

Emotional Valence & Intentions: Comparing Event, Time and Activity Based Prospective Memory

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Prospective memory deals with remembering and executing future intentions. The execution of intentions is dependent on event, time or activity that acts as cues to signal the remembrance of the intention and its successful execution. The present study attempts to compare the efficiency of these cues on prospective memory tasks. Further, the study also evaluates the role of stimuli valence on event, time and activity based cues on prospective memory tasks. To complete the study the prospective memory tasks that were dependent on event, time and activity cues were developed. Emotional and neutral words from Affective Norms for English Language (ANEW), selected using pre-designed criteria were presented to subjects as ongoing tasks. The subjects were required to execute actions following the event (press key on six-letter word appearance), time (press key after every 30 seconds) & activity cue (returning filled in questionnaire about emotional task). The data obtained were subjected to mixed model 2 x 3 ANOVA with valence (positive, negative) as between subject & prospective memory type (event, time, activity) as subject factor which revealed significant main effects of prospective memory type [$F(1, 38) = 70.59, p < 0.001, \eta^2 = 0.54$]. Repeated measure ANOVA comparing positive & neutral and negative & neutral across all types of prospective memory revealed better accuracy of prospective memory tasks across positive than negative or neutral stimuli. The results of the study indicate clear difference among cue types with event based cues being most effective in remembering future intentions. In addition, the positive emotional stimuli benefitted the remembrance of future intentions.

Keywords: Emotion, Prospective Memory, Retrospective Memory, Valence

Planning for future and executing acts to accomplish these plans are everyday affairs. To complete future acts, people develop and execute a variety of intentions. To remember and execute future intentions is termed as prospective memory. An example of prospective memory is the act of taking medicines at fixed times round the clock. Failure to take medicines (execute future intentions) on the assigned time may lead to severe complexities and complications.

Prospective Memory

Prospective memory involves forming an intention (includes decision to act in a particular way in future), the action (what we plan to do), and execution of the intention (when we plan to do it). Methods that test prospective memory require the distinction between retrospective memory - which is remembering information

from the past, and prospective memory, - which is remembering information for the future. Prospective memory requires retrospective memory because one must remember the information itself to act in the future (Reese and Cherry, 2002). For example, remembering to buy groceries after work (prospective memory) requires the ability to remember what type of groceries are needed (retrospective memory).

There are different types of prospective memory tasks that includes time based task (remembering to make a phone call at a specific time), an activity based task (delivering a message to an acquaintance after dinner) and event based task (remembering to buy groceries on your way to home) (Brandimonte, Einstein, & McDaniel, 1996). These prospective memory tasks can also be differentiated process involved to execute the tasks.