

# Identification of the expressions of self-awareness in children with PIMD

*8th Roundtable SIRG-PIMD, Fribourg, 30th of August 2017*

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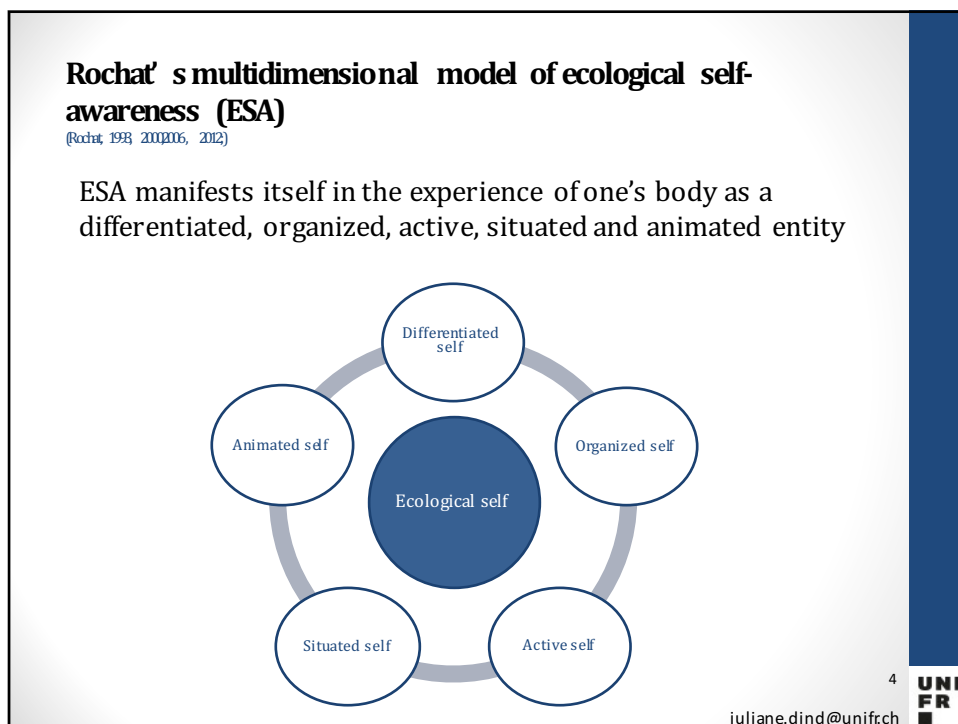
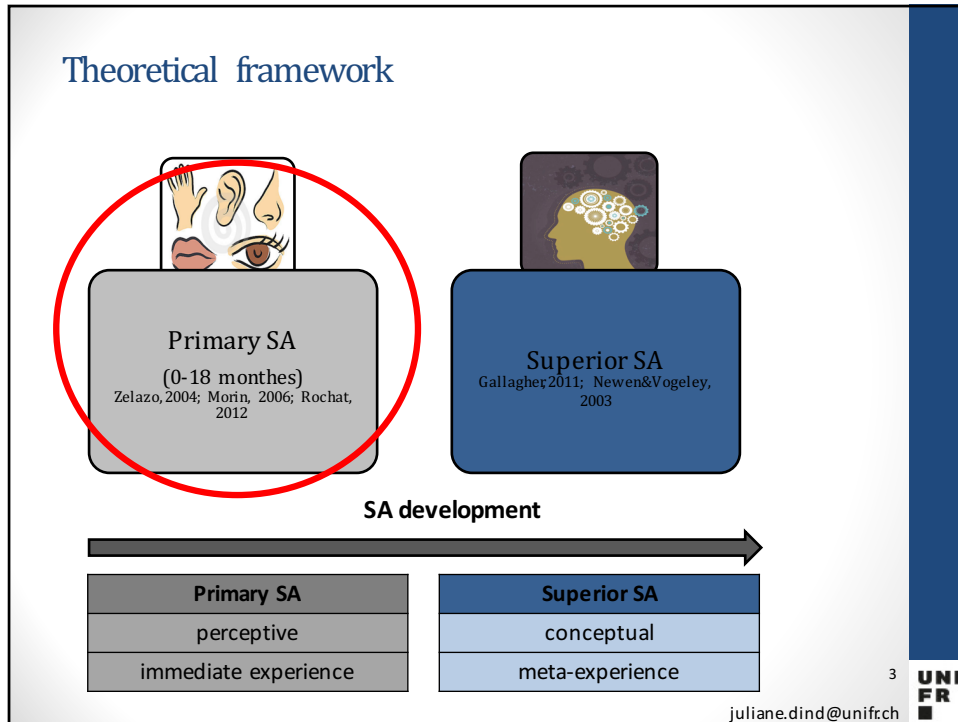
## Content of my presentation

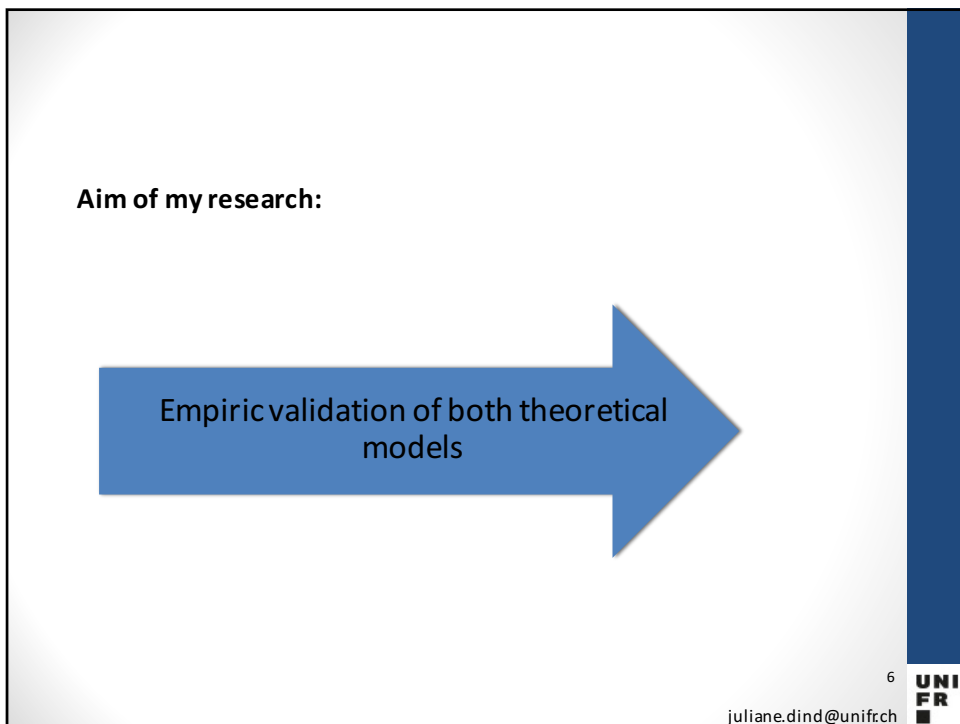
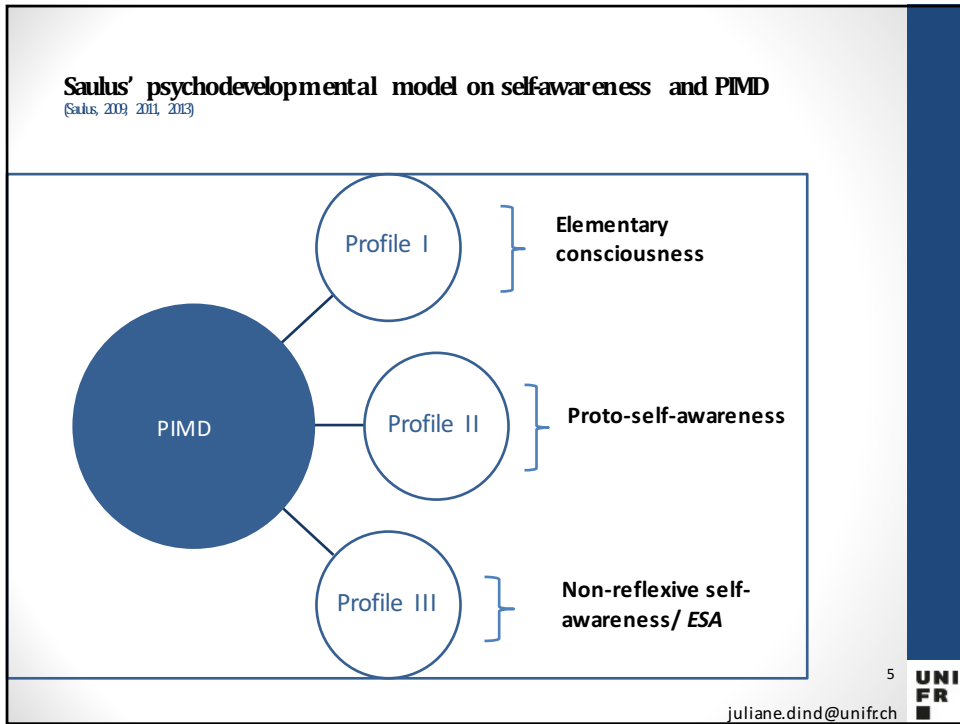
- Theoretical framework (*reminder*)
- Method (*reminder*)
- Results
- Discussion

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## Research questions

- How does ecological self-awareness (ESA) manifest itself in children with PIMD?
  - Does the study of ESA indicators allow to differentiate subgroups inside the PIMD main group?
  - What distinguishes these subgroups?
  - How are distributed ESA indicators in each subgroup?

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## Method

### Evaluation tools in PIMD research



#### Indirect evaluation tools

- Interviews
- Surveys
- Parents, DSPS, ...



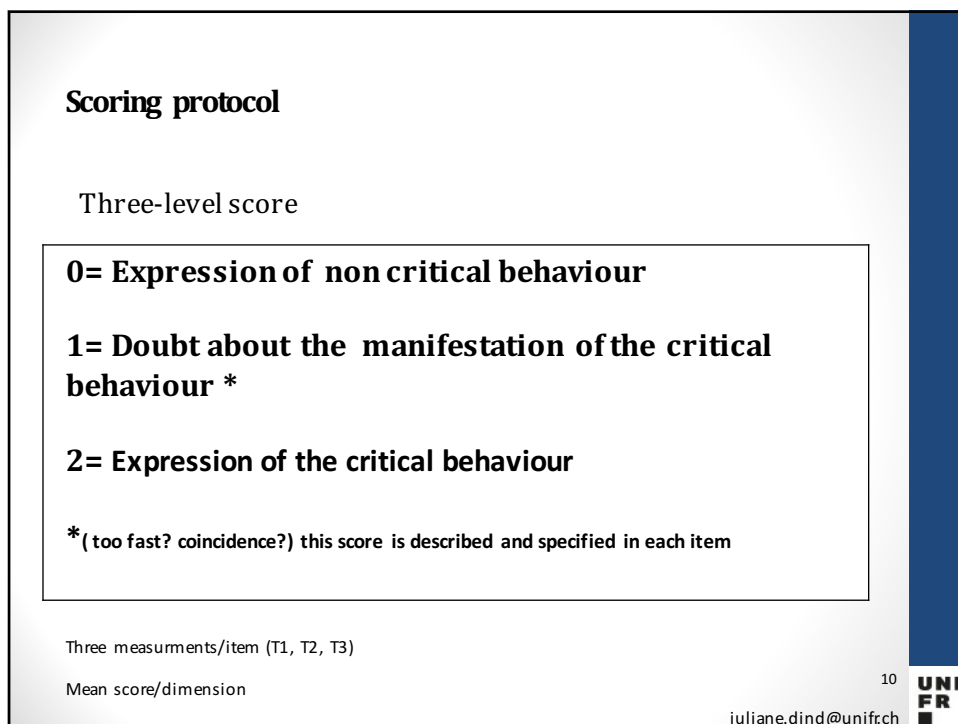
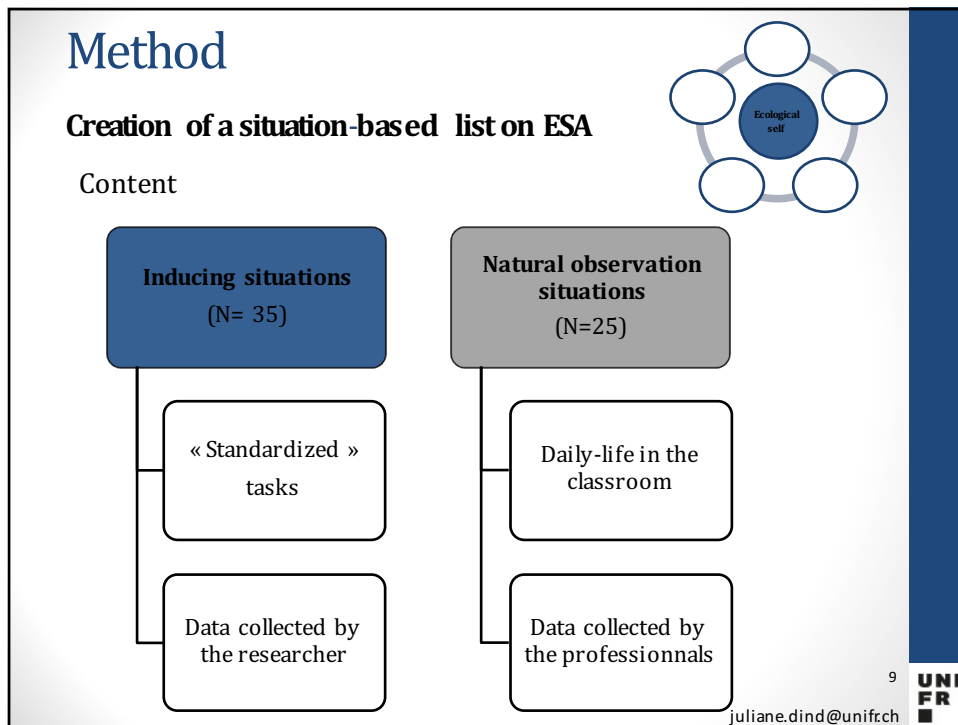
#### Direct evaluation tools

- Physiological measurement
- Developmental psychology paradigm
- *Situation-based list*
- People with PIMD

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## Psychometric qualities of the inducing-situations list

	Value
<b>Internal consistency</b>	Cronbach alpha=.897
<b>Inter-coder agreement</b>	81%
<b>Intra-coder agreement</b>	88%
<b>Test-retest reliability</b>	ICC=.950
<b>Procedural reliability</b>	95%
<b>Convergent validity</b>	$\rho=.695, p=.001$
<b>Social validity*</b>	
Tool validity	88%
Method validity	88%
Participation benefit	83%
* DSP's appreciation	

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## Procedure

June 2014: **Agreement** of the **Ethics Committee on human research** in Lausanne

### Pre-experimental stage

N= 6

- Test and adaptation of the situation-based list
- Test and adaptation of the indicators (critical behaviors)

### Experimental stage

N= 20

- Administration of the situation based-list
- Interobserver training
- Confrontation with 3 experts of PIMD based on videotapes


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## Sample

**Common** inclusion criteria for the two stages

- PIMD- spectrum (Nakken, 2007) 
  - *profound mental disabilities*
  - *profound neuromotor dysfunctions*
  - *frequent sensory impairments*

**Specific** criteria:

	Pre-experimental stage	Experimental stage
Age	4-18 years old	4-12 years old
Selection	Profile selection* (Saulus' model)	No profile selection**
Number	6	21
Exp. mortality	1	3
<b>NTotal</b>	<b>5</b>	<b>18</b>

\* In order to maximize the heterogeneity: 2 profile I, 2 profile II, 2 profile III

\*\* It is **not** a convenience sample

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## RESULTS

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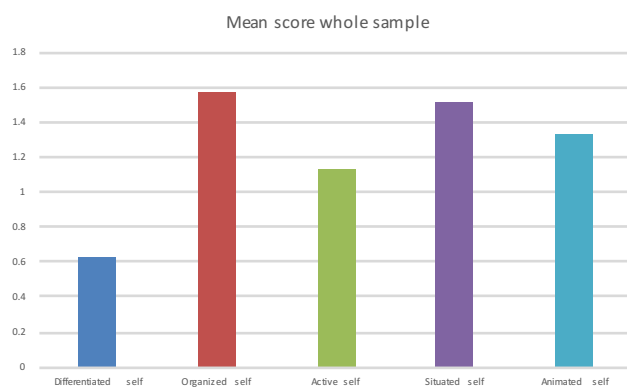
➤RQ1: How does ecological self-awareness (ESA) manifest itself in children with PIMD?

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Mean score in each dimension of ESA:



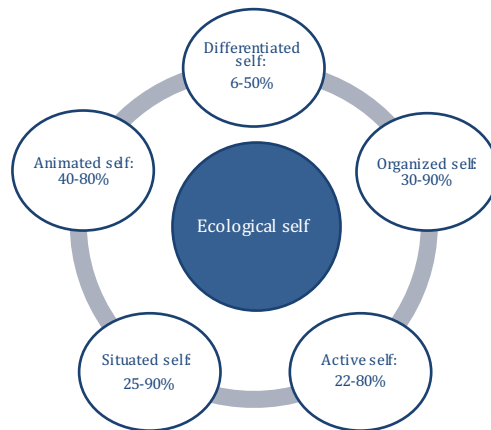
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% of expression of ESA indicators



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RQ2: Does the study of ESA indicators allow to differentiate subgroups inside the PIMD main group?

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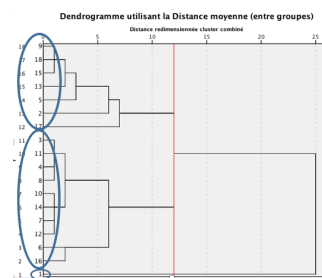


## Cluster Analysis

Subgroups	Members
« Cluster 1 »	N=1
Cluster 2	N = 7
Cluster 3	N = 10

Effect on cluster membership:

- X age
- X gender
- X facility
- ✓ Profile of PIMD



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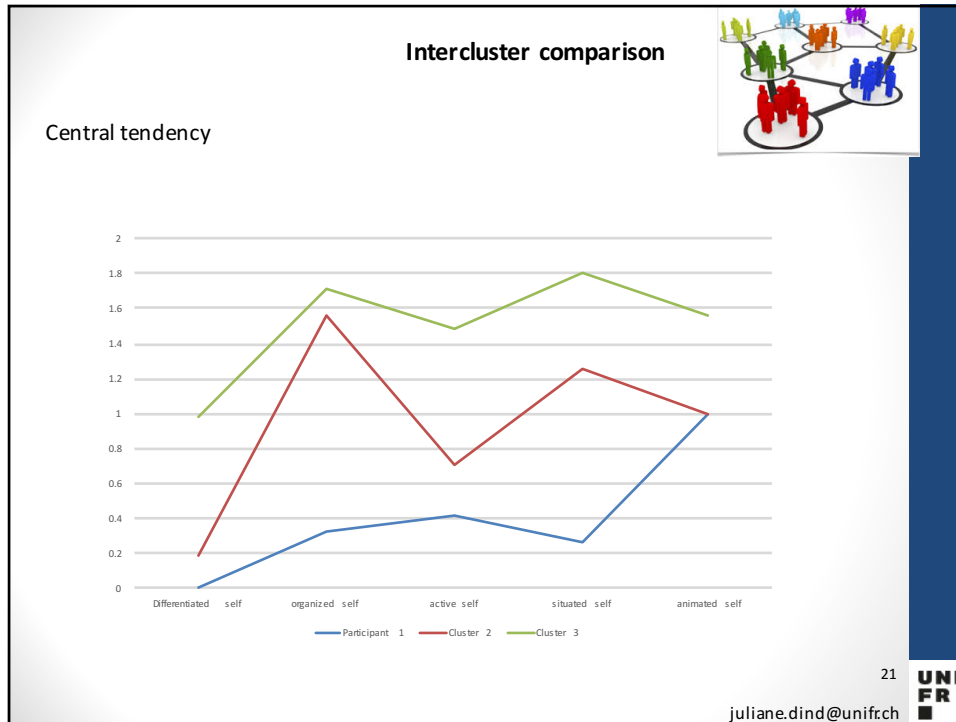


RQ3: What distinguishes these subgroups?

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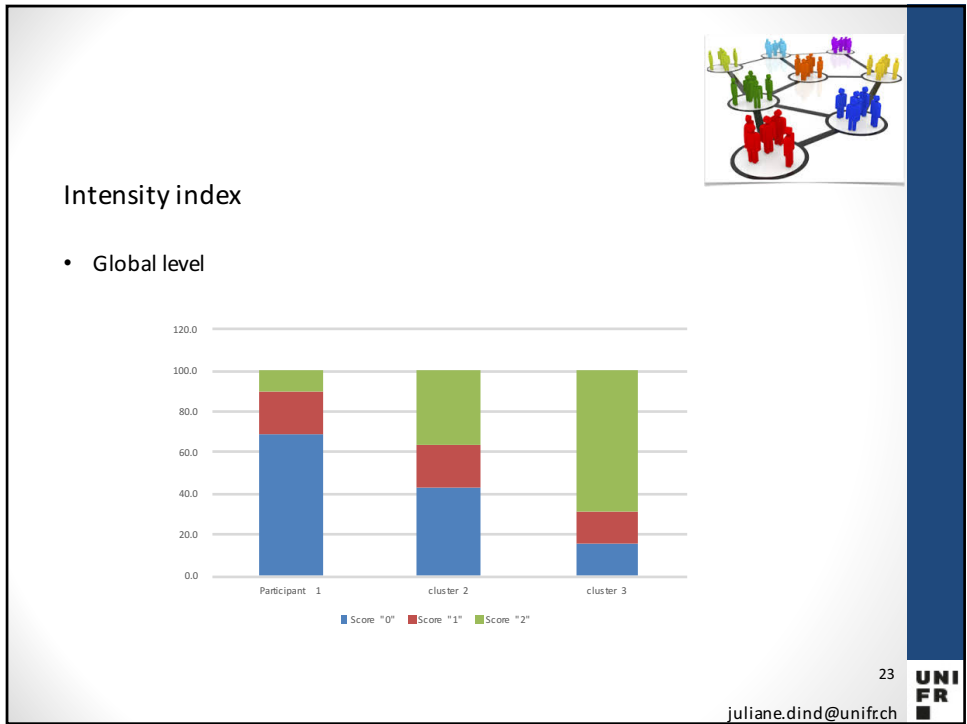


### T Test

	Independent samples T Test	One sample T Test	
	Cluster 3-> cluster 2	Cluster 3 -> participant 1	Cluster 2 -> participant 1
<b>Differentiated self</b>	$t(15) = -5.6, p < .05$	95% CI [ .73 à 1.24 ], $t(9) = 8.74, p < .05$	95% CI [ 0.09 à 0.30 ], $t(6) = 4.56, p = .004$
<b>Organized self</b>	$t(15) = -1.33, p = .21$	95% CI [ 1.2 à 1.56 ], $t(9) = 17.39, p < .05$	95% CI [ 1.04 à 1.43 ], $t(6) = 4.56, p = .004$
<b>Active self</b>	$t(15) = -5.48, p < .05$	95% CI [ .88 à 1.24 ], $t(9) = 13.44, p < .05$	95% CI [ .02 à .6 ], $t(6) = 2.26, p = .065$
<b>Situated self</b>	$t(15) = -4.62, p < .05$	95% CI [ 1.46 à 1.55 ], $t(9) = 37.48, p < .05$	95% CI [ .67 à 1.32 ], $t(6) = 7.44, p < .05$
<b>Animated self</b>	$t(15) = -3.38, p = .04$	95% CI [ 4 à .73 ], $t(9) = 7.65, p < .05$	95% CI [ -.35 à .41 ], $t(6) = 20, p = .843$

Statistically significant differences between means:  
 Cluster 3 > cluster 2 (except « organized self »)  
 Cluster 3 > participant 1  
 Cluster 2 > participant 1 (except « active » + « animated » self)

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### Summary

What distinguishes subgroups is:

Global level of performance

Level of complexity of participant's behaviours

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RQ3: How are distributed S-A scores in each subgroup?

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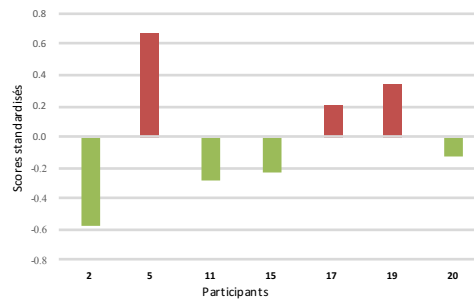


Intraduster comparison



Cluster 2: global level

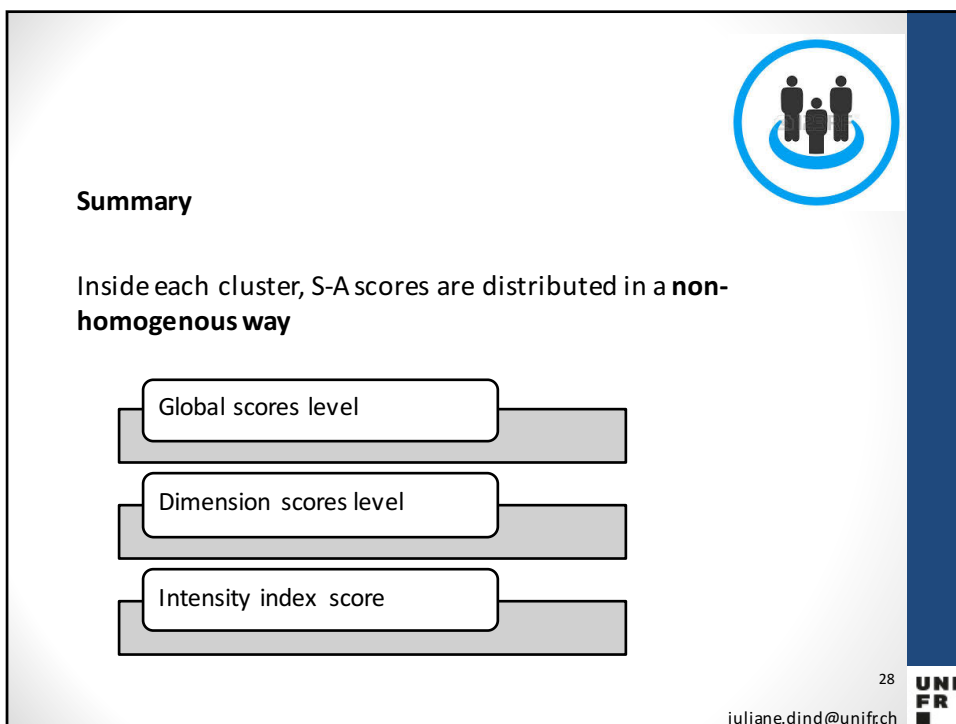
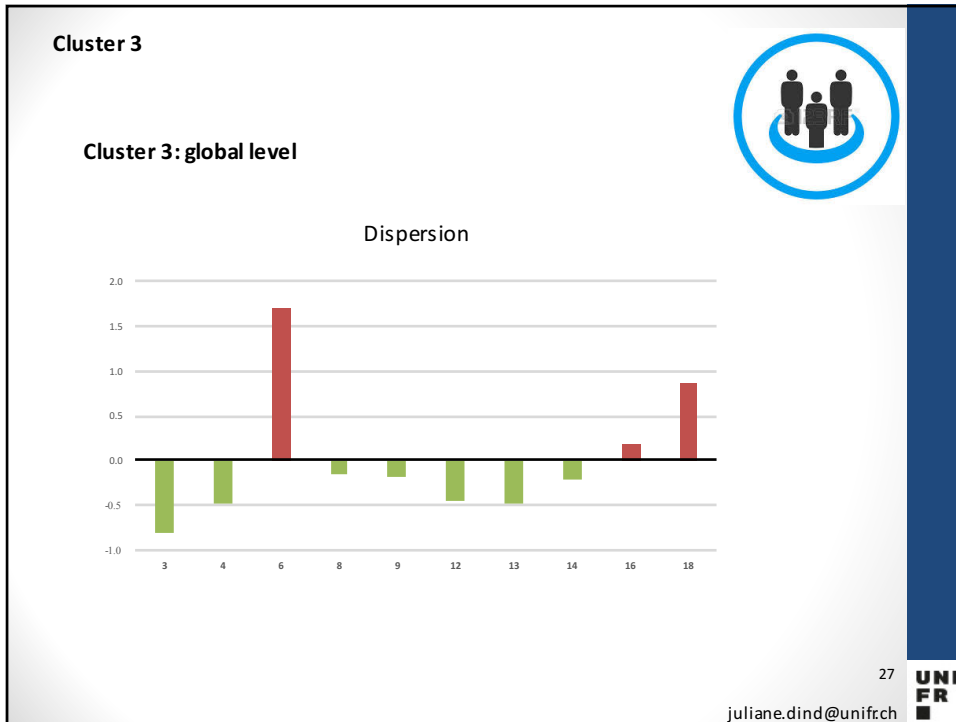
Dispersion



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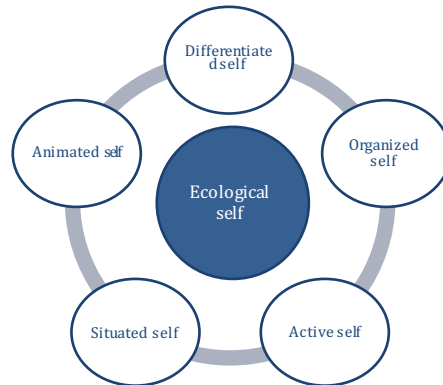
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# Discussion

- Validation of Rochat' multidimensional model

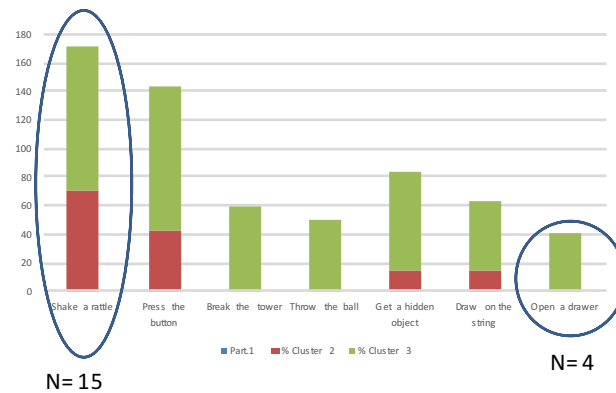


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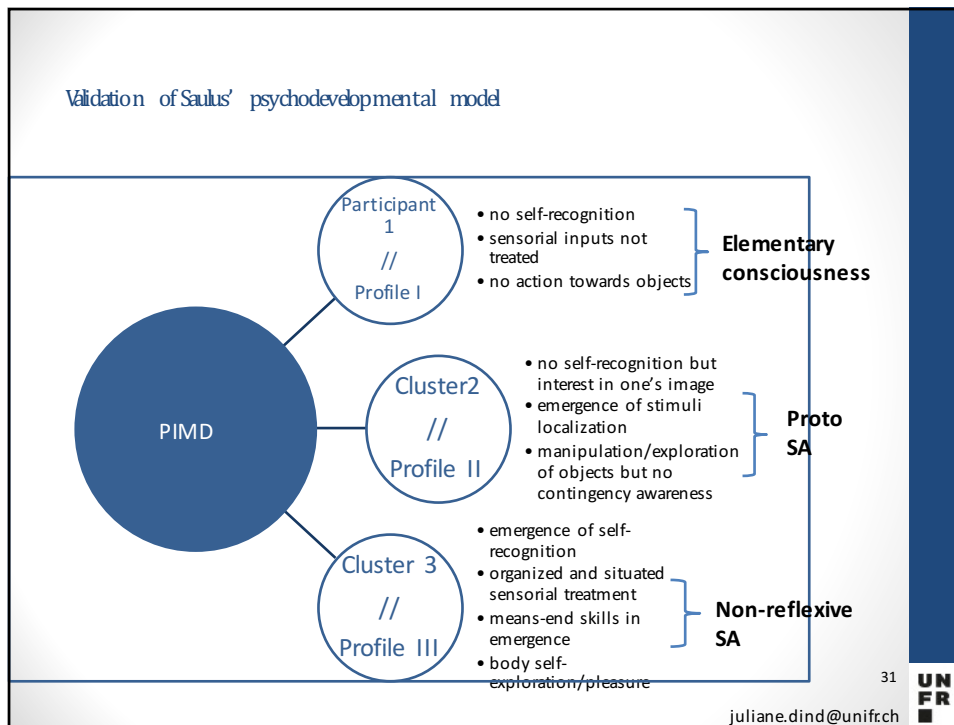
## Developmental logic: example in « active self » dimension



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## Limits

- > Exploitation of the data gathered with a new tool, not yet validated
- > Sample size/representativity
- > Incompleteness of data



## Strengths

- >Building of the situation-based list
- > Coding process
- > Correspondence between my results and both theoretical models
- > Subgroups identification inside the main group

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## Implications

- > Development of direct observation tools
- > Importance of the assessment of self-awareness skills in children with PIMD
- > Importance of the distinction of different profiles of PIMD

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## Further researches?

- > SA in a « life-span » perspective?
- > assessment of the effects of an intervention on SA skills?
- > assessment of interpersonal SA skills of children with PIMD, linked to the ESA skills?
- > comparison between SA skills of children with PIMD and children with anencephaly?

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