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Fanny Dégeilh, Annie Bernier, Miriam Beauchamp

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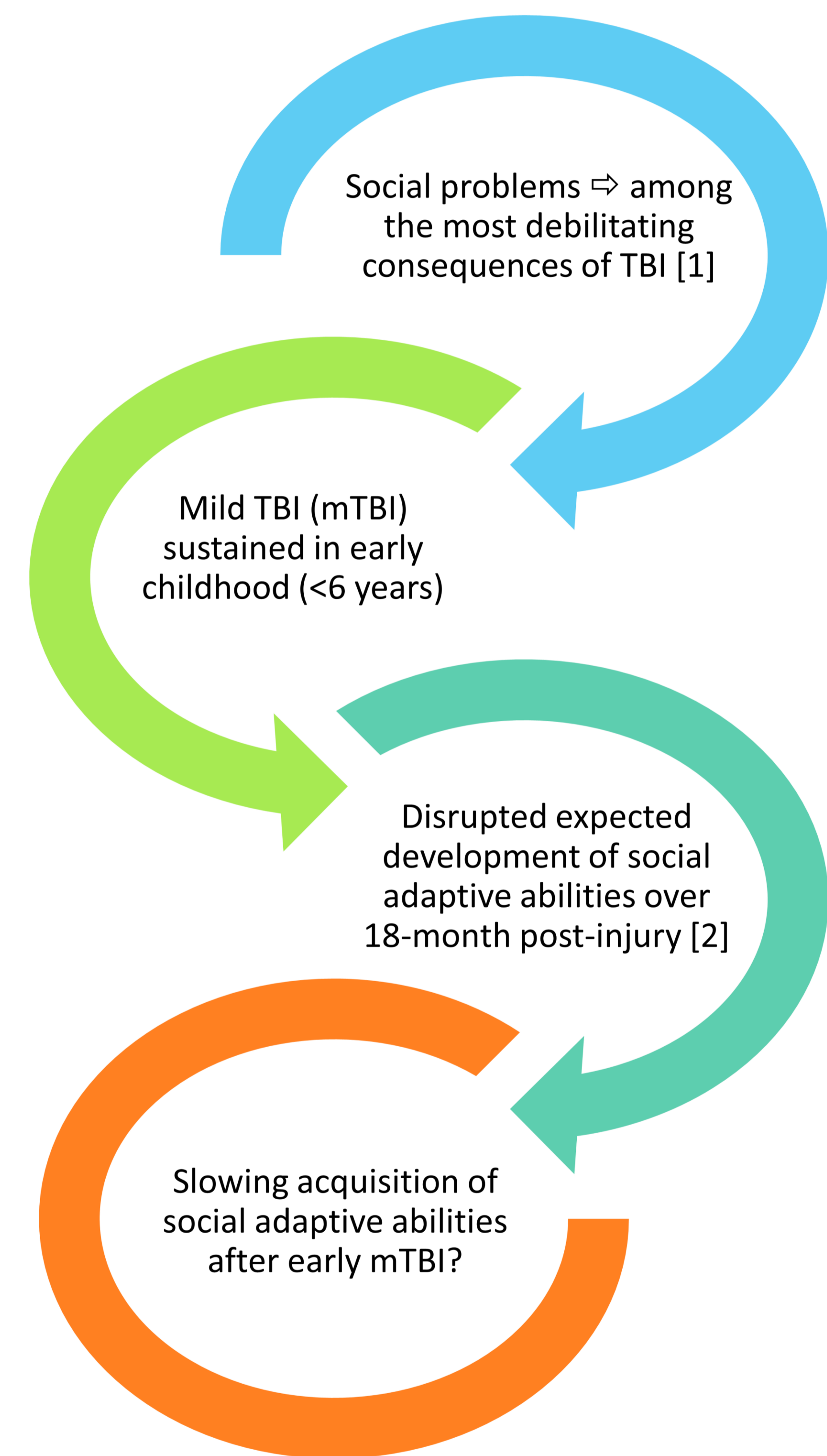
# Long-term changes in social adaptive abilities following early mild traumatic brain injury

Dégeilh, Fanny<sup>1</sup>; Annie, Bernier<sup>2</sup>; Beauchamp, Miriam H.<sup>2,3</sup>

<sup>1</sup>Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, Ludwig-Maximilian-University, Munich, Germany;

<sup>2</sup>Department of Psychology, University of Montreal, Quebec, Canada; <sup>3</sup>CHU Sainte-Justine Research Center, Montreal, Quebec, Canada

## INTRODUCTION



## OBJECTIVE

- To explore whether the slowing in the acquisition of social adaptive abilities persists in the long-term (60-month post-injury)

## METHODS



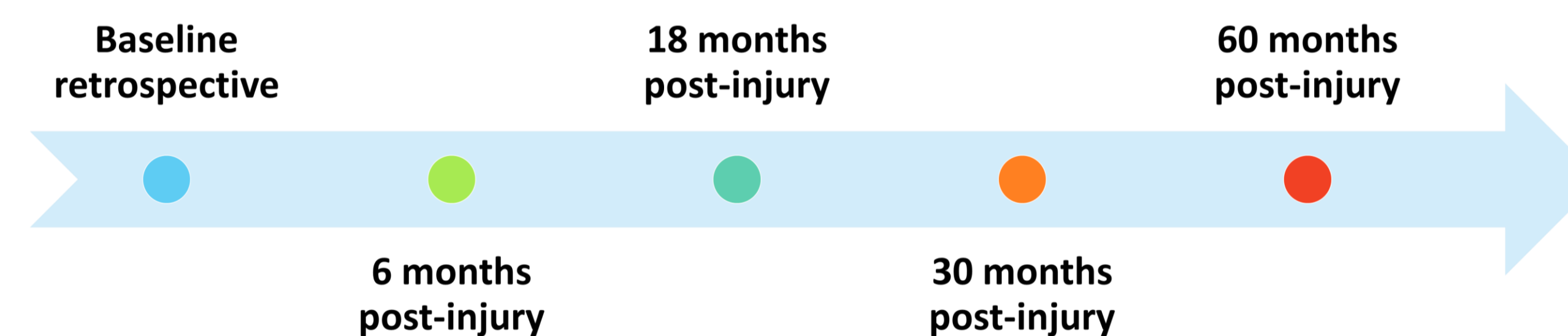
### Participants

- 81 children with mTBI (38 girls) aged 1.5 to 5 years at injury
- 60 with orthopaedic injury (OI; 34 girls) aged 1.5 to 5 years at injury



### Child's social adaptive abilities

- Parent-report
- Adaptive Behavior Assessment Scale-II Social skills sub-scale
- 5 assessments:



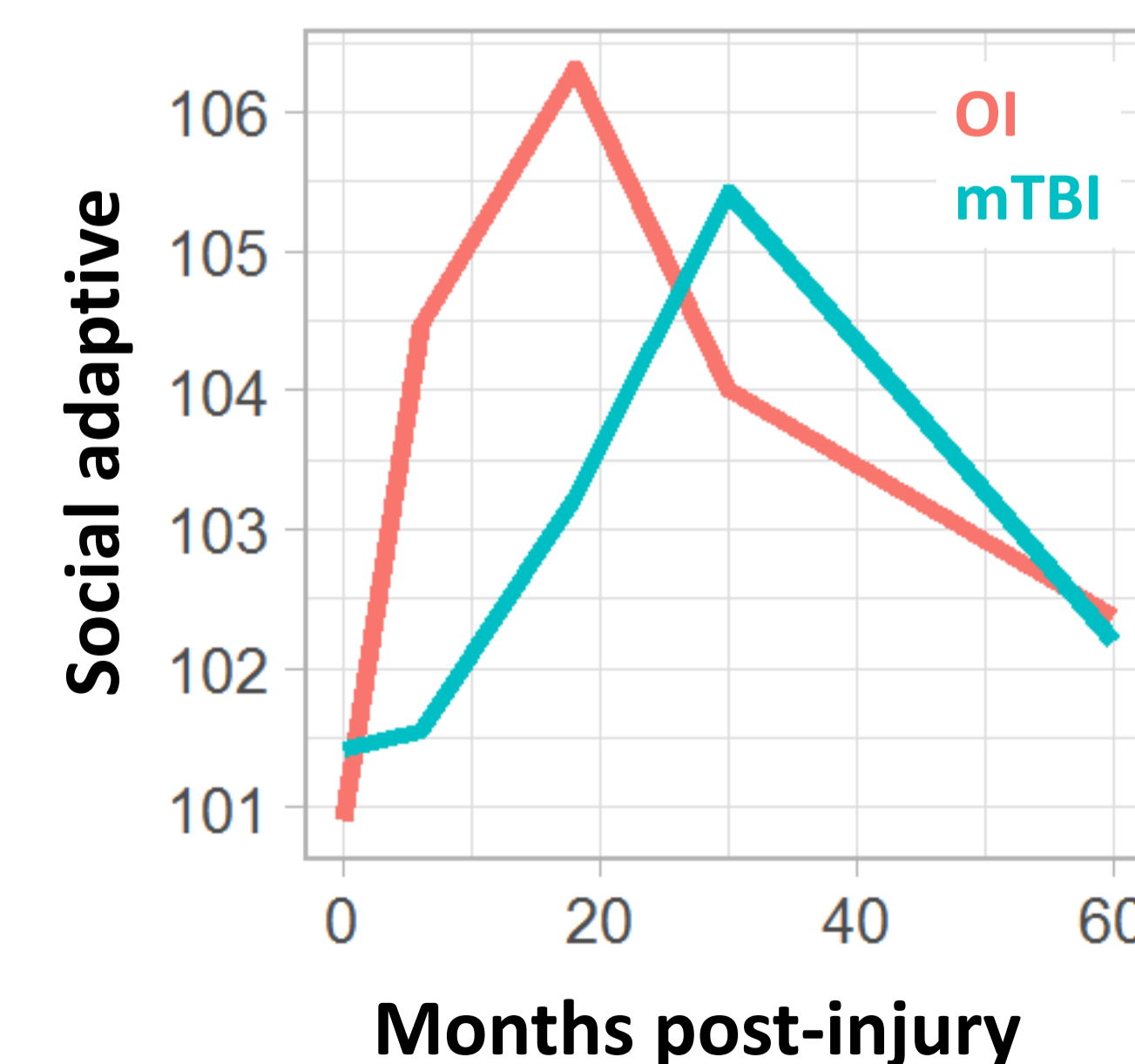
### Longitudinal analyses

- Growth curve analysis [3]
- Group effects on the time course of social adaptive abilities captured with a third-order (cubic) natural polynomial

## RESULTS

- No effect of group at pre-injury
- Marginal or significant effect of group on all time terms

	OI	mTBI	p-value
<b>Fixed Effects</b>			
Baseline	100.9	101.4	.83
Time	0.8	-0.03	.05
Time <sup>2</sup>	-0.03	0.01	.04
Time <sup>3</sup>	0.0003	-0.0002	.04
<b>Random Effects</b>			
Baseline		109.43	
Time		0.016	
Residual		102.96	



## DISCUSSION

- Children with OI**
  - 0-18 months post-injury:  $\uparrow$  by 0.40 point per month
  - 18-60 months post-injury: progressive  $\downarrow$  by -0.08 point per month
- Children with mTBI**
  - 0-6 months post-injury: remained at the pre-injury level
  - 6-30 months post-injury: slow  $\uparrow$  by 0.15 point per month
  - 30-60 months post-injury:  $\downarrow$  by -0.14 point per month

## Conclusion

- Early mTBI may disrupt the expected developmental progression of children's social adaptive behavior
- The developmental profile of social abilities in children with mTBI appears to follow the same overall pattern as other children of the same age, but with a delayed onset after a 6-month period of stagnation and a slower improvement rate

## REFERENCES

- [1] Yeates et al., 2007; [2] Dégeilh et al., 2018; [3] Mirman, 2014

