INTRODUCTION

Spatial and temporal orienting are thought to constitute independent processes. We examined (1) if this distinction holds when temporal orienting competes with spatial social orienting, and (2) whether each of these effects vary with the likelihood that a target will appear (i.e., tonic alertness).

METHODS

46 participants completed a cueing task, with half of the participants (n=23) assigned to each high (94%) target likelihood) and low (75% target likelihood) tonic alertness condition.

DESIGN



Social and Temporal Orienting: Linked or Independent?

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Isolated effects of social orienting do not vary with tonic alertness; However temporal orienting increases in magni-

tude under low tonic alertness.

When social and temporal cues are manipulated in combination their effects are additive.



DISCUSSION

(1) Social and temporal orienting generally proceeded in parallel. Specifically, social orienting did not vary regardless of whether it was presented in isolation or in competition with temporal orienting. Typical temporal orienting, on the other hand, emerged only when the cues were presented in combination.

(2) Tonic alertness did not affect social orienting either when it was manipulated in isolation or in conjunction with temporal orienting. However, temporal orienting in isolation was modulated by tonic alertness, such that the magnitude of temporal orienting in isolation increased when tonic alertness was low.

Thus, social orienting is resilient to voluntary processes induced by temporal changes in the task, i.e., it proceeds unaffected by concurrent temporal orienting. This finding supports the conclusion that social orienting does not depend on voluntary, endogenous attentional control.

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