



# AVATARS SUPPORTING PERSPECTIVE TAKING IMPROVEMENT: TOWARDS A NEW PARADIGM TO REDUCE DEPRESSIVE AFFECTS

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## I. INTRODUCTION

- ▶ Depression → Private self-consciousness (1) + Exacerbation of negative self-relevant information (2).
- ▶ Feeling of distress: Higher self-focused attention + Confusion between one's own emotions and those of others in evaluation of negative situations (3).
- ▶ Self-focused attention: Shifting of the attention from the outer world to the inner world.
- ▶ Manipulation of self-focused attention → Self-consciousness (private and public) + Ego and alter-centric biases (4).
- ▶ Self-focused attention → Attention directed toward others (5).

Rather than manipulate self-focus attention, the current project offers a new paradigm consisting in directing attention toward others and in training other's perspective taking skills. It could help people suffering from subclinical levels of depression to be less self-centered, to better distinguish their feelings from those of others and to reduce their level of distress.

## II. PARTICIPANTS & SELF-REPORTED MEASURES

2x25 participants: Subclinical depression / Cross design (waiting list)

Self-reported measures:

- Beck Depression Inventory (BDI, 1987)
- Positive and Negative Affect Schedule (PANAS, Watson et al., 1988)
- Vicarious Distress Questionnaire (VDQ, Grynberg et al., 2012)
- Interpersonal Reactivity Index (IRI, Davis, 1980)
- Self-Consciousness Scale (SCS, Fenigstein, 1975)
- French Situational Self-Awareness Scale (FSAS, Auzoult, 2013)

## III. HYPOTHESES

By focusing attention toward others, training sessions should enhance the distinction between oneself and others, reduce levels of distress and improve empathic abilities.

Training expected effects:

- H1 ↓ Depression & distress,
- H2 ↓ Self-focused attention,
- H3 ↑ Perspective taking.



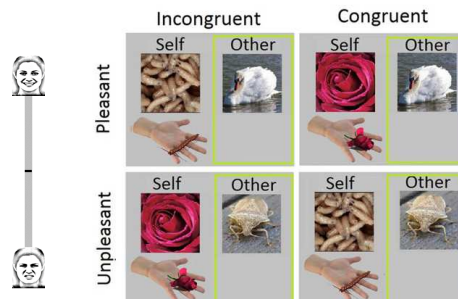
## VI. EXPERIMENT - a/ Design

Week 1 t0	Weeks 2-5 t1	Week 6 t2
<b>PRE-TEST</b>	<b>TRAINING SESSIONS</b>	<b>POST-TEST</b>
<p><b>Self-reported measures:</b> Depression/Anxiety, Distress, Empathy, Self-consciousness, Motivation, Functional implications</p> <p><b>Behavioral task:</b> - Visual &amp; tactile stimulation</p>	<p>10 computerized sessions Durée : 20 minutes Freq. : 2-3/week</p> <p><b>Home training:</b> - Perspective taking - With/without avatar</p>	<p><b>Self-reported measures:</b> Depression/Anxiety, Distress, Empathy, Self-consciousness, Motivation, Functional implications</p> <p><b>Behavioral task:</b> - Visual &amp; tactile stimulation</p>

## VI. EXPERIMENT - b/ Self-other distinction measurement

VISUAL & TACTILE EMPATHY TASK (Emotional Egocentricity Bias, EEB, Silani et al., 2013).

This task assesses the distinction between self and other through the tendency to be influenced by others' emotional state (alter-centric bias) and the tendency to evaluate others' emotions according to its own perspective (egocentric bias).



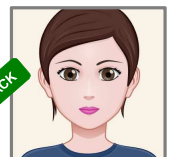
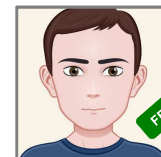
Conditions: Self v/s Other Pleasantness - Congruent v/s Incongruent Stimulation

## IV. EXPERIMENT - c/ Other PT training

Orientation of the attention toward others: short display of other's avatar before querying the subject on other's feelings in a given emotional situation. Cross design with or without avatar.

How would you feel if you received flowers?  
With which intensity?

What would Thomas feel if he lost his job? / What would Manon feel if she burned Christmas meal?  
With which intensity?



SUBJECT

THOMAS

MANON



## V. IMPLICATIONS

Consistent results could encourage therapies integrating affordable self-decentring modules in order to reduce distress affects and prevent depression.

→ Further perspectives:

The current design could be extended:

- ... to clinical levels of depression,
- ... to HSP people (Highly Sensitive Person).