Supplement A

Table A1. *Scoring protocol for the Personal Semantic Interview.* The scoring procedure involved assigning a score for each of the 4 sections – life-time periods - explored during the Personal Semantic Interview. Each section included 4 categories: people, places, home addresses and work. Participants earned 1 point for each new piece of information they provided. In the **people** and **places** categories, they were asked to list three items per category, with each item comprising two pieces of information, for a maximum score of 6. In the **address** and **work** categories, participants could list up to three items per category, with each item including four pieces of information. In these cases, the scores were averaged across items, resulting in a maximum score of 4. Within each section, the scores for the different categories were summed, resulting in a maximum score of 20.

Names of people (Acquaintances, friends, relatives)	**Sum** **0/6**
Name or surname ……..…….. Job or role/relationship (parent, friend, colleague, partner, acquaintance, etc)…….....	0/1 0/1
Name or surname ……..…….. Job or role/relationship (parent, friend, colleague, partner, acquaintance, etc)…….....	0/1 0/1
Name or surname ……..…….. Job or role/relationship (parent, friend, colleague, partner, acquaintance, etc)…….....	0/1

	0/1
Places	**Sum** **0/6**
Name……...…… Address or geographical location (area, neighborhood)…….…….	0/1 0/1
Name……...…… Address or geographical location (area, neighborhood)…….…….	0/1 0/1
Name……...…… Address or geographical location (area, neighborhood)…….…….	0/1 0/1

Personal address	**Average** **0/4**

Full address (street, number).....	0/1
City…….	0/1
Type of house……...	0/1
Details (floor and/or other characteristics)……...	0/1
Full address (street, number).....	0/1
City…….	0/1
Type of house……...	0/1
Details (floor and/or other characteristics)……...	0/1
Full address (street, number).....	0/1
City…….	0/1
Type of house……...	0/1
Details (floor and/or other characteristics)……...	0/1

School/ work	Average 0/4
Type……..……	0/1
City……..	0/1
Address or geographical location	0/1
(area, neighborhood) ……..……...	
Institution name …….…….……...	0/1
Type……..……	0/1
City……..	0/1
Address or geographical location	0/1
(area, neighborhood) ……..……...	
Institution name …….…….……...	0/1
Type……..……	0/1
City……..	0/1
Address or geographical location	0/1
(area, neighborhood) ……..……...	

Institution name …….……..……...	0/1

Supplement B

1. Examples of vmPFC patients' reports:

a. [near future] "*I used to go work at the neighbor's house* (**repeated events**). *We lived on the ground floor* **(personal semantics)** *... The neighbor would have me clean the apartment like that* **(repeated events)**. *I'd still like to work there. It would be nice — though it depends on the kind of people you work with… but yes, pleasant* **(personal semantics)**. *There would also be good people, because there are good people, but also not-so-good ones* **(general semantics).**"

b. [childhood] "*A specific event - 14 years old - uh, I remember I had just had my birthday party* **(extended event)** *and a few days later I found a moped outside the house, a brand-new one, which my parents gave me* **(specific event)** *— or I should say - they gave me with all the fibs they had to come up with at that time. Then I changed a few things myself* **(extended event)** *but at that time, my biggest wish was the moped, and even though we weren't exactly well-off* **(personal semantics)** *they went about everything secretly so I could have it brand-new at home, and it was a lovely surprise* **(extended event)**. *Then after two months, you couldn't recognize it anymore — I mean, I changed the seat; it was a kind of replica - but still, the vehicle arrived, and then I wanted to customize it* **(extended event)**."

2. Examples of control patients' reports:

a. [near future] *Uhm, a specific event? Painting a wall, using all the materials I have — creating something enjoyable, something that can last* **(extended event***). Yes — I see myself in a kind of studio, with some tables, and paints. There's a wall… and I try, somehow, to paint. Flowers come to mind. There's music playing in the background. I'm feeling cheerful, calm — and I feel joy from what I'm doing, this pleasant thing. But in that moment, I'm also lonely* **(specific event)**.

b. [recent past]*"In fact, I was about to say that exactly ten years ago, um, I changed jobs and started the job that eventually led to my retirement I started working for the company from which I would later retire — and that was very important because I finally and completely changed my life . My previous job had a very negative impact on my life* (**personal semantics)**. *I was on call, which meant I was involved practically every day, and very often for the whole day - it wasn't just during office hours* **(repeated event)**. *This also had a major effect on my private and family life, because if they called me in the middle of the night for an emergency, the phone wouldn't ring just for me, but also for my wife. So, it had a big impact on her life too* **(personal semantics)** *... The day I retired was May 31st, 2019. That day, I went to work as usual — I did my normal daily tasks — and then in the evening, I invited all my colleagues to dinner to say goodbye. We went out to eat at a farmhouse-style restaurant that had "space for everyone. There were about fifty of us. It was a very cheerful evening where people also shared a few anecdotes about our time working together. My colleagues gave me gifts, and I*

tried to savor more and more that feeling of finally having the time - the time that had always been missing - to enjoy life **(specific event)***"*

3. Examples of healthy controls' reports:

a. [childhood] "*Precise... I was sixteen and already working. My workplace was about twenty kilometers from where I lived* **(personal semantics)**, *and I used a bicycle to get there* **(repeated event)**. *It was January. I got up, got on my bike, and left the house. The problem was it was snowing — we were in Treviso. I couldn't ask my father to drive me because it was early in the morning, and he had to go to work too. So, I got on my bike, and I clearly remember reaching a point where there was a railway overpass. As soon as the incline started, I slipped. I couldn't pedal up because the snow was about thirty centimeters deep. I got off and pushed the bike by hand. The snow was high, and I couldn't stay on the sidewalk of the overpass. Cars were passing by. It was cold, and I felt really miserable at that moment. Then, in the opposite direction, I saw a bus coming — and inside, I recognized my aunt, who was also on her way to work. When I reached the top of the overpass, I got back on my bike and carefully rode down, trying not to fall* **(specific event)**."

b. [near future] "*I'm thinking of something quite simple, but it's something I've promised myself I'll do: in two years, I'll retire* **(personal semantics)**, *and this plan is part of how I imagine the next ten years of my life* (**extended event**). *I imagine my retirement party - I'll invite all my colleagues. It'll be a big celebration, full of memories, and probably lots of jokes too, because I know my coworkers well and they're sure to come up with something funny. It'll also be a stylish event, since some of my colleagues really know how to dress for special occasions* **(personal semantics)**. *I picture a very enjoyable evening - not a formal dinner, but more like an aperitif in a countryside venue, maybe an agritourism with a pool, where we can eat, drink, and have fun. I imagine it being a lively and cheerful night, with music, dancing, and lots of laughter — but also some nostalgia. I'm sure that once the evening is over, I'll feel happy, but also very nostalgic for those people and that place* **(specific event)**".

Supplement C

1. Results

	Childhood *(0-18 years)*			
	People	*Places*	*Addresses*	*School/work*
HC	6.00 (0.00)	5.71 (1.31)	3.48 (0.60)	3.24 (0.70)
vmPFC patients	6.00 (0.00)	4.44 (1.94)	3.56 (0.73)	2.67 (0.50)
CP	6.00 (0.00)	6.00 (0.00)	4.00 (0.00)	3.17 (0.98)
	Adulthood (18-30 years*)*			
	People	*Places*	*Addresses*	*School/work*
HC	6.00 (0.00)	5.67 (0.97)	3.62 (0.67)	3.19 (0.75)
vmPFC patients	6.00 (0.00)	5.11 (0.93)	3.78 (0.44)	2.56 (1.13)
CP	6.00 (0.00)	5.67 (0.82)	4.00 (0.00)	3.50 (0.55)
	Recent past (last 10 years)			
	People	*Places*	*Addresses*	*School/work*
HC	6.00 (0.00)	5.81 (0.51)	3.48 (0.98)	3.52 (0.81)
vmPFC patients	6.00 (0.00)	4.67 (1.58)	3.67 (0.50)	2.67 (1.00)
CP	5.67 (0.82)	6.00 (0.00)	4.00 (0.00)	3.67 (0.52)
	Near future (next 10 years)			
	People	*Places*	*Addresses*	*School/work*
HC	6.00 (0.00)	5.67 (0.97)	3.62 (0.74)	3.05 (0.97)
vmPFC patients	5.33 (2.00)	5.22 (1.39)	3.90 (0.33)	2.44 (1.33)
CP	6.00 (0.00)	5.67 (0.82)	3.50 (0.84)	3.17 (0.75)

Table C1. Mean (and standard deviation) scores attained at the Personal Semantic Interview by *Group* (HC= healthy controls, vmPFC patients, and CP= control patients), *Time,* and *Semantic Information*.

1.1. Forward transitions among knowledge structures

The corrected number of forward transitions starting from personal semantics was subject to a Beta GLMM with Group (HC, vmPFC patients and CP), Target knowledge structure (repeated events, extended events and specific events) and Time as fixed effects and Participant as a random effect. To test our hypothesis that vmPFC patients exhibit impairments in activating knowledge structures compared to CP and HC, we conducted planned between-group contrasts for each knowledge structure. Post-hoc analyses with Holm's correction were applied to the remaining, exploratory contrasts.

The results yielded a significant main effect of G*roup* [Wald $\chi^2_{(2)} = 26.19$; $p < .001$] and an interaction *Target knowledge structure* * *Group* [Wald $\chi^2_{(4)} = 26.87$; $p < .001$]: post hoc comparisons revealed that vmPFC patients showed more transitions from personal semantics to repeated and extended events compared both to HC (*repeated events*: $p < .001$; *extended events*: $p < .001$) and CP (*repeated events*: $p = .02$; *extended events*: $p = .04$). CP also showed more transitions from personal semantics to repeated events than HC ($p = .03$), while transitions from personal semantics to extended events did not differ between the control groups ($p = .40$). By contrast, the groups did not differ in the number of transitions from personal semantics to specific events (all ps $\geq .07$; *see Figure C1*).

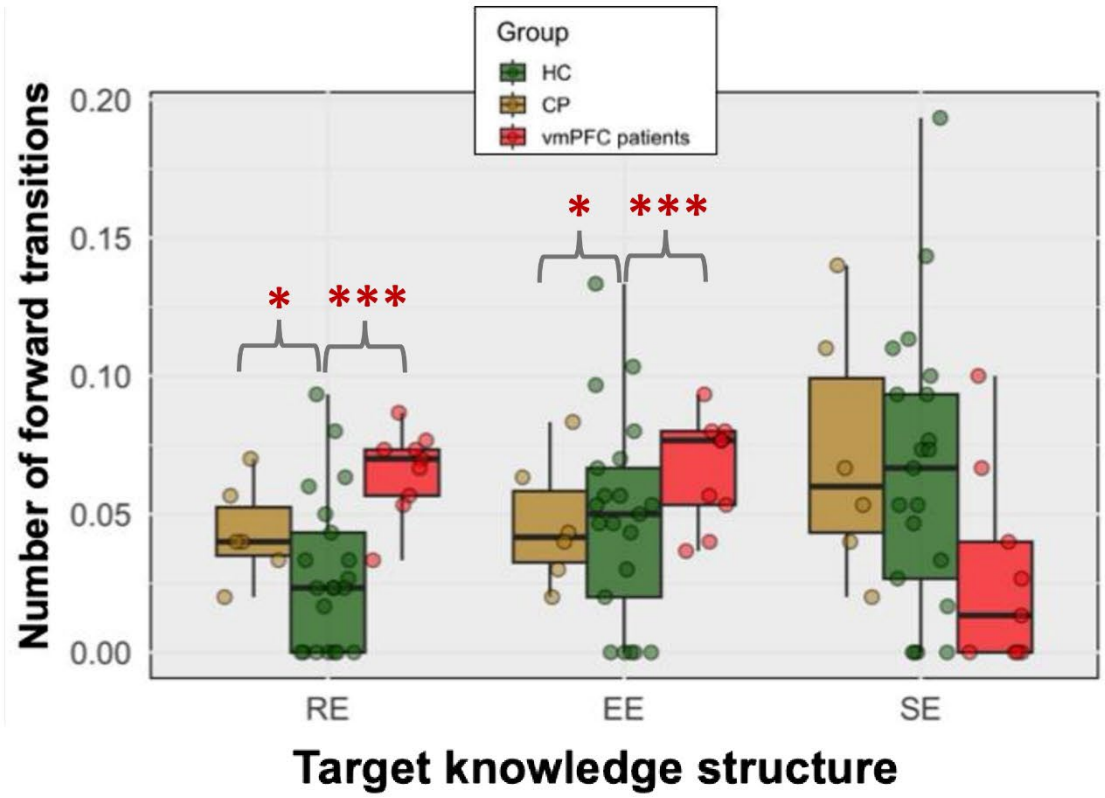

Figure C1. Corrected number of forward transitions starting from personal semantics by *Group* (HC, CP and vmPFC patients) and *Target knowledge structure* (repeated events, extended events and specific events). Error bars indicate standard error of the mean. *$p < 0.05$, ** $p \leq 0.01$, ***$p \leq 0.001$.

The factor *Time [Wald* $\chi^2_{(2)}$= 6.34; p = .042] was also significant and qualified by a significant interaction *Time* * *Target knowledge structure* [Wald $\chi^2_{(4)}$= 10.65; p= .031]: participants produced more transitions from personal semantics to extended events in the future compared to the remote past (p= .044), with no differences in the remaining transitions (all ps ≥ .32).

The corrected number of forward transitions originating from repeated events was analyzed using a GLMM, including *Group* (HC, vmPFC patients and CP), *Target knowledge structure* (extended events and specific events), and *Time* as fixed effects, and *Participant* as a random effect. The corrected number of forward transitions from extended to specific events, instead, was subject to a GLMM with *Group* and *Time* as fixed effects, and *Participant* as a random effect.

The analyses on the number of forward transitions starting from repeated events and from extended events showed no significant effect [all ps ≥ .05].