

Introduction

Life scripts are types of schemas that¹:

1. Provide probable patterns of events across the lifespan
 2. Shape encoding & retrieval of autobiographical memory (AM)
- vmPFC & MTL patients show AM deficits, but differ in schematic script abilities²:**

- vmPFC patients → schema-impaired
- MTL patients → intact schema function, impaired episodic

How does vmPFC & MTL damage differentially contribute to the relationship between scripts & AM?

Methods

1) Cultural & Personal Script Task³

Cultural Life Script Task

“...key typical events across the lifespan?”	“...typical age at time of event?”
Event	Age
First Steps	1 years old

Personal Life Script Task

“...key personal events?”	“...your age at time of event?”
Event	Age
First Child	30 years

2) Cue-Word Task

“...think of an experience from your own life which you are reminded of when presented with a word...”

- e.g., ANGRY

Task 1/Task 2 Scoring:
 Used norms from Berntsen & Rubin, 2004 to examine presence & typicality of cultural script themes

Predictions

Task 1

MTL → Scripts will be intact

vmPFC → Scripts will include most typical coupled with idiosyncratic content

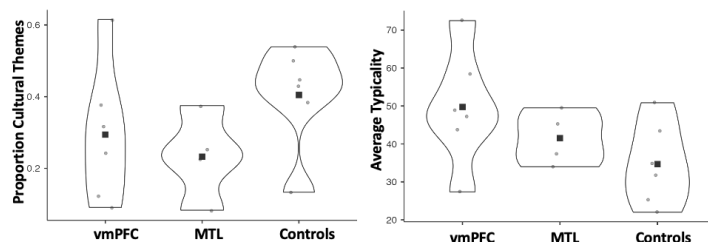
Task 2

MTL → Will use more script attributes to support poor AM

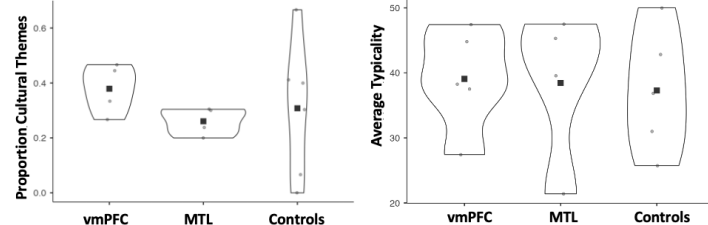
vmPFC → Will use fewer, but most typical scripts attributes

Results

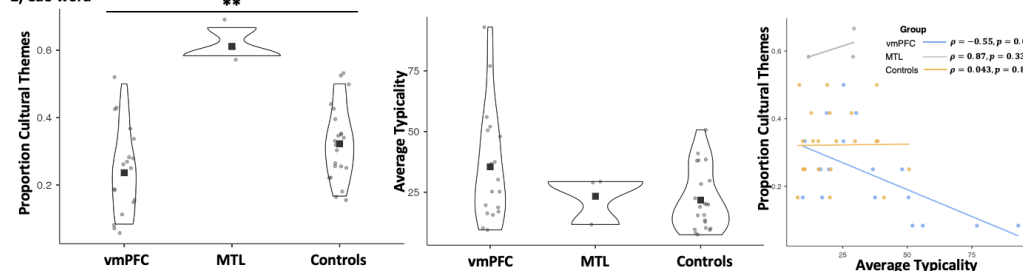
1a) Cultural Life Script



1b) Personal life script



2) Cue-word



Proportion = # themes/total events

Typicality = how often theme was reported

TASK 1	MTL	vmPFC	Controls
N =	4	6	6
Mean age (SD)	53.25 (9.47)	68.83 (8.31)	62.67 (15.04)
Mean years edu (SD)	14.75 (2.06)	15.17 (1.72)	16.5 (2.88)

TASK 2	MTL	vmPFC	Controls
N =	3	18	22
Mean age (SD)	49.5 (13.44)	50.9 (8.28)	52.17 (12.83)
Mean years edu (SD)	16.5 (0.71)	14.81 (1.99)	14.13 (2.83)

Conclusions

How does vmPFC & MTL damage differentially contribute to the relationship between scripts & AM?

The vmPFC & MTL differentially contribute to the expression of script knowledge, and how it is leveraged in AM. When scripts are impaired, they are not effectively used to support AM, and access may be limited to the most typical script attributes. On the other hand, when AM is impaired, script knowledge may be relied upon more to compensate for episodic decline.

- For scripts, differences were marginal between vmPFC & MTL patients and controls for proportion of cultural script themes & typicality (figures 1a & 1b)

When generating AMs, MTL patients included the highest # of cultural script themes, suggesting they required more schematic script support (figure 2)

- MTL patients & controls used a variety of script themes, vmPFC patients did not; suggests that when they used scripts to support AM, they only accessed the most typical themes

References