94 | 0.89 | 1.00 | 0.95 | 0.19 | 0.98 |
| 13 | T1 absent | 1.00 | 0.85 | 0.95 | 0.85 | 0.65 | 0.84 | 0.74 | 0.85 | 0.18 | 0.99 |
| | T1 present | 0.05 | 0.06 | 0.25 | 0.25 | 0.35 | 0.61 | 0.94 | 0.63 | 0.15 | 0.94 |
| 14 | T1 absent | 1.00 | 0.90 | 0.95 | 0.95 | 0.89 | 1.00 | 0.95 | 0.94 | 0.05 | 0.99 |
| | T1 present | 0.88 | 0.94 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.94 | 0.24 | 0.95 |
| 15 | T1 absent | 0.89 | 0.95 | 0.95 | 1.00 | 1.00 | 0.90 | 0.95 | 0.95 | 0.08 | 1.00 |
| | T1 present | 0.55 | 0.22 | 0.37 | 0.65 | 0.76 | 0.90 | 0.95 | 0.94 | 0.16 | 0.96 |
| 16 | T1 absent | 0.84 | 0.84 | 0.89 | 0.95 | 0.90 | 0.90 | 0.85 | 0.85 | 0.14 | 0.99 |
| | T1 present | 0.50 | 0.42 | 0.50 | 0.56 | 0.82 | 0.89 | 0.83 | 1.00 | 0.22 | 0.89 |

**Experiment 1 - Red T2**

| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | T1 absent | 0.87 | 0.84 | 0.80 | 0.80 | 0.79 | 0.80 | 0.75 | 0.68 | 0.02 | 1.00 |
| | T1 present | 0.11 | 0.30 | 0.74 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 | 0.12 | 0.97 |
| 18 | T1 absent | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.04 | 0.98 |
| | T1 present | 0.88 | 0.84 | 0.90 | 0.94 | 0.82 | 1.00 | 0.94 | 0.84 | 0.09 | 0.95 |
| 19 | T1 absent | 0.85 | 0.95 | 0.74 | 0.95 | 0.95 | 0.84 | 0.83 | 0.70 | 0.11 | 1.00 |
| | T1 present | 0.95 | 0.68 | 0.68 | 0.95 | 0.89 | 0.94 | 1.00 | 1.00 | 0.16 | 0.98 |
| 20 | T1 absent | 0.95 | 0.94 | 0.95 | 0.84 | 0.90 | 0.94 | 0.90 | 0.95 | 0.02 | 1.00 |
| | T1 present | 1.00 | 0.88 | 0.89 | 0.95 | 0.94 | 0.95 | 1.00 | 1.00 | 0.04 | 0.97 |
| 21 | T1 absent | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | 1.00 |
| | T1 present | 0.88 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 | 0.94 |
| 22 | T1 absent | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.16 | 1.00 |
| | T1 present | 0.82 | 0.94 | 0.95 | 0.94 | 0.82 | 1.00 | 1.00 | 1.00 | 0.14 | 0.91 |

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Appendix D. Mean T2 accuracy conditionalized on correct T1 report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 1, as a function of T1 absence/presence and SOA.

| | | Conditionalized Probe Accuracy | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | | False | T1 |
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 23 | T1 absent | 1.00 | 0.90 | 1.00 | 0.90 | 1.00 | 0.95 | 1.00 | 1.00 | 0.04 | 1.00 |
| | T1 present | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.14 | 0.99 |
| 24 | T1 absent | 0.89 | 0.95 | 0.88 | 0.84 | 0.95 | 0.89 | 0.95 | 0.83 | 0.03 | 0.94 |
| | T1 present | 0.79 | 0.73 | 0.94 | 0.94 | 1.00 | 0.88 | 0.94 | 1.00 | 0.04 | 0.91 |
| 25 | T1 absent | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.90 | 0.04 | 1.00 |
| | T1 present | 0.68 | 0.39 | 1.00 | 0.94 | 0.95 | 1.00 | 1.00 | 1.00 | 0.10 | 0.95 |
| 26 | T1 absent | 0.95 | 1.00 | 0.89 | 0.90 | 0.85 | 0.89 | 0.80 | 0.75 | 0.14 | 1.00 |
| | T1 present | 0.83 | 1.00 | 0.94 | 0.94 | 1.00 | 1.00 | 0.82 | 0.94 | 0.31 | 0.97 |
| 27 | T1 absent | 0.90 | 1.00 | 0.95 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 0.01 | 0.98 |
| | T1 present | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.97 |
| 28 | T1 absent | 0.88 | 0.89 | 0.87 | 0.90 | 0.90 | 0.95 | 0.85 | 1.00 | 0.04 | 0.99 |
| | T1 present | 0.94 | 1.00 | 0.83 | 0.94 | 0.83 | 0.95 | 0.82 | 0.94 | 0.05 | 0.92 |
| 29 | T1 absent | 0.90 | 0.95 | 0.95 | 0.89 | 0.89 | 0.84 | 0.79 | 0.85 | 0.04 | 1.00 |
| | T1 present | 0.94 | 0.94 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.05 | 0.99 |
| 30 | T1 absent | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | 0.99 |
| | T1 present | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.03 | 0.99 |
| 31 | T1 absent | 0.95 | 0.95 | 0.94 | 0.95 | 0.95 | 1.00 | 0.94 | 0.95 | 0.03 | 1.00 |
| | T1 present | 0.94 | 0.65 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.04 | 0.93 |
| 32 | T1 absent | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 0.90 | 0.75 | 0.95 | 0.01 | 0.99 |
| | T1 present | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.95 | 1.00 | 0.03 | 0.96 |

Appendix E. Mean T2 accuracy conditionalized on correct T1 report, for each subject, and each T2 colour in Experiment 1, as a function of short/long RT1 and SOA.

**Experiment 1 - Green T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 1 | Short | 0.11 | 0.60 | 0.70 | 1.00 | 0.90 | 0.89 | 0.89 | 0.89 |
| | Long | 0.11 | 0.40 | 0.40 | 0.60 | 1.00 | 0.89 | 1.00 | 1.00 |
| 2 | Short | 0.13 | 0.00 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.00 | 0.20 | 0.30 | 0.40 | 1.00 | 1.00 | 0.90 | 1.00 |
| 3 | Short | 0.13 | 0.13 | 0.22 | 0.40 | 0.75 | 1.00 | 0.75 | 1.00 |
| | Long | 0.13 | 0.00 | 0.00 | 0.10 | 0.25 | 0.63 | 0.38 | 1.00 |
| 4 | Short | 0.30 | 0.30 | 0.40 | 0.56 | 0.78 | 0.70 | 1.00 | 0.80 |
| | Long | 0.20 | 0.20 | 0.10 | 0.33 | 0.56 | 0.80 | 0.89 | 0.91 |
| 5 | Short | 0.20 | 0.36 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.20 | 0.40 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 6 | Short | 0.20 | 0.00 | 0.45 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.30 | 0.20 | 0.09 | 0.40 | 0.90 | 1.00 | 1.00 | 0.89 |
| 7 | Short | 0.10 | 0.10 | 0.30 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.00 | 0.30 | 0.40 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 |
| 8 | Short | 0.60 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 0.78 | 0.78 |
| | Long | 0.20 | 0.33 | 0.56 | 0.80 | 0.67 | 0.40 | 0.78 | 0.78 |
| 9 | Short | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 |
| | Long | 0.56 | 0.80 | 0.78 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 10 | Short | 0.80 | 0.75 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.40 | 0.63 | 0.78 | 0.90 | 0.90 | 1.00 | 1.00 | 0.89 |
| 11 | Short | 0.70 | 0.25 | 0.78 | 0.90 | 0.89 | 1.00 | 1.00 | 0.89 |
| | Long | 0.20 | 0.50 | 0.67 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 |

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Appendix E. Mean T2 accuracy conditionalized on correct T1 report, for each subject, and each T2 colour in Experiment 1, as a function of short/long RT1 and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 12 | Short | 0.90 | 0.70 | 0.70 | 0.80 | 1.00 | 0.80 | 1.00 | 0.90 |
| | Long | 0.50 | 0.80 | 0.60 | 0.80 | 0.90 | 0.90 | 1.00 | 1.00 |
| 13 | Short | 0.10 | 0.00 | 0.20 | 0.20 | 0.44 | 0.67 | 1.00 | 0.70 |
| | Long | 0.00 | 0.11 | 0.30 | 0.30 | 0.33 | 0.56 | 0.89 | 0.60 |
| 14 | Short | 1.00 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 |
| | Long | 0.75 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 |
| 15 | Short | 0.60 | 0.33 | 0.60 | 1.00 | 0.78 | 1.00 | 1.00 | 1.00 |
| | Long | 0.50 | 0.11 | 0.10 | 0.30 | 0.80 | 0.80 | 0.90 | 0.89 |
| **Experiment 1 - Red T2** | | | | | | | | | |
| 16 | Short | 0.33 | 0.30 | 0.56 | 0.63 | 0.89 | 1.00 | 0.78 | 1.00 |
| | Long | 0.67 | 0.60 | 0.44 | 0.50 | 0.78 | 0.78 | 0.89 | 1.00 |
| 17 | Short | 0.10 | 0.40 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.10 | 0.20 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| 18 | Short | 1.00 | 0.80 | 0.90 | 1.00 | 0.89 | 1.00 | 0.89 | 1.00 |
| | Long | 0.75 | 0.90 | 0.90 | 0.89 | 0.78 | 1.00 | 1.00 | 0.70 |
| 19 | Short | 0.90 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.90 | 0.50 | 0.40 | 0.91 | 0.78 | 0.89 | 1.00 | 1.00 |
| 20 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 |
| | Long | 1.00 | 0.78 | 0.78 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 |
| 21 | Short | 0.78 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 22 | Short | 0.78 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.89 | 1.00 | 0.90 | 0.88 | 0.67 | 1.00 | 1.00 | 1.00 |

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Appendix E. Mean T2 accuracy conditionalized on correct T1 report, for each subject, and each T2 colour in Experiment 1, as a function of short/long RT1 and SOA.

Conditionalized Probe Accuracy

| | | SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 23 | Short | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 24 | Short | 0.86 | 0.75 | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 1.00 |
| | Long | 0.71 | 0.63 | 0.89 | 0.89 | 1.00 | 0.89 | 1.00 | 1.00 |
| 25 | Short | 0.80 | 0.60 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 |
| | Long | 0.60 | 0.20 | 1.00 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 |
| 26 | Short | 0.78 | 1.00 | 1.00 | 0.89 | 1.00 | 1.00 | 0.67 | 0.89 |
| | Long | 0.89 | 1.00 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 |
| 27 | Short | 1.00 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 28 | Short | 0.89 | 1.00 | 1.00 | 1.00 | 0.89 | 0.90 | 0.89 | 0.88 |
| | Long | 1.00 | 1.00 | 0.67 | 0.89 | 0.78 | 1.00 | 0.78 | 1.00 |
| 29 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.90 | 0.89 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 30 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 31 | Short | 0.89 | 0.67 | 1.00 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 0.67 | 1.00 | 0.78 | 1.00 | 1.00 | 1.00 | 1.00 |
| 32 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |

Appendix F. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 2, as a function of control/experimental instructions and SOA.

**Experiment 2 - Green T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | False Alarm | T1 Accuracy |
| 1 | Control | 0.90 | 1.00 | 1.00 | 0.95 | 0.95 | 0.85 | 1.00 | 0.95 | 0.02 | |
| | Exp | 0.89 | 0.94 | 0.89 | 0.94 | 0.95 | 0.95 | 0.95 | 1.00 | 0.04 | 0.94 |
| 2 | Control | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.1 | |
| | Exp | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.88 | 0.94 | 0.14 | 0.95 |
| 3 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.02 | |
| | Exp | 0.94 | 1.00 | 0.89 | 0.95 | 1.00 | 0.94 | 1.00 | 1.00 | 0 | 0.97 |
| 4 | Control | 0.75 | 0.70 | 0.65 | 0.70 | 0.65 | 0.80 | 0.80 | 0.70 | 0.07 | |
| | Exp | 0.35 | 0.58 | 0.80 | 0.79 | 0.94 | 0.84 | 0.68 | 0.61 | 0.17 | 0.96 |
| 5 | Control | 1.00 | 0.96 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 0.96 | 0.01 | |
| | Exp | 0.94 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 | 0.99 |
| 6 | Control | 0.83 | 1.00 | 0.96 | 0.96 | 0.96 | 1.00 | 0.96 | 0.96 | 0.01 | |
| | Exp | 0.75 | 1.00 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 | 1.00 |
| 7 | Control | 0.92 | 1.00 | 1.00 | 0.92 | 1.00 | 0.83 | 1.00 | 1.00 | 0.03 | |
| | Exp | 0.89 | 1.00 | 0.96 | 0.89 | 0.92 | 0.96 | 0.89 | 0.96 | 0.01 | 0.96 |
| 8 | Control | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 0.94 | 1.00 | 1.00 | 0.01 | |
| | Exp | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.03 | 0.99 |
| 9 | Control | 1.00 | 0.95 | 0.95 | 0.90 | 0.90 | 0.85 | 0.95 | 1.00 | 0.04 | |
| | Exp | 0.93 | 1.00 | 1.00 | 0.93 | 1.00 | 0.94 | 0.93 | 0.88 | 0 | 0.78 |
| 10 | Control | 0.69 | 1.00 | 0.94 | 1.00 | 0.94 | 0.94 | 1.00 | 1.00 | 0.04 | |
| | Exp | 0.60 | 0.55 | 0.65 | 0.80 | 0.86 | 0.91 | 0.96 | 1.00 | 0.08 | 0.96 |
| 11 | Control | 0.75 | 1.00 | 0.94 | 0.88 | 0.88 | 0.94 | 0.94 | 0.94 | 0.02 | |
| | Exp | 0.59 | 0.70 | 0.76 | 0.95 | 1.00 | 1.00 | 0.95 | 0.90 | 0.05 | 0.96 |

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Appendix F. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 2, as a function of control/experimental instructions and SOA.

| | | Conditionalized Probe Accuracy | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | | False | T1 |
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 12 | Control | 0.33 | 0.67 | 0.83 | 0.83 | 0.67 | 0.83 | 0.83 | 0.92 | 0.17 | |
| | Exp | 0.27 | 0.22 | 0.19 | 0.50 | 0.73 | 0.70 | 0.88 | 0.77 | 0.14 | 0.91 |
| 13 | Control | 0.25 | 0.94 | 0.94 | 0.81 | 1.00 | 0.88 | 0.94 | 1.00 | 0.04 | |
| | Exp | 0.04 | 0.32 | 0.82 | 0.91 | 1.00 | 0.90 | 1.00 | 0.85 | 0.12 | 0.96 |
| 14 | Control | 0.92 | 0.83 | 0.92 | 0.96 | 0.88 | 0.83 | 0.88 | 0.79 | 0.18 | |
| | Exp | 0.92 | 0.80 | 0.69 | 0.67 | 0.88 | 1.00 | 0.93 | 0.80 | 0.2 | 0.90 |
| **Experiment 2 - Red T2** | | | | | | | | | | | |
| 15 | Control | 0.56 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.09 | |
| | Exp | 0.56 | 0.84 | 0.72 | 0.80 | 0.94 | 0.90 | 0.94 | 0.88 | 0.11 | 0.84 |
| 16 | Control | 1.00 | 0.90 | 1.00 | 0.90 | 1.00 | 0.95 | 1.00 | 0.95 | 0.04 | |
| | Exp | 0.94 | 0.84 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.04 | 0.95 |
| 17 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | 0.01 | |
| | Exp | 0.80 | 1.00 | 1.00 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.03 | 0.92 |
| 18 | Control | 1.00 | 0.96 | 1.00 | 0.96 | 1.00 | 1.00 | 0.96 | 1.00 | 0.02 | |
| | Exp | 1.00 | 0.86 | 0.94 | 0.81 | 0.93 | 1.00 | 0.94 | 1.00 | 0.04 | 0.95 |
| 19 | Control | 0.81 | 1.00 | 0.94 | 0.94 | 1.00 | 0.75 | 0.94 | 1.00 | 0.1 | |
| | Exp | 1.00 | 0.81 | 0.89 | 0.79 | 0.68 | 0.82 | 0.75 | 0.95 | 0.2 | 0.88 |
| 20 | Control | 1.00 | 0.96 | 1.00 | 1.00 | 0.96 | 1.00 | 0.92 | 0.88 | 0.03 | |
| | Exp | 0.92 | 0.80 | 1.00 | 1.00 | 1.00 | 0.87 | 0.80 | 0.86 | 0.1 | 0.92 |
| 21 | Control | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.04 | |
| | Exp | 1.00 | 0.85 | 0.95 | 0.88 | 0.94 | 0.79 | 1.00 | 1.00 | 0.03 | 0.95 |
| 22 | Control | 0.80 | 0.95 | 0.95 | 0.95 | 0.95 | 0.90 | 1.00 | 0.95 | 0.15 | |
| | Exp | 0.50 | 0.74 | 0.85 | 0.89 | 1.00 | 0.94 | 1.00 | 0.95 | 0.19 | 0.99 |

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Appendix F. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 2, as a function of control/experimental instructions and SOA.

| | | Conditionalized Probe Accuracy | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | | False | T1 |
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 23 | Control | 0.90 | 0.95 | 0.85 | 1.00 | 0.95 | 0.80 | 1.00 | 1.00 | 0.08 | |
| | Exp | 0.94 | 0.88 | 0.73 | 0.79 | 0.88 | 0.65 | 0.69 | 0.80 | 0.33 | 0.91 |
| 24 | Control | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 0.90 | 1.00 | 1.00 | 0.01 | |
| | Exp | 1.00 | 1.00 | 0.81 | 0.94 | 0.94 | 1.00 | 0.85 | 0.92 | 0.1 | 0.76 |
| 25 | Control | 0.79 | 0.88 | 0.92 | 0.88 | 0.96 | 0.96 | 1.00 | 0.92 | 0.1 | |
| | Exp | 0.93 | 0.71 | 1.00 | 0.87 | 0.92 | 0.88 | 0.92 | 0.62 | 0.15 | 0.90 |
| 26 | Control | 0.42 | 0.88 | 0.96 | 0.96 | 0.92 | 0.83 | 0.92 | 0.96 | 0.22 | |
| | Exp | 0.79 | 0.81 | 1.00 | 0.79 | 0.71 | 0.87 | 0.94 | 0.71 | 0.11 | 0.95 |
| 27 | Control | 1.00 | 0.95 | 0.75 | 0.60 | 0.70 | 0.65 | 0.55 | 0.55 | 0.16 | |
| | Exp | 1.00 | 0.89 | 0.67 | 0.47 | 0.53 | 0.59 | 0.60 | 0.88 | 0.28 | 0.95 |
| 28 | Control | 1.00 | 0.90 | 0.95 | 0.95 | 0.95 | 0.90 | 0.95 | 0.80 | 0.06 | |
| | Exp | 0.81 | 0.67 | 0.76 | 0.89 | 0.78 | 0.81 | 0.94 | 0.94 | 0.12 | 0.90 |

Appendix G. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 2, as a function of short/long RT1 and SOA.

**Experiment 2 - Green T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 1 | Short | 1.00 | 1.00 | 0.89 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 |
| | Long | 0.78 | 0.89 | 0.89 | 0.89 | 0.90 | 0.91 | 1.00 | 1.00 |
| 2 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.89 | 1.00 |
| | Long | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 |
| 3 | Short | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 0.89 | 1.00 | 1.00 |
| | Long | 0.89 | 1.00 | 0.91 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4 | Short | 0.50 | 0.60 | 0.80 | 1.00 | 0.89 | 0.80 | 0.70 | 0.67 |
| | Long | 0.20 | 0.50 | 0.80 | 0.60 | 1.00 | 0.80 | 0.70 | 0.56 |
| 5 | Short | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 6 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.50 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| 7 | Short | 0.93 | 1.00 | 1.00 | 0.93 | 0.92 | 0.93 | 0.93 | 0.92 |
| | Long | 0.86 | 1.00 | 0.93 | 0.86 | 0.92 | 1.00 | 0.86 | 0.92 |
| 8 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 |
| 9 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | Long | 0.86 | 1.00 | 1.00 | 0.88 | 1.00 | 0.88 | 0.88 | 1.00 |
| 10 | Short | 0.60 | 0.64 | 0.92 | 0.90 | 0.91 | 1.00 | 1.00 | 1.00 |
| | Long | 0.60 | 0.45 | 0.38 | 0.70 | 0.82 | 0.83 | 0.92 | 1.00 |
| 11 | Short | 0.45 | 0.83 | 1.00 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 |
| | Long | 0.73 | 0.58 | 0.55 | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 |

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Appendix G. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 2, as a function of short/long RT1 and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 12 | Short | 0.31 | 0.14 | 0.31 | 0.67 | 0.85 | 0.55 | 0.75 | 0.71 |
| | Long | 0.23 | 0.29 | 0.08 | 0.33 | 0.62 | 0.82 | 1.00 | 0.79 |
| 13 | Short | 0.00 | 0.45 | 0.91 | 0.92 | 1.00 | 0.91 | 1.00 | 0.70 |
| | Long | 0.08 | 0.18 | 0.73 | 0.92 | 1.00 | 0.91 | 1.00 | 1.00 |
| 14 | Short | 0.86 | 0.63 | 0.71 | 0.67 | 0.88 | 1.00 | 0.86 | 0.78 |
| | Long | 1.00 | 1.00 | 0.63 | 0.67 | 0.88 | 1.00 | 1.00 | 0.88 |
| **Experiment 2 - Red T2** | | | | | | | | | |
| 15 | Short | 0.56 | 0.90 | 0.67 | 0.70 | 1.00 | 0.82 | 0.89 | 0.88 |
| | Long | 0.56 | 0.80 | 0.78 | 0.90 | 0.89 | 1.00 | 1.00 | 0.88 |
| 16 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 |
| | Long | 0.89 | 0.70 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 17 | Short | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.75 | 1.00 | 1.00 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 |
| 18 | Short | 1.00 | 0.86 | 1.00 | 1.00 | 0.86 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 0.86 | 0.88 | 0.63 | 1.00 | 1.00 | 0.89 | 1.00 |
| 19 | Short | 1.00 | 0.82 | 1.00 | 0.80 | 0.80 | 0.91 | 0.70 | 1.00 |
| | Long | 1.00 | 0.82 | 0.78 | 0.80 | 0.60 | 0.73 | 0.80 | 0.90 |
| 20 | Short | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 | 0.88 | 0.75 | 0.71 |
| | Long | 0.83 | 0.63 | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 1.00 |
| 21 | Short | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | Long | 1.00 | 0.80 | 0.90 | 0.75 | 0.88 | 0.80 | 1.00 | 1.00 |
| 22 | Short | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 |
| | Long | 0.40 | 0.60 | 0.70 | 0.78 | 1.00 | 0.89 | 1.00 | 1.00 |

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Appendix G. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 2, as a function of short/long RT1 and SOA.

Conditionalized Probe Accuracy

SOA

| Subject | | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|
| 23 | Short | 0.88 | 0.88 | 0.88 | 0.86 | 1.00 | 0.78 | 0.75 | 0.75 |
| | Long | 1.00 | 0.88 | 0.63 | 0.71 | 0.75 | 0.44 | 0.63 | 0.88 |
| 24 | Short | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 |
| | Long | 1.00 | 1.00 | 0.88 | 0.89 | 0.89 | 1.00 | 0.71 | 1.00 |
| 25 | Short | 0.86 | 0.57 | 1.00 | 1.00 | 1.00 | 0.88 | 0.86 | 0.71 |
| | Long | 1.00 | 0.86 | 1.00 | 0.75 | 0.83 | 0.88 | 0.86 | 0.63 |
| 26 | Short | 0.86 | 1.00 | 1.00 | 0.57 | 0.86 | 0.75 | 0.88 | 0.71 |
| | Long | 0.71 | 0.63 | 1.00 | 1.00 | 0.57 | 0.89 | 1.00 | 0.71 |
| 27 | Short | 1.00 | 1.00 | 0.67 | 0.20 | 0.67 | 0.44 | 0.60 | 1.00 |
| | Long | 1.00 | 0.78 | 0.67 | 0.80 | 0.33 | 0.78 | 0.60 | 0.78 |
| 28 | Short | 1.00 | 0.56 | 0.78 | 1.00 | 0.89 | 0.75 | 1.00 | 0.89 |
| | Long | 0.63 | 0.78 | 0.78 | 0.78 | 0.67 | 0.88 | 0.89 | 1.00 |

Appendix H. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 3, as a function of control/experimental instructions and SOA.

**Experiment 3 - Green T2**

| Subject | Condition | Conditionalized Probe Accuracy SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | False Alarm | T1 Accuracy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Control | 0.94 | 0.94 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.06 | |
| | Exp | 1.00 | 1.00 | 0.92 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 0.07 | 0.97 |
| 2 | Control | 1.00 | 0.85 | 0.95 | 0.90 | 0.90 | 0.95 | 0.95 | 0.85 | 0.17 | |
| | Exp | 0.43 | 0.24 | 0.67 | 0.69 | 0.94 | 0.80 | 0.95 | 0.86 | 0.3 | 0.84 |
| 3 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.94 | 1.00 | 1.00 | 0.02 | |
| | Exp | 0.95 | 0.83 | 0.91 | 0.90 | 1.00 | 1.00 | 1.00 | 0.95 | 0.03 | 0.99 |
| 4 | Control | 0.96 | 0.93 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.04 | |
| | Exp | 0.90 | 0.67 | 0.56 | 0.89 | 0.91 | 0.90 | 0.91 | 1.00 | 0.08 | 0.86 |
| 5 | Control | 0.80 | 0.80 | 0.90 | 1.00 | 1.00 | 0.85 | 0.90 | 0.80 | 0.31 | |
| | Exp | 0.90 | 0.50 | 0.58 | 0.61 | 0.72 | 0.75 | 1.00 | 0.67 | 0.36 | 0.93 |
| 6 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.02 | |
| | Exp | 1.00 | 1.00 | 0.89 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.05 | 0.98 |
| 7 | Control | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 | 1.00 | 1.00 | 0.02 | |
| | Exp | 0.71 | 0.87 | 0.56 | 0.77 | 0.93 | 1.00 | 0.94 | 1.00 | 0.11 | 0.97 |
| 8 | Control | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | |
| | Exp | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | 0.99 |
| 9 | Control | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 0 | |
| | Exp | 1.00 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0 | 0.99 |
| 10 | Control | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | 0.01 | |
| | Exp | 1.00 | 1.00 | 0.92 | 0.92 | 1.00 | 1.00 | 1.00 | 0.92 | 0.04 | 0.98 |
| 11 | Control | 1.00 | 1.00 | 0.94 | 0.94 | 0.94 | 0.94 | 1.00 | 1.00 | 0.09 | |
| | Exp | 0.88 | 0.90 | 0.96 | 0.92 | 0.96 | 1.00 | 0.91 | 0.95 | 0.02 | 0.98 |

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Appendix H. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 3, as a function of control/experimental instructions and SOA.

**Experiment 3 - Red T2**

| | | Conditionalized Probe Accuracy | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | | False | T1 |
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 12 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | 1.00 |
| | Exp | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.03 | |
| 13 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.02 | 0.96 |
| | Exp | 0.83 | 0.96 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.01 | |
| 14 | Control | 0.96 | 0.93 | 1.00 | 0.96 | 0.96 | 0.93 | 1.00 | 0.96 | 0.01 | 0.97 |
| | Exp | 1.00 | 1.00 | 0.92 | 0.92 | 1.00 | 0.83 | 0.91 | 1.00 | 0.01 | |
| 15 | Control | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0 | 0.99 |
| | Exp | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | |
| 16 | Control | 0.70 | 0.70 | 0.75 | 0.75 | 0.70 | 0.80 | 0.70 | 0.75 | 0.2 | 0.97 |
| | Exp | 0.58 | 0.60 | 0.72 | 0.63 | 0.53 | 0.60 | 0.75 | 0.72 | 0.33 | |
| 17 | Control | 1.00 | 0.95 | 0.95 | 0.90 | 1.00 | 0.95 | 1.00 | 0.90 | 0.01 | 0.97 |
| | Exp | 0.81 | 0.84 | 0.84 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 0.01 | |
| 18 | Control | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | 0.97 |
| | Exp | 1.00 | 0.94 | 0.95 | 0.95 | 1.00 | 1.00 | 0.94 | 1.00 | 0 | |
| 19 | Control | 1.00 | 0.88 | 0.81 | 0.88 | 1.00 | 0.94 | 0.94 | 0.94 | 0.07 | 0.88 |
| | Exp | 0.50 | 0.62 | 0.52 | 0.82 | 0.89 | 0.91 | 1.00 | 0.95 | 0.13 | |
| 20 | Control | 0.83 | 0.79 | 1.00 | 1.00 | 0.92 | 0.92 | 1.00 | 0.88 | 0.04 | 0.92 |
| | Exp | 0.50 | 0.60 | 0.85 | 0.85 | 1.00 | 1.00 | 1.00 | 0.81 | 0.07 | |
| 21 | Control | 0.92 | 0.92 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 0.05 | 0.97 |
| | Exp | 0.47 | 0.38 | 0.79 | 0.86 | 1.00 | 1.00 | 0.94 | 0.94 | 0.12 | |
| 22 | Control | 0.92 | 1.00 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 | 0.96 | 0.02 | 0.93 |
| | Exp | 0.92 | 0.93 | 0.88 | 1.00 | 1.00 | 0.93 | 0.93 | 1.00 | 0 | |

Appendix I. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 3, as a function of short/long RT1 and SOA.

**Experiment 3 - Green T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 1 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 0.83 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 |
| 2 | Short | 0.75 | 0.44 | 0.88 | 0.88 | 0.88 | 0.88 | 0.90 | 0.71 |
| | Long | 0.11 | 0.00 | 0.56 | 0.50 | 1.00 | 0.75 | 1.00 | 1.00 |
| 3 | Short | 1.00 | 0.92 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 0.91 |
| | Long | 0.91 | 0.75 | 0.83 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4 | Short | 1.00 | 0.80 | 0.80 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | Long | 0.80 | 0.40 | 0.20 | 0.80 | 0.83 | 1.00 | 0.83 | 1.00 |
| 5 | Short | 0.90 | 0.56 | 0.60 | 0.67 | 0.89 | 0.88 | 1.00 | 0.67 |
| | Long | 0.90 | 0.44 | 0.60 | 0.56 | 0.56 | 0.63 | 1.00 | 0.67 |
| 6 | Short | 1.00 | 1.00 | 0.90 | 0.92 | 1.00 | 0.90 | 1.00 | 0.90 |
| | Long | 1.00 | 1.00 | 0.90 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 |
| 7 | Short | 0.86 | 0.88 | 0.63 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.57 | 0.88 | 0.50 | 0.57 | 0.89 | 1.00 | 0.88 | 1.00 |
| 8 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 9 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 10 | Short | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| 11 | Short | 0.83 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.92 | 0.91 |
| | Long | 0.92 | 0.82 | 0.92 | 0.83 | 1.00 | 1.00 | 0.92 | 1.00 |

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Appendix I. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 3, as a function of short/long RT1 and SOA.

**Experiment 3 - Red T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 12 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 13 | Short | 0.92 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.75 | 0.92 | 1.00 | 1.00 | 1.00 | 0.90 | 0.91 | 1.00 |
| 14 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.83 | 1.00 |
| | Long | 1.00 | 1.00 | 0.83 | 0.83 | 1.00 | 0.86 | 0.83 | 1.00 |
| 15 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 16 | Short | 0.50 | 0.60 | 0.78 | 0.60 | 0.60 | 0.80 | 0.70 | 0.78 |
| | Long | 0.70 | 0.60 | 0.67 | 0.60 | 0.40 | 0.40 | 0.80 | 0.67 |
| 17 | Short | 0.88 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Long | 0.75 | 0.70 | 0.70 | 1.00 | 1.00 | 1.00 | 0.89 | 1.00 |
| 18 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 | 1.00 |
| | Long | 1.00 | 0.89 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 |
| 19 | Short | 0.60 | 0.55 | 0.75 | 0.73 | 1.00 | 0.92 | 1.00 | 0.90 |
| | Long | 0.40 | 0.73 | 0.31 | 0.91 | 0.80 | 0.92 | 1.00 | 1.00 |
| 20 | Short | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | Long | 0.50 | 0.63 | 0.71 | 0.71 | 1.00 | 1.00 | 1.00 | 0.88 |
| 21 | Short | 0.38 | 0.38 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 |
| | Long | 0.63 | 0.38 | 0.75 | 0.71 | 1.00 | 1.00 | 0.88 | 1.00 |
| 22 | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.89 | 1.00 |
| | Long | 0.86 | 0.86 | 0.75 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 |

Appendix J. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 4, as a function of control/experimental instructions and SOA.

**Experiment 4 - Green T2**

| | | Conditionalized Probe Accuracy | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | | | |
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | False Alarm | T1 Accuracy |
| 1 | Control | 0.63 | 0.83 | 0.79 | 0.79 | 0.71 | 0.88 | 0.75 | 0.75 | 0.15 | |
| | Exp | 0.47 | 0.67 | 0.67 | 0.73 | 0.86 | 0.67 | 0.87 | 0.81 | 0.21 | 0.96 |
| 2 | Control | 0.85 | 0.80 | 0.85 | 0.95 | 0.85 | 0.90 | 0.85 | 0.90 | 0.1 | |
| | Exp | 0.78 | 0.56 | 0.39 | 0.63 | 0.76 | 0.95 | 0.95 | 1.00 | 0.17 | 0.98 |
| 3 | Control | 0.86 | 0.89 | 0.93 | 1.00 | 1.00 | 0.82 | 0.89 | 0.89 | 0.04 | |
| | Exp | 0.80 | 0.11 | 0.75 | 0.75 | 1.00 | 0.90 | 1.00 | 0.92 | 0.13 | 0.89 |
| 4 | Control | 1.00 | 0.94 | 1.00 | 0.88 | 1.00 | 0.94 | 0.94 | 0.88 | 0.03 | |
| | Exp | 0.50 | 0.71 | 0.52 | 0.95 | 0.90 | 1.00 | 0.86 | 0.65 | 0.19 | 0.90 |
| 5 | Control | 0.70 | 0.90 | 0.85 | 0.90 | 0.90 | 0.85 | 0.90 | 0.85 | 0.04 | |
| | Exp | 0.53 | 0.27 | 0.41 | 0.92 | 0.73 | 0.82 | 1.00 | 0.88 | 0.05 | 0.77 |
| 6 | Control | 0.96 | 0.92 | 0.96 | 0.92 | 0.92 | 0.92 | 0.88 | 0.92 | 0.11 | |
| | Exp | 0.25 | 0.42 | 0.53 | 0.43 | 0.50 | 0.57 | 0.79 | 0.64 | 0.27 | 0.87 |
| 7 | Control | 0.96 | 0.96 | 1.00 | 0.96 | 0.96 | 1.00 | 1.00 | 1.00 | 0.03 | |
| | Exp | 1.00 | 0.93 | 0.79 | 0.93 | 1.00 | 1.00 | 1.00 | 0.92 | 0.02 | 0.95 |
| 8 | Control | 0.81 | 0.69 | 0.69 | 0.88 | 0.75 | 0.88 | 0.69 | 0.81 | 0.14 | |
| | Exp | 0.50 | 0.70 | 0.60 | 0.60 | 0.67 | 0.42 | 0.64 | 0.64 | 0.27 | 0.50 |
| 9 | Control | 0.75 | 0.88 | 0.94 | 1.00 | 0.81 | 1.00 | 0.88 | 0.81 | 0.13 | |
| | Exp | 0.86 | 0.57 | 0.70 | 0.64 | 0.80 | 0.95 | 0.77 | 0.75 | 0.21 | 0.90 |
| 10 | Control | 0.88 | 0.75 | 0.75 | 0.79 | 0.92 | 0.92 | 0.88 | 0.96 | 0.1 | |
| | Exp | 0.92 | 0.67 | 1.00 | 0.75 | 1.00 | 0.88 | 0.86 | 0.77 | 0.35 | 0.94 |
| 11 | Control | 0.75 | 0.81 | 0.63 | 0.94 | 0.81 | 0.75 | 1.00 | 0.81 | 0.27 | |
| | Exp | 0.65 | 0.32 | 0.75 | 0.70 | 0.65 | 0.91 | 0.81 | 0.82 | 0.26 | 0.96 |

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Appendix J. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 4, as a function of control/experimental instructions and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | | False | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 12 | Control | 0.83 | 0.83 | 0.88 | 0.88 | 0.96 | 0.92 | 0.96 | 0.92 | 0.03 | |
| | Exp | 0.69 | 1.00 | 1.00 | 1.00 | 0.94 | 0.94 | 0.88 | 0.93 | 0.06 | 0.99 |
| 13 | Control | 0.88 | 0.94 | 1.00 | 0.88 | 0.88 | 1.00 | 0.88 | 0.88 | 0.02 | |
| | Exp | 0.95 | 0.82 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.01 | 0.93 |
| 14 | Control | 0.96 | 0.96 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | |
| | Exp | 1.00 | 0.57 | 0.93 | 0.92 | 0.81 | 0.93 | 1.00 | 1.00 | 0.11 | 0.96 |
| 15 | Control | 0.95 | 0.90 | 0.85 | 0.90 | 0.85 | 0.95 | 0.95 | 0.95 | 0.09 | |
| | Exp | 0.72 | 0.43 | 0.56 | 0.31 | 0.71 | 0.83 | 0.78 | 0.72 | 0.05 | 0.89 |
| 16 | Control | 0.80 | 0.95 | 0.85 | 0.95 | 0.95 | 0.85 | 0.90 | 0.90 | 0.06 | |
| | Exp | 0.60 | 0.67 | 0.72 | 0.81 | 0.79 | 0.76 | 0.67 | 0.72 | 0.26 | 0.86 |
| 17 | Control | 1.00 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 0.06 | |
| | Exp | 0.74 | 0.77 | 1.00 | 0.89 | 0.88 | 0.91 | 0.92 | 0.84 | 0.12 | 0.95 |
| 18 | Control | 0.75 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.94 | 0.07 | |
| | Exp | 0.47 | 0.24 | 0.59 | 0.76 | 0.90 | 0.95 | 0.88 | 0.90 | 0.11 | 0.85 |
| 19 | Control | 0.79 | 0.79 | 0.88 | 0.92 | 0.83 | 0.88 | 0.92 | 0.79 | 0.09 | |
| | Exp | 0.75 | 0.71 | 0.73 | 1.00 | 0.86 | 0.71 | 0.88 | 0.71 | 0.09 | 0.98 |
| 20 | Control | 1.00 | 0.79 | 0.79 | 0.96 | 1.00 | 1.00 | 0.96 | 0.96 | 0.07 | |
| | Exp | 0.94 | 0.93 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 0.93 | 0.05 | 0.98 |
| 21 | Control | 0.83 | 0.79 | 0.83 | 0.67 | 0.83 | 0.92 | 0.79 | 0.88 | 0.15 | |
| | Exp | 0.50 | 0.50 | 0.47 | 0.29 | 0.36 | 0.53 | 0.50 | 0.50 | 0.48 | 0.84 |
| 22 | Control | 0.88 | 0.96 | 0.92 | 0.92 | 0.92 | 0.96 | 0.79 | 0.88 | 0.06 | |
| | Exp | 0.69 | 0.80 | 0.80 | 0.77 | 0.85 | 0.93 | 0.86 | 1.00 | 0.09 | 0.98 |

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Appendix J. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 4, as a function of control/experimental instructions and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | False Alarm | T1 Accuracy |
| 23 | Control | 0.88 | 0.81 | 0.88 | 0.75 | 0.75 | 0.81 | 0.75 | 0.69 | 0.11 | |
| | Exp | 0.94 | 0.63 | 0.74 | 0.74 | 0.67 | 0.68 | 0.88 | 0.82 | 0.32 | 0.81 |
| **Experiment 4 - Red T2** | | | | | | | | | | | |
| 24 | Control | 0.95 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 | |
| | Exp | 1.00 | 0.88 | 0.95 | 0.88 | 0.88 | 0.95 | 0.94 | 0.94 | 0.06 | 0.97 |
| 25 | Control | 0.90 | 0.85 | 0.95 | 0.90 | 0.85 | 0.90 | 0.90 | 0.95 | 0.03 | |
| | Exp | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 0.04 | 0.94 |
| 26 | Control | 0.95 | 0.85 | 0.95 | 0.95 | 0.95 | 0.85 | 0.95 | 0.85 | 0 | |
| | Exp | 0.94 | 1.00 | 0.94 | 0.78 | 0.79 | 0.78 | 0.88 | 0.76 | 0.03 | 0.93 |
| 27 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 | |
| | Exp | 0.94 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.06 | 0.78 |
| 28 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0 | |
| | Exp | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 0.94 | 0.95 | 1.00 | 0.04 | 0.97 |
| 29 | Control | 0.94 | 0.94 | 0.94 | 0.94 | 1.00 | 0.94 | 0.88 | 0.88 | 0.02 | |
| | Exp | 1.00 | 0.87 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 0.02 | 0.99 |
| 30 | Control | 0.75 | 0.79 | 0.92 | 0.88 | 0.83 | 0.83 | 0.83 | 0.79 | 0.04 | |
| | Exp | 0.77 | 0.64 | 0.87 | 0.87 | 0.88 | 0.86 | 0.79 | 0.63 | 0.02 | 0.96 |
| 31 | Control | 0.85 | 0.80 | 0.85 | 0.95 | 1.00 | 0.95 | 0.90 | 0.85 | 0.05 | |
| | Exp | 0.89 | 0.88 | 1.00 | 0.89 | 1.00 | 0.90 | 0.94 | 0.82 | 0.06 | 0.94 |
| 32 | Control | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.03 | |
| | Exp | 0.71 | 0.74 | 0.95 | 0.91 | 0.95 | 1.00 | 1.00 | 1.00 | 0.04 | 1.00 |
| 33 | Control | 0.88 | 0.94 | 1.00 | 0.88 | 0.94 | 0.94 | 0.94 | 0.94 | 0.02 | |
| | Exp | 0.84 | 0.95 | 0.94 | 0.80 | 0.89 | 0.95 | 1.00 | 0.89 | 0.14 | 0.83 |

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Appendix J. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 4, as a function of control/experimental instructions and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | False Alarm | T1 Accuracy |
| 34 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 0 | |
| | Exp | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 1.00 | 1.00 | 0.04 | 0.95 |
| 35 | Control | 0.96 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | 0 | |
| | Exp | 0.92 | 1.00 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 | 0.91 |
| 36 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | |
| | Exp | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.01 | 0.86 |
| 37 | Control | 0.95 | 0.85 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.04 | |
| | Exp | 0.88 | 0.81 | 0.60 | 0.94 | 1.00 | 0.81 | 1.00 | 0.93 | 0.05 | 0.88 |
| 38 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | |
| | Exp | 0.94 | 1.00 | 0.83 | 0.89 | 1.00 | 0.95 | 1.00 | 1.00 | 0.03 | 0.99 |
| 39 | Control | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.01 | |
| | Exp | 0.86 | 0.73 | 0.82 | 1.00 | 0.93 | 1.00 | 1.00 | 0.95 | 0 | 0.91 |
| 40 | Control | 1.00 | 1.00 | 0.90 | 1.00 | 0.90 | 0.95 | 1.00 | 0.90 | 0.01 | |
| | Exp | 1.00 | 0.89 | 0.95 | 1.00 | 0.94 | 1.00 | 1.00 | 0.94 | 0.12 | 0.94 |
| 41 | Control | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.03 | |
| | Exp | 0.96 | 0.91 | 0.92 | 0.95 | 1.00 | 0.96 | 0.95 | 1.00 | 0.27 | 0.94 |
| 42 | Control | 1.00 | 0.95 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 0 | |
| | Exp | 0.71 | 0.56 | 0.83 | 0.94 | 0.94 | 1.00 | 0.95 | 1.00 | 0.04 | 0.97 |
| 43 | Control | 0.95 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 | |
| | Exp | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.89 | 1.00 | 1.00 | 0.01 | 0.94 |
| 44 | Control | 1.00 | 0.90 | 0.95 | 0.95 | 1.00 | 0.90 | 0.90 | 1.00 | 0.08 | |
| | Exp | 0.79 | 0.94 | 0.94 | 1.00 | 1.00 | 0.87 | 0.94 | 0.94 | 0.04 | 0.88 |

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Appendix J. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 4, as a function of control/experimental instructions and SOA.

| | | Conditionalized Probe Accuracy | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | | False | T1 |
| Subject | Condition | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Alarm | Accuracy |
| 45 | Control | 0.95 | 1.00 | 1.00 | 0.90 | 0.95 | 1.00 | 0.95 | 0.95 | 0.03 | |
| | Exp | 1.00 | 0.88 | 0.94 | 1.00 | 1.00 | 0.76 | 0.94 | 0.82 | 0.05 | 0.92 |
| 46 | Control | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0 | |
| | Exp | 1.00 | 1.00 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.05 | 0.95 |

Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

**Experiment 4 - Green T2**

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 1 | Shortest Quartile | 0.25 | 0.50 | 0.50 | 0.50 | 0.75 | 0.75 | 0.75 | 1.00 |
| | \ | 0.25 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.80 |
| | \ | 0.75 | 1.00 | 0.80 | 0.75 | 1.00 | 0.75 | 1.00 | 0.80 |
| | Longest Quartile | 0.50 | 0.50 | 0.80 | 1.00 | 1.00 | 0.50 | 1.00 | 0.50 |
| 2 | Shortest Quartile | 0.80 | 0.75 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.83 | 0.50 | 0.60 | 0.40 | 0.80 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.75 | 0.00 | 0.83 | 0.67 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.60 | 0.25 | 0.40 | 0.60 | 0.75 | 0.80 | 0.83 | 1.00 |
| 3 | Shortest Quartile | 0.67 | 0.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.67 | 0.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 0.67 |
| | \ | 0.67 | 0.00 | 0.50 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 |
| | Longest Quartile | 0.67 | 0.50 | 0.50 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 |
| 4 | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.60 |
| | \ | 0.33 | 0.83 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| | \ | 0.17 | 0.33 | 0.33 | 0.83 | 1.00 | 1.00 | 0.83 | 0.80 |
| | Longest Quartile | 0.67 | 0.60 | 0.20 | 1.00 | 0.60 | 1.00 | 0.67 | 0.40 |
| 5 | Shortest Quartile | 0.50 | 0.25 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.60 | 0.00 | 0.33 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 |
| | \ | 0.60 | 0.25 | 0.20 | 0.67 | 0.75 | 0.67 | 1.00 | 1.00 |
| | Longest Quartile | 0.50 | 0.50 | 0.50 | 1.00 | 0.25 | 0.67 | 1.00 | 0.50 |
| 6 | Shortest Quartile | 0.50 | 0.00 | 0.75 | 0.50 | 0.67 | 1.00 | 1.00 | 0.25 |
| | \ | 0.25 | 0.33 | 0.25 | 0.50 | 0.67 | 0.50 | 1.00 | 0.50 |
| | \ | 0.00 | 0.33 | 0.25 | 0.50 | 0.33 | 0.25 | 0.50 | 0.75 |
| | Longest Quartile | 0.25 | 1.00 | 0.75 | 0.50 | 0.33 | 0.50 | 0.50 | 1.00 |

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Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|
| | | Conditionalized Probe Accuracy SOA | | | | | | | |
| 7 | Shortest Quartile | 1.00 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 0.75 |
| | Longest Quartile | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 8 | Shortest Quartile | 0.25 | 0.33 | 0.67 | 0.50 | 1.00 | 0.33 | 0.67 | 0.50 |
| | \ | 0.50 | 0.33 | 0.00 | 0.75 | 0.33 | 0.67 | 1.00 | 0.50 |
| | \ | 0.50 | 1.00 | 0.67 | 0.25 | 0.67 | 0.33 | 0.33 | 0.75 |
| | Longest Quartile | 0.75 | 1.00 | 1.00 | 0.75 | 0.50 | 0.33 | 0.67 | 0.75 |
| 9 | Shortest Quartile | 0.80 | 0.60 | 0.50 | 0.83 | 0.80 | 0.80 | 1.00 | 0.75 |
| | \ | 0.83 | 0.50 | 0.67 | 0.71 | 0.80 | 1.00 | 0.83 | 0.75 |
| | \ | 1.00 | 0.43 | 1.00 | 0.43 | 0.60 | 1.00 | 0.83 | 0.75 |
| | Longest Quartile | 0.80 | 0.60 | 0.60 | 0.50 | 1.00 | 1.00 | 0.50 | 0.75 |
| 10 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | \ | 1.00 | 0.50 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 |
| | \ | 0.75 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 | 0.75 | 0.50 |
| | Longest Quartile | 1.00 | 0.50 | 1.00 | 0.50 | 1.00 | 1.00 | 0.75 | 0.67 |
| 11 | Shortest Quartile | 0.50 | 0.67 | 0.40 | 1.00 | 0.50 | 1.00 | 0.80 | 0.67 |
| | \ | 0.67 | 0.33 | 1.00 | 0.60 | 0.50 | 1.00 | 1.00 | 1.00 |
| | \ | 0.67 | 0.00 | 1.00 | 0.80 | 0.83 | 1.00 | 0.83 | 1.00 |
| | Longest Quartile | 0.67 | 0.33 | 0.60 | 0.40 | 0.67 | 0.67 | 0.60 | 0.67 |
| 12 | Shortest Quartile | 0.75 | 1.00 | 1.00 | 1.00 | 0.75 | 0.75 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| | \ | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 0.75 |
| 13 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 |
| | Longest Quartile | 0.80 | 0.50 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

| | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | |
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 14 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 0.25 | 0.75 | 0.67 | 0.50 | 0.75 | 1.00 | 1.00 |
| 15 | Shortest Quartile | 0.80 | 0.20 | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.40 | 0.50 | 1.00 | 0.50 | 0.75 | 1.00 | 0.80 | 0.80 |
| | \ | 0.60 | 0.50 | 0.25 | 0.25 | 1.00 | 0.80 | 0.80 | 0.60 |
| | Longest Quartile | 1.00 | 0.50 | 0.50 | 0.00 | 0.25 | 0.60 | 0.60 | 0.60 |
| 16 | Shortest Quartile | 0.25 | 0.75 | 1.00 | 0.75 | 0.75 | 0.75 | 0.80 | 0.80 |
| | \ | 0.75 | 1.00 | 0.80 | 0.75 | 0.75 | 0.80 | 0.80 | 1.00 |
| | \ | 0.50 | 0.25 | 0.80 | 1.00 | 1.00 | 0.60 | 0.60 | 0.80 |
| | Longest Quartile | 0.75 | 0.75 | 0.40 | 0.75 | 0.75 | 1.00 | 0.60 | 0.40 |
| 17 | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 |
| | \ | 0.83 | 1.00 | 1.00 | 1.00 | 0.86 | 0.83 | 1.00 | 0.71 |
| | \ | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.71 | 0.86 |
| | Longest Quartile | 0.50 | 0.67 | 1.00 | 0.57 | 0.83 | 0.83 | 1.00 | 0.83 |
| 18 | Shortest Quartile | 0.75 | 0.20 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.50 | 0.33 | 0.80 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 |
| | \ | 0.25 | 0.17 | 0.60 | 0.80 | 0.83 | 1.00 | 1.00 | 0.60 |
| | Longest Quartile | 0.25 | 0.20 | 0.00 | 0.25 | 1.00 | 0.83 | 0.50 | 1.00 |
| 19 | Shortest Quartile | 0.25 | 1.00 | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 |
| | \ | 0.75 | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 |
| | \ | 1.00 | 0.75 | 0.50 | 1.00 | 1.00 | 0.50 | 1.00 | 0.75 |
| | Longest Quartile | 1.00 | 0.75 | 0.50 | 1.00 | 1.00 | 0.25 | 0.50 | 0.75 |
| 20 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |

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Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

Conditionalized Probe Accuracy

| Subject | RT | SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|
| 21 | Shortest Quartile | 0.67 | 0.67 | 0.50 | 0.50 | 0.50 | 0.75 | 0.33 | 1.00 |
| | \ | 0.67 | 1.00 | 0.75 | 0.50 | 0.25 | 0.50 | 0.33 | 0.25 |
| | \ | 0.33 | 0.00 | 0.50 | 0.25 | 0.25 | 0.50 | 0.33 | 0.75 |
| | Longest Quartile | 0.33 | 0.33 | 0.25 | 0.00 | 0.20 | 0.50 | 1.00 | 0.00 |
| 22 | Shortest Quartile | 0.50 | 1.00 | 0.80 | 1.00 | 0.67 | 1.00 | 0.75 | 1.00 |
| | \ | 0.75 | 0.80 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.50 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| | Longest Quartile | 1.00 | 0.50 | 0.50 | 0.33 | 0.67 | 0.75 | 1.00 | 1.00 |
| 23 | Shortest Quartile | 0.75 | 0.80 | 0.80 | 0.80 | 1.00 | 0.60 | 1.00 | 1.00 |
| | \ | 1.00 | 0.40 | 1.00 | 0.60 | 0.60 | 1.00 | 0.75 | 0.80 |
| | \ | 1.00 | 0.40 | 0.80 | 0.80 | 0.40 | 0.40 | 0.75 | 0.80 |
| | Longest Quartile | 1.00 | 0.80 | 0.40 | 0.60 | 0.60 | 0.80 | 1.00 | 0.75 |
| **Experiment 4 - Red T2** | | | | | | | | | |
| 24 | Shortest Quartile | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 0.80 |
| | \ | 1.00 | 0.80 | 0.80 | 1.00 | 1.00 | 0.80 | 0.80 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 0.50 | 0.75 | 1.00 | 1.00 | 1.00 |
| 25 | Shortest Quartile | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| 26 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.80 | 1.00 | 1.00 |
| | \ | 0.80 | 1.00 | 0.80 | 0.60 | 0.80 | 0.40 | 0.80 | 0.80 |
| | \ | 0.80 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 0.60 | 0.67 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 0.67 | 0.60 | 0.80 | 1.00 | 0.40 |

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Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

| | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SOA | | | | | | | |
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 27 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 28 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 |
| | \ | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.83 | 1.00 |
| | Longest Quartile | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| 29 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.71 |
| | \ | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 |
| | \ | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| | Longest Quartile | 1.00 | 0.67 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 30 | Shortest Quartile | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | \ | 0.80 | 0.50 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 0.75 |
| | \ | 0.60 | 0.75 | 1.00 | 1.00 | 0.75 | 0.75 | 0.50 | 0.50 |
| | Longest Quartile | 0.67 | 0.50 | 0.50 | 0.75 | 0.75 | 0.50 | 0.50 | 0.50 |
| 31 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.80 | 0.60 | 1.00 | 0.80 | 1.00 | 0.83 | 1.00 | 1.00 |
| | \ | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 |
| | Longest Quartile | 0.80 | 1.00 | 1.00 | 0.83 | 1.00 | 0.80 | 0.75 | 0.75 |
| 32 | Shortest Quartile | 0.83 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 |
| | \ | 0.83 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.83 | 0.80 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.33 | 0.60 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| 33 | Shortest Quartile | 0.80 | 1.00 | 1.00 | 0.80 | 1.00 | 0.80 | 1.00 | 0.80 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.60 | 1.00 | 1.00 | 0.80 | 0.80 | 1.00 | 1.00 | 0.80 |
| | Longest Quartile | 1.00 | 0.80 | 0.75 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 |

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Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

| | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Subject | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 34 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 35 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.67 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 36 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 |
| 37 | Shortest Quartile | 0.75 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| | \ | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | \ | 0.80 | 1.00 | 0.75 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 0.50 | 0.00 | 0.75 | 1.00 | 0.50 | 1.00 | 1.00 |
| 38 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.80 | 1.00 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 0.80 | 0.60 | 1.00 | 0.80 | 1.00 | 1.00 |
| 39 | Shortest Quartile | 1.00 | 0.75 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 0.80 |
| | \ | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.75 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.50 | 0.75 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 40 | Shortest Quartile | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| | Longest Quartile | 1.00 | 0.80 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |

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Appendix K. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 4, as a function of RT1 quartile and SOA.

Conditionalized Probe Accuracy

| Subject | RT | SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|
| 41 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.86 | 0.83 | 0.71 | 0.80 | 1.00 | 0.83 | 0.83 | 1.00 |
| 42 | Shortest Quartile | 0.75 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.60 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 0.80 | 0.40 | 0.80 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 |
| | Longest Quartile | 0.75 | 0.40 | 0.40 | 0.80 | 1.00 | 1.00 | 0.80 | 1.00 |
| 43 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | Longest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| 44 | Shortest Quartile | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| | \ | 0.75 | 0.83 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.80 |
| | \ | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | Longest Quartile | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| 45 | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.60 | 1.00 | 1.00 |
| | \ | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 0.60 | 0.80 | 0.80 |
| | Longest Quartile | 1.00 | 0.75 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 |
| 46 | Shortest Quartile | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | \ | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| | Longest Quartile | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Appendix L. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 5, as a function of control/experimental instructions and SOA.

**Experiment 5**

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 1 | Control | Green | 0.92 | 0.83 | 0.95 | 0.94 | 0.89 | 0.81 | 0.93 | 1.00 | |
| | Control | Red | 1.00 | 0.85 | 1.00 | 1.00 | 0.93 | 1.00 | 1.00 | 0.90 | |
| | Exp | Green | 0.48 | 0.37 | 0.58 | 0.75 | 0.82 | 0.71 | 0.63 | 0.83 | 0.97 |
| | Exp | Red | 0.71 | 0.57 | 0.42 | 0.92 | 1.00 | 0.92 | 0.96 | 0.87 | 0.97 |
| 2 | Control | Green | 0.86 | 0.86 | 0.87 | 0.95 | 0.92 | 1.00 | 0.91 | 0.60 | |
| | Control | Red | 0.74 | 0.74 | 0.72 | 0.95 | 0.73 | 0.82 | 0.67 | 0.84 | |
| | Exp | Green | 1.00 | 0.55 | 0.53 | 0.50 | 0.64 | 0.82 | 0.80 | 0.87 | 0.94 |
| | Exp | Red | 0.53 | 0.48 | 0.61 | 0.60 | 0.75 | 0.81 | 0.74 | 0.71 | 0.95 |
| 3 | Control | Green | 0.95 | 0.96 | 0.74 | 0.85 | 0.96 | 0.88 | 0.85 | 0.90 | |
| | Control | Red | 0.62 | 0.76 | 0.96 | 0.91 | 0.92 | 0.87 | 0.90 | 0.95 | |
| | Exp | Green | 1.00 | 0.71 | 0.25 | 0.77 | 0.82 | 1.00 | 0.82 | 0.93 | 0.95 |
| | Exp | Red | 0.33 | 0.29 | 0.41 | 0.67 | 0.73 | 0.82 | 0.86 | 0.77 | 0.92 |
| 4 | Control | Green | 0.84 | 0.82 | 0.78 | 0.88 | 0.86 | 0.95 | 0.86 | 0.79 | |
| | Control | Red | 0.70 | 0.77 | 0.77 | 0.77 | 0.73 | 0.71 | 0.79 | 0.71 | |
| | Exp | Green | 0.50 | 0.75 | 0.43 | 0.42 | 0.50 | 0.77 | 1.00 | 0.87 | 0.95 |
| | Exp | Red | 0.25 | 0.63 | 0.67 | 0.67 | 0.73 | 0.60 | 0.88 | 0.82 | 0.94 |
| 5 | Control | Green | 0.89 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 1.00 | |
| | Control | Red | 0.95 | 0.89 | 0.88 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | |
| | Exp | Green | 0.80 | 0.78 | 0.77 | 0.86 | 0.93 | 0.93 | 0.95 | 0.83 | 0.96 |
| | Exp | Red | 0.53 | 0.36 | 0.47 | 0.84 | 0.78 | 0.94 | 0.89 | 0.91 | 0.97 |
| 6 | Control | Green | 0.87 | 0.93 | 0.75 | 0.77 | 1.00 | 0.93 | 0.92 | 0.81 | |
| | Control | Red | 0.60 | 0.50 | 0.69 | 0.47 | 0.54 | 0.78 | 0.78 | 0.50 | |
| | Exp | Green | 0.68 | 0.65 | 0.63 | 0.81 | 0.65 | 0.75 | 0.47 | 0.44 | 0.94 |
| | Exp | Red | 0.48 | 0.35 | 0.25 | 0.50 | 0.50 | 0.40 | 0.61 | 0.72 | 0.92 |

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Appendix L. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 5, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 7 | Control | Green | 0.76 | 1.00 | 0.80 | 0.88 | 0.78 | 0.88 | 0.91 | 0.83 | |
| | Control | Red | 0.93 | 0.88 | 0.94 | 0.81 | 1.00 | 0.94 | 0.95 | 0.79 | |
| | Exp | Green | 0.45 | 0.39 | 0.35 | 0.50 | 0.68 | 0.82 | 0.82 | 0.96 | 0.94 |
| | Exp | Red | 0.75 | 0.39 | 0.71 | 1.00 | 0.79 | 0.95 | 0.96 | 1.00 | 0.96 |
| 8 | Control | Green | 0.77 | 0.91 | 0.86 | 0.96 | 0.92 | 0.91 | 0.90 | 0.95 | |
| | Control | Red | 0.86 | 0.96 | 0.89 | 0.96 | 0.95 | 1.00 | 0.96 | 0.93 | |
| | Exp | Green | 0.62 | 0.30 | 0.47 | 0.75 | 0.78 | 0.76 | 0.82 | 0.42 | 0.92 |
| | Exp | Red | 0.82 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 |
| 9 | Control | Green | 0.71 | 0.73 | 0.73 | 0.67 | 0.75 | 0.68 | 0.71 | 0.81 | |
| | Control | Red | 0.67 | 0.69 | 0.81 | 0.79 | 0.96 | 0.83 | 0.92 | 0.90 | |
| | Exp | Green | 0.56 | 0.64 | 0.23 | 0.40 | 0.50 | 0.83 | 0.78 | 0.81 | 0.98 |
| | Exp | Red | 0.75 | 0.57 | 0.53 | 0.85 | 0.80 | 0.86 | 1.00 | 1.00 | 0.99 |
| 10 | Control | Green | 0.92 | 0.93 | 0.94 | 0.72 | 0.88 | 0.80 | 0.87 | 0.94 | |
| | Control | Red | 0.79 | 0.71 | 0.94 | 0.93 | 0.81 | 0.94 | 0.94 | 0.93 | |
| | Exp | Green | 0.41 | 0.40 | 0.60 | 0.59 | 0.58 | 0.58 | 0.59 | 0.70 | 0.86 |
| | Exp | Red | 0.47 | 0.38 | 0.50 | 0.47 | 0.81 | 0.75 | 0.75 | 0.73 | 0.86 |
| 11 | Control | Green | 0.55 | 0.65 | 0.73 | 0.81 | 0.83 | 0.78 | 0.92 | 0.73 | |
| | Control | Red | 0.80 | 0.87 | 1.00 | 0.79 | 0.94 | 0.94 | 0.85 | 1.00 | |
| | Exp | Green | 0.32 | 0.33 | 0.33 | 0.50 | 0.75 | 0.60 | 0.50 | 0.90 | 0.93 |
| | Exp | Red | 0.78 | 0.87 | 0.88 | 0.74 | 0.88 | 0.81 | 0.95 | 1.00 | 0.96 |
| 12 | Control | Green | 0.83 | 0.85 | 0.95 | 0.92 | 0.95 | 0.92 | 1.00 | 0.97 | |
| | Control | Red | 0.84 | 0.86 | 0.96 | 0.91 | 0.89 | 0.96 | 1.00 | 1.00 | |
| | Exp | Green | 0.67 | 0.57 | 0.75 | 1.00 | 0.95 | 1.00 | 0.88 | 1.00 | 0.98 |
| | Exp | Red | 0.57 | 0.61 | 0.73 | 0.93 | 1.00 | 0.93 | 1.00 | 0.93 | 0.98 |
| 13 | Control | Green | 0.96 | 0.92 | 0.86 | 1.00 | 0.97 | 0.96 | 0.90 | 0.93 | |
| | Control | Red | 0.91 | 0.96 | 0.96 | 1.00 | 1.00 | 0.96 | 1.00 | 0.95 | |
| | Exp | Green | 0.55 | 0.69 | 0.93 | 0.93 | 1.00 | 0.73 | 1.00 | 1.00 | 0.98 |
| | Exp | Red | 0.75 | 0.79 | 0.87 | 0.73 | 0.89 | 0.86 | 1.00 | 1.00 | 0.99 |

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Appendix L. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 5, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 14 | Control | Green | 0.94 | 0.75 | 0.88 | 0.78 | 0.72 | 0.63 | 0.85 | 0.78 | |
| | Control | Red | 0.88 | 0.88 | 0.75 | 0.88 | 1.00 | 0.81 | 0.93 | 0.94 | |
| | Exp | Green | 0.65 | 0.68 | 0.55 | 0.57 | 0.65 | 0.35 | 0.76 | 0.60 | 0.99 |
| | Exp | Red | 0.31 | 0.36 | 0.36 | 0.71 | 0.67 | 0.64 | 0.76 | 0.53 | 0.99 |
| 15 | Control | Green | 0.77 | 0.87 | 0.76 | 1.00 | 0.89 | 0.84 | 0.93 | 0.96 | |
| | Control | Red | 0.92 | 0.92 | 0.94 | 0.97 | 0.95 | 0.94 | 0.93 | 0.93 | |
| | Exp | Green | 0.14 | 0.33 | 0.25 | 0.00 | 0.88 | 0.64 | 0.88 | 1.00 | 0.97 |
| | Exp | Red | 0.57 | 0.50 | 0.69 | 0.92 | 0.90 | 0.78 | 1.00 | 1.00 | 0.97 |
| 16 | Control | Green | 0.87 | 1.00 | 0.94 | 1.00 | 0.94 | 0.93 | 0.88 | 1.00 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.82 | 0.93 | 0.95 | |
| | Exp | Green | 0.56 | 0.58 | 0.64 | 0.73 | 0.83 | 0.77 | 0.84 | 0.79 | 0.93 |
| | Exp | Red | 0.63 | 0.40 | 0.70 | 1.00 | 0.79 | 1.00 | 0.73 | 0.86 | 0.93 |
| 17 | Control | Green | 0.67 | 0.68 | 0.69 | 0.82 | 0.89 | 0.80 | 0.94 | 0.92 | |
| | Control | Red | 0.79 | 0.90 | 0.74 | 0.88 | 0.97 | 0.89 | 0.88 | 0.96 | |
| | Exp | Green | 0.38 | 0.53 | 0.58 | 0.69 | 0.56 | 0.73 | 0.71 | 0.73 | 0.95 |
| | Exp | Red | 0.42 | 0.33 | 0.53 | 0.79 | 0.69 | 0.73 | 0.68 | 0.57 | 0.95 |
| 18 | Control | Green | 0.88 | 1.00 | 0.90 | 0.95 | 0.87 | 1.00 | 0.87 | 0.96 | |
| | Control | Red | 0.96 | 0.91 | 0.95 | 0.95 | 1.00 | 0.96 | 0.96 | 1.00 | |
| | Exp | Green | 0.72 | 0.71 | 0.48 | 0.58 | 0.68 | 0.62 | 0.83 | 0.92 | 0.95 |
| | Exp | Red | 0.50 | 0.58 | 0.90 | 0.81 | 0.72 | 0.81 | 0.92 | 1.00 | 0.95 |
| 19 | Control | Green | 0.84 | 0.84 | 0.88 | 0.95 | 0.78 | 0.80 | 0.86 | 0.78 | |
| | Control | Red | 0.87 | 0.90 | 0.96 | 0.96 | 0.96 | 0.83 | 0.85 | 0.84 | |
| | Exp | Green | 0.33 | 0.36 | 0.21 | 0.25 | 0.25 | 0.45 | 0.21 | 0.27 | 0.96 |
| | Exp | Red | 0.45 | 0.69 | 0.75 | 0.72 | 0.77 | 0.81 | 0.64 | 0.83 | 0.96 |
| 20 | Control | Green | 0.75 | 0.88 | 0.85 | 0.96 | 0.96 | 0.91 | 0.88 | 0.96 | |
| | Control | Red | 0.71 | 0.83 | 1.00 | 0.75 | 0.92 | 0.81 | 0.83 | 0.95 | |
| | Exp | Green | 0.54 | 0.54 | 0.59 | 0.64 | 0.71 | 0.75 | 0.78 | 0.79 | 0.96 |
| | Exp | Red | 0.47 | 0.57 | 0.50 | 0.67 | 0.63 | 0.77 | 0.79 | 0.77 | 0.95 |

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Appendix L. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 5, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 21 | Control | Green | 0.94 | 0.93 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 0.93 | 0.83 | 0.95 | 0.81 | 0.79 | 1.00 | 1.00 | 0.95 | |
| | Exp | Green | 0.30 | 0.46 | 0.53 | 0.71 | 0.94 | 0.92 | 0.89 | 0.67 | 0.86 |
| | Exp | Red | 0.63 | 0.40 | 0.55 | 0.80 | 0.88 | 0.87 | 0.93 | 0.68 | 0.88 |
| 22 | Control | Green | 0.81 | 0.87 | 0.90 | 0.78 | 0.95 | 1.00 | 0.95 | 0.94 | |
| | Control | Red | 0.74 | 0.76 | 0.95 | 0.91 | 0.95 | 0.96 | 0.95 | 0.96 | |
| | Exp | Green | 0.43 | 0.46 | 0.70 | 0.75 | 0.56 | 0.82 | 0.93 | 0.94 | 0.94 |
| | Exp | Red | 0.47 | 0.53 | 0.63 | 0.78 | 0.81 | 0.75 | 0.88 | 0.83 | 0.96 |
| 23 | Control | Green | 0.86 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | |
| | Exp | Green | 0.71 | 0.60 | 0.89 | 0.88 | 0.88 | 1.00 | 0.90 | 0.94 | 0.98 |
| | Exp | Red | 0.50 | 0.60 | 0.88 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 |
| 24 | Control | Green | 0.71 | 0.72 | 0.82 | 0.74 | 0.94 | 0.84 | 0.93 | 0.86 | |
| | Control | Red | 0.87 | 1.00 | 0.93 | 1.00 | 1.00 | 1.00 | 0.94 | 0.83 | |
| | Exp | Green | 0.70 | 0.47 | 0.69 | 0.67 | 0.68 | 0.85 | 0.86 | 0.95 | 0.96 |
| | Exp | Red | 0.60 | 0.58 | 0.52 | 0.90 | 0.76 | 0.84 | 0.91 | 1.00 | 0.95 |
| 25 | Control | Green | 0.67 | 0.95 | 0.83 | 0.76 | 0.65 | 0.93 | 0.88 | 0.71 | |
| | Control | Red | 0.76 | 0.94 | 0.71 | 0.91 | 0.80 | 0.92 | 0.78 | 0.58 | |
| | Exp | Green | 0.47 | 0.47 | 0.30 | 0.55 | 0.40 | 0.75 | 0.67 | 0.67 | 0.96 |
| | Exp | Red | 0.22 | 0.50 | 0.58 | 0.38 | 0.44 | 0.65 | 0.61 | 0.82 | 0.95 |
| 26 | Control | Green | 0.50 | 0.69 | 0.74 | 0.69 | 0.59 | 0.77 | 0.81 | 0.68 | |
| | Control | Red | 0.70 | 0.70 | 0.67 | 0.67 | 0.78 | 0.83 | 0.74 | 0.89 | |
| | Exp | Green | 0.91 | 0.50 | 0.55 | 0.56 | 0.38 | 0.63 | 0.75 | 0.67 | 0.79 |
| | Exp | Red | 0.56 | 0.33 | 0.40 | 0.55 | 0.36 | 0.45 | 0.70 | 0.71 | 0.83 |

Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

**Experiment 5**

| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
| 1 | Green | Shortest Quartile | 0.67 | 0.60 | 0.86 | 1.00 | 1.00 | 0.80 | 0.80 | 1.00 |
| | | \ | 0.83 | 0.50 | 0.50 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 0.40 | 0.67 | 0.67 | 0.80 | 0.83 | 0.83 | 0.83 |
| | | Longest Quartile | 0.50 | 0.00 | 0.50 | 0.80 | 0.80 | 0.40 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.60 | 0.40 | 0.50 | 0.80 | 1.00 | 1.00 | 0.83 | 0.60 |
| | | \ | 0.50 | 0.50 | 0.50 | 0.83 | 1.00 | 0.67 | 0.83 | 1.00 |
| | | \ | 0.71 | 0.67 | 0.33 | 1.00 | 0.80 | 1.00 | 0.83 | 0.40 |
| | | Longest Quartile | 0.57 | 0.60 | 0.33 | 0.60 | 0.80 | 0.83 | 0.50 | 1.00 |
| 2 | Green | Shortest Quartile | 0.50 | 0.50 | 1.00 | 0.50 | 0.80 | 0.50 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.60 | 0.20 | 0.75 | 0.40 | 1.00 | 0.75 | 0.60 |
| | | Longest Quartile | 0.50 | 0.25 | 0.40 | 0.25 | 0.40 | 0.75 | 0.50 | 0.60 |
| | Red | Shortest Quartile | 0.75 | 0.80 | 0.50 | 0.75 | 0.75 | 1.00 | 0.80 | 0.75 |
| | | \ | 0.50 | 0.20 | 0.50 | 0.60 | 0.75 | 0.80 | 0.80 | 1.00 |
| | | \ | 1.00 | 0.60 | 0.50 | 0.20 | 0.75 | 0.80 | 0.80 | 0.75 |
| | | Longest Quartile | 0.75 | 0.40 | 0.50 | 0.50 | 0.50 | 0.75 | 0.60 | 0.25 |
| 3 | Green | Shortest Quartile | 0.75 | 0.50 | 0.67 | 0.80 | 0.67 | 1.00 | 0.67 | 1.00 |
| | | \ | 0.50 | 0.75 | 0.50 | 0.50 | 1.00 | 1.00 | 0.67 | 1.00 |
| | | \ | 0.75 | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | | Longest Quartile | 0.50 | 0.25 | 0.67 | 0.50 | 0.67 | 0.67 | 0.67 | 0.50 |
| | Red | Shortest Quartile | 0.67 | 0.75 | 0.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.25 | 0.50 | 0.00 | 0.50 | 1.00 | 1.00 | 1.00 | 0.75 |
| | | \ | 0.20 | 0.00 | 0.67 | 1.00 | 0.50 | 1.00 | 1.00 | 0.75 |
| | | Longest Quartile | 0.50 | 0.75 | 0.00 | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
| 4 | Green | Shortest Quartile | 0.00 | 1.00 | 0.67 | 0.00 | 0.33 | 0.67 | 1.00 | 0.67 |
| | | \ | 0.25 | 0.50 | 0.75 | 0.67 | 0.75 | 0.67 | 1.00 | 1.00 |
| | | \ | 0.00 | 1.00 | 0.50 | 0.33 | 0.75 | 0.67 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.67 | 0.33 | 1.00 | 0.67 | 0.67 | 1.00 | 0.67 |
| | Red | Shortest Quartile | 0.75 | 0.67 | 0.67 | 0.67 | 0.00 | 1.00 | 1.00 | 0.75 |
| | | \ | 0.50 | 0.67 | 0.33 | 0.33 | 1.00 | 1.00 | 0.75 | 0.80 |
| | | \ | 0.25 | 0.67 | 1.00 | 0.67 | 1.00 | 0.75 | 1.00 | 0.80 |
| | | Longest Quartile | 0.50 | 0.33 | 0.00 | 0.67 | 0.50 | 0.25 | 0.75 | 1.00 |
| 5 | Green | Shortest Quartile | 0.75 | 0.67 | 0.80 | 1.00 | 1.00 | 1.00 | 0.80 | 0.75 |
| | | \ | 0.25 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.83 | 1.00 | 0.75 | 1.00 | 1.00 | 0.80 | 0.60 |
| | | Longest Quartile | 0.75 | 0.00 | 0.60 | 0.75 | 0.50 | 1.00 | 0.80 | 1.00 |
| | Red | Shortest Quartile | 0.50 | 0.75 | 0.40 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 |
| | | \ | 0.80 | 0.25 | 0.20 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.80 | 0.75 | 0.80 | 1.00 | 0.80 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.25 | 0.40 | 0.50 | 0.50 | 0.75 | 1.00 | 0.80 |
| 6 | Green | Shortest Quartile | 1.00 | 0.60 | 0.60 | 0.60 | 0.50 | 0.67 | 0.80 | 0.20 |
| | | \ | 0.33 | 0.60 | 0.17 | 0.80 | 0.40 | 0.67 | 1.00 | 0.60 |
| | | \ | 0.50 | 0.60 | 0.50 | 1.00 | 0.80 | 0.67 | 0.40 | 0.80 |
| | | Longest Quartile | 0.60 | 0.20 | 0.40 | 0.60 | 0.00 | 0.50 | 0.40 | 0.60 |
| | Red | Shortest Quartile | 0.40 | 0.75 | 0.20 | 0.80 | 0.75 | 0.50 | 0.40 | 0.40 |
| | | \ | 0.83 | 0.25 | 0.60 | 0.60 | 0.75 | 0.60 | 0.40 | 0.80 |
| | | \ | 0.33 | 0.25 | 0.40 | 0.80 | 0.75 | 0.40 | 0.40 | 0.80 |
| | | Longest Quartile | 0.60 | 0.75 | 0.80 | 0.40 | 0.75 | 0.50 | 0.40 | 0.40 |
| 7 | Green | Shortest Quartile | 0.71 | 0.20 | 0.60 | 1.00 | 0.80 | 0.80 | 1.00 | 0.80 |
| | | \ | 0.29 | 0.40 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.83 | 0.80 | 0.60 | 0.80 | 0.83 | 0.83 | 0.80 | 1.00 |
| | | Longest Quartile | 0.67 | 0.40 | 0.40 | 0.40 | 0.40 | 1.00 | 0.80 | 1.00 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 7 | Red | Shortest Quartile | 0.60 | 0.40 | 0.60 | 1.00 | 0.40 | 0.75 | 0.83 | 1.00 |
| | | \ | 0.80 | 0.00 | 0.50 | 0.40 | 0.83 | 1.00 | 0.83 | 1.00 |
| | | \ | 0.20 | 0.50 | 0.33 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.60 | 0.40 | 0.60 | 0.40 | 0.60 | 0.75 | 1.00 | 1.00 |
| 8 | Green | Shortest Quartile | 0.67 | 1.00 | 0.80 | 1.00 | 1.00 | 0.75 | 1.00 | 0.33 |
| | | \ | 1.00 | 0.50 | 1.00 | 0.67 | 1.00 | 1.00 | 0.67 | 1.00 |
| | | \ | 0.75 | 0.50 | 0.75 | 0.67 | 1.00 | 0.50 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.33 | 0.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.67 |
| | Red | Shortest Quartile | 0.67 | 0.25 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 |
| | | \ | 0.67 | 0.25 | 1.00 | 1.00 | 0.33 | 1.00 | 1.00 | 0.60 |
| | | \ | 0.33 | 0.67 | 1.00 | 1.00 | 0.67 | 0.80 | 1.00 | 0.75 |
| | | Longest Quartile | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 |
| 9 | Green | Shortest Quartile | 0.75 | 1.00 | 0.25 | 1.00 | 0.33 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.75 | 0.75 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.25 | 0.50 | 1.00 | 0.33 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 0.25 | 0.50 | 0.33 | 0.33 | 0.75 | 1.00 | 0.75 |
| | Red | Shortest Quartile | 0.75 | 0.67 | 0.75 | 0.40 | 1.00 | 1.00 | 0.75 | 0.75 |
| | | \ | 0.25 | 0.40 | 0.20 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.75 | 0.25 | 0.50 | 1.00 | 0.50 | 0.75 | 1.00 |
| | | Longest Quartile | 0.75 | 1.00 | 0.00 | 0.25 | 0.75 | 0.67 | 0.50 | 0.75 |
| 10 | Green | Shortest Quartile | 0.75 | 0.20 | 0.25 | 0.60 | 0.50 | 0.80 | 0.75 | 1.00 |
| | | \ | 0.40 | 0.00 | 0.50 | 0.20 | 0.60 | 0.60 | 0.25 | 1.00 |
| | | \ | 0.40 | 0.20 | 0.50 | 0.67 | 0.75 | 0.60 | 0.50 | 0.60 |
| | | Longest Quartile | 1.00 | 0.60 | 0.75 | 0.67 | 0.75 | 0.60 | 0.75 | 0.75 |
| | Red | Shortest Quartile | 0.60 | 0.40 | 0.75 | 0.60 | 1.00 | 0.25 | 0.60 | 1.00 |
| | | \ | 0.40 | 0.60 | 1.00 | 0.20 | 0.80 | 1.00 | 1.00 | 0.40 |
| | | \ | 0.00 | 0.60 | 0.50 | 0.80 | 0.60 | 0.60 | 0.60 | 0.80 |
| | | Longest Quartile | 0.25 | 0.40 | 0.00 | 0.60 | 0.80 | 0.50 | 0.60 | 0.25 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

| Subject | T2 colour | RT | Conditionalized Probe Accuracy SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Green | Shortest Quartile | 0.80 | 0.75 | 0.25 | 0.75 | 1.00 | 0.75 | 0.75 | 1.00 |
| | | \ | 0.80 | 0.80 | 0.50 | 0.75 | 1.00 | 1.00 | 0.60 | 1.00 |
| | | \ | 0.40 | 0.80 | 0.50 | 0.75 | 0.80 | 1.00 | 0.80 | 1.00 |
| | | Longest Quartile | 0.20 | 0.25 | 1.00 | 0.50 | 0.50 | 0.50 | 0.50 | 1.00 |
| | Red | Shortest Quartile | 0.75 | 0.50 | 0.67 | 0.63 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.40 | 0.75 | 0.67 | 0.80 | 0.83 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.20 | 0.25 | 0.71 | 0.60 | 0.80 | 0.25 | 1.00 | 0.80 |
| | | Longest Quartile | 0.50 | 0.75 | 0.50 | 0.60 | 0.60 | 0.50 | 0.60 | 1.00 |
| 12 | Green | Shortest Quartile | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.50 | 0.75 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.25 | 0.25 | 1.00 | 0.75 | 1.00 | 0.67 | 0.75 |
| | Red | Shortest Quartile | 0.67 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.25 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.67 | 0.80 | 0.67 | 0.75 | 1.00 | 1.00 | 0.67 | 1.00 |
| 13 | Green | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.25 | 1.00 | 1.00 | 0.75 | 1.00 | 0.50 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.50 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 0.75 | 1.00 | 0.67 | 0.75 | 0.75 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.80 | 0.80 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.60 | 0.50 | 0.75 | 0.75 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 0.25 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 |
| 14 | Green | Shortest Quartile | 1.00 | 0.75 | 0.25 | 0.60 | 0.60 | 0.80 | 1.00 | 0.60 |
| | | \ | 0.60 | 0.60 | 0.00 | 0.40 | 0.67 | 1.00 | 0.00 | 0.40 |
| | | \ | 0.60 | 0.40 | 0.40 | 0.20 | 0.20 | 0.20 | 1.00 | 0.60 |
| | | Longest Quartile | 0.40 | 0.75 | 0.75 | 0.80 | 0.60 | 0.20 | 1.00 | 0.40 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 14 | Red | Shortest Quartile | 0.50 | 0.33 | 0.80 | 0.50 | 1.00 | 0.50 | 0.80 | 0.80 |
| | | \ | 0.40 | 0.33 | 0.80 | 0.80 | 0.80 | 0.20 | 1.00 | 0.60 |
| | | \ | 0.40 | 0.60 | 0.60 | 0.80 | 0.67 | 0.80 | 0.60 | 0.83 |
| | | Longest Quartile | 0.25 | 0.80 | 0.20 | 1.00 | 0.50 | 0.25 | 0.83 | 0.50 |
| 15 | Green | Shortest Quartile | 0.00 | 0.33 | 0.33 | 0.67 | 1.00 | 0.50 | 1.00 | 1.00 |
| | | \ | 0.67 | 0.33 | 1.00 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 |
| | | Longest Quartile | 0.33 | 0.33 | 1.00 | 0.67 | 1.00 | 0.00 | 0.67 | 1.00 |
| | Red | Shortest Quartile | 0.67 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.33 | 0.67 | 0.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 |
| | | \ | 0.00 | 0.00 | 0.50 | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 |
| | | Longest Quartile | 0.00 | 0.33 | 0.00 | 0.00 | 0.67 | 0.67 | 0.50 | 1.00 |
| 16 | Green | Shortest Quartile | 0.60 | 0.80 | 1.00 | 0.83 | 1.00 | 1.00 | 0.83 | 1.00 |
| | | \ | 0.60 | 0.40 | 0.71 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.80 | 0.40 | 0.50 | 0.83 | 0.80 | 0.80 | 0.40 | 0.80 |
| | | Longest Quartile | 0.60 | 0.60 | 0.50 | 0.40 | 0.50 | 0.60 | 0.80 | 0.60 |
| | Red | Shortest Quartile | 1.00 | 0.20 | 0.86 | 0.60 | 1.00 | 1.00 | 1.00 | 0.80 |
| | | \ | 0.40 | 0.60 | 0.67 | 1.00 | 0.80 | 0.67 | 1.00 | 0.83 |
| | | \ | 0.60 | 0.20 | 0.33 | 0.60 | 0.80 | 0.67 | 0.67 | 0.67 |
| | | Longest Quartile | 0.40 | 0.80 | 0.83 | 0.40 | 0.80 | 0.80 | 0.33 | 0.80 |
| 17 | Green | Shortest Quartile | 0.33 | 0.25 | 0.50 | 0.67 | 0.67 | 0.67 | 1.00 | 0.67 |
| | | \ | 0.67 | 0.00 | 0.25 | 0.75 | 0.75 | 1.00 | 1.00 | 0.75 |
| | | \ | 0.00 | 0.75 | 0.50 | 0.50 | 1.00 | 0.75 | 0.67 | 0.75 |
| | | Longest Quartile | 1.00 | 0.60 | 0.50 | 1.00 | 0.67 | 0.67 | 0.33 | 0.67 |
| | Red | Shortest Quartile | 0.25 | 0.33 | 0.50 | 0.75 | 0.67 | 0.00 | 1.00 | 0.67 |
| | | \ | 0.25 | 1.00 | 0.50 | 0.50 | 0.33 | 0.67 | 0.75 | 1.00 |
| | | \ | 0.67 | 0.33 | 1.00 | 1.00 | 0.67 | 1.00 | 0.50 | 1.00 |
| | | Longest Quartile | 0.00 | 0.67 | 0.50 | 1.00 | 0.33 | 1.00 | 0.50 | 0.00 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 18 | Green | Shortest Quartile | 0.80 | 0.50 | 0.80 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | | \ | 0.80 | 0.40 | 0.67 | 0.60 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.40 | 0.60 | 0.67 | 0.60 | 0.80 | 0.80 | 0.75 | 1.00 |
| | | Longest Quartile | 0.60 | 0.25 | 0.50 | 0.50 | 0.40 | 0.60 | 0.75 | 1.00 |
| | Red | Shortest Quartile | 0.60 | 1.00 | 0.50 | 0.75 | 0.80 | 0.60 | 0.80 | 1.00 |
| | | \ | 0.40 | 1.00 | 0.75 | 0.80 | 0.80 | 0.60 | 0.80 | 1.00 |
| | | \ | 0.40 | 0.50 | 0.50 | 0.80 | 0.60 | 0.80 | 1.00 | 0.80 |
| | | Longest Quartile | 0.60 | 0.75 | 0.75 | 0.50 | 0.40 | 0.20 | 1.00 | 1.00 |
| 19 | Green | Shortest Quartile | 0.25 | 0.33 | 1.00 | 0.67 | 0.50 | 0.67 | 0.33 | 0.33 |
| | | \ | 0.00 | 0.00 | 0.50 | 0.67 | 0.50 | 0.75 | 0.67 | 0.00 |
| | | \ | 0.29 | 0.50 | 0.50 | 0.33 | 0.50 | 1.00 | 0.67 | 0.75 |
| | | Longest Quartile | 0.40 | 0.67 | 0.33 | 0.67 | 0.50 | 1.00 | 0.33 | 0.67 |
| | Red | Shortest Quartile | 0.67 | 0.33 | 0.33 | 0.60 | 0.50 | 0.00 | 0.50 | 0.67 |
| | | \ | 0.67 | 1.00 | 0.75 | 0.60 | 0.75 | 0.33 | 0.00 | 0.25 |
| | | \ | 1.00 | 0.75 | 0.50 | 0.75 | 0.00 | 1.00 | 0.50 | 0.75 |
| | | Longest Quartile | 0.33 | 0.67 | 0.00 | 0.25 | 0.50 | 0.33 | 0.50 | 0.67 |
| 20 | Green | Shortest Quartile | 0.50 | 0.50 | 0.25 | 1.00 | 1.00 | 1.00 | 0.50 | 0.50 |
| | | \ | 1.00 | 0.40 | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 | 0.50 |
| | | \ | 0.25 | 0.50 | 0.25 | 0.67 | 0.50 | 0.75 | 0.75 | 1.00 |
| | | Longest Quartile | 0.50 | 0.50 | 0.50 | 0.67 | 0.00 | 0.33 | 0.50 | 1.00 |
| | Red | Shortest Quartile | 0.67 | 0.67 | 0.50 | 0.75 | 0.50 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.33 | 0.50 | 0.50 | 0.50 | 0.75 | 1.00 | 0.75 | 0.75 |
| | | \ | 0.67 | 0.75 | 0.75 | 0.75 | 1.00 | 0.60 | 1.00 | 0.75 |
| | | Longest Quartile | 0.00 | 0.00 | 1.00 | 0.50 | 0.50 | 1.00 | 1.00 | 0.67 |
| 21 | Green | Shortest Quartile | 0.50 | 0.75 | 0.50 | 0.50 | 1.00 | 1.00 | 0.75 | 1.00 |
| | | \ | 1.00 | 0.40 | 0.80 | 1.00 | 1.00 | 1.00 | 0.83 | 0.50 |
| | | \ | 0.80 | 0.60 | 0.60 | 0.60 | 1.00 | 1.00 | 0.60 | 0.75 |
| | | Longest Quartile | 0.25 | 0.25 | 0.50 | 0.75 | 0.80 | 0.80 | 1.00 | 0.50 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

Conditionalized Probe Accuracy (SOA)

| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | Red | Shortest Quartile | 0.25 | 0.20 | 0.50 | 1.00 | 1.00 | 0.60 | 1.00 | 0.80 |
| | | \ | 0.40 | 0.20 | 0.33 | 0.60 | 1.00 | 1.00 | 1.00 | 0.83 |
| | | \ | 0.40 | 0.40 | 0.33 | 0.80 | 1.00 | 0.80 | 1.00 | 0.83 |
| | | Longest Quartile | 0.00 | 0.20 | 0.67 | 0.75 | 0.50 | 1.00 | 0.80 | 0.40 |
| 22 | Green | Shortest Quartile | 0.75 | 0.80 | 0.75 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.60 | 0.75 | 0.75 | 0.75 | 0.80 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.80 | 0.75 | 0.50 | 0.50 | 1.00 | 1.00 | 0.75 |
| | | Longest Quartile | 0.50 | 0.20 | 0.25 | 1.00 | 0.50 | 1.00 | 0.50 | 1.00 |
| | Red | Shortest Quartile | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.40 | 0.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 |
| | | \ | 0.40 | 0.25 | 0.60 | 0.50 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 0.25 | 0.33 | 0.25 | 0.50 | 0.25 | 0.00 | 1.00 | 0.40 |
| 23 | Green | Shortest Quartile | 0.80 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| | | \ | 0.80 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| | | \ | 0.80 | 0.40 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| | | Longest Quartile | 1.00 | 0.60 | 0.60 | 0.40 | 0.60 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.40 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 |
| | | \ | 0.50 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.17 | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.40 | 0.50 | 0.75 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| 24 | Green | Shortest Quartile | 0.67 | 0.67 | 0.50 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.33 | 0.50 | 0.86 | 0.67 | 0.83 | 0.83 | 1.00 |
| | | \ | 0.67 | 0.67 | 0.67 | 1.00 | 0.50 | 0.83 | 0.83 | 1.00 |
| | | Longest Quartile | 0.83 | 0.50 | 0.50 | 0.20 | 0.33 | 0.80 | 0.67 | 1.00 |
| | Red | Shortest Quartile | 0.60 | 0.60 | 0.60 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.80 | 0.60 | 0.50 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.60 | 0.60 | 0.80 | 0.83 | 1.00 | 0.67 | 0.67 | 0.80 |
| | | Longest Quartile | 0.80 | 0.60 | 0.75 | 0.60 | 0.60 | 0.60 | 1.00 | 1.00 |

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Appendix M. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 5, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 25 | Green | Shortest Quartile | 0.20 | 0.60 | 0.00 | 0.80 | 0.60 | 0.80 | 0.60 | 0.75 |
| | | \ | 0.40 | 0.60 | 0.75 | 0.60 | 0.60 | 1.00 | 0.80 | 1.00 |
| | | \ | 0.20 | 0.40 | 0.00 | 0.80 | 0.60 | 0.80 | 0.80 | 0.75 |
| | | Longest Quartile | 0.20 | 0.80 | 0.50 | 0.20 | 0.40 | 0.40 | 0.60 | 0.75 |
| | Red | Shortest Quartile | 0.40 | 0.50 | 0.50 | 0.25 | 0.60 | 0.60 | 0.75 | 1.00 |
| | | \ | 0.40 | 0.00 | 0.25 | 0.50 | 0.00 | 0.60 | 0.60 | 1.00 |
| | | \ | 0.60 | 0.20 | 0.50 | 0.25 | 0.20 | 0.80 | 0.60 | 0.75 |
| | | Longest Quartile | 0.20 | 1.00 | 0.80 | 0.25 | 0.40 | 0.80 | 0.25 | 0.50 |
| 26 | Green | Shortest Quartile | 1.00 | 0.33 | 0.50 | 0.50 | 0.67 | 1.00 | 1.00 | 0.75 |
| | | \ | 1.00 | 0.25 | 0.50 | 1.00 | 0.00 | 0.33 | 1.00 | 0.25 |
| | | \ | 0.67 | 0.25 | 0.50 | 0.50 | 0.67 | 0.00 | 0.67 | 1.00 |
| | | Longest Quartile | 0.67 | 0.33 | 1.00 | 0.50 | 0.00 | 0.50 | 0.67 | 0.75 |
| | Red | Shortest Quartile | 0.33 | 1.00 | 0.50 | 0.67 | 0.00 | 0.67 | 0.67 | 1.00 |
| | | \ | 0.33 | 0.00 | 0.25 | 0.50 | 0.50 | 0.50 | 0.33 | 0.00 |
| | | \ | 0.67 | 0.00 | 0.50 | 0.50 | 0.75 | 0.33 | 0.33 | 0.67 |
| | | Longest Quartile | 0.67 | 1.00 | 0.50 | 0.33 | 0.33 | 1.00 | 0.67 | 0.67 |

Appendix N. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 6, as a function of control/experimental instructions and SOA.

**Experiment 6**

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 1 | Control | Green | 0.81 | 0.75 | 0.81 | 0.81 | 0.69 | 0.69 | 0.88 | 0.50 | |
| | Control | Red | 0.88 | 0.69 | 0.88 | 0.81 | 0.94 | 0.94 | 0.94 | 1.00 | |
| | Exp | Green | 0.60 | 0.81 | 0.85 | 0.62 | 0.67 | 0.47 | 0.44 | 0.44 | 0.99 |
| | Exp | Red | 0.50 | 0.50 | 0.44 | 0.60 | 0.60 | 0.73 | 0.88 | 0.80 | 1.00 |
| 2 | Control | Green | 0.94 | 0.88 | 1.00 | 1.00 | 0.94 | 1.00 | 0.94 | 0.88 | |
| | Control | Red | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.47 | 0.81 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 |
| | Exp | Red | 0.60 | 0.75 | 0.73 | 0.93 | 1.00 | 0.94 | 0.93 | 1.00 | 1.00 |
| 3 | Control | Green | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.92 | |
| | Control | Red | 0.92 | 1.00 | 1.00 | 1.00 | 0.83 | 0.92 | 1.00 | 0.92 | |
| | Exp | Green | 0.53 | 0.68 | 0.83 | 1.00 | 0.95 | 0.80 | 0.85 | 0.70 | 1.00 |
| | Exp | Red | 0.50 | 0.89 | 0.75 | 0.80 | 0.70 | 0.74 | 0.70 | 0.79 | 1.00 |
| 4 | Control | Green | 0.95 | 0.85 | 0.95 | 0.90 | 1.00 | 0.85 | 0.80 | 1.00 | |
| | Control | Red | 0.95 | 0.95 | 0.80 | 0.90 | 1.00 | 0.90 | 0.85 | 0.90 | |
| | Exp | Green | 0.67 | 0.82 | 0.92 | 1.00 | 1.00 | 0.91 | 0.92 | 1.00 | 0.99 |
| | Exp | Red | 0.92 | 0.92 | 0.92 | 0.83 | 1.00 | 0.83 | 1.00 | 0.90 | 1.00 |
| 5 | Control | Green | 0.95 | 0.90 | 0.90 | 0.95 | 0.80 | 0.95 | 1.00 | 0.90 | |
| | Control | Red | 0.90 | 0.90 | 0.85 | 1.00 | 1.00 | 1.00 | 0.80 | 0.95 | |
| | Exp | Green | 0.91 | 0.92 | 0.92 | 0.82 | 1.00 | 0.75 | 0.92 | 0.92 | 1.00 |
| | Exp | Red | 0.50 | 0.92 | 0.73 | 0.80 | 0.91 | 1.00 | 0.82 | 0.80 | 0.99 |
| 6 | Control | Green | 0.92 | 0.92 | 0.83 | 0.92 | 0.83 | 0.83 | 0.92 | 0.83 | |
| | Control | Red | 0.92 | 0.83 | 0.92 | 1.00 | 0.92 | 1.00 | 0.83 | 0.92 | |
| | Exp | Green | 0.82 | 0.84 | 0.84 | 0.89 | 0.94 | 0.94 | 0.83 | 0.89 | 0.98 |
| | Exp | Red | 0.45 | 0.72 | 0.75 | 0.89 | 0.71 | 0.89 | 0.84 | 0.65 | 0.99 |

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Appendix N. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 6, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 7 | Control | Green | 0.63 | 0.88 | 0.81 | 1.00 | 0.94 | 0.81 | 0.88 | 0.75 | |
| | Control | Red | 0.75 | 0.69 | 0.69 | 0.75 | 0.56 | 0.69 | 0.75 | 0.56 | |
| | Exp | Green | 0.53 | 0.69 | 0.77 | 0.93 | 0.93 | 0.80 | 0.67 | 0.86 | 0.98 |
| | Exp | Red | 0.29 | 0.67 | 0.43 | 0.38 | 0.73 | 0.75 | 0.57 | 0.69 | 0.98 |
| 8 | Control | Green | 0.56 | 0.94 | 0.88 | 0.88 | 0.69 | 0.56 | 0.69 | 0.81 | |
| | Control | Red | 0.69 | 1.00 | 0.94 | 0.75 | 1.00 | 0.75 | 0.81 | 0.88 | |
| | Exp | Green | 0.50 | 0.33 | 0.69 | 0.63 | 0.67 | 0.67 | 0.60 | 0.60 | 0.99 |
| | Exp | Red | 0.50 | 0.40 | 0.92 | 0.56 | 0.93 | 0.77 | 0.92 | 0.75 | 0.98 |
| 9 | Control | Green | 0.88 | 0.92 | 0.88 | 0.88 | 0.83 | 0.88 | 0.92 | 0.83 | |
| | Control | Red | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.88 | 0.92 | 0.96 | |
| | Exp | Green | 0.63 | 0.75 | 0.86 | 1.00 | 0.86 | 1.00 | 0.63 | 1.00 | 1.00 |
| | Exp | Red | 0.83 | 0.75 | 1.00 | 0.88 | 0.88 | 1.00 | 0.86 | 1.00 | 1.00 |
| 10 | Control | Green | 1.00 | 0.94 | 0.88 | 0.81 | 0.94 | 1.00 | 0.88 | 1.00 | |
| | Control | Red | 0.94 | 0.88 | 1.00 | 1.00 | 0.88 | 0.94 | 1.00 | 0.88 | |
| | Exp | Green | 0.27 | 0.19 | 0.93 | 0.80 | 0.73 | 0.93 | 0.86 | 0.88 | 0.99 |
| | Exp | Red | 0.69 | 0.69 | 0.92 | 0.81 | 0.73 | 0.88 | 0.87 | 0.80 | 0.99 |
| 11 | Control | Green | 0.75 | 0.50 | 0.75 | 0.67 | 0.92 | 0.92 | 0.75 | 0.83 | |
| | Control | Red | 0.67 | 0.83 | 1.00 | 0.83 | 0.92 | 0.75 | 0.75 | 0.67 | |
| | Exp | Green | 0.50 | 0.60 | 0.53 | 0.63 | 0.56 | 0.53 | 0.62 | 0.50 | 0.91 |
| | Exp | Red | 0.56 | 0.71 | 0.69 | 0.63 | 0.50 | 0.71 | 1.00 | 0.59 | 0.93 |
| 12 | Control | Green | 0.94 | 0.88 | 0.94 | 0.94 | 1.00 | 0.88 | 1.00 | 0.94 | |
| | Control | Red | 0.94 | 0.94 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.57 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.94 | 1.00 |
| | Exp | Red | 1.00 | 0.94 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 13 | Control | Green | 0.88 | 0.88 | 0.81 | 0.81 | 0.88 | 1.00 | 0.94 | 0.94 | |
| | Control | Red | 0.75 | 0.75 | 0.81 | 0.56 | 0.56 | 0.69 | 0.63 | 0.88 | |
| | Exp | Green | 0.69 | 0.80 | 0.93 | 0.87 | 1.00 | 0.93 | 1.00 | 1.00 | 1.00 |
| | Exp | Red | 0.27 | 0.33 | 0.33 | 0.40 | 0.62 | 0.73 | 0.43 | 0.69 | 0.98 |

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Appendix N. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 6, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | |
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 14 | Control | Green | 0.67 | 0.92 | 0.83 | 0.75 | 0.92 | 0.92 | 0.83 | 0.92 | |
| | Control | Red | 0.92 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 0.83 | 0.92 | |
| | Exp | Green | 0.75 | 0.75 | 0.90 | 0.89 | 0.90 | 0.89 | 0.84 | 0.95 | 1.00 |
| | Exp | Red | 0.83 | 0.94 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 |
| 15 | Control | Green | 0.94 | 0.94 | 0.94 | 1.00 | 1.00 | 0.94 | 0.88 | 0.94 | |
| | Control | Red | 1.00 | 1.00 | 0.94 | 1.00 | 0.94 | 1.00 | 0.88 | 1.00 | |
| | Exp | Green | 0.69 | 0.87 | 0.93 | 0.94 | 0.73 | 0.86 | 0.94 | 0.81 | 1.00 |
| | Exp | Red | 0.80 | 0.94 | 0.93 | 0.94 | 0.94 | 0.93 | 0.94 | 1.00 | 1.00 |
| 16 | Control | Green | 0.67 | 0.92 | 0.75 | 0.92 | 0.83 | 0.83 | 0.58 | 0.83 | |
| | Control | Red | 0.92 | 0.92 | 0.92 | 0.67 | 1.00 | 0.92 | 0.92 | 0.92 | |
| | Exp | Green | 0.58 | 0.85 | 0.88 | 1.00 | 0.78 | 0.83 | 1.00 | 0.89 | 1.00 |
| | Exp | Red | 0.57 | 0.53 | 0.74 | 0.89 | 0.85 | 0.72 | 0.89 | 0.85 | 1.00 |
| 17 | Control | Green | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.50 | 0.84 | 0.74 | 0.85 | 0.85 | 0.84 | 0.84 | 0.80 | 1.00 |
| | Exp | Red | 0.94 | 0.80 | 0.55 | 0.63 | 0.89 | 0.90 | 0.90 | 0.84 | 0.99 |
| 18 | Control | Green | 1.00 | 1.00 | 0.92 | 0.92 | 1.00 | 1.00 | 1.00 | 0.92 | |
| | Control | Red | 0.83 | 0.92 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.85 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 0.95 | 1.00 |
| | Exp | Red | 0.94 | 0.90 | 0.90 | 0.95 | 1.00 | 0.80 | 0.90 | 0.94 | 1.00 |
| 19 | Control | Green | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.94 | 0.94 | 0.88 | |
| | Control | Red | 0.69 | 0.75 | 0.63 | 0.69 | 0.69 | 0.44 | 0.81 | 0.81 | |
| | Exp | Green | 0.56 | 0.53 | 0.71 | 0.93 | 0.73 | 0.63 | 0.92 | 0.79 | 0.99 |
| | Exp | Red | 0.27 | 0.50 | 0.40 | 0.64 | 0.47 | 0.88 | 0.50 | 0.60 | 0.98 |
| 20 | Control | Green | 0.90 | 0.85 | 0.95 | 0.90 | 1.00 | 0.90 | 0.85 | 0.90 | |
| | Control | Red | 0.95 | 0.95 | 1.00 | 1.00 | 0.90 | 0.90 | 1.00 | 0.95 | |
| | Exp | Green | 0.42 | 0.83 | 0.91 | 0.83 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 |
| | Exp | Red | 0.83 | 0.82 | 0.83 | 0.91 | 0.92 | 1.00 | 0.92 | 1.00 | 1.00 |

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Appendix N. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 6, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 21 | Control | Green | 0.80 | 0.80 | 0.90 | 0.75 | 0.80 | 0.90 | 0.85 | 0.90 | |
| | Control | Red | 0.75 | 0.80 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 | 0.95 | |
| | Exp | Green | 0.82 | 0.73 | 0.91 | 0.91 | 0.75 | 0.73 | 0.83 | 0.73 | 1.00 |
| | Exp | Red | 0.64 | 0.91 | 0.91 | 0.83 | 0.91 | 0.67 | 1.00 | 0.91 | 1.00 |
| 22 | Control | Green | 0.83 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | |
| | Control | Red | 0.88 | 0.92 | 0.92 | 0.96 | 1.00 | 1.00 | 0.96 | 1.00 | |
| | Exp | Green | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 |
| | Exp | Red | 0.75 | 0.83 | 0.88 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 |
| 23 | Control | Green | 1.00 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 1.00 | 0.92 | |
| | Control | Red | 0.83 | 0.92 | 1.00 | 0.92 | 0.92 | 0.92 | 0.83 | 1.00 | |
| | Exp | Green | 0.44 | 0.95 | 0.82 | 0.94 | 0.94 | 1.00 | 0.90 | 1.00 | 0.99 |
| | Exp | Red | 0.74 | 0.72 | 0.71 | 0.85 | 0.89 | 0.94 | 0.94 | 0.89 | 0.99 |
| 24 | Control | Green | 0.65 | 0.75 | 0.70 | 0.80 | 0.80 | 0.75 | 0.70 | 0.50 | |
| | Control | Red | 0.70 | 0.85 | 1.00 | 0.95 | 0.75 | 0.80 | 0.85 | 0.85 | |
| | Exp | Green | 0.55 | 0.50 | 0.33 | 0.64 | 0.42 | 0.55 | 0.50 | 0.64 | 1.00 |
| | Exp | Red | 0.64 | 0.64 | 1.00 | 0.73 | 0.73 | 1.00 | 0.70 | 0.82 | 0.99 |
| 25 | Control | Green | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | |
| | Control | Red | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.50 | 0.75 | 0.92 | 0.91 | 0.83 | 0.73 | 0.92 | 0.75 | 1.00 |
| | Exp | Red | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 1.00 | 0.91 | 1.00 |
| 26 | Control | Green | 0.92 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 0.67 | 0.67 | 0.92 | 1.00 | 0.83 | 0.75 | 0.92 | 1.00 | |
| | Exp | Green | 0.89 | 0.94 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 0.89 | 1.00 |
| | Exp | Red | 0.39 | 0.47 | 0.60 | 0.70 | 0.65 | 0.89 | 0.60 | 0.85 | 1.00 |
| 27 | Control | Green | 0.58 | 0.75 | 0.71 | 0.71 | 0.92 | 0.79 | 0.88 | 1.00 | |
| | Control | Red | 0.88 | 0.88 | 0.79 | 0.88 | 0.88 | 0.88 | 0.92 | 0.79 | |
| | Exp | Green | 0.29 | 0.75 | 0.88 | 0.63 | 0.86 | 0.75 | 0.75 | 0.88 | 1.00 |
| | Exp | Red | 0.75 | 1.00 | 0.88 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 |

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Appendix N. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 6, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 28 | Control | Green | 1.00 | 1.00 | 0.95 | 0.90 | 0.90 | 0.85 | 0.95 | 1.00 | |
| | Control | Red | 1.00 | 0.85 | 1.00 | 0.85 | 0.95 | 0.80 | 0.85 | 1.00 | |
| | Exp | Green | 0.75 | 0.73 | 0.80 | 0.92 | 0.90 | 0.82 | 0.92 | 0.92 | 0.99 |
| | Exp | Red | 0.55 | 0.67 | 0.55 | 0.91 | 0.64 | 1.00 | 0.83 | 0.92 | 0.99 |
| 29 | Control | Green | 0.94 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.88 | |
| | Control | Red | 0.94 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 1.00 | 0.94 | 0.94 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Exp | Red | 0.79 | 0.93 | 0.88 | 1.00 | 0.93 | 0.94 | 1.00 | 0.94 | 1.00 |
| 30 | Control | Green | 0.44 | 0.75 | 0.81 | 0.63 | 0.69 | 0.75 | 0.81 | 0.81 | |
| | Control | Red | 0.75 | 1.00 | 0.69 | 0.88 | 0.75 | 0.88 | 0.94 | 0.81 | |
| | Exp | Green | 0.73 | 0.56 | 0.87 | 0.64 | 0.44 | 0.67 | 0.60 | 0.71 | 0.97 |
| | Exp | Red | 0.33 | 0.81 | 0.69 | 0.81 | 0.87 | 1.00 | 0.80 | 0.73 | 0.99 |
| 31 | Control | Green | 0.75 | 0.88 | 0.75 | 1.00 | 0.75 | 0.88 | 0.88 | 0.88 | |
| | Control | Red | 0.50 | 0.75 | 0.88 | 0.38 | 0.63 | 0.75 | 0.88 | 0.75 | |
| | Exp | Green | 0.48 | 0.79 | 0.73 | 0.75 | 0.87 | 0.70 | 0.68 | 0.77 | 1.00 |
| | Exp | Red | 0.58 | 0.71 | 0.87 | 0.70 | 0.83 | 0.79 | 0.83 | 0.92 | 1.00 |
| 32 | Control | Green | 0.50 | 0.55 | 0.50 | 0.75 | 0.55 | 0.90 | 0.60 | 0.65 | |
| | Control | Red | 0.90 | 0.95 | 0.80 | 1.00 | 0.75 | 0.90 | 0.80 | 0.90 | |
| | Exp | Green | 0.67 | 0.58 | 0.27 | 0.82 | 0.36 | 0.73 | 0.38 | 0.56 | 0.99 |
| | Exp | Red | 0.22 | 0.67 | 0.78 | 0.75 | 0.70 | 1.00 | 0.88 | 0.89 | 0.98 |
| 33 | Control | Green | 0.94 | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.75 | 0.94 | |
| | Control | Red | 0.94 | 1.00 | 0.88 | 0.81 | 0.88 | 0.94 | 0.88 | 0.88 | |
| | Exp | Green | 0.56 | 0.80 | 0.81 | 0.88 | 1.00 | 0.81 | 0.88 | 0.93 | 1.00 |
| | Exp | Red | 0.53 | 0.75 | 0.79 | 0.67 | 0.60 | 0.94 | 0.79 | 0.87 | 0.99 |
| 34 | Control | Green | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 0.90 | 1.00 | |
| | Control | Red | 1.00 | 0.90 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.95 | |
| | Exp | Green | 0.90 | 0.92 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Exp | Red | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.99 |

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Appendix N. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T2 colour conditions of Experiment 6, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T2 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 35 | Control | Green | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | |
| | Exp | Green | 0.45 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Exp | Red | 0.91 | 1.00 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Appendix O. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 6, as a function of short/long RT1 and SOA.

**Experiment 6**

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 1 | Green | Short | 0.88 | 0.89 | 0.89 | 0.86 | 0.75 | 0.50 | 0.63 | 0.38 |
| | | Long | 0.50 | 0.67 | 0.86 | 0.43 | 0.63 | 0.50 | 0.25 | 0.50 |
| | Red | Short | 0.38 | 0.29 | 0.50 | 0.56 | 0.63 | 0.75 | 1.00 | 0.88 |
| | | Long | 0.63 | 0.71 | 0.38 | 0.50 | 0.50 | 0.75 | 0.75 | 0.75 |
| 2 | Green | Short | 0.75 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 0.78 |
| | | Long | 0.33 | 0.63 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 0.75 | 1.00 | 0.88 | 0.86 | 1.00 | 0.88 | 1.00 | 1.00 |
| | | Long | 0.50 | 0.50 | 0.63 | 1.00 | 1.00 | 1.00 | 0.86 | 1.00 |
| 3 | Green | Short | 0.67 | 0.90 | 0.89 | 1.00 | 1.00 | 0.90 | 0.70 | 0.73 |
| | | Long | 0.50 | 0.50 | 0.78 | 1.00 | 0.90 | 0.70 | 1.00 | 0.64 |
| | Red | Short | 0.50 | 1.00 | 0.60 | 0.90 | 0.64 | 0.60 | 0.60 | 0.80 |
| | | Long | 0.50 | 0.80 | 0.90 | 0.70 | 0.73 | 0.90 | 0.80 | 0.80 |
| 4 | Green | Short | 0.67 | 1.00 | 0.83 | 1.00 | 1.00 | 0.83 | 0.83 | 1.00 |
| | | Long | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 0.83 | 1.00 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 1.00 | 0.83 | 1.00 | 0.83 | 1.00 | 0.67 | 1.00 | 0.80 |
| 5 | Green | Short | 0.86 | 1.00 | 0.83 | 1.00 | 1.00 | 0.67 | 1.00 | 0.83 |
| | | Long | 0.83 | 0.83 | 1.00 | 0.67 | 1.00 | 0.83 | 0.83 | 1.00 |
| | Red | Short | 0.67 | 1.00 | 0.67 | 0.83 | 0.86 | 1.00 | 1.00 | 0.80 |
| | | Long | 0.33 | 0.83 | 0.83 | 0.67 | 1.00 | 1.00 | 0.71 | 0.80 |
| 6 | Green | Short | 0.70 | 0.80 | 0.90 | 0.89 | 1.00 | 1.00 | 0.78 | 0.90 |
| | | Long | 1.00 | 0.90 | 0.80 | 0.89 | 0.89 | 0.89 | 0.89 | 0.80 |
| | Red | Short | 0.45 | 0.89 | 0.80 | 1.00 | 0.67 | 0.90 | 0.90 | 0.70 |
| | | Long | 0.55 | 0.56 | 0.70 | 0.80 | 0.67 | 0.90 | 0.80 | 0.60 |

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Appendix O. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 6, as a function of short/long RT1 and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 7 | Green | Short | 0.50 | 0.75 | 0.71 | 0.88 | 0.86 | 0.78 | 0.75 | 0.71 |
| | | Long | 0.63 | 0.63 | 0.71 | 1.00 | 1.00 | 0.75 | 0.63 | 1.00 |
| | Red | Short | 0.43 | 0.63 | 0.57 | 0.29 | 0.75 | 0.63 | 0.71 | 0.57 |
| | | Long | 0.14 | 0.56 | 0.29 | 0.43 | 0.56 | 0.88 | 0.43 | 0.71 |
| 8 | Green | Short | 0.63 | 0.50 | 0.75 | 0.88 | 0.75 | 0.75 | 0.78 | 0.78 |
| | | Long | 0.38 | 0.25 | 0.57 | 0.38 | 0.63 | 0.63 | 0.38 | 0.38 |
| | Red | Short | 0.43 | 0.50 | 0.86 | 0.88 | 1.00 | 0.88 | 1.00 | 1.00 |
| | | Long | 0.57 | 0.25 | 1.00 | 0.25 | 0.88 | 0.57 | 0.86 | 0.50 |
| 9 | Green | Short | 0.50 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 | 0.50 | 1.00 |
| | | Long | 0.75 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| | Red | Short | 0.67 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| | | Long | 1.00 | 0.75 | 1.00 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 |
| 10 | Green | Short | 0.25 | 0.25 | 0.86 | 0.88 | 0.63 | 0.88 | 0.86 | 0.88 |
| | | Long | 0.25 | 0.13 | 1.00 | 0.75 | 0.88 | 1.00 | 0.86 | 0.88 |
| | Red | Short | 0.71 | 0.63 | 1.00 | 0.88 | 0.88 | 0.89 | 0.88 | 0.75 |
| | | Long | 0.71 | 0.75 | 0.83 | 0.75 | 0.63 | 0.89 | 0.88 | 0.89 |
| 11 | Green | Short | 0.50 | 0.63 | 0.56 | 0.75 | 0.63 | 0.89 | 0.43 | 0.63 |
| | | Long | 0.50 | 0.56 | 0.44 | 0.50 | 0.50 | 0.22 | 0.86 | 0.38 |
| | Red | Short | 0.38 | 0.78 | 0.88 | 0.75 | 0.63 | 0.78 | 1.00 | 0.67 |
| | | Long | 0.75 | 0.67 | 0.50 | 0.50 | 0.38 | 0.56 | 1.00 | 0.56 |
| 12 | Green | Short | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.43 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.00 | 0.88 |
| | Red | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 1.00 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 13 | Green | Short | 0.63 | 0.88 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.75 | 0.75 | 0.89 | 1.00 | 1.00 | 0.88 | 1.00 | 1.00 |
| | Red | Short | 0.38 | 0.50 | 0.50 | 0.38 | 0.57 | 0.75 | 0.57 | 0.86 |
| | | Long | 0.13 | 0.25 | 0.25 | 0.38 | 0.57 | 0.67 | 0.29 | 0.57 |

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Appendix O. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 6, as a function of short/long RT1 and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 14 | Green | Short | 0.80 | 0.80 | 0.90 | 0.90 | 1.00 | 0.91 | 0.90 | 0.90 |
| | | Long | 0.70 | 0.70 | 0.90 | 0.90 | 0.80 | 0.91 | 0.80 | 1.00 |
| | Red | Short | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.78 | 0.89 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 15 | Green | Short | 0.88 | 0.88 | 1.00 | 1.00 | 0.75 | 0.86 | 0.88 | 0.88 |
| | | Long | 0.50 | 0.88 | 0.86 | 0.88 | 0.75 | 0.86 | 1.00 | 0.75 |
| | Red | Short | 0.88 | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.89 | 1.00 |
| | | Long | 0.75 | 0.90 | 0.89 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 |
| 16 | Green | Short | 0.45 | 0.90 | 1.00 | 1.00 | 0.78 | 0.89 | 1.00 | 0.89 |
| | | Long | 0.70 | 0.80 | 0.78 | 1.00 | 0.78 | 0.78 | 1.00 | 0.89 |
| | Red | Short | 0.71 | 0.70 | 0.80 | 0.91 | 1.00 | 0.89 | 0.90 | 0.80 |
| | | Long | 0.43 | 0.40 | 0.70 | 0.90 | 0.70 | 0.56 | 0.90 | 0.90 |
| 17 | Green | Short | 0.33 | 1.00 | 0.73 | 0.80 | 0.80 | 0.90 | 1.00 | 0.80 |
| | | Long | 0.67 | 0.70 | 0.60 | 0.90 | 0.90 | 0.80 | 0.70 | 0.80 |
| | Red | Short | 1.00 | 0.90 | 0.60 | 0.70 | 0.90 | 0.90 | 1.00 | 1.00 |
| | | Long | 0.90 | 0.70 | 0.50 | 0.60 | 0.80 | 0.90 | 0.80 | 0.70 |
| 18 | Green | Short | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.80 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 0.91 |
| | Red | Short | 0.89 | 0.92 | 0.90 | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 |
| | | Long | 1.00 | 0.82 | 0.90 | 0.90 | 1.00 | 0.77 | 0.80 | 0.91 |
| 19 | Green | Short | 0.50 | 0.50 | 0.86 | 1.00 | 0.63 | 0.63 | 0.86 | 0.86 |
| | | Long | 0.63 | 0.50 | 0.57 | 0.88 | 0.75 | 0.63 | 1.00 | 0.71 |
| | Red | Short | 0.11 | 0.57 | 0.38 | 0.71 | 0.50 | 0.75 | 0.38 | 0.38 |
| | | Long | 0.38 | 0.43 | 0.38 | 0.57 | 0.38 | 1.00 | 0.63 | 0.75 |
| 20 | Green | Short | 0.29 | 0.83 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 | 0.83 |
| | | Long | 0.57 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 |
| | Red | Short | 0.67 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 1.00 | 0.67 | 0.67 | 0.83 | 0.83 | 1.00 | 0.83 | 1.00 |

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Appendix O. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 6, as a function of short/long RT1 and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 21 | Green | Short | 0.83 | 0.50 | 0.83 | 1.00 | 0.67 | 0.83 | 0.67 | 0.83 |
| | | Long | 0.83 | 0.83 | 1.00 | 0.83 | 0.83 | 0.67 | 1.00 | 0.50 |
| | Red | Short | 0.67 | 0.83 | 1.00 | 0.83 | 0.86 | 0.83 | 1.00 | 1.00 |
| | | Long | 0.67 | 1.00 | 0.83 | 0.83 | 1.00 | 0.50 | 1.00 | 0.86 |
| 22 | Green | Short | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.50 | 0.67 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| 23 | Green | Short | 0.78 | 1.00 | 0.89 | 1.00 | 0.88 | 1.00 | 0.82 | 1.00 |
| | | Long | 0.11 | 0.91 | 0.78 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 0.60 | 0.78 | 0.56 | 0.90 | 0.90 | 1.00 | 0.90 | 1.00 |
| | | Long | 0.90 | 0.67 | 0.78 | 0.80 | 0.90 | 0.89 | 1.00 | 0.78 |
| 24 | Green | Short | 0.50 | 0.20 | 0.50 | 0.67 | 0.33 | 0.33 | 0.50 | 1.00 |
| | | Long | 0.67 | 0.80 | 0.17 | 0.67 | 0.50 | 0.71 | 0.50 | 0.33 |
| | Red | Short | 0.50 | 0.50 | 1.00 | 0.83 | 0.67 | 1.00 | 0.60 | 0.71 |
| | | Long | 0.83 | 0.63 | 1.00 | 0.67 | 0.83 | 1.00 | 0.80 | 0.83 |
| 25 | Green | Short | 0.33 | 0.83 | 1.00 | 1.00 | 0.86 | 0.67 | 0.83 | 0.83 |
| | | Long | 0.67 | 0.67 | 0.83 | 0.83 | 0.71 | 0.67 | 1.00 | 0.67 |
| | Red | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 0.83 |
| | | Long | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 0.83 |
| 26 | Green | Short | 0.90 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.89 |
| | | Long | 0.90 | 1.00 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 0.89 |
| | Red | Short | 0.44 | 0.50 | 0.70 | 0.80 | 0.56 | 0.80 | 0.73 | 0.90 |
| | | Long | 0.33 | 0.50 | 0.50 | 0.60 | 0.67 | 1.00 | 0.45 | 0.80 |
| 27 | Green | Short | 0.25 | 0.75 | 1.00 | 0.50 | 0.75 | 0.75 | 0.75 | 1.00 |
| | | Long | 0.25 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| | Red | Short | 0.75 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 |
| | | Long | 0.75 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.75 | 1.00 |

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Appendix O. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 6, as a function of short/long RT1 and SOA.

Conditionalized Probe Accuracy

| | | | SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 28 | Green | Short | 0.83 | 0.83 | 0.80 | 1.00 | 0.80 | 1.00 | 0.83 | 1.00 |
| | | Long | 0.67 | 0.67 | 0.80 | 0.83 | 1.00 | 0.67 | 1.00 | 0.83 |
| | Red | Short | 0.67 | 0.67 | 0.67 | 0.83 | 0.67 | 1.00 | 0.67 | 1.00 |
| | | Long | 0.50 | 0.67 | 0.50 | 1.00 | 0.50 | 1.00 | 1.00 | 0.83 |
| 29 | Green | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 1.00 | 0.88 | 0.88 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 1.00 | 0.86 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 0.88 |
| | | Long | 0.57 | 1.00 | 0.75 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| 30 | Green | Short | 0.67 | 0.38 | 0.88 | 0.71 | 0.33 | 0.63 | 0.50 | 0.63 |
| | | Long | 0.67 | 0.75 | 0.88 | 0.57 | 0.67 | 0.75 | 0.63 | 0.75 |
| | Red | Short | 0.50 | 0.88 | 0.63 | 0.88 | 1.00 | 1.00 | 1.00 | 0.75 |
| | | Long | 0.17 | 0.75 | 0.75 | 0.75 | 0.75 | 1.00 | 0.63 | 0.63 |
| 31 | Green | Short | 0.55 | 0.92 | 0.64 | 0.83 | 0.83 | 0.75 | 0.73 | 0.91 |
| | | Long | 0.45 | 0.67 | 0.82 | 0.67 | 0.92 | 0.69 | 0.64 | 0.64 |
| | Red | Short | 0.75 | 0.73 | 1.00 | 0.67 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | Long | 0.42 | 0.64 | 0.77 | 0.75 | 0.67 | 0.83 | 0.67 | 0.85 |
| 32 | Green | Short | 0.83 | 0.67 | 0.33 | 0.83 | 0.33 | 0.83 | 0.50 | 0.80 |
| | | Long | 0.50 | 0.50 | 0.17 | 0.83 | 0.33 | 0.50 | 0.25 | 0.20 |
| | Red | Short | 0.40 | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.17 | 0.60 | 0.80 | 0.50 | 0.40 | 1.00 | 0.75 | 0.80 |
| 33 | Green | Short | 0.75 | 0.88 | 0.75 | 0.88 | 1.00 | 0.75 | 0.88 | 1.00 |
| | | Long | 0.38 | 0.75 | 0.88 | 0.88 | 1.00 | 0.88 | 0.88 | 0.88 |
| | Red | Short | 0.75 | 0.75 | 1.00 | 0.75 | 0.67 | 0.88 | 1.00 | 0.88 |
| | | Long | 0.38 | 0.75 | 0.57 | 0.63 | 0.50 | 1.00 | 0.57 | 0.75 |
| 34 | Green | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.80 | 0.83 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| | | Long | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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Appendix O. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T2 colour of Experiment 6, as a function of short/long RT1 and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T2 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 35 | Green | Short | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.33 | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Short | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Long | 0.83 | 1.00 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Appendix P. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T1 colour conditions of Experiment 7, as a function of control/experimental instructions and SOA.

**Experiment 7**

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T1 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 1 | Control | Green | 0.94 | 0.94 | 0.94 | 1.00 | 0.81 | 0.94 | 1.00 | 0.88 | |
| | Control | Red | 1.00 | 0.88 | 0.94 | 0.94 | 1.00 | 1.00 | 0.88 | 0.81 | |
| | Exp | Green | 0.58 | 0.56 | 0.75 | 0.85 | 0.86 | 1.00 | 0.93 | 1.00 | 0.98 |
| | Exp | Red | 0.71 | 0.69 | 0.81 | 0.86 | 0.93 | 0.94 | 0.80 | 1.00 | 0.99 |
| 2 | Control | Green | 0.92 | 0.75 | 0.92 | 0.75 | 0.83 | 0.75 | 0.67 | 0.75 | |
| | Control | Red | 0.75 | 0.67 | 0.75 | 0.92 | 0.67 | 0.67 | 0.75 | 0.92 | |
| | Exp | Green | 0.46 | 0.47 | 0.42 | 0.47 | 0.64 | 0.50 | 0.75 | 0.57 | 0.77 |
| | Exp | Red | 0.53 | 0.64 | 0.50 | 0.50 | 0.46 | 0.64 | 0.63 | 0.71 | 0.82 |
| 3 | Control | Green | 0.50 | 0.69 | 0.63 | 0.63 | 0.63 | 0.81 | 0.69 | 0.88 | |
| | Control | Red | 0.75 | 0.63 | 0.75 | 0.88 | 0.50 | 0.69 | 0.75 | 0.88 | |
| | Exp | Green | 0.67 | 0.54 | 0.57 | 0.50 | 0.45 | 0.45 | 0.78 | 0.73 | 0.83 |
| | Exp | Red | 0.22 | 0.64 | 0.44 | 0.33 | 0.50 | 0.62 | 0.88 | 0.70 | 0.84 |
| 4 | Control | Green | 1.00 | 0.88 | 0.94 | 0.88 | 0.94 | 1.00 | 1.00 | 0.94 | |
| | Control | Red | 0.88 | 1.00 | 0.94 | 0.94 | 1.00 | 1.00 | 0.94 | 0.94 | |
| | Exp | Green | 0.53 | 0.67 | 0.87 | 0.94 | 0.92 | 0.85 | 1.00 | 1.00 | 0.96 |
| | Exp | Red | 0.56 | 0.71 | 0.77 | 0.73 | 0.92 | 1.00 | 0.92 | 0.77 | 0.94 |
| 5 | Control | Green | 0.75 | 0.65 | 0.85 | 0.85 | 0.90 | 0.75 | 0.95 | 0.90 | |
| | Control | Red | 0.80 | 0.60 | 0.50 | 0.75 | 0.80 | 0.80 | 0.55 | 0.80 | |
| | Exp | Green | 0.40 | 0.38 | 0.43 | 0.43 | 0.60 | 0.67 | 0.50 | 0.44 | 0.84 |
| | Exp | Red | 0.50 | 0.60 | 0.60 | 0.60 | 0.40 | 0.63 | 0.50 | 0.50 | 0.87 |
| 6 | Control | Green | 1.00 | 0.94 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 0.94 | |
| | Control | Red | 1.00 | 0.94 | 0.94 | 1.00 | 0.94 | 1.00 | 1.00 | 0.94 | |
| | Exp | Green | 0.83 | 0.85 | 0.90 | 0.82 | 0.75 | 0.91 | 1.00 | 0.92 | 0.86 |
| | Exp | Red | 0.40 | 0.82 | 0.92 | 0.82 | 1.00 | 0.91 | 0.92 | 1.00 | 0.87 |

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Appendix P. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T1 colour conditions of Experiment 7, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T1 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 7 | Control | Green | 0.94 | 1.00 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | |
| | Control | Red | 0.94 | 0.81 | 1.00 | 1.00 | 0.88 | 1.00 | 0.94 | 1.00 | |
| | Exp | Green | 0.30 | 0.67 | 0.83 | 0.75 | 0.64 | 0.75 | 0.86 | 0.80 | 0.97 |
| | Exp | Red | 0.63 | 0.50 | 0.86 | 0.75 | 0.80 | 0.87 | 0.80 | 0.93 | 0.91 |
| 8 | Control | Green | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.50 | 0.79 | 0.77 | 0.82 | 0.95 | 0.91 | 0.96 | 0.91 | 0.96 |
| | Exp | Red | 0.70 | 0.78 | 0.83 | 0.86 | 0.96 | 0.82 | 0.91 | 0.92 | 0.97 |
| 9 | Control | Green | 0.75 | 0.94 | 0.75 | 0.94 | 0.94 | 0.94 | 0.88 | 1.00 | |
| | Control | Red | 0.94 | 0.94 | 0.81 | 1.00 | 0.94 | 1.00 | 1.00 | 0.94 | |
| | Exp | Green | 0.40 | 0.53 | 0.69 | 0.46 | 0.71 | 0.64 | 0.60 | 0.79 | 0.95 |
| | Exp | Red | 0.57 | 0.44 | 0.77 | 0.62 | 0.53 | 0.80 | 0.67 | 0.62 | 0.94 |
| 10 | Control | Green | 0.88 | 0.81 | 0.88 | 1.00 | 0.69 | 1.00 | 0.88 | 1.00 | |
| | Control | Red | 0.56 | 0.94 | 0.81 | 0.94 | 0.81 | 0.88 | 0.94 | 0.94 | |
| | Exp | Green | 0.67 | 0.33 | 0.77 | 0.50 | 0.54 | 0.85 | 0.83 | 0.77 | 0.91 |
| | Exp | Red | 0.57 | 0.67 | 0.23 | 0.58 | 0.70 | 0.62 | 0.77 | 0.86 | 0.89 |
| 11 | Control | Green | 0.75 | 0.80 | 0.75 | 0.85 | 0.90 | 0.80 | 1.00 | 0.90 | |
| | Control | Red | 0.80 | 0.75 | 0.65 | 0.90 | 0.90 | 0.85 | 0.85 | 0.85 | |
| | Exp | Green | 0.33 | 0.50 | 0.67 | 0.50 | 0.67 | 0.83 | 0.83 | 0.57 | 0.84 |
| | Exp | Red | 0.57 | 0.71 | 1.00 | 0.57 | 0.82 | 0.83 | 1.00 | 0.73 | 0.85 |
| 12 | Control | Green | 0.95 | 0.95 | 1.00 | 1.00 | 0.90 | 1.00 | 0.95 | 1.00 | |
| | Control | Red | 1.00 | 0.90 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 1.00 | 0.83 | 0.90 | 0.91 | 1.00 | 1.00 | 1.00 | 0.91 | 0.97 |
| | Exp | Red | 0.75 | 0.91 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 13 | Control | Green | 0.75 | 0.90 | 0.70 | 0.85 | 0.80 | 0.90 | 0.80 | 0.80 | |
| | Control | Red | 0.85 | 0.70 | 0.90 | 0.95 | 0.90 | 0.95 | 0.95 | 0.85 | |
| | Exp | Green | 0.71 | 0.60 | 0.71 | 0.80 | 0.57 | 1.00 | 0.71 | 0.50 | 0.78 |
| | Exp | Red | 0.50 | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 0.67 | 0.60 | 0.83 |

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Appendix P. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T1 colour conditions of Experiment 7, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T1 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 14 | Control | Green | 0.95 | 0.75 | 0.95 | 0.85 | 0.95 | 0.90 | 1.00 | 1.00 | |
| | Control | Red | 1.00 | 0.90 | 1.00 | 0.85 | 0.95 | 0.90 | 0.90 | 0.90 | |
| | Exp | Green | 0.57 | 0.63 | 0.43 | 0.73 | 0.50 | 0.75 | 0.44 | 0.75 | 0.88 |
| | Exp | Red | 0.86 | 0.38 | 0.00 | 0.75 | 0.80 | 0.75 | 0.71 | 0.71 | 0.88 |
| 15 | Control | Green | 0.90 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | |
| | Control | Red | 0.85 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.45 | 0.67 | 0.82 | 0.80 | 0.82 | 1.00 | 0.91 | 0.55 | 0.99 |
| | Exp | Red | 0.83 | 0.70 | 0.73 | 0.91 | 0.92 | 1.00 | 0.91 | 1.00 | 0.98 |
| 16 | Control | Green | 0.88 | 0.88 | 0.94 | 0.94 | 1.00 | 0.88 | 1.00 | 1.00 | |
| | Control | Red | 0.94 | 1.00 | 0.94 | 1.00 | 0.94 | 0.88 | 0.94 | 1.00 | |
| | Exp | Green | 0.60 | 0.91 | 0.78 | 0.69 | 0.93 | 0.87 | 0.92 | 0.83 | 0.87 |
| | Exp | Red | 0.50 | 0.60 | 0.62 | 0.63 | 0.70 | 0.82 | 1.00 | 0.33 | 0.86 |
| 17 | Control | Green | 0.81 | 0.94 | 0.94 | 1.00 | 1.00 | 1.00 | 0.94 | 0.94 | |
| | Control | Red | 0.94 | 0.94 | 0.94 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | |
| | Exp | Green | 0.75 | 0.56 | 0.88 | 0.90 | 0.88 | 1.00 | 0.90 | 1.00 | 0.90 |
| | Exp | Red | 0.38 | 0.46 | 0.73 | 0.80 | 0.92 | 1.00 | 1.00 | 0.91 | 0.86 |
| 18 | Control | Green | 0.95 | 0.75 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 0.90 | |
| | Control | Red | 0.90 | 0.90 | 0.90 | 1.00 | 0.90 | 0.95 | 1.00 | 0.95 | |
| | Exp | Green | 0.82 | 0.82 | 1.00 | 1.00 | 1.00 | 0.92 | 0.80 | 1.00 | 0.94 |
| | Exp | Red | 0.89 | 0.44 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.00 | 0.93 |
| 19 | Control | Green | 0.75 | 0.94 | 1.00 | 0.81 | 0.88 | 0.69 | 0.75 | 0.56 | |
| | Control | Red | 0.81 | 0.75 | 0.63 | 0.75 | 0.81 | 0.88 | 0.81 | 0.75 | |
| | Exp | Green | 0.60 | 0.50 | 0.42 | 0.62 | 0.79 | 0.71 | 0.75 | 0.73 | 0.89 |
| | Exp | Red | 0.57 | 0.60 | 0.57 | 0.44 | 0.73 | 1.00 | 0.78 | 0.86 | 0.85 |
| 20 | Control | Green | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | |
| | Control | Red | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | |
| | Exp | Green | 0.40 | 0.57 | 0.33 | 0.29 | 0.82 | 0.80 | 0.75 | 0.89 | 0.90 |
| | Exp | Red | 0.29 | 0.75 | 0.57 | 0.57 | 0.71 | 0.83 | 0.86 | 0.67 | 0.92 |

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Appendix P. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T1 colour conditions of Experiment 7, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T1 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 21 | Control | Green | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 0.94 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.58 | 1.00 | 0.83 | 0.93 | 0.73 | 0.93 | 0.94 | 0.93 | 0.93 |
| | Exp | Red | 0.73 | 0.57 | 0.85 | 0.79 | 0.92 | 0.85 | 0.92 | 0.83 | 0.93 |
| 22 | Control | Green | 0.88 | 0.88 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 | 1.00 | |
| | Control | Red | 1.00 | 0.88 | 0.75 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | |
| | Exp | Green | 0.69 | 0.73 | 0.77 | 0.73 | 0.90 | 0.90 | 0.94 | 1.00 | 0.88 |
| | Exp | Red | 0.32 | 0.89 | 0.68 | 0.95 | 0.85 | 0.76 | 0.94 | 0.95 | 0.89 |
| 23 | Control | Green | 0.81 | 0.81 | 0.63 | 0.81 | 0.88 | 0.94 | 0.69 | 0.88 | |
| | Control | Red | 0.56 | 0.63 | 0.56 | 0.88 | 0.88 | 0.81 | 0.94 | 0.81 | |
| | Exp | Green | 0.58 | 0.75 | 0.44 | 0.64 | 0.86 | 0.91 | 0.77 | 0.67 | 0.83 |
| | Exp | Red | 0.73 | 0.67 | 0.55 | 0.42 | 0.64 | 0.75 | 0.91 | 0.85 | 0.87 |
| 24 | Control | Green | 0.88 | 0.69 | 0.88 | 0.81 | 1.00 | 1.00 | 0.94 | 1.00 | |
| | Control | Red | 0.75 | 0.69 | 0.88 | 1.00 | 1.00 | 0.94 | 0.94 | 0.88 | |
| | Exp | Green | 0.53 | 0.44 | 0.82 | 0.92 | 0.77 | 1.00 | 0.62 | 1.00 | 0.94 |
| | Exp | Red | 0.71 | 0.67 | 0.67 | 0.67 | 0.86 | 0.67 | 0.93 | 1.00 | 0.95 |
| 25 | Control | Green | 0.83 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 0.83 | 1.00 | 0.92 | 0.83 | 0.92 | |
| | Exp | Green | 0.44 | 0.73 | 0.67 | 0.69 | 0.77 | 0.69 | 0.67 | 0.87 | 0.86 |
| | Exp | Red | 0.67 | 0.75 | 0.69 | 0.87 | 0.80 | 0.85 | 0.94 | 1.00 | 0.83 |
| 26 | Control | Green | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | |
| | Exp | Green | 0.73 | 0.92 | 0.73 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 |
| | Exp | Red | 0.73 | 0.67 | 1.00 | 1.00 | 0.93 | 0.91 | 1.00 | 0.92 | 0.92 |
| 27 | Control | Green | 0.75 | 0.83 | 0.83 | 0.83 | 1.00 | 0.92 | 1.00 | 1.00 | |
| | Control | Red | 0.75 | 0.83 | 0.92 | 0.92 | 1.00 | 0.92 | 1.00 | 0.83 | |
| | Exp | Green | 0.69 | 0.50 | 0.73 | 0.87 | 0.71 | 0.85 | 0.87 | 0.67 | 0.86 |
| | Exp | Red | 0.56 | 0.53 | 0.75 | 0.82 | 0.71 | 0.72 | 0.93 | 0.88 | 0.90 |

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Appendix P. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T1 colour conditions of Experiment 7, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | | T1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subject | Condition | T1 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 28 | Control | Green | 0.50 | 0.81 | 0.81 | 0.81 | 0.69 | 0.94 | 0.81 | 0.88 | |
| | Control | Red | 0.81 | 0.94 | 0.94 | 0.94 | 0.81 | 0.88 | 0.88 | 0.69 | |
| | Exp | Green | 0.47 | 0.81 | 0.50 | 0.80 | 0.79 | 0.88 | 0.79 | 0.93 | 0.98 |
| | Exp | Red | 0.53 | 0.50 | 0.64 | 0.86 | 0.73 | 0.50 | 0.79 | 0.73 | 0.97 |
| 29 | Control | Green | 1.00 | 0.85 | 0.95 | 0.90 | 1.00 | 0.90 | 1.00 | 0.90 | |
| | Control | Red | 0.90 | 0.85 | 0.85 | 1.00 | 0.90 | 0.95 | 0.95 | 1.00 | |
| | Exp | Green | 0.75 | 0.73 | 0.56 | 0.73 | 1.00 | 1.00 | 1.00 | 0.90 | 0.93 |
| | Exp | Red | 0.60 | 0.60 | 0.78 | 0.78 | 1.00 | 0.88 | 0.88 | 0.83 | 0.93 |
| 30 | Control | Green | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.67 | 0.63 | 0.88 | 0.89 | 0.84 | 1.00 | 1.00 | 0.95 | 0.96 |
| | Exp | Red | 0.67 | 0.63 | 1.00 | 0.94 | 0.95 | 0.95 | 1.00 | 1.00 | 0.97 |
| 31 | Control | Green | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.94 | |
| | Control | Red | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.69 | 0.93 | 0.67 | 0.80 | 1.00 | 0.92 | 0.92 | 0.93 | 0.98 |
| | Exp | Red | 0.88 | 0.87 | 0.69 | 0.94 | 1.00 | 0.87 | 0.93 | 1.00 | 0.97 |
| 32 | Control | Green | 0.56 | 0.75 | 0.44 | 0.50 | 0.75 | 0.38 | 0.31 | 0.63 | |
| | Control | Red | 0.38 | 0.50 | 0.31 | 0.56 | 0.44 | 0.38 | 0.44 | 0.31 | |
| | Exp | Green | 0.43 | 0.50 | 0.42 | 0.15 | 0.50 | 0.67 | 0.36 | 0.43 | 0.95 |
| | Exp | Red | 0.71 | 0.69 | 0.64 | 0.64 | 0.67 | 0.47 | 0.50 | 0.36 | 0.92 |
| 33 | Control | Green | 0.81 | 0.75 | 0.88 | 0.44 | 0.81 | 0.81 | 0.75 | 0.81 | |
| | Control | Red | 0.75 | 0.75 | 0.63 | 0.88 | 0.63 | 0.88 | 0.94 | 0.94 | |
| | Exp | Green | 0.47 | 0.73 | 0.75 | 0.71 | 0.86 | 0.67 | 0.75 | 0.92 | 0.91 |
| | Exp | Red | 0.69 | 0.55 | 0.55 | 0.64 | 0.89 | 0.67 | 0.78 | 0.82 | 0.90 |
| 34 | Control | Green | 1.00 | 0.83 | 0.75 | 0.92 | 0.92 | 1.00 | 1.00 | 0.92 | |
| | Control | Red | 1.00 | 0.83 | 0.75 | 1.00 | 0.92 | 0.92 | 1.00 | 1.00 | |
| | Exp | Green | 0.53 | 0.65 | 0.61 | 0.94 | 0.95 | 0.94 | 0.94 | 0.95 | 0.97 |
| | Exp | Red | 0.44 | 0.59 | 0.85 | 0.95 | 0.94 | 1.00 | 0.89 | 0.76 | 0.95 |

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Appendix P. Mean T2 accuracy conditionalized on correct target report, false alarm rate, and T1 accuracy for each subject in each of the T1 colour conditions of Experiment 7, as a function of control/experimental instructions and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | | T1 |
| Subject | Condition | T1 colour | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 | Accuracy |
| 35 | Control | Green | 0.81 | 0.63 | 0.69 | 0.81 | 0.75 | 1.00 | 0.88 | 0.81 | |
| | Control | Red | 0.94 | 0.94 | 1.00 | 0.94 | 0.88 | 0.88 | 0.94 | 0.94 | |
| | Exp | Green | 0.25 | 0.40 | 0.40 | 0.33 | 0.64 | 0.44 | 0.60 | 0.67 | 0.88 |
| | Exp | Red | 0.40 | 0.56 | 0.33 | 0.50 | 0.64 | 0.50 | 0.62 | 0.46 | 0.85 |
| 36 | Control | Green | 1.00 | 0.83 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 0.92 | |
| | Control | Red | 0.92 | 0.92 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Exp | Green | 0.63 | 0.56 | 0.73 | 0.88 | 0.73 | 0.79 | 0.95 | 0.94 | 0.96 |
| | Exp | Red | 0.53 | 0.65 | 0.85 | 0.74 | 0.95 | 0.88 | 0.89 | 0.90 | 0.95 |
| 37 | Control | Green | 0.67 | 0.75 | 1.00 | 1.00 | 1.00 | 0.83 | 0.92 | 1.00 | |
| | Control | Red | 0.92 | 1.00 | 1.00 | 1.00 | 0.83 | 0.92 | 1.00 | 1.00 | |
| | Exp | Green | 0.59 | 0.67 | 0.69 | 0.71 | 0.75 | 0.77 | 0.88 | 0.81 | 0.94 |
| | Exp | Red | 0.29 | 0.18 | 0.73 | 0.67 | 0.72 | 0.70 | 0.94 | 0.78 | 0.93 |
| 38 | Control | Green | 0.81 | 0.69 | 0.88 | 1.00 | 0.94 | 0.69 | 0.75 | 0.81 | |
| | Control | Red | 0.88 | 0.88 | 0.56 | 0.75 | 0.75 | 0.88 | 0.75 | 0.81 | |
| | Exp | Green | 0.57 | 0.50 | 0.70 | 0.43 | 0.40 | 0.75 | 0.57 | 0.75 | 0.83 |
| | Exp | Red | 0.71 | 0.60 | 0.44 | 0.44 | 0.25 | 0.69 | 0.22 | 0.63 | 0.81 |
| 39 | Control | Green | 0.88 | 0.88 | 0.94 | 0.94 | 0.88 | 0.88 | 0.94 | 0.94 | |
| | Control | Red | 0.81 | 0.88 | 0.81 | 0.81 | 0.81 | 0.94 | 0.94 | 0.88 | |
| | Exp | Green | 0.67 | 0.88 | 0.88 | 0.75 | 0.78 | 0.91 | 0.89 | 0.80 | 0.85 |
| | Exp | Red | 0.50 | 0.50 | 0.60 | 0.75 | 0.55 | 0.89 | 0.89 | 0.90 | 0.81 |

Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

**Experiment 7**

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 1 | Green | Shortest Quartile | 0.50 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.80 | 0.67 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.33 | 1.00 | 1.00 | 0.75 | 1.00 | 0.50 | 1.00 |
| | | Longest Quartile | 1.00 | 0.33 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 1.00 | 0.50 | 0.75 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.33 | 0.83 | 0.60 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.71 | 0.80 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.33 | 0.00 | 1.00 | 0.75 | 0.75 | 1.00 | 0.33 | 1.00 |
| 2 | Green | Shortest Quartile | 1.00 | 0.25 | 0.33 | 0.50 | 0.75 | 0.25 | 1.00 | 0.67 |
| | | \ | 0.75 | 1.00 | 0.50 | 0.33 | 0.75 | 1.00 | 1.00 | 0.67 |
| | | \ | 0.50 | 0.50 | 0.25 | 0.67 | 0.50 | 1.00 | 0.50 | 0.67 |
| | | Longest Quartile | 0.50 | 0.50 | 0.33 | 0.00 | 0.25 | 0.50 | 0.50 | 0.67 |
| | Red | Shortest Quartile | 0.25 | 0.33 | 1.00 | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.33 | 0.33 | 0.00 | 1.00 | 0.33 | 0.33 | 0.25 |
| | | \ | 0.25 | 0.67 | 0.00 | 1.00 | 0.50 | 0.00 | 0.33 | 0.75 |
| | | Longest Quartile | 0.25 | 0.67 | 1.00 | 0.50 | 0.00 | 0.50 | 0.67 | 0.50 |
| 3 | Green | Shortest Quartile | 0.50 | 1.00 | 0.50 | 0.33 | 0.33 | 0.33 | 0.50 | 0.50 |
| | | \ | 0.50 | 0.67 | 0.33 | 0.00 | 0.67 | 0.75 | 1.00 | 0.67 |
| | | \ | 0.50 | 0.33 | 0.33 | 1.00 | 0.67 | 0.50 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.67 | 0.67 | 1.00 | 0.50 | 0.33 | 1.00 | 1.00 | 0.67 |
| | | \ | 0.33 | 0.67 | 0.00 | 0.00 | 0.67 | 0.67 | 0.50 | 0.67 |
| | | \ | 0.00 | 0.33 | 0.50 | 0.20 | 0.33 | 0.67 | 0.50 | 1.00 |
| | | Longest Quartile | 0.33 | 0.33 | 1.00 | 0.40 | 0.33 | 0.67 | 1.00 | 0.33 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a *function* of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 4 | Green | Shortest Quartile | 0.75 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.40 | 0.75 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 |
| | | \ | 0.60 | 1.00 | 1.00 | 0.80 | 0.75 | 0.67 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 0.25 | 0.50 | 0.60 | 1.00 | 1.00 | 1.00 | 0.75 |
| | Red | Shortest Quartile | 0.25 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.25 | 0.67 | 0.75 | 0.75 | 1.00 | 0.75 | 1.00 | 0.75 |
| | | Longest Quartile | 0.40 | 0.67 | 0.50 | 0.75 | 1.00 | 1.00 | 0.75 | 0.75 |
| 5 | Green | Shortest Quartile | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.50 |
| | | \ | 0.00 | 0.50 | 1.00 | 0.00 | 0.00 | 0.75 | 1.00 | 0.50 |
| | | \ | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 1.00 | 0.00 | 0.50 | 1.00 | 0.33 | 1.00 | 0.50 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.50 | 0.00 |
| | | \ | 0.50 | 0.67 | 1.00 | 0.50 | 1.00 | 0.00 | 0.33 | 0.33 |
| | | \ | 0.50 | 0.33 | 1.00 | 1.00 | 0.50 | 0.00 | 0.33 | 0.33 |
| | | Longest Quartile | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.50 | 1.00 |
| 6 | Green | Shortest Quartile | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.33 | 0.33 | 1.00 | 0.75 | 1.00 | 0.80 | 1.00 | 1.00 |
| | | \ | 0.00 | 1.00 | 0.80 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.33 | 1.00 | 0.50 | 0.50 | 0.75 | 0.67 | 0.67 |
| | Red | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 |
| | | Longest Quartile | 0.67 | 1.00 | 1.00 | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 |
| 7 | Green | Shortest Quartile | 0.75 | 0.60 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 |
| | | \ | 0.50 | 0.50 | 1.00 | 0.50 | 0.75 | 0.80 | 1.00 | 1.00 |
| | | \ | 0.00 | 0.50 | 1.00 | 1.00 | 0.50 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 0.25 | 0.75 | 0.50 | 0.75 | 1.00 | 0.67 | 0.33 | 1.00 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 7 | Red | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 0.33 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 0.80 |
| | | \ | 0.67 | 0.33 | 0.80 | 0.50 | 0.75 | 1.00 | 1.00 | 0.60 |
| | | Longest Quartile | 1.00 | 0.33 | 0.60 | 0.25 | 0.50 | 0.67 | 0.50 | 1.00 |
| 8 | Green | Shortest Quartile | 0.67 | 0.50 | 0.80 | 1.00 | 1.00 | 0.71 | 0.83 | 1.00 |
| | | \ | 0.67 | 1.00 | 0.67 | 0.83 | 1.00 | 1.00 | 1.00 | 0.80 |
| | | \ | 0.67 | 1.00 | 0.83 | 0.67 | 1.00 | 0.88 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.83 | 0.60 | 0.83 | 1.00 | 1.00 | 1.00 | 0.80 |
| | Red | Shortest Quartile | 0.60 | 1.00 | 1.00 | 0.80 | 0.86 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.80 | 0.83 | 0.86 | 1.00 | 0.83 | 1.00 | 0.83 | 0.86 |
| | | \ | 0.20 | 0.33 | 0.88 | 0.88 | 1.00 | 0.60 | 1.00 | 0.86 |
| | | Longest Quartile | 0.80 | 0.67 | 0.86 | 0.60 | 0.83 | 0.80 | 0.80 | 0.88 |
| 9 | Green | Shortest Quartile | 0.25 | 0.67 | 0.75 | 0.80 | 1.00 | 0.75 | 0.75 | 1.00 |
| | | \ | 0.25 | 0.50 | 1.00 | 0.60 | 1.00 | 0.80 | 0.20 | 0.75 |
| | | \ | 0.67 | 0.50 | 0.75 | 0.20 | 0.80 | 0.60 | 0.25 | 0.25 |
| | | Longest Quartile | 1.00 | 0.33 | 0.75 | 0.40 | 0.00 | 0.50 | 0.75 | 0.67 |
| | Red | Shortest Quartile | 0.25 | 0.40 | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 0.75 |
| | | \ | 0.25 | 0.40 | 0.50 | 0.50 | 0.67 | 0.67 | 0.67 | 0.50 |
| | | \ | 0.75 | 0.40 | 0.50 | 0.50 | 0.33 | 1.00 | 0.67 | 1.00 |
| | | Longest Quartile | 0.50 | 0.60 | 0.50 | 0.00 | 0.33 | 1.00 | 0.67 | 0.75 |
| 10 | Green | Shortest Quartile | 0.75 | 0.33 | 0.25 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.00 | 0.25 | 0.75 | 0.67 | 0.33 | 1.00 | 0.67 |
| | | \ | 0.75 | 0.67 | 0.75 | 0.25 | 0.25 | 0.33 | 0.75 | 0.60 |
| | | Longest Quartile | 0.50 | 0.67 | 0.25 | 0.33 | 0.75 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.00 | 0.50 | 0.33 | 1.00 | 0.67 | 1.00 | 0.67 | 1.00 |
| | | \ | 0.50 | 0.50 | 0.67 | 0.50 | 0.33 | 0.75 | 0.67 | 1.00 |
| | | \ | 0.50 | 0.50 | 1.00 | 1.00 | 0.33 | 0.75 | 0.67 | 1.00 |
| | | Longest Quartile | 0.67 | 0.75 | 0.67 | 0.50 | 0.67 | 0.50 | 0.67 | 0.33 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 11 | Green | Shortest Quartile | 0.67 | 0.50 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.50 |
| | | \ | 1.00 | 0.00 | 0.50 | 0.00 | 0.33 | 0.50 | 1.00 | 0.50 |
| | | \ | 0.50 | 1.00 | 1.00 | 1.00 | 0.33 | 0.50 | 1.00 | 0.50 |
| | | Longest Quartile | 0.50 | 1.00 | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 | 0.67 |
| | Red | Shortest Quartile | 0.00 | 0.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 0.00 |
| | | \ | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | | \ | 0.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 |
| | | Longest Quartile | 1.00 | 0.00 | 0.50 | 0.50 | 1.00 | 1.00 | 0.67 | 0.67 |
| 12 | Green | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 |
| | | \ | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.67 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.33 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| 13 | Green | Shortest Quartile | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.50 |
| | | \ | 0.50 | 0.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 |
| | | \ | 0.00 | 0.50 | 0.50 | 0.50 | 1.00 | 0.50 | 0.50 | 0.50 |
| | | Longest Quartile | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.50 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.50 |
| | | \ | 0.33 | 0.00 | 0.50 | 0.50 | 0.50 | 1.00 | 1.00 | 0.00 |
| | | Longest Quartile | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 14 | Green | Shortest Quartile | 1.00 | 0.67 | 0.00 | 0.50 | 1.00 | 1.00 | 0.00 | 1.00 |
| | | \ | 0.00 | 0.33 | 0.00 | 0.50 | 0.50 | 0.67 | 0.67 | 0.50 |
| | | \ | 0.00 | 0.67 | 0.00 | 1.00 | 0.50 | 0.67 | 1.00 | 0.50 |
| | | Longest Quartile | 1.00 | 0.33 | 0.00 | 0.50 | 0.50 | 0.50 | 1.00 | 0.50 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 14 | Red | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| | | \ | 0.67 | 0.00 | 0.50 | 0.50 | 0.67 | 0.50 | 0.50 | 1.00 |
| | | \ | 0.67 | 0.00 | 0.00 | 0.75 | 0.33 | 1.00 | 0.50 | 0.67 |
| | | Longest Quartile | 0.67 | 0.00 | 0.50 | 1.00 | 0.67 | 1.00 | 0.50 | 0.33 |
| 15 | Green | Shortest Quartile | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 |
| | | \ | 0.50 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 |
| | | Longest Quartile | 1.00 | 0.67 | 0.67 | 0.33 | 1.00 | 1.00 | 0.50 | 1.00 |
| | Red | Shortest Quartile | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 0.60 |
| | | Longest Quartile | 0.75 | 0.00 | 0.33 | 0.50 | 0.50 | 1.00 | 0.75 | 0.33 |
| 16 | Green | Shortest Quartile | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.50 | 0.50 | 0.67 | 0.67 | 1.00 | 1.00 | 0.67 |
| | | Longest Quartile | 1.00 | 0.50 | 0.00 | 0.50 | 0.33 | 0.67 | 1.00 | 0.00 |
| | Red | Shortest Quartile | 0.33 | 0.75 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 1.00 | 0.75 | 0.67 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 0.33 | 0.50 | 1.00 | 0.00 | 1.00 | 0.50 | 1.00 | 1.00 |
| 17 | Green | Shortest Quartile | 1.00 | 0.67 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.33 | 1.00 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 0.00 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.00 | 0.67 | 0.25 | 0.67 | 1.00 | 1.00 | 0.75 | 0.67 |
| | Red | Shortest Quartile | 0.50 | 0.75 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| Subject | T1 colour | RT | Conditionalized Probe Accuracy SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | Green | Shortest Quartile | 1.00 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 0.50 | 0.67 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.50 | 1.00 |
| | | \ | 1.00 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 0.33 | 1.00 | 1.00 |
| 19 | Green | Shortest Quartile | 0.00 | 0.50 | 0.50 | 0.67 | 1.00 | 0.50 | 1.00 | 0.67 |
| | | \ | 0.00 | 1.00 | 0.33 | 1.00 | 0.67 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.67 | 1.00 | 0.67 | 0.33 | 1.00 | 0.67 | 0.75 | 1.00 |
| | | Longest Quartile | 1.00 | 0.00 | 0.50 | 0.67 | 1.00 | 1.00 | 0.50 | 0.33 |
| | Red | Shortest Quartile | 1.00 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 | 0.50 | 1.00 |
| | | \ | 0.50 | 0.50 | 0.33 | 0.67 | 0.67 | 1.00 | 0.33 | 0.67 |
| | | \ | 0.50 | 0.25 | 0.67 | 0.00 | 0.33 | 1.00 | 0.67 | 0.75 |
| | | Longest Quartile | 0.67 | 0.25 | 0.33 | 0.00 | 1.00 | 0.50 | 1.00 | 0.75 |
| 20 | Green | Shortest Quartile | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.33 | 1.00 | 0.00 | 0.80 | 0.67 | 1.00 | 0.50 |
| | | \ | 0.00 | 0.67 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.50 | 0.00 | 1.00 | 0.67 | 1.00 | 0.50 | 1.00 |
| | Red | Shortest Quartile | 0.00 | 1.00 | 0.50 | 0.50 | 1.00 | 0.50 | 0.50 | 0.67 |
| | | \ | 0.00 | 1.00 | 0.67 | 0.67 | 0.50 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 0.33 | 0.67 | 0.50 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.00 | 0.50 | 0.00 | 1.00 | 0.50 | 0.50 | 0.67 |
| 21 | Green | Shortest Quartile | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.33 | 0.67 | 0.50 | 0.67 | 0.75 | 1.00 | 0.50 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy SOA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 21 | Red | Shortest Quartile | 0.50 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 0.75 | 0.80 |
| | | \ | 0.25 | 0.75 | 0.75 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 1.00 | 1.00 | 1.00 | 0.50 | 0.75 | 0.75 | 1.00 |
| | | Longest Quartile | 1.00 | 0.50 | 0.67 | 0.67 | 0.75 | 0.67 | 1.00 | 0.60 |
| 22 | Green | Shortest Quartile | 0.20 | 0.75 | 1.00 | 1.00 | 0.80 | 0.67 | 1.00 | 0.80 |
| | | \ | 0.60 | 0.89 | 0.75 | 0.80 | 1.00 | 1.00 | 0.60 | 1.00 |
| | | \ | 0.60 | 0.88 | 0.75 | 1.00 | 0.60 | 0.86 | 1.00 | 1.00 |
| | | Longest Quartile | 0.60 | 0.50 | 0.50 | 0.60 | 0.80 | 0.67 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.00 | 1.00 | 0.50 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 0.83 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 1.00 | 0.83 | 0.83 | 0.83 | 0.33 | 1.00 | 1.00 |
| 23 | Green | Shortest Quartile | 0.67 | 0.50 | 0.00 | 0.67 | 1.00 | 0.33 | 0.67 | 0.67 |
| | | \ | 0.67 | 1.00 | 0.33 | 1.00 | 0.75 | 0.67 | 1.00 | 1.00 |
| | | \ | 0.33 | 1.00 | 0.67 | 0.67 | 0.50 | 0.67 | 1.00 | 1.00 |
| | | Longest Quartile | 0.33 | 1.00 | 0.67 | 0.33 | 0.67 | 1.00 | 0.67 | 0.67 |
| | Red | Shortest Quartile | 0.67 | 0.33 | 0.33 | 1.00 | 0.50 | 1.00 | 0.33 | 1.00 |
| | | \ | 0.67 | 0.33 | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 | 0.67 |
| | | \ | 0.67 | 1.00 | 0.67 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 1.00 | 0.33 | 0.00 | 0.50 | 0.33 | 1.00 | 1.00 |
| 24 | Green | Shortest Quartile | 1.00 | 0.50 | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.75 | 0.67 | 1.00 | 0.67 | 0.80 | 0.60 | 1.00 |
| | | \ | 0.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 |
| | | Longest Quartile | 1.00 | 0.25 | 0.33 | 0.50 | 0.67 | 0.67 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.60 | 0.75 | 1.00 | 1.00 | 1.00 | 0.50 | 0.75 | 1.00 |
| | | \ | 0.71 | 0.20 | 1.00 | 0.50 | 1.00 | 1.00 | 0.83 | 1.00 |
| | | \ | 0.50 | 0.25 | 0.60 | 0.75 | 0.75 | 1.00 | 0.80 | 1.00 |
| | | Longest Quartile | 0.60 | 1.00 | 0.33 | 0.33 | 0.75 | 1.00 | 0.33 | 1.00 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| Subject | T1 colour | RT | Conditionalized Probe Accuracy SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 | Green | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 0.80 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.67 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.33 | 0.50 | 0.50 | 0.80 | 0.80 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.83 | 0.50 | 0.80 | 0.60 | 0.75 | 0.67 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.25 | 0.50 | 0.80 | 0.67 | 0.67 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.00 | 0.40 | 0.00 | 1.00 | 0.75 | 0.25 | 1.00 |
| | | Longest Quartile | 0.50 | 0.50 | 0.40 | 0.00 | 0.50 | 0.50 | 0.50 | 0.50 |
| 26 | Green | Shortest Quartile | 0.75 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.75 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.50 | 0.50 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.33 | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 0.67 |
| 27 | Green | Shortest Quartile | 0.80 | 0.20 | 0.75 | 1.00 | 0.50 | 1.00 | 1.00 | 0.75 |
| | | \ | 0.40 | 0.67 | 0.60 | 0.80 | 0.50 | 0.80 | 1.00 | 1.00 |
| | | \ | 0.60 | 0.60 | 0.40 | 1.00 | 0.75 | 1.00 | 0.75 | 0.75 |
| | | Longest Quartile | 0.80 | 0.50 | 0.75 | 0.75 | 0.50 | 0.50 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.75 | 0.60 | 0.75 | 1.00 | 1.00 | 0.75 | 0.75 | 0.33 |
| | | \ | 0.25 | 0.20 | 0.75 | 0.75 | 0.75 | 0.83 | 1.00 | 1.00 |
| | | \ | 0.25 | 0.75 | 0.75 | 0.75 | 1.00 | 0.60 | 0.75 | 0.75 |
| | | Longest Quartile | 1.00 | 0.75 | 1.00 | 0.75 | 0.75 | 0.50 | 1.00 | 0.67 |
| 28 | Green | Shortest Quartile | 0.67 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 |
| | | \ | 0.33 | 0.33 | 1.00 | 1.00 | 0.60 | 1.00 | 0.80 | 0.80 |
| | | \ | 0.33 | 0.33 | 0.25 | 1.00 | 0.80 | 0.75 | 0.60 | 1.00 |
| | | Longest Quartile | 0.67 | 1.00 | 0.00 | 0.80 | 0.80 | 0.67 | 0.40 | 0.75 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 28 | Red | Shortest Quartile | 0.40 | 0.80 | 0.67 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | \ | 0.40 | 0.40 | 0.75 | 1.00 | 1.00 | 0.50 | 0.67 | 0.67 |
| | | \ | 0.40 | 0.80 | 0.25 | 0.75 | 0.67 | 0.25 | 1.00 | 1.00 |
| | | Longest Quartile | 0.60 | 0.80 | 1.00 | 0.25 | 0.67 | 0.75 | 0.67 | 0.67 |
| 29 | Green | Shortest Quartile | 0.00 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 |
| | | \ | 0.50 | 0.33 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 | 0.67 |
| | | \ | 0.50 | 0.33 | 0.33 | 0.67 | 1.00 | 1.00 | 1.00 | 0.67 |
| | | Longest Quartile | 0.00 | 0.67 | 0.33 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 0.50 |
| | | \ | 0.67 | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 30 | Green | Shortest Quartile | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.71 | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.83 | 0.60 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.60 | 0.50 | 0.75 | 0.80 | 0.60 | 0.75 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.75 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.83 | 0.80 | 0.83 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.50 | 0.71 | 1.00 | 0.83 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.43 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 31 | Green | Shortest Quartile | 1.00 | 0.75 | 0.80 | 1.00 | 1.00 | 0.75 | 0.75 | 1.00 |
| | | \ | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.80 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.75 | 1.00 | 0.60 | 0.75 | 1.00 | 0.75 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.67 | 1.00 | 0.33 | 0.75 | 1.00 | 1.00 | 0.75 | 1.00 |
| | | \ | 0.33 | 0.75 | 0.33 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.67 | 0.33 | 0.50 | 1.00 | 1.00 | 1.00 | 0.67 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| Subject | T1 colour | RT | Conditionalized Probe Accuracy SOA 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | Green | Shortest Quartile | 0.40 | 0.75 | 0.67 | 0.20 | 0.67 | 0.00 | 0.33 | 0.25 |
| | | \ | 0.60 | 0.40 | 0.33 | 0.40 | 0.67 | 0.60 | 0.25 | 0.00 |
| | | \ | 0.75 | 0.40 | 0.33 | 0.60 | 0.67 | 0.80 | 0.25 | 0.50 |
| | | Longest Quartile | 0.25 | 0.75 | 0.00 | 0.40 | 0.67 | 0.40 | 0.00 | 0.25 |
| | Red | Shortest Quartile | 0.40 | 1.00 | 0.67 | 0.67 | 1.00 | 0.67 | 0.75 | 0.75 |
| | | \ | 0.50 | 0.67 | 0.33 | 0.33 | 0.50 | 1.00 | 0.75 | 0.60 |
| | | \ | 0.75 | 0.67 | 1.00 | 0.67 | 0.75 | 0.33 | 0.50 | 0.40 |
| | | Longest Quartile | 0.50 | 0.50 | 0.67 | 0.67 | 0.00 | 0.67 | 0.25 | 0.40 |
| 33 | Green | Shortest Quartile | 1.00 | 0.67 | 0.50 | 0.75 | 0.75 | 0.50 | 0.75 | 1.00 |
| | | \ | 1.00 | 0.75 | 0.75 | 0.75 | 0.75 | 1.00 | 0.75 | 1.00 |
| | | \ | 0.67 | 0.40 | 0.60 | 0.50 | 0.75 | 0.50 | 1.00 | 1.00 |
| | | Longest Quartile | 0.33 | 0.33 | 0.75 | 0.25 | 1.00 | 0.50 | 0.50 | 1.00 |
| | Red | Shortest Quartile | 0.25 | 0.33 | 0.67 | 1.00 | 1.00 | 0.75 | 0.67 | 0.75 |
| | | \ | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.67 |
| | | \ | 0.00 | 0.75 | 1.00 | 0.67 | 1.00 | 0.75 | 0.75 | 1.00 |
| | | Longest Quartile | 0.25 | 1.00 | 0.00 | 0.33 | 0.50 | 0.75 | 0.75 | 1.00 |
| 34 | Green | Shortest Quartile | 0.60 | 0.50 | 1.00 | 1.00 | 1.00 | 0.80 | 1.00 | 0.50 |
| | | \ | 0.33 | 1.00 | 0.80 | 1.00 | 0.75 | 1.00 | 0.83 | 0.83 |
| | | \ | 0.17 | 0.50 | 0.80 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.17 | 0.75 | 0.40 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 0.60 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 |
| | | \ | 0.60 | 0.33 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.60 | 0.40 | 0.20 | 0.75 | 0.83 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 | 0.50 | 0.75 |
| 35 | Green | Shortest Quartile | 0.00 | 0.33 | 0.00 | 0.00 | 0.50 | 0.50 | 0.33 | 1.00 |
| | | \ | 0.33 | 0.33 | 0.50 | 0.00 | 0.80 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.33 | 0.33 | 1.00 | 0.50 | 0.80 | 0.00 | 0.67 | 0.33 |
| | | Longest Quartile | 0.33 | 0.67 | 0.00 | 0.50 | 0.50 | 1.00 | 0.00 | 0.67 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 35 | Red | Shortest Quartile | 0.33 | 0.33 | 0.75 | 0.33 | 0.50 | 0.33 | 1.00 | 0.00 |
| | | \ | 0.33 | 0.33 | 0.25 | 1.00 | 0.00 | 0.50 | 1.00 | 0.67 |
| | | \ | 0.33 | 0.67 | 0.25 | 0.50 | 0.50 | 0.25 | 0.33 | 0.67 |
| | | Longest Quartile | 1.00 | 0.67 | 0.25 | 0.33 | 1.00 | 0.33 | 0.67 | 0.33 |
| 36 | Green | Shortest Quartile | 0.75 | 0.80 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | \ | 0.75 | 0.60 | 1.00 | 1.00 | 0.60 | 1.00 | 1.00 | 0.86 |
| | | \ | 0.50 | 0.80 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 |
| | | Longest Quartile | 0.75 | 0.60 | 0.75 | 0.75 | 0.80 | 0.50 | 1.00 | 0.86 |
| | Red | Shortest Quartile | 0.60 | 0.50 | 1.00 | 0.80 | 1.00 | 0.60 | 0.80 | 0.67 |
| | | \ | 0.60 | 0.40 | 0.80 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 |
| | | \ | 0.60 | 0.20 | 0.60 | 0.60 | 0.75 | 0.83 | 0.86 | 1.00 |
| | | Longest Quartile | 0.20 | 0.75 | 0.60 | 0.60 | 0.75 | 0.80 | 1.00 | 1.00 |
| 37 | Green | Shortest Quartile | 0.00 | 0.25 | 0.75 | 0.40 | 1.00 | 1.00 | 0.80 | 0.75 |
| | | \ | 0.50 | 0.25 | 0.75 | 0.50 | 0.80 | 0.83 | 0.80 | 1.00 |
| | | \ | 0.67 | 0.25 | 0.75 | 0.83 | 0.80 | 0.50 | 1.00 | 0.80 |
| | | Longest Quartile | 0.40 | 0.50 | 0.50 | 1.00 | 0.60 | 0.50 | 0.80 | 1.00 |
| | Red | Shortest Quartile | 0.50 | 0.20 | 1.00 | 0.75 | 0.75 | 0.67 | 1.00 | 1.00 |
| | | \ | 0.00 | 0.80 | 0.25 | 0.75 | 0.50 | 1.00 | 1.00 | 0.67 |
| | | \ | 1.00 | 0.20 | 0.40 | 0.50 | 0.75 | 1.00 | 0.75 | 0.60 |
| | | Longest Quartile | 0.75 | 0.80 | 1.00 | 0.75 | 0.75 | 0.67 | 1.00 | 0.50 |
| 38 | Green | Shortest Quartile | 0.50 | 0.33 | 0.50 | 0.50 | 0.33 | 0.50 | 1.00 | 1.00 |
| | | \ | 1.00 | 0.00 | 0.50 | 0.50 | 0.67 | 0.50 | 0.00 | 0.50 |
| | | \ | 1.00 | 1.00 | 1.00 | 0.50 | 0.33 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.50 | 0.67 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| | Red | Shortest Quartile | 0.50 | 0.50 | 0.33 | 0.50 | 0.67 | 0.25 | 0.00 | 0.67 |
| | | \ | 0.00 | 0.67 | 0.50 | 0.50 | 0.33 | 0.50 | 0.33 | 0.67 |
| | | \ | 0.50 | 0.67 | 0.25 | 0.00 | 0.33 | 1.00 | 0.67 | 0.67 |
| | | Longest Quartile | 1.00 | 0.50 | 1.00 | 0.00 | 0.33 | 1.00 | 0.33 | 1.00 |

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Appendix Q. Mean T2 accuracy conditionalized on correct T1 report for each subject for each T1 colour of Experiment 7, as a function of RT1 quartile and SOA.

| | | | Conditionalized Probe Accuracy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | SOA | | | | | | | |
| Subject | T1 colour | RT | 130 | 260 | 390 | 520 | 650 | 780 | 910 | 1040 |
| 39 | Green | Shortest Quartile | 0.67 | 0.50 | 0.67 | 0.83 | 1.00 | 0.50 | 1.00 | 0.50 |
| | | \ | 0.67 | 1.00 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 0.50 |
| | | \ | 0.75 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 0.00 | 0.50 | 0.67 | 0.50 | 0.33 | 0.50 | 1.00 | 1.00 |
| | Red | Shortest Quartile | 1.00 | 0.00 | 0.67 | 0.50 | 0.67 | 1.00 | 0.00 | 1.00 |
| | | \ | 0.50 | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 0.50 | 1.00 |
| | | \ | 0.00 | 1.00 | 1.00 | 0.67 | 0.33 | 1.00 | 1.00 | 1.00 |
| | | Longest Quartile | 1.00 | 0.67 | 0.50 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 |