Joint attention, protoinformative pointing and coping with frustration among Polish infants

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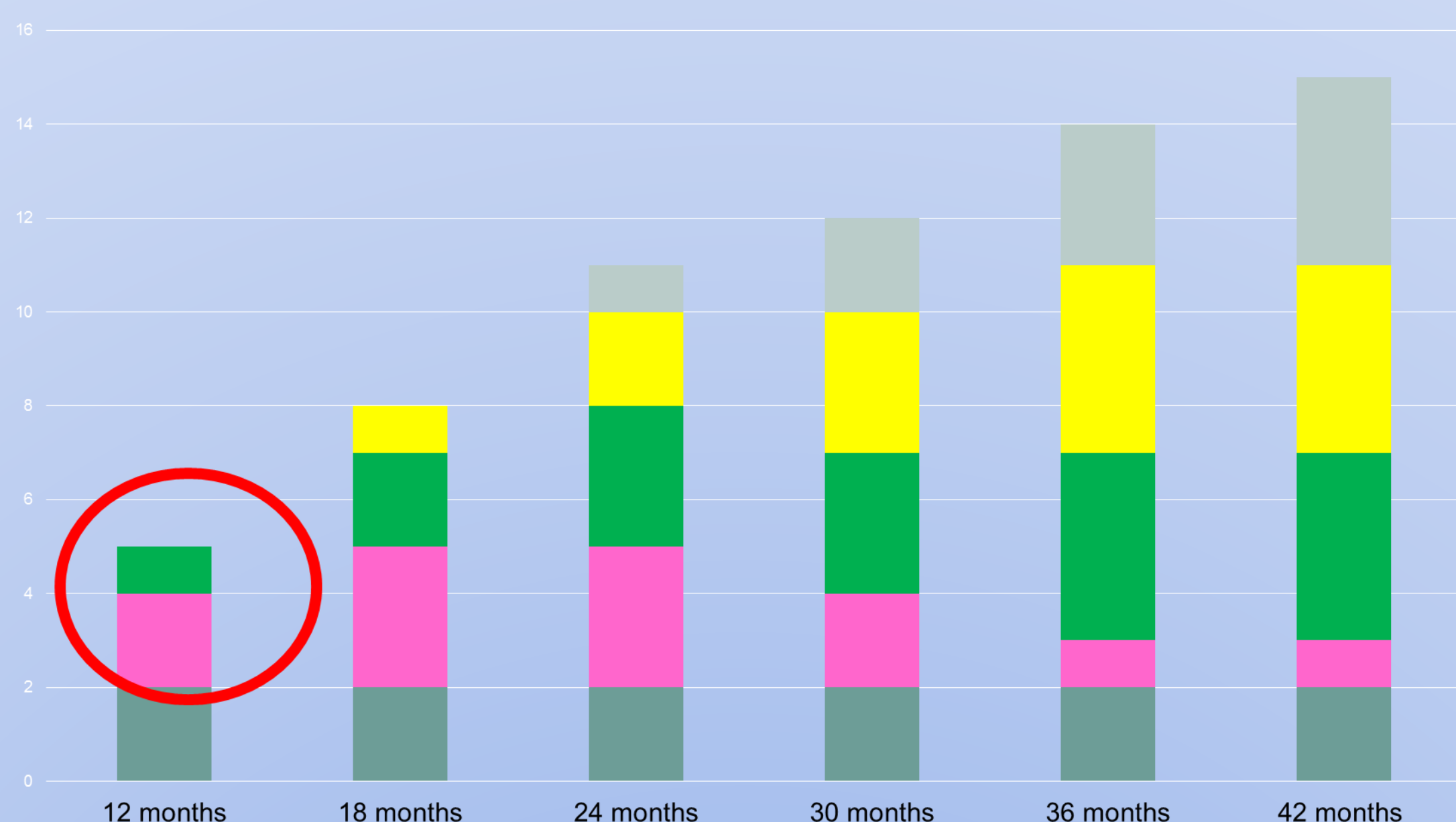JAGIELLONIAN UNIVERSITY IN KRAKOW

National Science Centre Poland

Introduction

Project is aimed to describe the birth and developmental **trajectories of social cognitive abilities** in infants and toddlers.

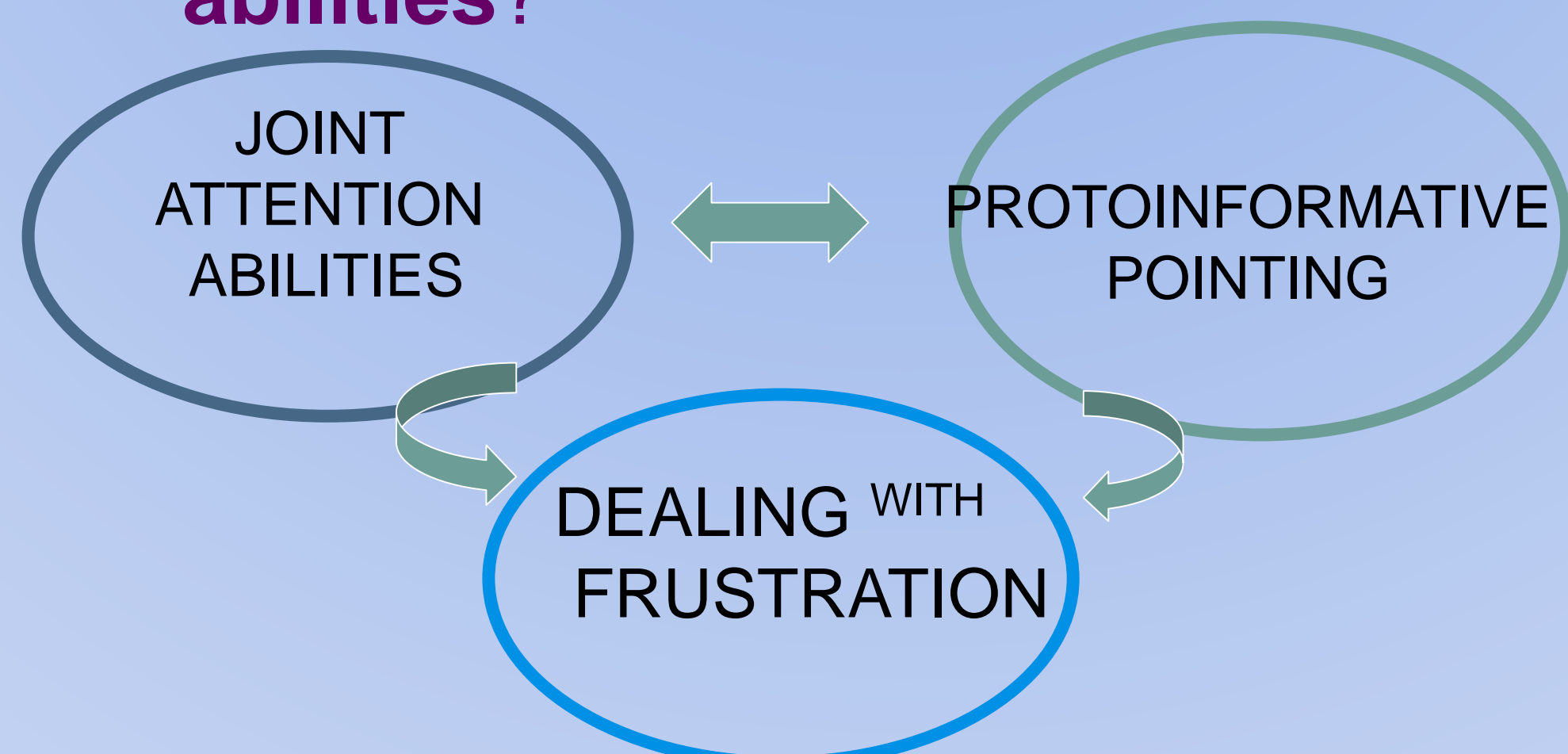The birth and development of mentalising ability

- The first manifestation of these abilities is joint attention (Bakeman and Adamson, 1984, Bruner, 1995, Tomasello, 1995, Carpenter et.al, 1998).
- Then the tabilities are expressed in protoinformative pointing (Liszkowski at al., 2008), when a child probably wants to inform an adult
- Additionally in situation when a child has to deal with frustration he/she needs to communicate with caregivers (Stifter and Braugart, 1995).

Research question

1. **What are the relations between these 3 abilities**?

JOINT ATTENTION ABILITIES — PROTOINFORMATIVE POINTING — DEALING WITH FRUSTRATION

2. What are joint attention abilities in Polish infants ?
Early Social Communication Scale, **ESCS**, Mundy et al., 2003) was used in Poland for the first time.

Method

In spring 2012 in Child Development Psychology Laboratory of Jagiellonian University we tested **361** twelve months olds infants (M= 52.28 weeks; SD= 1.33 week and used:
- ESCS to measure initiating and responding to joint attention **(IJA & RJA)**
- Protoinformative pointing task called **FOLDER**
- Frustration task called **TOY WITHDRAWING**

Findings

1. What are the relations:

IJA

Protoinformative pointing ability

HIGHER F=6.3, p=.001

r=.03, p=.55   r=.26, p=.001

F=6.2, p=.01 HIGHER   F=3.9, p=.05 HIGHER

High-level **RJA** (following line of regard)   r=.19, p=.001   Low-level **RJA** (following proximal point)

F=4.6, p=.03

More frequent communication through gestures when frustrated

2. What are joint attention abilities in Polish infants:

Polish infants scored LOWER than American infants (Mundy et al. 2003) in:
- **Initiating joint attention** (p=.039)
- **Responding to joint attention (high-level)** (p<.001)
- **Initiating social interaction** (p<.001)

They scored HIGHER than American infants in:
Responding to social interaction (p<.001)

Discussion

Our results confirm the previous finding (Mundy at al., 2007). There is :
1. **weak relation between joint attention components** in twelve months olds
2. **Transsituational consitency** of children's commucative behavior. Children with better joint attention abilities are also more prone to use pointing gesture nad ask for help when frustrated.
3. **Co-occurance of protoinformative pointing ability and higher level of joint attention**. That result may indirectly confirm the idea taht the mechanism responsible for joint attention is **sharing knowledge.**

Implications and Future Research

We plan 6 series of data collecting (each 6 months) to describe **developmental trajectory of social cognitive abilities : from joint attention abilities in 12 month olds till false belief understanding in 42 months olds**.
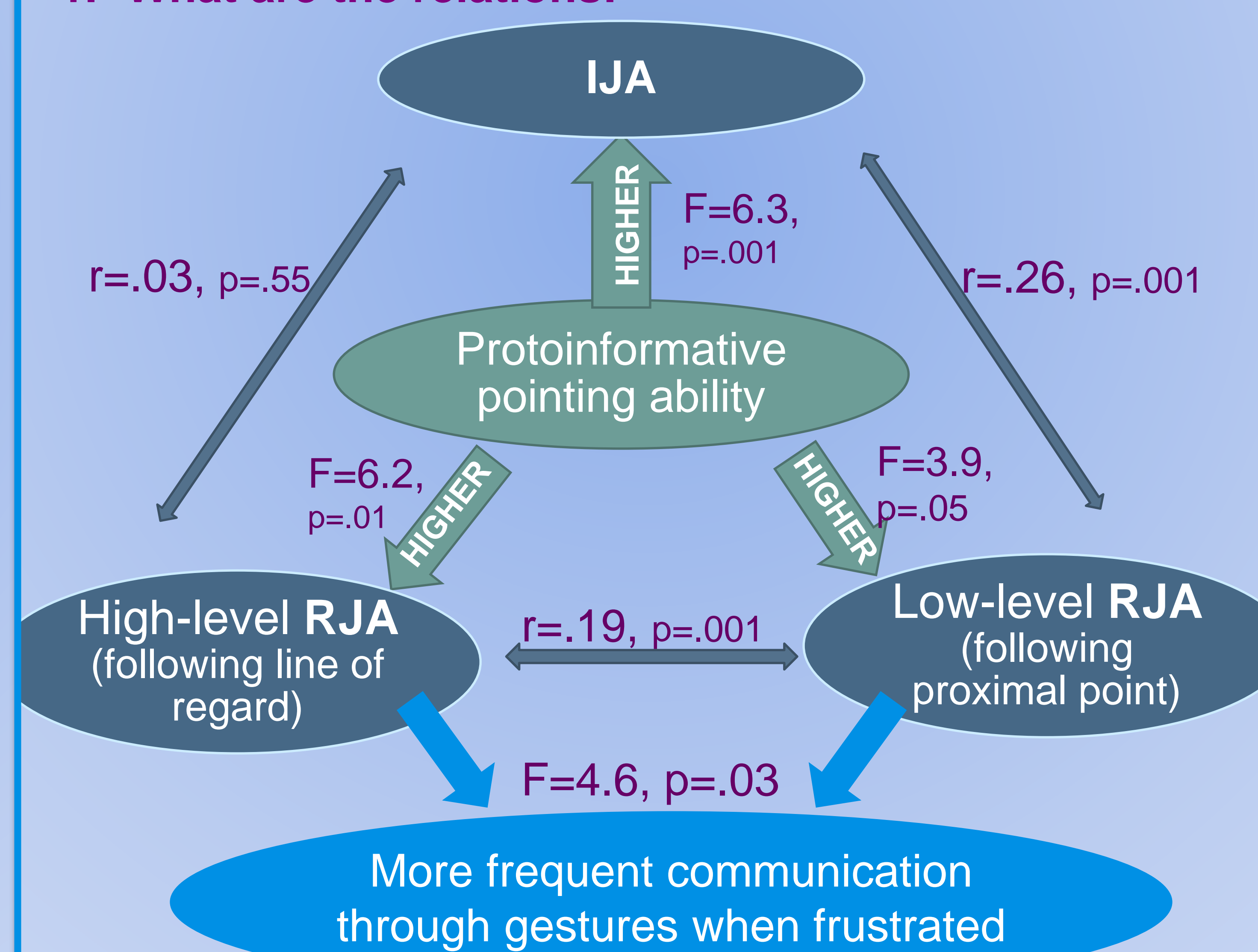
We also want to answer the question – **what are the main factors responsible for these developmental changes**: language, executive function, temperamental predispositions, social enviroment?

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