

# Depression and autobiographical memory: which are the characteristics of depressed patients' self-defining memories?

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## BACKGROUND

**Autobiographical memory (AM)** is a complex mental system allowing to recover information from past events or experiences (Conway & Pleydell-Pearce, 2000); it contains memories particular to each individual and accumulated since his earliest childhood. These memories build a *sense of identity and continuity* (Piolino, 2000). Indeed, our sense of identity mostly depends on our ability to remind of our personal history and to answer the "Who am I?" question. To answer this, it is also needed to have a clear view of ourselves: this refers to the *clarity of self-concept* defined as the degree of certainty and confidence concerning self-descriptions (Campbell, 1996). Moreover, clarity of self-concept is linked to *self-esteem*: people with low self-esteem tend to also have a less clear and more vague self-concept (Campbell, Chew & Scratchley, 1990).

According to the *self-memory system's model* (Conway, Singer & Tagini, 2004), some memories are particularly relevant for the definition of our identity: the "*self-defining memories*" (SDMs). SDMs help us to:

- 1) Define in the most clearly way our perception of ourselves
- 2) Explain to others who we are

Five different dimensions characterizing these SDMs are of interest to focus on: *specificity, emotional valence, meaning making, contain and redemption.*

Previous research showed that **depressed patients** suffer from AM deficits. Specifically, they tend to recall **general memories (overgeneralization bias)**. Further, they usually tend to recall **more negative memories than positive ones (mood congruence bias)** (Claudio, Aurelio & Machado, 2012). Finally, depressed patients are characterized by **low self-esteem** (Orth, 2012).

This study aims to investigate the differences between depressed patients and healthy subjects on SDMs' characteristics and on the clarity of the self-concept.

## HYPOTHESES

- Compared to healthy subjects, depressed patients will:
- Recall less specific SDMs and meaning making SDMs
  - Report more negative SDMs
  - Report more negative redemption than positive redemption
  - Report a less clear self-concept
  - Report a lower self-esteem

In both groups, a mood congruence bias will be observed.

## METHOD

### Sample

Table 1. Sociodemographic data.

	Depressed subjects N = 17	Healthy subjects N = 18	
Sex (♂/♀)	8/9	10/8	
	$\bar{x}$ (SD)	$\bar{x}$ (SD)	p
Age	51,24 (10,60)	47,39 (13,11)	0,35 (> 0,05)
Depressive episode	2 (1,30)	/	/

### Experimental design

Depressed subjects are compared to healthy subjects. Every participant is asked to recall six SDMs according to these instructions:

- SDMs should date from less than a year and be clear and familiar
- SDMs help to understand who you are
- SDMs can be positive, neutral or negative
- You have thought about these SDMs several times
- SDMs are as familiar as a picture

### Mood assessment

- **Depression's severity:** Beck Depression Inventory (BDI-II)

### SDMs assessment

#### Scales

- **Recalled and current emotions ratings:** a positive, neutral or negative valence is attributed to events when it happened and when it is recalled.

#### Variables

- Specificity, meaning making, contain, redemption

#### Identity assessment

- **Self-concept clarity:** Self-concept clarity scale (SCCS)
- **Self-esteem:** Rosenberg self-esteem scale (RSE)

#### Statistical analyses

Descriptive analyses, student t test, repeated ANOVA measures and correlational analyses were conducted.

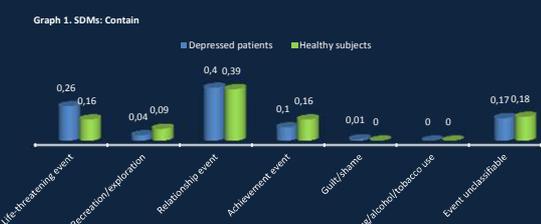
## RESULTS

### GROUP COMPARISON

#### 1) MOOD & IDENTITY

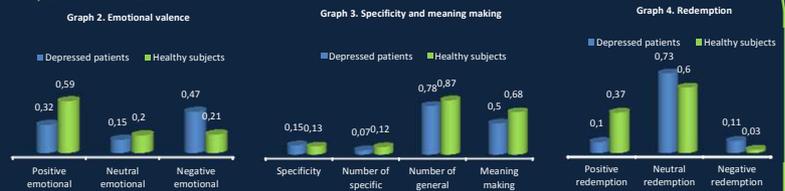
Depressed patients showed a significant higher score of depression severity than healthy subjects ( $t(33) = 6,26, p < 0,01$ ). Depressed patients showed significant lower scores of the clarity of the self-concept and of self-esteem than healthy subjects ( $t(33) = 4,88, p < 0,01$  and  $t(33) = -5,73, p < 0,01$ , respectively).

#### 2) SDMs & CONTAIN



Inspection of scores showed that memories mainly concerned relationship events in both groups. However, this inspection highlights that the second leading theme is different: for depressed patients, memories concerned life-threatening events while for healthy subjects, it concerned achievement events.

#### 3) SDMs: CHARACTERISTICS



According to our hypotheses, depressed patients recalled significantly more negative SDMs than healthy subjects ( $t(31) = 2,33, p = 0,03$ ) and recalled significantly less positive SDMs than healthy subjects ( $t(33) = -2,34, p = 0,03$ ).

Contrary to our hypotheses,

- Concerning **specificity and meaning making**, no significant difference between depressed patients and healthy subjects emerged. Only a marginally significant difference emerged for meaning making between groups: depressed patients tended to recall less meaning making events than healthy subjects ( $t(33) = -1,79, p = 0,08$ ).
- Concerning **redemption**, depressed patients didn't present more negative redemption than healthy subjects but healthy subjects presented significantly more positive redemption than depressed patients ( $F(1,31) = 6,99, p = 0,01$ ).

## CORRELATIONAL ANALYSES

Correlational analyses were conducted on the whole sample.

#### 1) SDMs & MOOD

BDI scores were

- Negatively correlated with SDMs' positive emotional valence ( $r(35) = -0,66, p < 0,01$ )
  - Positively correlated with SDMs' negative emotional valence ( $r(35) = 0,73, p < 0,01$ )
- These results are in line with the mood congruence bias.

#### 2) SDMs, CLARITY OF THE SELF-CONCEPT & SELF-ESTEEM

SCCS scores were

- Positively correlated with SDMs' positive emotional valence ( $r(35) = 0,56, p = 0,01$ )
- Negatively correlated with SDMs' negative emotional valence ( $r(35) = -0,5, p = 0,03$ )
- Positively correlated with SDMs' positive redemption ( $r(35) = 0,47, p < 0,01$ )

RSE scores were

- Positively correlated with positive emotional valence ( $r(35) = 0,60, p < 0,01$ )
- Negatively correlated with negative emotional valence ( $r(35) = -0,53, p < 0,01$ )

#### 3) CLARITY OF THE SELF-CONCEPT & SELF-ESTEEM

SCCS scores were positively correlated with self-esteem ( $r(35) = 0,78, p < 0,01$ )

## DISCUSSION

Our results partially support the hypotheses. Indeed, depressed patients recalled more negative SDMs than healthy subjects. This result is in line with those of Werner-Seidler & Moulds (2012). Even if memories mainly concerned relationships in both groups, depressed patients also recalled several memories concerning life-threatening events: this seems to correspond with the negative emotional valence of their SDMs. Moreover, depressed patients reported a less clear self-concept and low self-esteem than healthy subjects. The analyses revealed that these two dimensions of the self are correlated.

Finally, results showed that individuals who have a clear self-concept and a high self-esteem report more positive emotions and redemption.

Nevertheless, no significant difference appears for memories' specificity. The SDMs' instructions lead to recall abstract memories supporting a life lesson or a self-perception. Moreover, it seems that depressed patients show impairment in the meaning making processes. However, given the small sample size, this conclusion has to be considered with the greatest precaution. Nevertheless, these results already highlight clinical implications of working on recalling positive autobiographical memory for the sense of identity and for the mood.

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