**Perspective: STM/WM models**

-Cowan’s model of working memory

-Baddeley’s multistore model

-Atkinson & Shiffrin’s stage model

-**VSTM article**: investigates one part of STM, Sternberg all

-**Brown-Peterson**: Trigram of letters + interference task + recall trigram -> **Proactive interference**: performance decreases until task change

-**Knowlton** et al: amnesia, weather prediction task

-**Adelman**: parallel processing

**Criticism:**

-**Battery hypothesis:** parallel but divided resources

-Pure insertion vs selective influence

-LTM influence: chunking, semantic network, priming

**Accuracy** (**Fig. 3**)

-Significant main effects: set size, masking, probe presence

-- **As set size increases, accuracy decreases**

--Interactions: Set size and masking, masking and probe **greater effect of masking at larger set sizes (mental fatigue?)**

-Comparing with fig. 1: masked present might be the most **difficult task**

--Highest RT + lowest ACC – **bad investment** of extra time spent -> **or caused by more no answers** (slower)?

**-No speed/acc trade-off**

**Conclusion:** bases on probabilities -> still makes sense

-**Serial search**: Increased set size increases RT linearly

-**Exhaustive search**: slopes of present and absent probes are similar

-**Unmasking before searching**: different intercepts but similar slopes for masked and unmasked probes

**Overstating conclusions** (**Fig. 4 + 5**)

-Even when some general trends can be recognised, **individual data looks vastly different**

-Individual data mess: Do all humans search serial exhaustive

**Results:** initial unmasking before equal search (**Fig. 2**)

-Equal slopes between mask and no mask -> **same search process**

-Different intercepts -> **unmasking before searching** starts

**Results:** Early look at averages (**Fig. 1**)

-Masking, probe absence and increases in set size increase RT

-RT increases linearly with set size -> **serial search (or is it? Will get back to this!)**

-Slopes for present and absent probes are similar and no interaction between set size and probe presence -> **exhaustive search**

-Masked probes have a higher intercept, but similar slopes to unmasked ones -> initial **unmasking before searching**

**Method:** computer-based letter-recognition paradigm

-12 blocks x 12 trials: memory set (2, 3 or 5 letters exposed 500 ms/letter) + probe + blank 1000 ms (yes/no response)

-Measures of RT considers only correct responses

**Expectations**:

1.Serial search -> higher RT at greater set size

2.Exhaustive search ->slopes of RT-graphs similar within masking-conditions

3.Unmasking in the encoding stage -> higher zero-intercept for masked probes but similar slopes within probe conditions.

**Sternberg task**

-Examines STM search type & level of abstraction of encoding

-Stage theory: cognitive processes unfold in discrete stages, time between stimulus and response is occupied by a series of mental operations, each starting when the preceding has ended. The reaction time (RT) is therefore the **sum of the duration of all stages.**

-Subtraction method: By assuming **pure insertion**, two experiments only differentiating in one variable can be conducted. The difference in RT will be the result of that variable.