The role of attachment epistemic trust and resilience in personality disorder; a trans theoretical reformulation

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The things I feel proud of

(just showing off, you don't need to listen!)

Some of the Mentalizing Mafia

- **UCL/AFC/Tavistock**

Prof George Gergely

Professor Pasco Fearon

Professor Mary Target

Prof Anthony Bateman

- **University of Leuven**

  & UCL/AFC

Dr Patrick Luyten

- Dr Liz Allison

- Professor Alessandra Lemma

- Professor Eia Asen

- Dr Trudie Rossouw

- Dr Dickon Bevington

Some more mafiosi (The USA branch)

- **Menninger Clinic/Baylor Medical College/U Laval/Harvard**

Dr Lane Strathearn

- **Dr Carla Sharp**

- Dr Efrain Bleiberg

- Professor Lois Choi-Kain

- Dr Elisabeth Newlin

- Helena Rutherford

And European recruits to the ‘Family”

- **Dawn Bales**

- Dr Mirjam Kalland

- Professor Finn Skårderud

- **Professor Sigmund Karterud**

- Cindy Decoste
- Catherine Freeman
- Ulla Kahn
- Ilan Diamant
- Morten Kjolbe
- Benedicte Lowyck
- Tobi Nolte
- Marjukka Pajulo
- Svenja Taubner
- Bart Vandeneede
- Annelies Verheught-Pleiter
- Rudi Vermote
- Joleien Zevalkink
- Bjorn Philips
- Peter Fuggle

And Nicolas Lorenzini, Chloe Campbell, Liz Allison and Rose Palmer for help with the preparation of this presentation.

A working definition of mentalization

Mentalizing is a form of imaginative mental activity, namely, perceiving and interpreting human behaviour in terms of *intentional* mental states (e.g. needs, desires, feelings, beliefs, goals, purposes, and reasons).

Summary of the evidence for MBT

NEW!
IMPROVED!

RECENT RELEASE!

But hurry!
Only 2,000 copies
left!

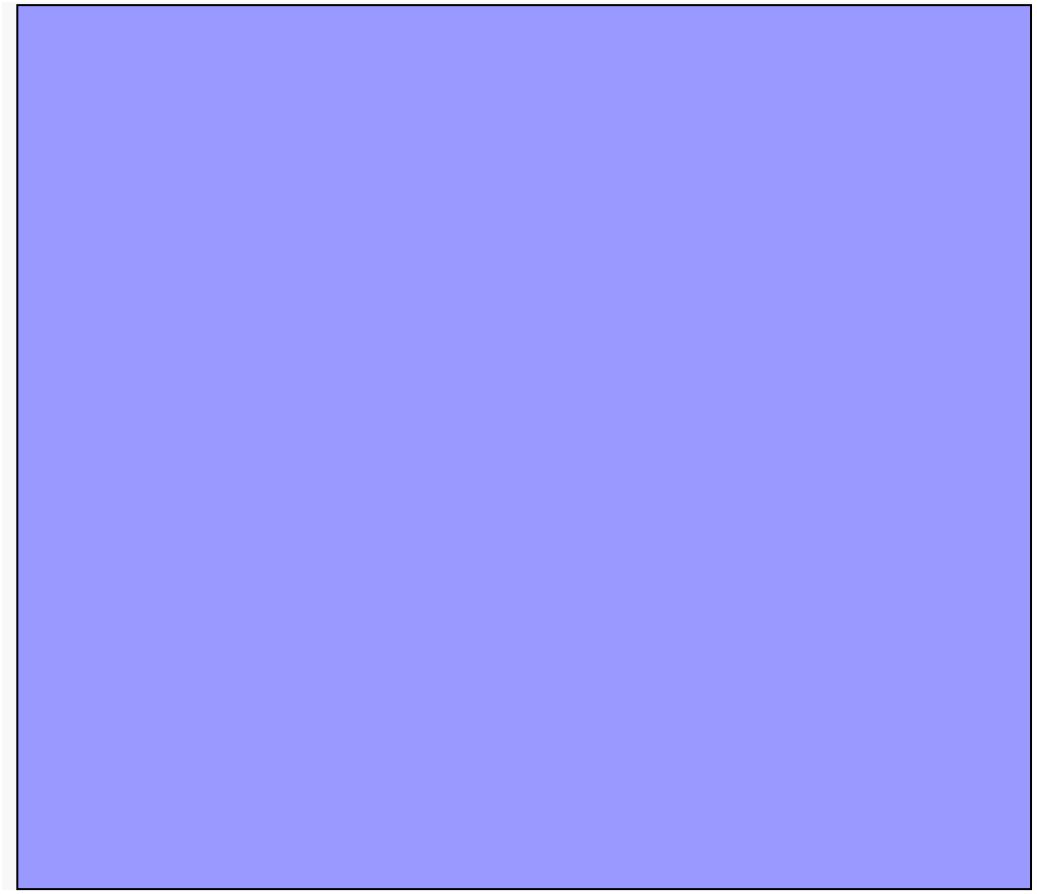
Washes brains
whiter!

Longer than all
previous
versions!

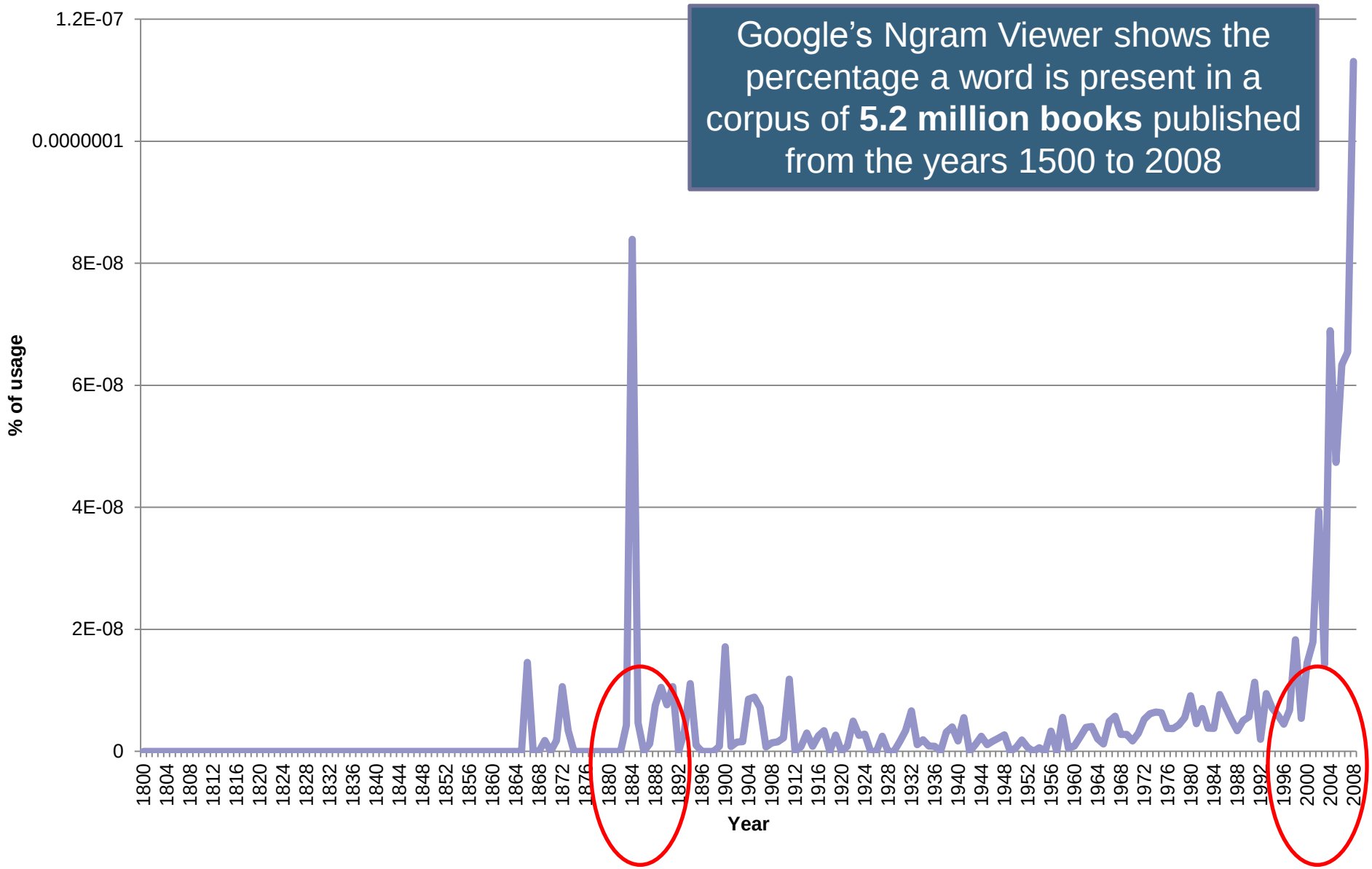
American Psychiatric Publishing, Inc 2012

Bottom line: The mentalization based approach to treatment is quite effective in treating BPD

Articles Published Citing Papers About Mentalizing or Mentalization



Google Ngram of “mentalization”



Source: Google Ngram Viewer

A TREATISE

ON

HEADACHE AND NEURALGIA,

INCLUDING

SPINAL IRRITATION AND A DISQUISITION ON NORMAL AND MORBID SLEEP.

BY

J. LEONARD CORNING, M.A., M.D.,

Consultant in Nervous Diseases to St. Francis Hospital; Fellow of the New York Academy of Medicine; Member of the New York Neurological Society; &c.

AUTHOR OF

"A Treatise on Hysteria and Epilepsy," "Local Anæsthesia," "Brain Rest," etc.

EYE

Prof. of Op

1890.

Price $2.75.

indispensable requisite to, the decline of cerebral metamorphosis.

As to the more intimate nature of the metamorphosis incident to cerebration, but little is known with certainty. Hammond [1] has conducted a series of careful urinal analyses, for the purpose of ascertaining the changes in the composition of the urine incident to increased mentalization. From these experiments he is led to draw the following conclusions:

(1.) That increased mental exertion augments the quantity of urine.

(2.) That, by its influence, the urea, chlorine, and phosphoric and sulphuric acids are increased in quantity.

(3.) That the uric acid, on the contrary, is very materially reduced in amount.

(4.) That diminished intellectual exertion produces effects directly contrary to all the above.

More recently, Byasson [2] has demonstrated that the

certainty. Hammond [1] has conducted a series of careful urinal analyses, for the purpose of ascertaining the changes in the composition of the urine incident to increased mentalization. From these experiments he is led to draw the following conclusions:

(1.) That increased mental exertion augments the quantity of urine.

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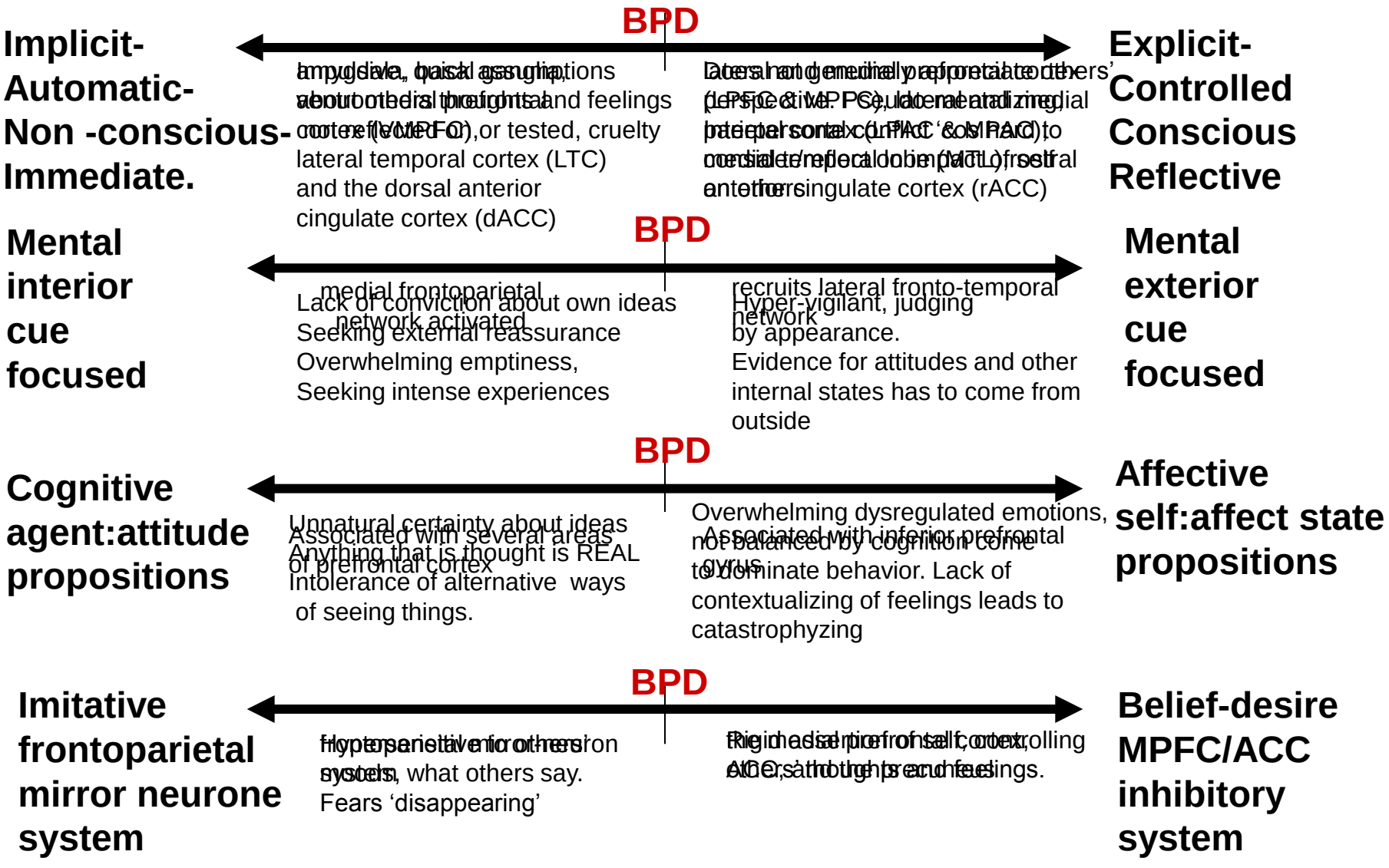
[3] For a more detailed account of these experiments than is admissible in a work of this character, see my monograph on "Brain Exhaustion," D. Appleton & Co., New York.

Mentalization: The Movie
(Inside Our – an E-Motion Picture from Pixar

Imbalance of mentalization generates problems

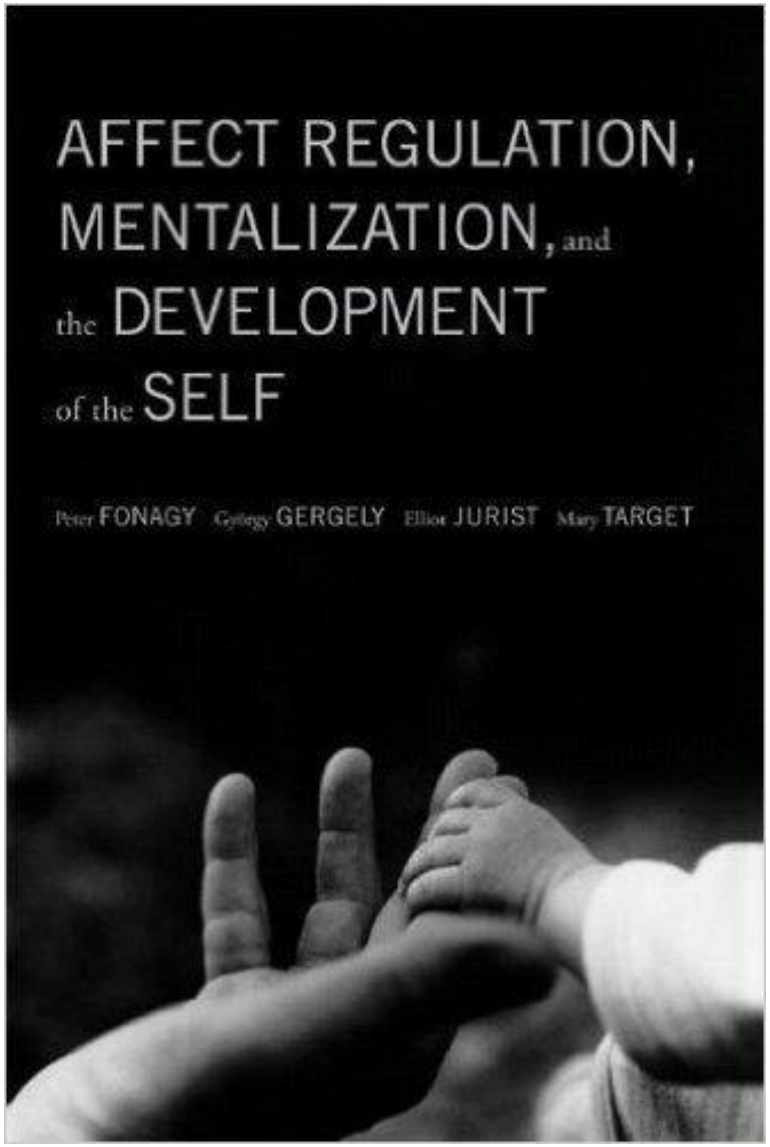
Fonagy, P., & Luyten, P. (2009). *Development and Psychopathology, 21*, 1355-1381.



Prementalizing Modes of Subjectivity

- Psychic equivalence:
  - Mind-world **isomorphism**; **mental** reality **=** outer **reality**; internal has power of external
  - **Intolerance** of alternative perspectives ➔concrete understanding
  - Reflects domination of **self:affect state** thinking with **limited internal focus**
- Pretend mode:
  - Ideas form no bridge between inner and outer reality; **mental** world **decoupled** from external reality
  - "**dissociation**" of thought, **hyper-mentalizing** or **pseudo-mentalizing**
  - Reflects explicit mentalizing being dominated by **implicit**, **inadequate internal** focus, **poor belief-desire reasoning** and vulnerabilty to **fusion with others**
- Teleological stance:
  - A focus on understanding actions in terms of their **physical** as opposed to mental **constraints**
  - Cannot accept anything other than a modification in the realm of the **physical** as a true index of the intentions of the other.
  - Extreme **exterior focus**, momentary **loss of controlled** mentalizing
  - **Misuse** of mentalization for teleological ends (harming others) becomes possible because of lack of **implicit as well as explicit** mentalizing

The development of the 'mentalizing self'



- The capacity to mentalize emerges through interaction with the caregiver:
- The quality of the attachment relationship
  - **If the parent is:**
    - Able to **reflect on infant's intentions** accurately
    - Does **not overwhelm** the infant
  - **Then** this:
    - Assists in developing **affect regulation**
    - Helps develop child's sense of a mind and of a **reflective self**

Mentalization: The basics

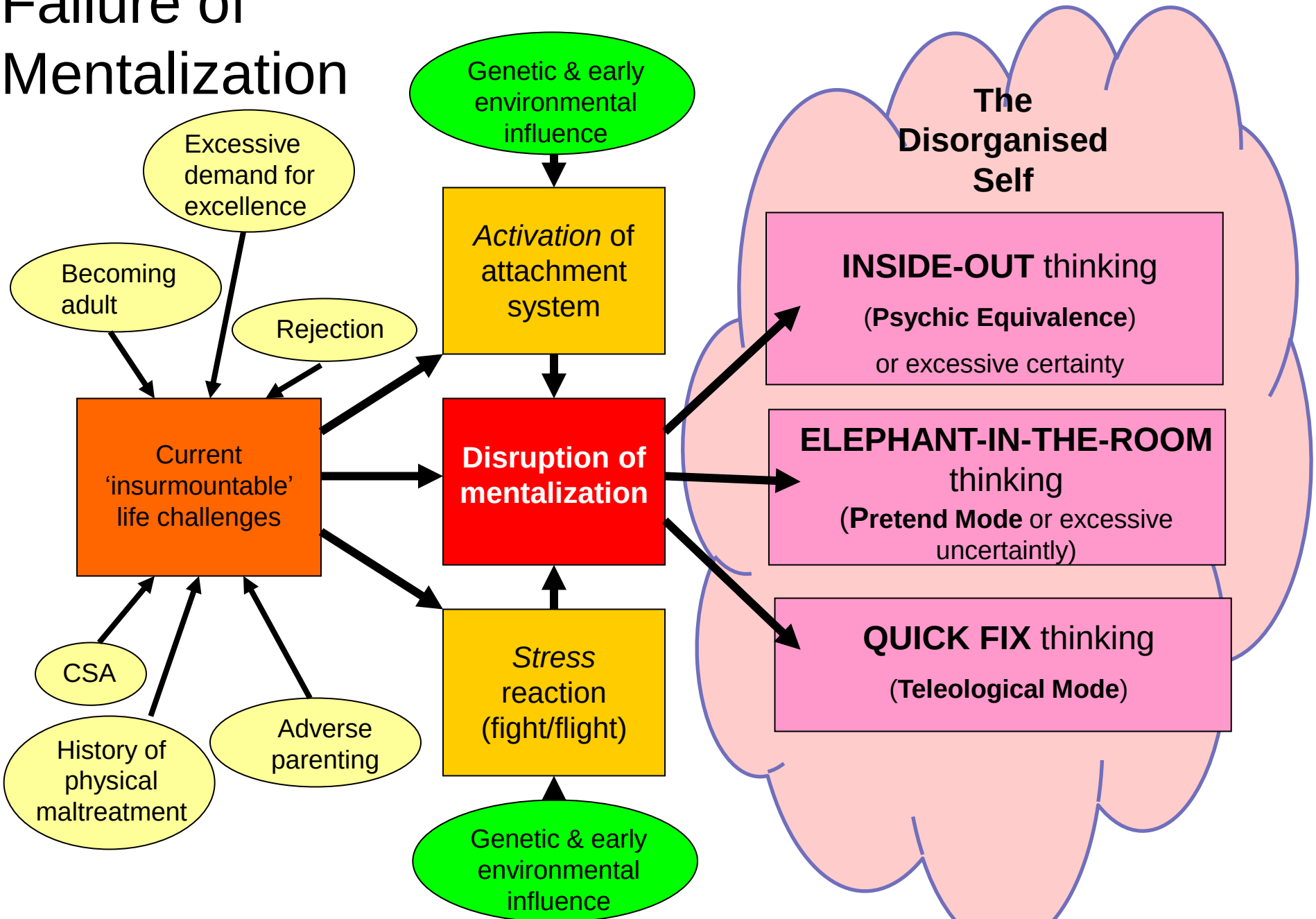
- Attachment and mentalization are **loosely coupled** systems existing in a state of partial exclusivity.

- **Mentalization** has its **roots in** the sense of being understood by an **attachment** figure,
  - it can be more **challenging to maintain** mentalization **in the context of** an **attachment** relationship (e.g. the relationship with the therapist) (Gunderson, 1996).

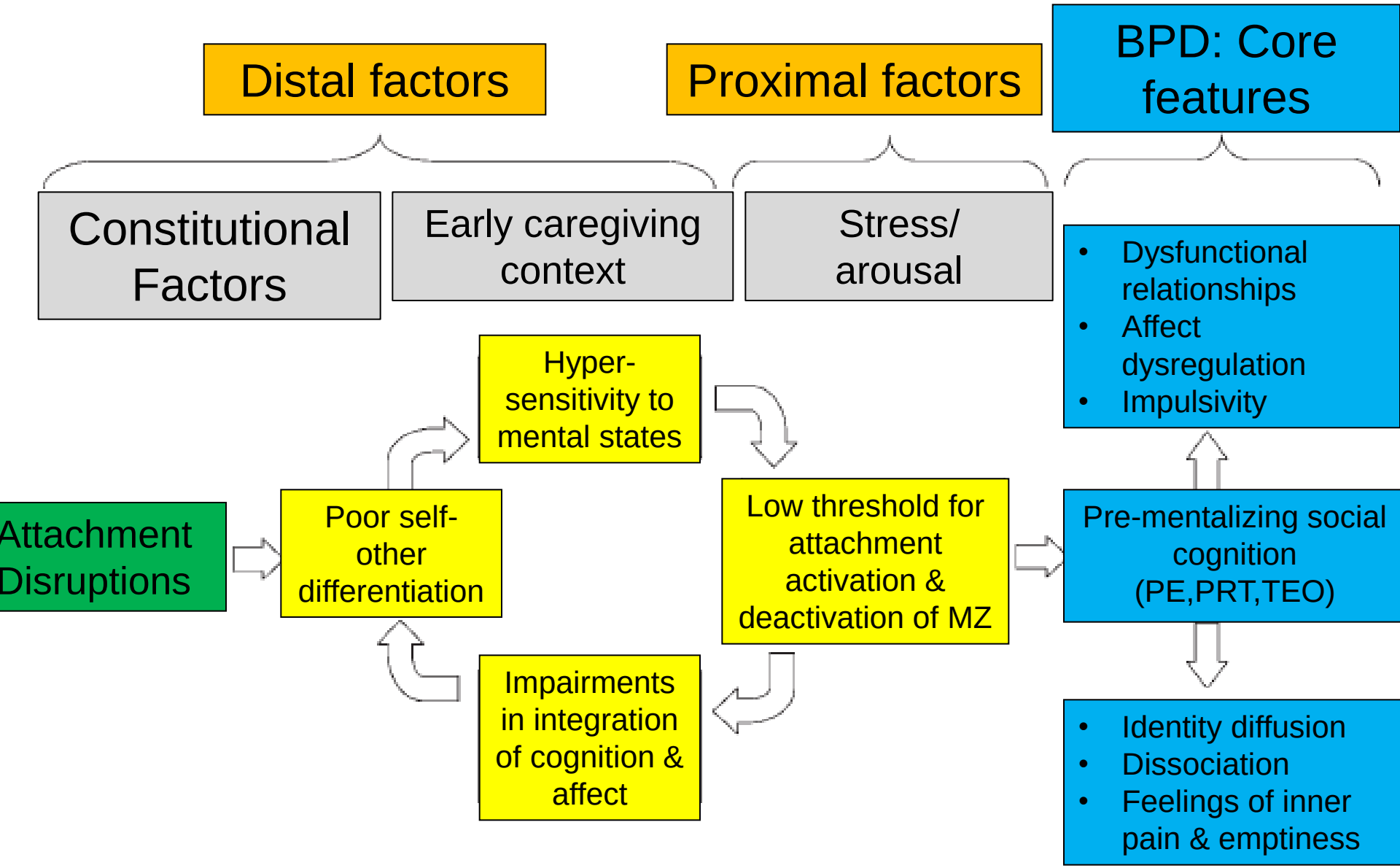
- **BPD** associated with **hyperactive attachment systems** as a result of their **history** and/or **biological** predisposition

- But without **activation** of the attachment system **in therapy** borderline PD patients will never **learn to function** psychologically **in** the context of **interpersonal relationships.**

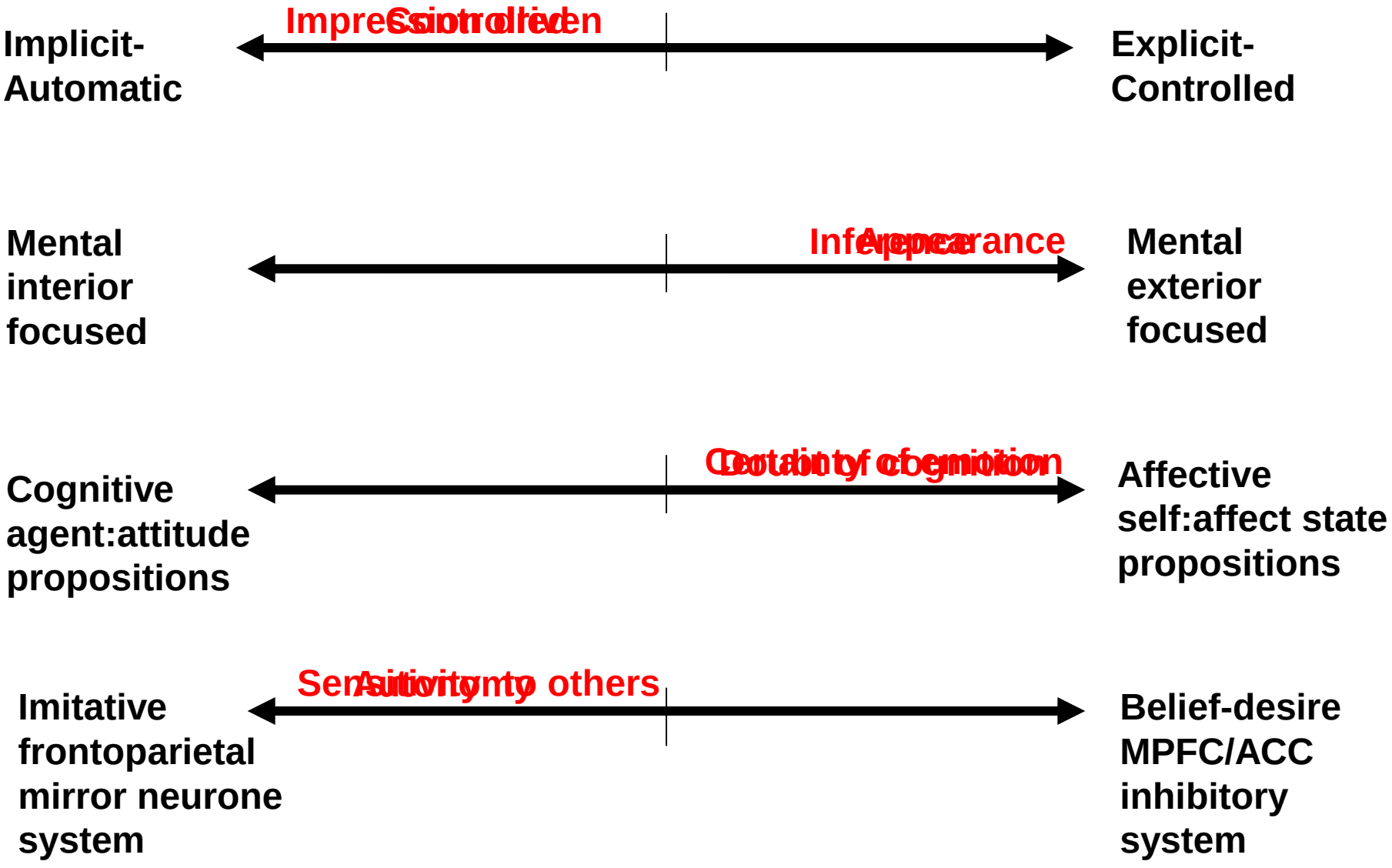
Failure of Mentalization



The mentalizing model of BPD



Treatment vectors in re-establishing mentalizing in borderline personality disorder



The MBT technique

- Simple **sound-bite** interventions
- **Affect focused** (love, desire, hurt, catastrophe, excitement)
- Focus on patients **mind** (not on behaviour)
- Relate to **current** event or activity – mental reality (evidence based or in working memory)
- Use of **therapist's mind** as model – 'marking' as making clear in patient's situation the therapist would feel (?disclosure)
- **Identify non-mentalizing** and recover it on the many occasions when apparently lost

Clinical summary of intervention

- Focus is on a **break in mentalizing** – psychic equivalence, pretend, teleological
- **Rewind** to moment before the break in subjective continuity
- Explore current **emotional context** in session by identifying the momentary affective state between patient and therapist
- Identify **therapist's contribution** to the break in mentalizing (humility)
- Seek to **mentalize** the experience in the context of the therapeutic **relationship**

So what should the therapist aim do?

- In MBT, the mind of the patient becomes the focus of treatment.
- Help the patient learn about the **complexities** of his thoughts and feelings about himself and others, how that relates to his responses, and how 'errors' in understanding himself and others lead to actions
- It is **not for the therapist to 'tell'** the patient about how he feels, what he thinks, how he should behave, what the underlying reasons are, conscious or unconscious, for his difficulties.
  - *any therapy approach to BPD which moves towards 'knowing' how a patient 'is', how he should behave and think, and 'why he is like he is', could be harmful.*
- We recommend an **inquisitive or 'not-knowing' stance**. Conveys a sense that mental states are opaque

So what is MBT?

- Stimulate a patient's attachment and involvement with treatment whilst helping him maintain mentalization.
  - Treatment must enhance the patient's mentalizing capacities without generating iatrogenic effects as it stimulates the attachment system.
- Other approaches to BPD include important components facilitating mentalization, discussed in slightly different language eg 'mindfulness', 'validation', 'self-states' etc.
  - aspects of DBT
  - Ryle's cognitive analytic therapy
  - Hobson's conversational model as applied by Stevenson & Meares
- MBT is unique in placing mentalization at the epicentre of therapeutic change.

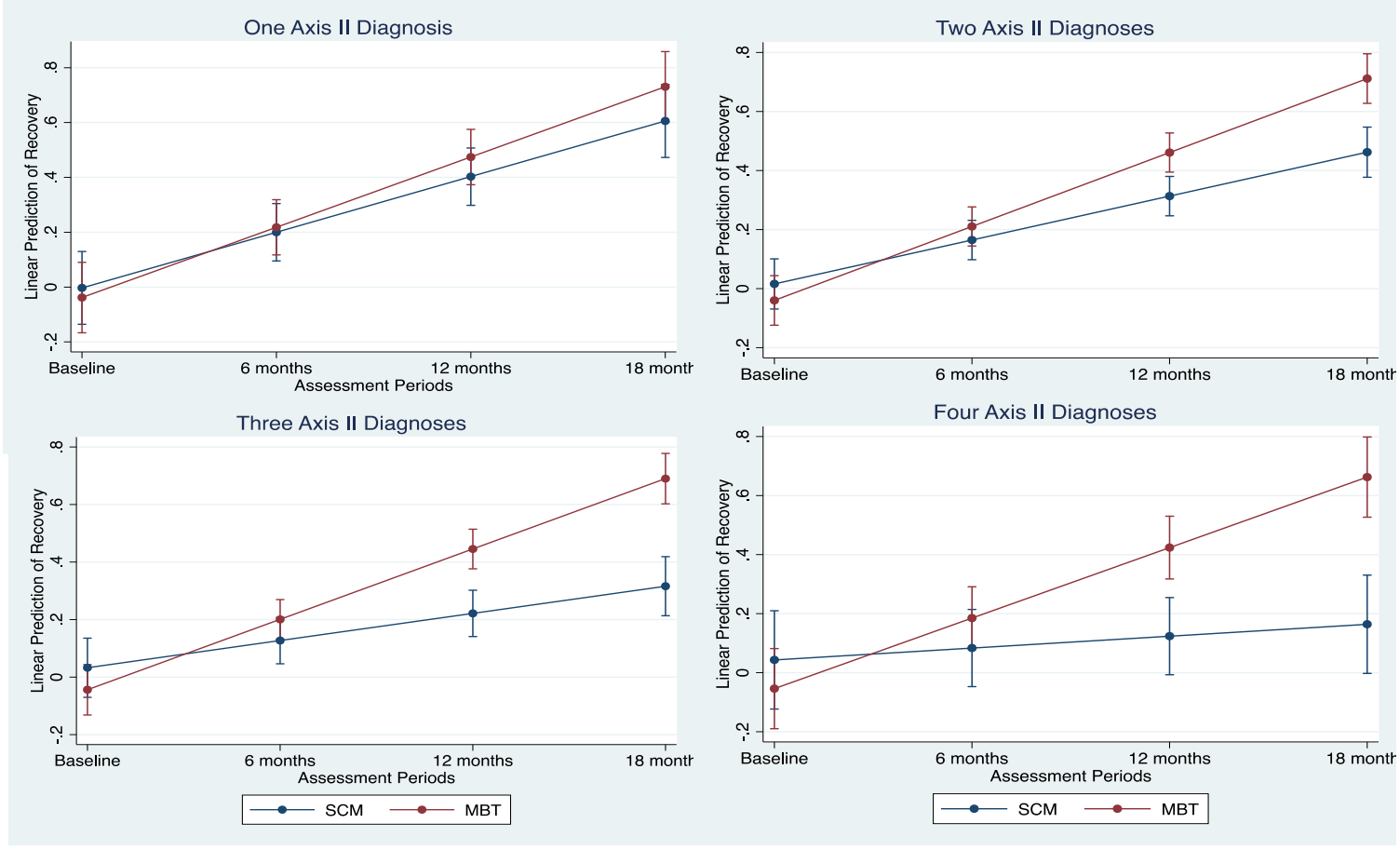
Contrary Moves within a session

Patient/Therapist	Therapist/Patient
Knowing	Unknowing
Self- reflection	Other reflection
Emotional distance	Emotional closeness
Certainty	Doubt

State of the Art: MBT as Long Term therapy

Mentalization Based Intensive Outpatient Treatment: Who needs MBT?

Bateman & Fonagy BJPsych, 2013



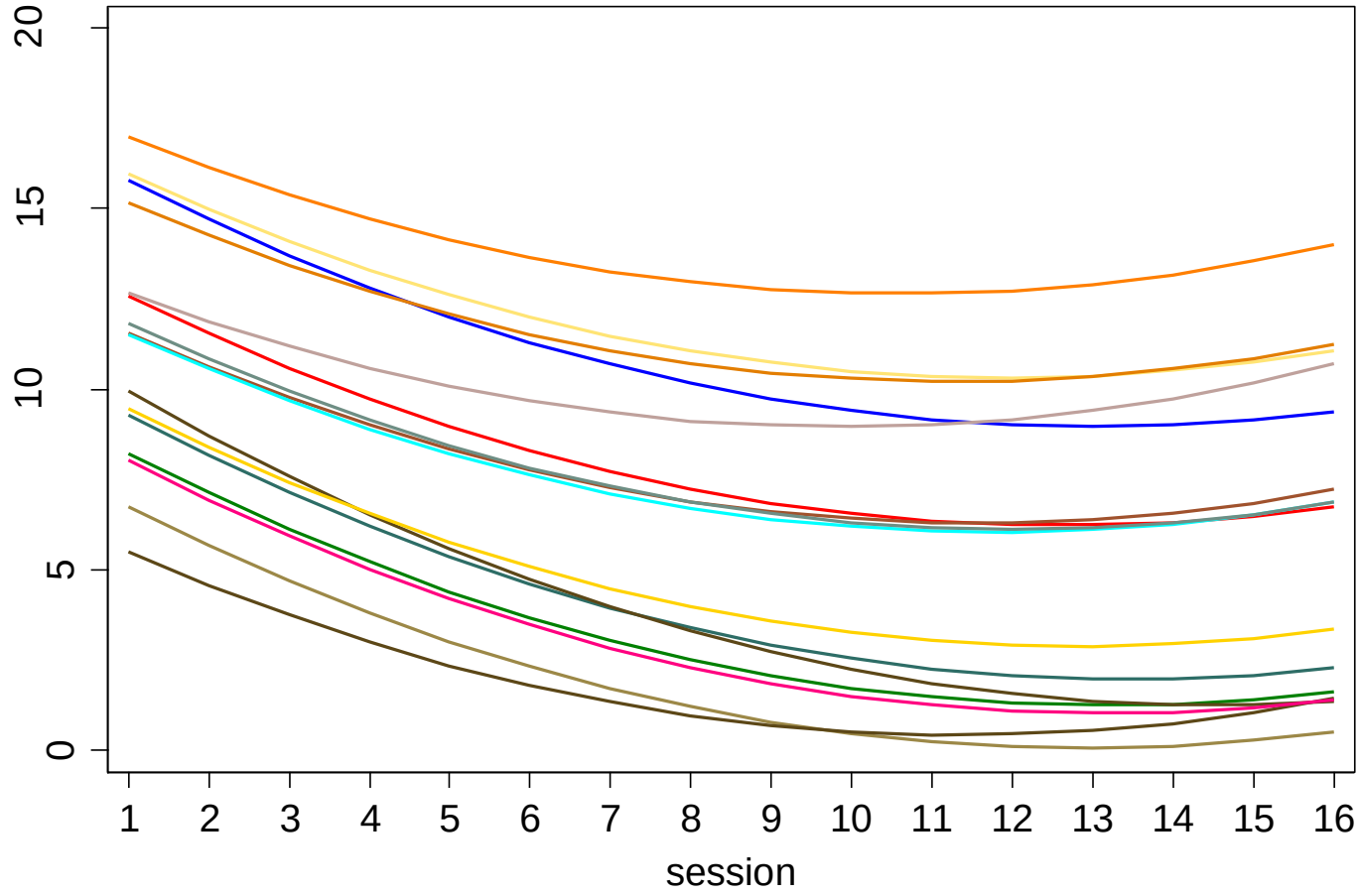
Months Months

State of the Art: MBT Derivatives

Mentalization Based Object Relations Therapy for Depression (DIT)

Lemma, Target, Luyten, Fonagy et al.

Psychiatry, 2012



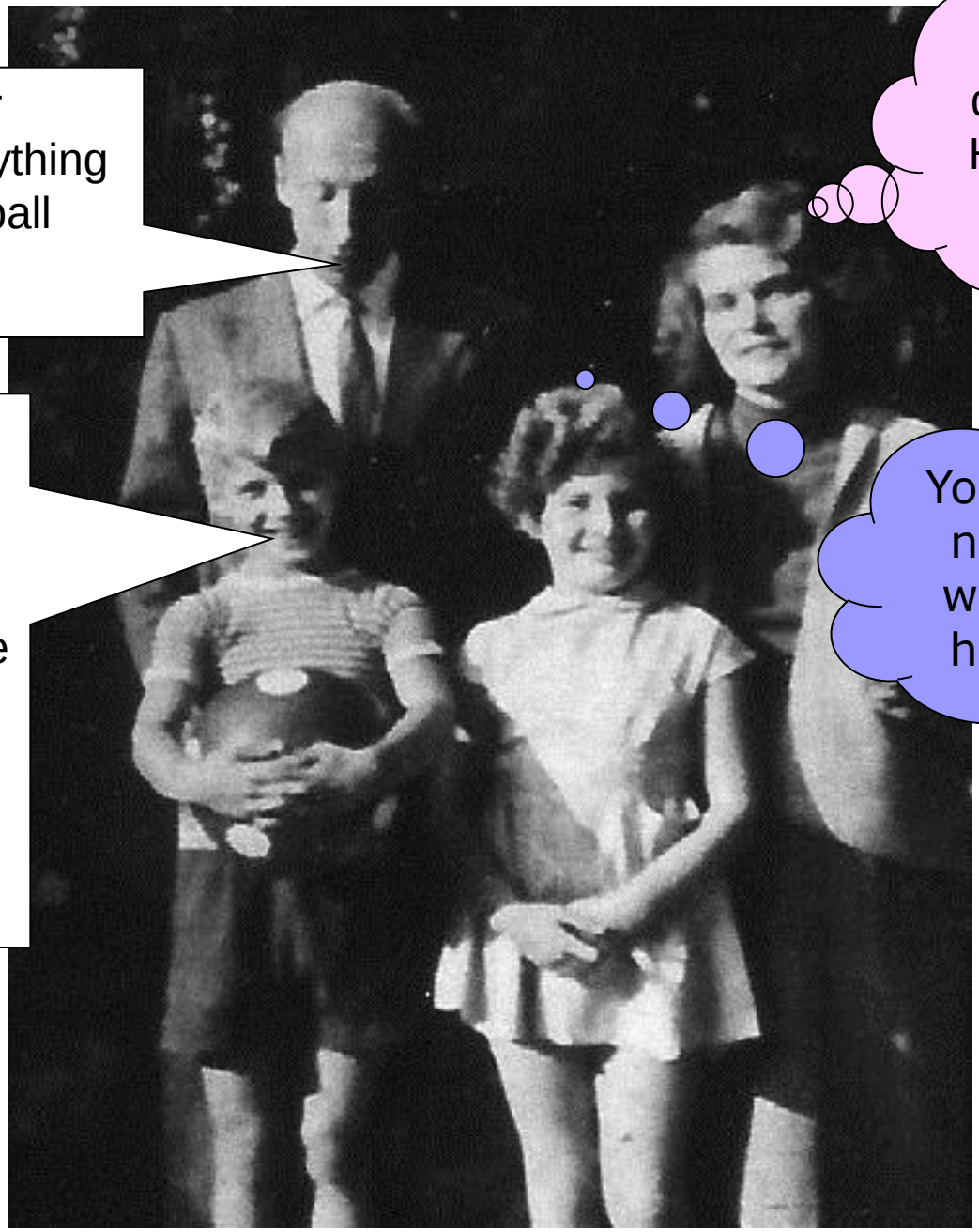
I will not leave to the last slide what I want to say because I will run out of time

Plan of talk

- Some **recent findings** in relation to mentalizing, attachment and trauma
- The notion of **epistemic trust**
- The structure of psychopathology and the notion of high general distress in psychopathology: **'P'score**
- The nature of **resilience** as higher order cognition and
- **PD** as the **absence of resilience**
- High '**P' scores** linking **to PD** because of **limitation** of higher order cognitive function (**HOC**)
- Speculation on how **psychological therapies** work to **deal with** the vulnerability of **resilience**
  - **Ostensive cues**
  - **Mentalizing**
  - **Social learning**

A historical overview of shifting frames

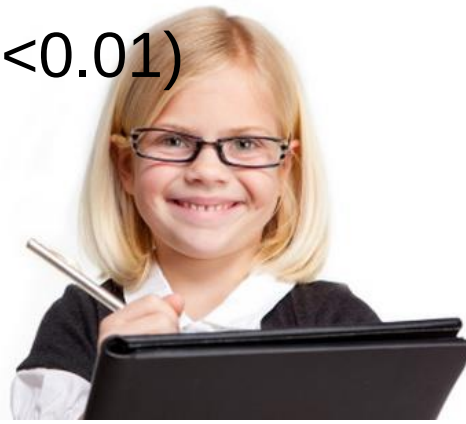
- Changing one's favourite instinct:
  - Up to age 40: The **psychosexual** AND **aggression** instinct – Freud and classical psychoanalysis
  - Age 40-60: The instinct for **attachment** – Bowlby, Ainsworth and early infant researchers
    - Attachment theory extended to mentalizing can encompass:
      - Sexuality – failure of early **mirroring**
      - Aggression – failure of **affect regulation** and impact awareness
  - Age 60 to †: The instinct for **communication** – Tomasello, Gergely, and modern developmental research
    - Communication defines attachment relationships
      - Secure attachment ensures capacity to **learn from experience**


You will never amount to anything if you hold a ball like that!
Let the boy dream Ivan, He is a born dilettante!
I want to write my PhD on the “Use of low signal-to-noise ratio stimuli for highlighting the functional differences between the two cerebral hemispheres”.
You look smug now but you will lose your hair just like Dad

Replication and progress: Measuring mentalizing and trauma in the family system

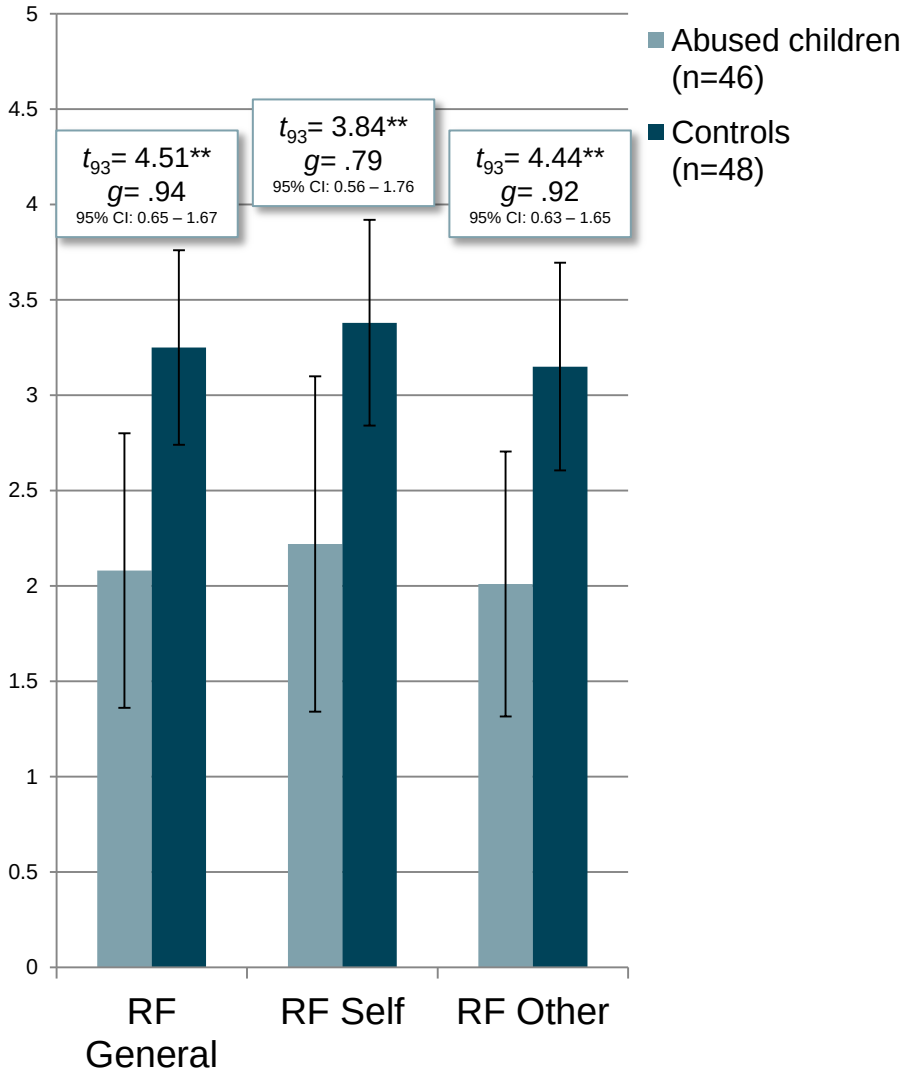
Measuring Mentalization in children: CRFS

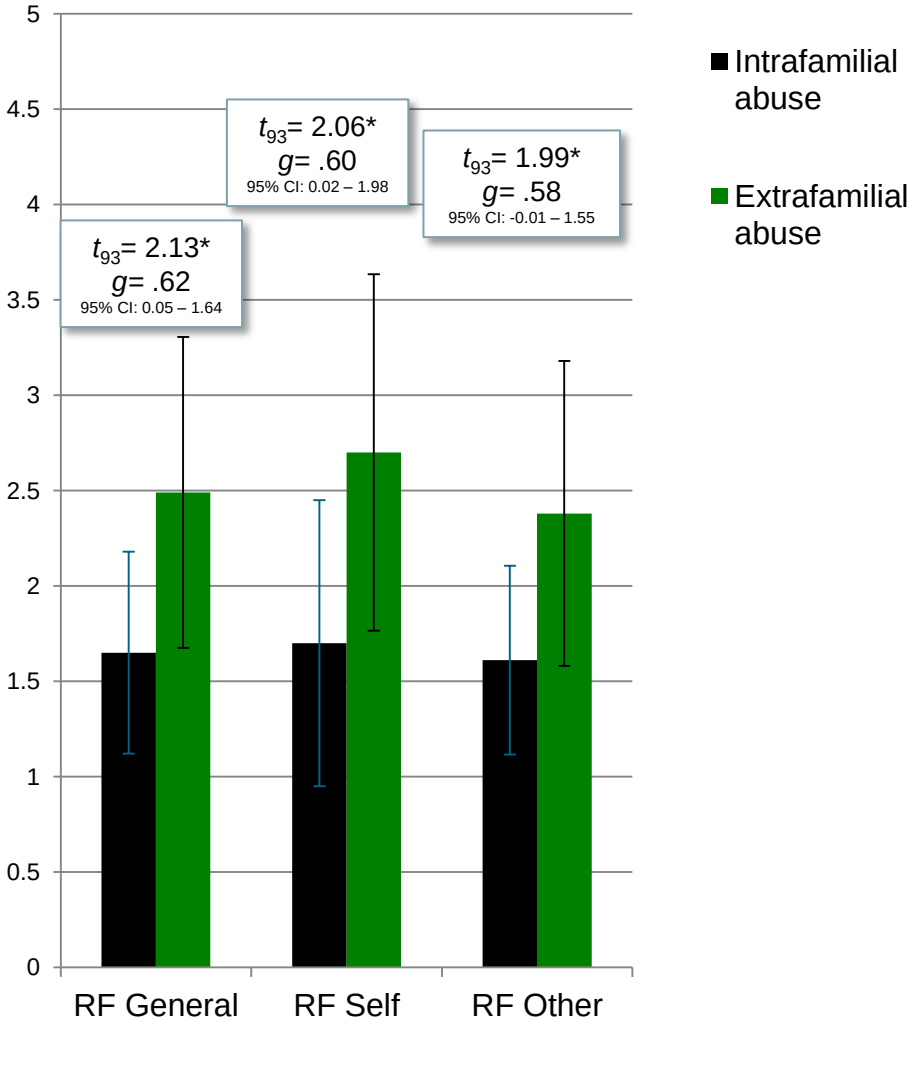
- **Child Reflective Functioning Scale**
  - **Adapted** from the Adult Reflective Function Scale (Fonagy *et al*., 1998)
  - For use with the **Child Attachment Interview**
    - General Reflective Function (α= .94) and two subscales:
      - Child Reflective Function **regarding Self**
      - Child Reflective Function **regarding Other**
  - It **correlates** significantly **with age** (*r* =.28, *p*<0.01)



Ensink, Normandin, Target, Fonagy, Sabourin & Berthelot. *British Jounal of Developmental Psychology.* 2014

Mentalization in abused children





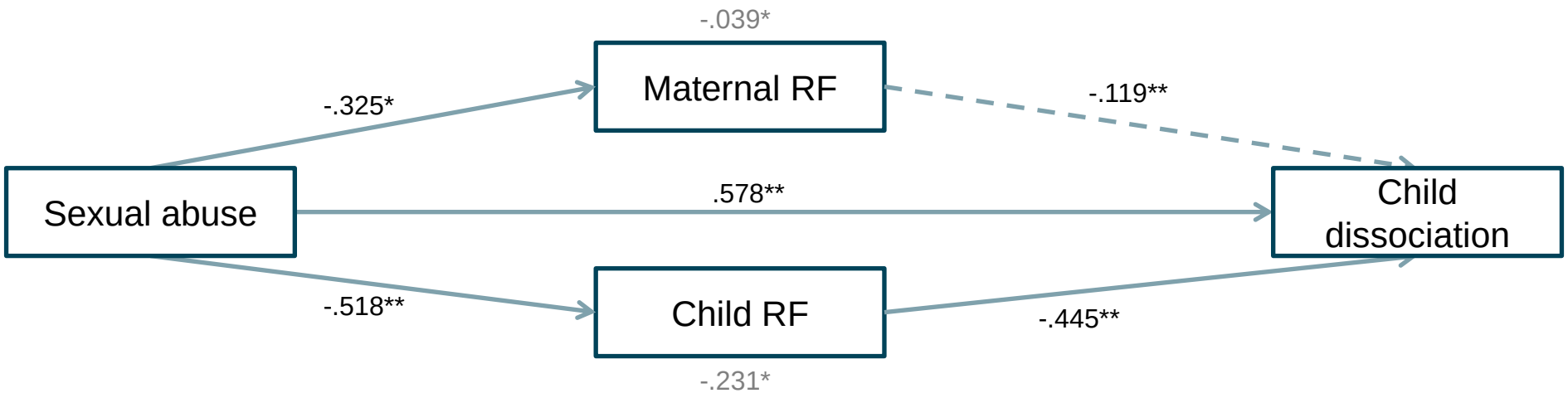
* $p<0.05$
**$p<0.001$

Ensink, Normandin, Target, Fonagy, Sabourin & Berthelot. *British Jounal of Developmental Psychology.* 2014

Sexual abuse associated to various outcomes:

MANOVA comparing **abused (n=174)** vs. **not abused** children **(n=194)**

Outcome	F	Cohen's *d*
Maternal RF	12.88*	.56
Child RF	23.40*	.75
Child dissociation	34.42*	.90
Child depression	22.42*	.71
Child eternalising problems	32.85*	.89
Child sexualising behaviour	9.21*	.46



* $p<0.05$
**$p<0.001$

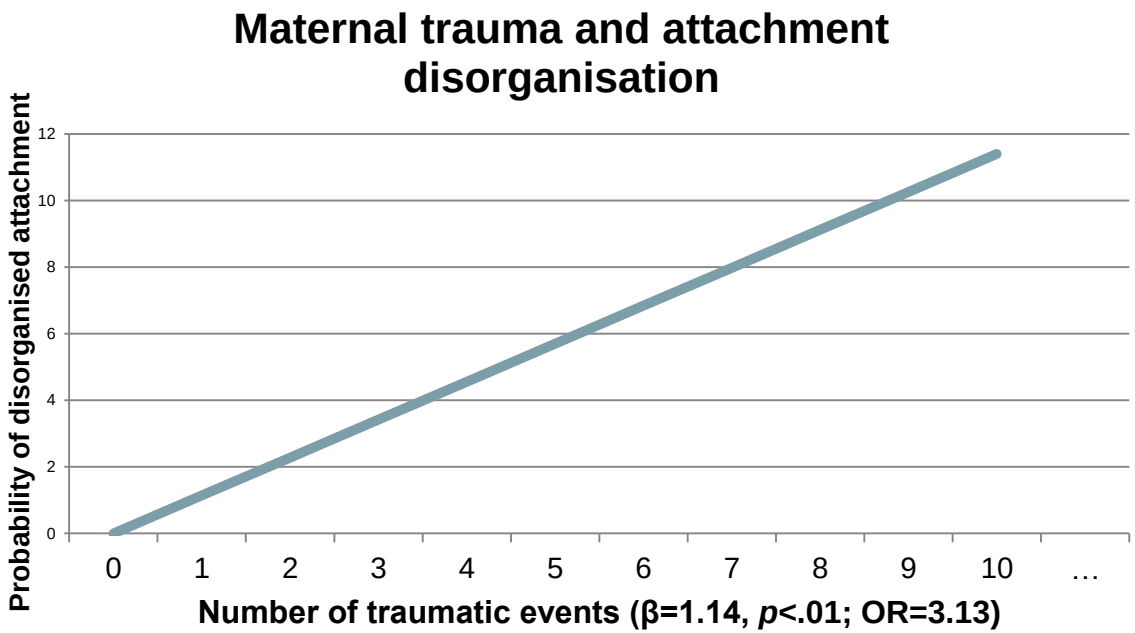
CFI > .95; TLI > .95; RMSEA < .01; SRMR < .01; controlling for child's age and maternal education

Ensink *et al* (manuscript in preparation)

Mentalization of parental trauma

Implications for intergenerational transmission of attachment

- 20-month **longitudinal design**
  - N=157 mother-infant dyads; mothers aged 28.77, SD=5.57
- Administered **AAI to expecting mothers** who experienced trauma
  - **General** Reflective Function (**RF-G**)
  - Reflective Function **specific to Trauma** (**RF-T**)
- Babies were evaluated by **SSP at 17 months** of age



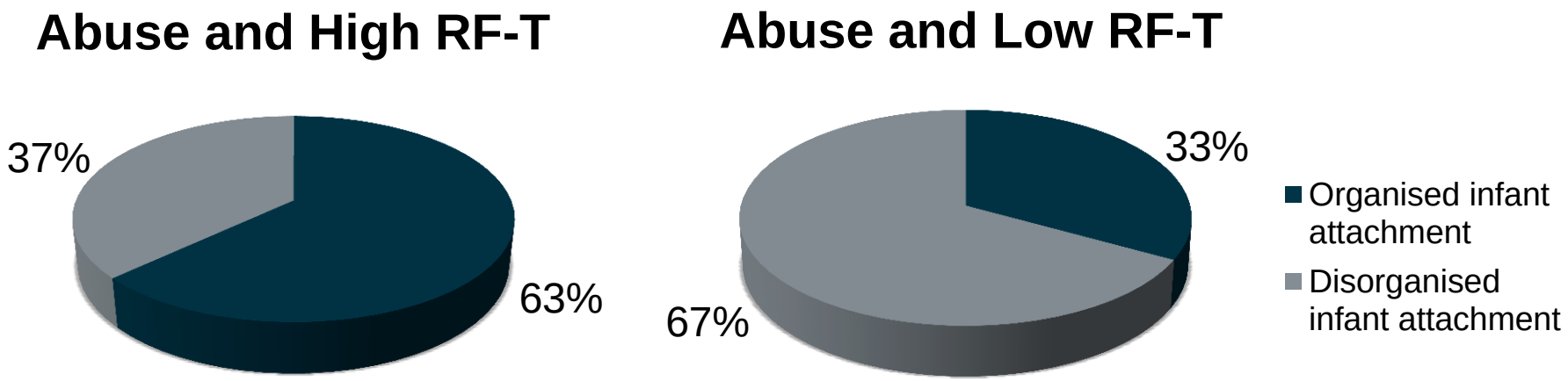
The number of traumatic events suffered by mothers had an effect on

- mothers RF-T
- infant disorganisation

Berthelot, Ensink, Bernazzani, Normandin, Luyten & Fonagy, 2015

Mentalization of parental trauma

Implications for intergenerational transmission of attachment



- Prediction of infant attachment disorganisation is twice as powerful (**22% vs 41%** of variance explained) when maternal **RF-T is added** to a model containing maternal unresolved trauma as only predictor.
  - Unresolved trauma: β=2.54**; RF-T: β=-1.50*,
- Maternal **RF-G** is **not** a significant predictor of infant's disorganised attachment

Berthelot, Ensink, Bernazzani, Normandin, Luyten & Fonagy, 2015

Measuring parental RF using the Squiggle

- Initially developed by **Winnicott** (1971)
  - Adapted by Ensink, Normandin & Fonagy (2000)
- **Mother** needs to **direct** the creation of **6** sequenced **drawings** to produce a story
- Mother is **free to comment and ask questions** to the child
- It poses challenged faced by mothers in everyday interaction with their children:

- Provide **structure**
- Consider the **child's interests** and reactions
- Allows for a **playful interaction**

Measuring parental RF using the Squiggle

Those subscales loaded onto 3 distinct factors:

Reflective orientation (α=.87)	Affectionate support of agency (α=.85)	Negativity (α=.74)
• **Interest in** the **subjective** experience of the child • Affective **communication** • Capacity to **play**	• **Support** of investment/ **agency** of the child • Expression of **affection**	• **Aggressive** control • **Hostility**

* The items Withdrawal/Disengagement did not load on any factor

Measuring parental RF using the Squiggle

Relationships with child sexual abuse and psychopathology

N= 157 mother infant dyads
- 88 girls
- 70 boys

89 children experienced sexual abuse
- 54 girls
- 35 boys

Correlations with PDI

Reflective orientation .45***
Affectionate support of agency .30**
Negativity -.40**

Mothers of sexually abused children in comparison with not abused:

- Showed **less reflective** orientation (t_{156} = 2.826, p = 0.005)
- **Less affectionate** support of agency (t_{156} = 2.668, p = 0.009)
- **No differences** regarding negativity (t_{156} = -0.622, p = 0.535)

Reflective orientation

- Externalising problems (r= -.18*)
- Delinquency (r= -.14✚)
- Aggression (r= -.16*)
- Dissociation (r= -.14✚)
- Teacher reported (TR) internalising (r= -.29*)
- TR externalising (r=-.36*)
- TR **social problems** (r= -.39**)
- TR **attention problems** (r= -.35**)
- TR delinquency (r= -.39**)
- TR aggression (r= -.39**)

Affectionate support of agency

- Internalising (r= -.15✚)
- **Externalising** (r= -.19*)
- Attention problems (r= -.16*)
- Delinquency (r= -.17*)
- Aggression (r= -.19*)
- Dissociation (r= -.19*)

Negativity

- Externalising (r= .15✚)
- TR delinquency (r= .23✚)

* p<.05
** p<.01
✚ p<.08

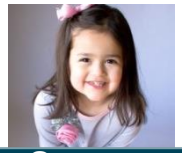
Normal variation in early parental sensitivity:

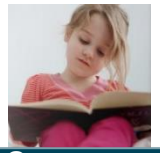
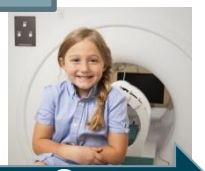
Predicts child structural brain development (total N = 191 dyads, 50% girls)

188 mother-child dyads

161 father-child dyads





6.6 weeks

Measurement of:
- **Ventricular** volume
- Head **circumference**

1 year

Dyadic 5 minute free-play

3 years

With primary caregiver

Assisting the child in a task that is too difficult

Parents complete CBCL

4 years

With both parents

6 years

Measurement of non-verbal IQ

8 years

Structural MRI scan

Maternal Sensitivity

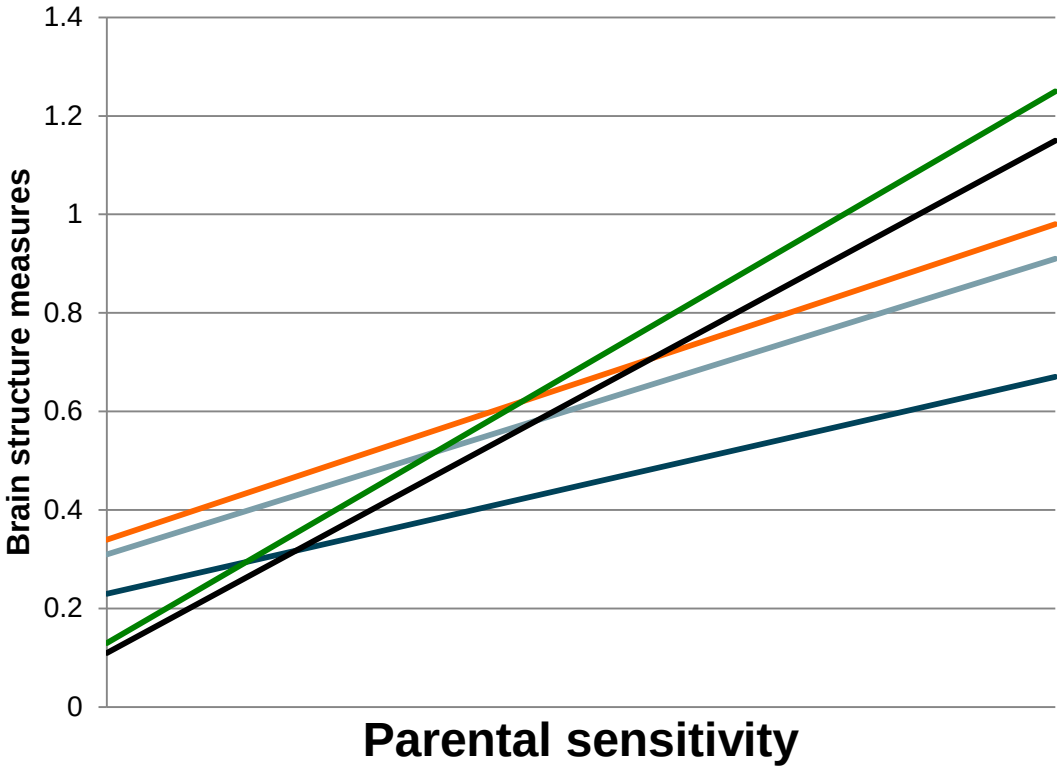
- Predicts larger grey matter volume
  - β = 0.13, *p* = 0.0.3
- Predicts total brain volume (trend)
  - β = 0.13, *p* = 0.0.3

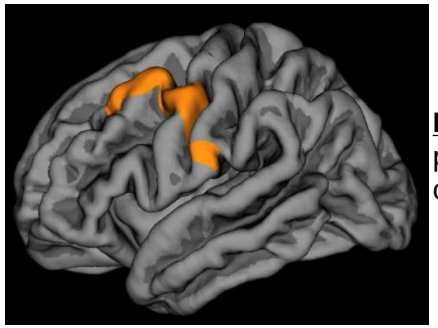
Paternal sensitivity shows similar predictions, but nonsignificant

Kok R, Thijssen S, Bakermans-Kranenburg MJ, Jaddoe VWV, Verhulst FC, White T, van IJzendoorn MH, Tiemeier H (2015)

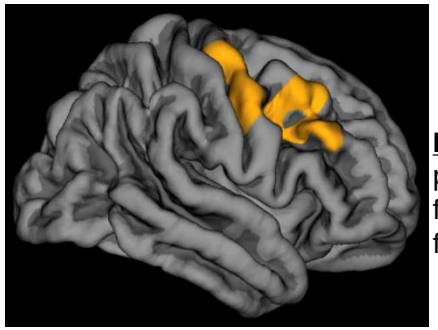
Normal variation in early parental sensitivity:

Parental sensitivity (both mother and father)





Left hemisphere cluster: precentral, postcentral and caudal middle frontal gyrus



Right hemisphere cluster: precentral, caudal middle frontal, and rostral middle frontal gyrus

Controlling for:

- Child gender
- Child age
- Parental education
- Child behavioural and emotional problems

Kok R, Thijssen S, Bakermans-Kranenburg MJ, Jaddoe VWV, Verhulst FC, White T, van IJzendoorn MH, Tiemeier H (2015)

Validation of the RFQ

Study 2: Replication of study 1 with a different sample

129 PD patients
281 healthy controls

Same **factor model** was **replicated** in this study
χ^2/df = 1.59; RMSEA = .04 (CI .03-.05); CFI = .95, NNFI = .92

RFQ_C t=5.98, p<.001

Capable of differentiating clinical from nonclinical sample

RFQ_U t=-14.61, p<.001

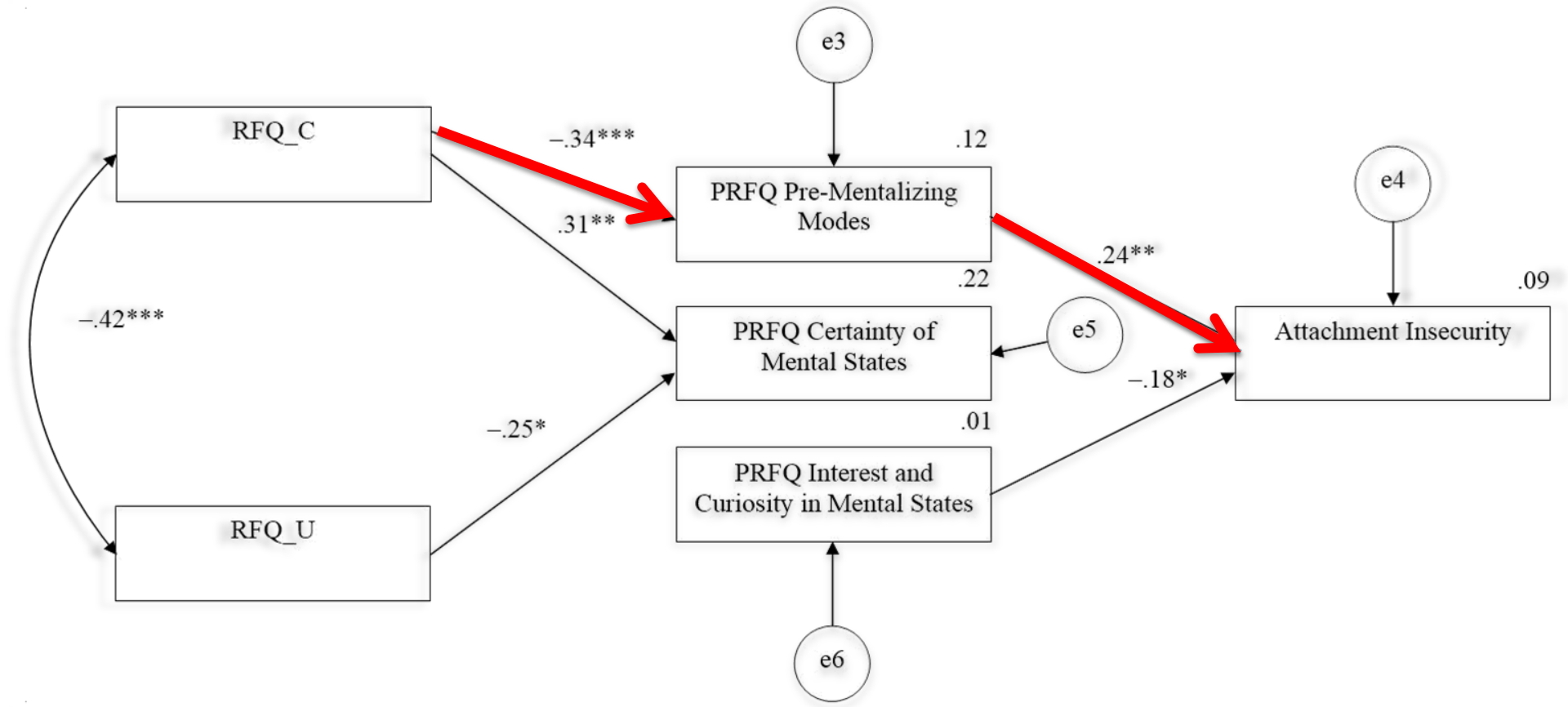
Measure	Clinical features	RFQ_C	RFQ_U
SHI	Self Harm	**-.**17	**.33****
IPO	Primitive Defence mechanisms	**-.36****	**.52****
	Identity Diffusion	**-.41****	**.57****
	Impairments in Reality Testing	**-.24****	**.54****
	Total	**-.40****	**.59****
DID	Severity of depression	-.09	**.40****
	Psychosocial Impairment	-.13	**.36****
	Quality of Life	-.08	**-.26****
STAXI	State Anger	**-.16***	**.35****
	Trait Anger	**-.36****	**.37****
	Anger In	-.13	**.28****
	Anger Out	**-.20***	**.17****
	Anger Control	**.32****	**-.36****
SCL	Symptomatic Distress	**-.17***	**.45****
IPP	Interpersonal Problems	**-.16***	**.32****

* p<.05, ** p<.01, *** p<.001

Validation of the RFQ

Study 3: The relationship between RFQ , PRFQ and offspring attachment

129 healthy controls



Summary of findings

- **Mentalizing of sexually abused** children is reduced both in relation to self and others associated especially with **intra-familiar** abuse
- **Dissociation** following abuse linked to **RF**
- Parental capacity to **mentalize traumatic experience** rather than general mentalizing capacity determines the impact on the child's attachment
- **Mothers** of sexually abused children are no more negative but are **less reflective** and **less affectionate** and these mediate symptomatic expression
- **RF can be measured** in simple questionnaire as appropriate certainty (and uncertainty) about mental states and most RF findings can be replicated

The journey from attachment to family systems

BPD and disorganised attachment

- A **disorganised** attachment pattern is **noticeable** in the **unstable relationships** BPD patients usually have

Holmes, 2004; De Zulueta, 2006; Barone, 2003

- Zero order **partial correlations** between **BPD** and **disorganised** attachment in clinical population: **0.44** for **adolescents** and **0.48** for **adults** ($p \leq 0.001$)

Westen et al., 2006

- In a sample of **140 BPD** subjects, **40%** presented **disorganised** attachment

Barone, Fossatu & Gulducci, 2011

- In a review of **13 studies**, the percentage of BPD patients presenting disorganised attachment has been estimated between **32.2% and 89%**. This percentage raised to **100% among** BPD patients with history of **trauma**.

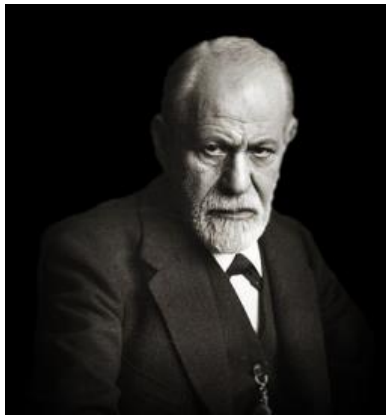
Agrawal et al., 2004

- Among these studies, **earlier** ones show **stronger correlations** between BPD and disorganisation (around **0.8**). **Subsequent** studies showed a somewhat weaker association (**0.5-0.6**)

Levy, 2005

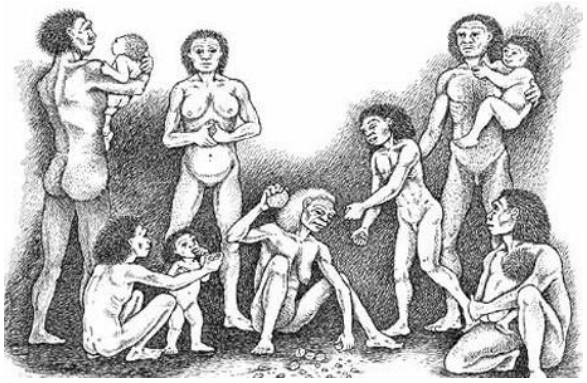
Criticisms of attachment theory

From psychoanalysis:



"mechanistic"
"reductionistic"
"no real metapsychology"
"broad classifications that lose the subtlety and detail of the original material"

From anthropology:



"culturally blind"
"socially oblivious"
"misses different family configurations, e.g., alloparenting"
"empirically based on **WEIRD** people"

WEIRD: Western, Educated, Industrialised, Rich & Democratic

Fonagy & Target, 2007; Röttger-Rössler, 2014; Otto, 2011)

Attachment not universal: Historically childhood is a state of enduring murderous abuse and brutality

(Ariès, 1973; Stone, 1977)

Infanticide in 19th C Milan was 30-40% (Marten, 2010)

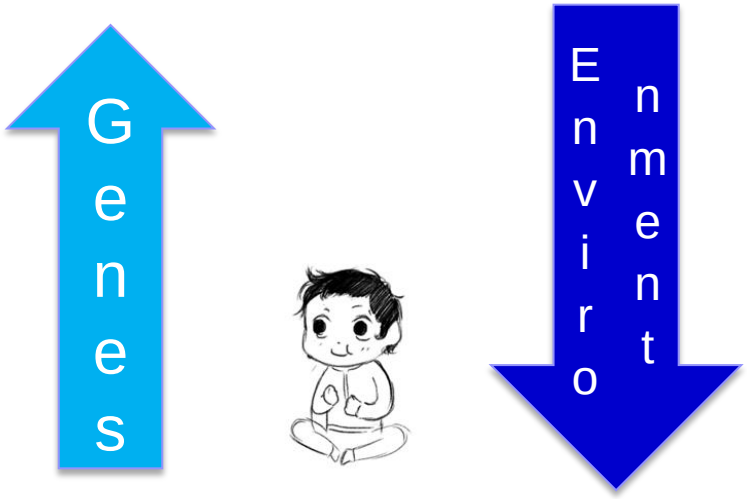
Women living in extremely deprived conditions in **Brazilian ghettoes**, allowing the **death** of their **infants** with apparently **little sorrow**, but become **loving** mothers **to subsequent** children or to children who they previously gave up on as hopeless cases, but appear to go on to survive

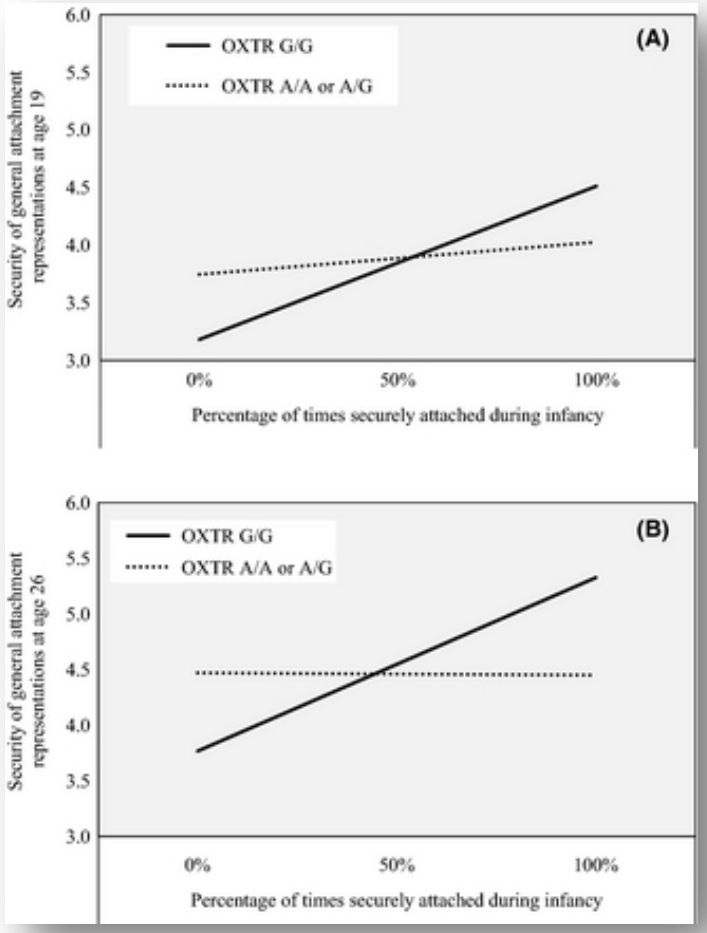
Different **social environment** are likely to **trigger** different **attachment styles** as more adaptive

Attachment is **one**, *very important*, form of content learnt from the social environment

Limited evidence for the link between childrearing environments and later outcomes and a fluctuating significance of infant attachment style across life

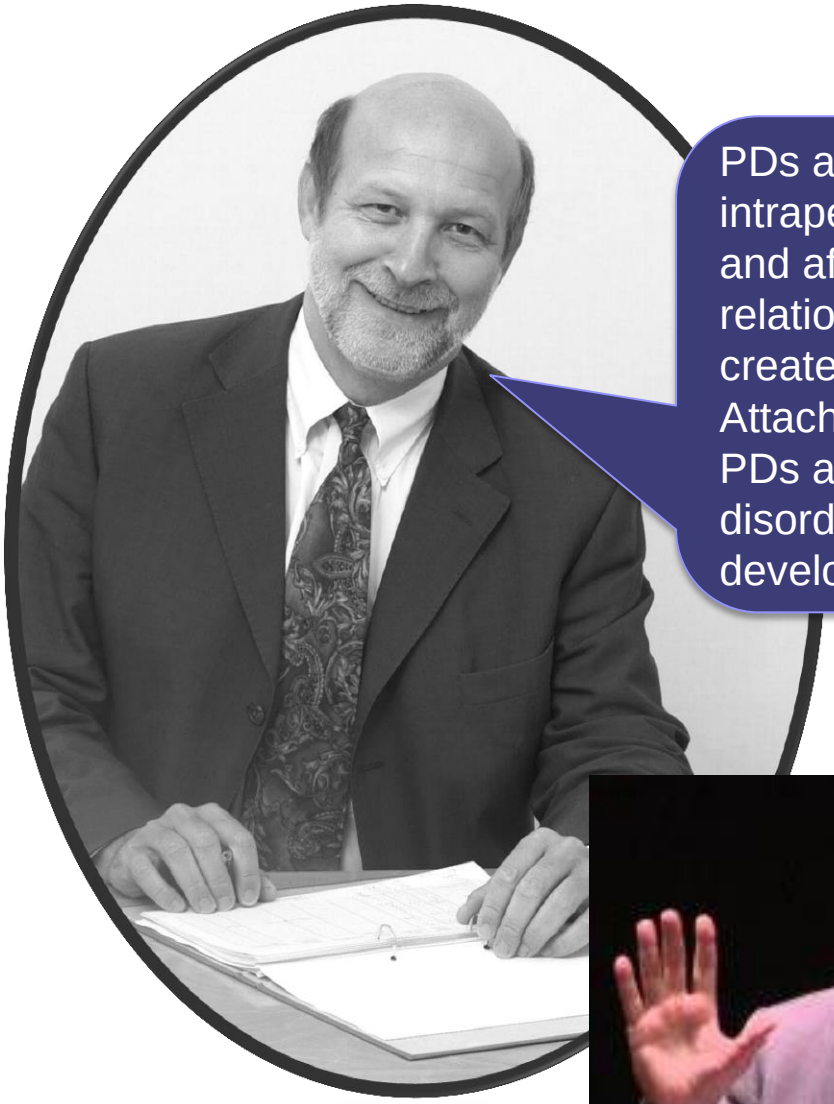
While genetic factors are negligible during infancy, in adolescence they predict **38% and 35%** of security and insecurity respectively (Fearon et al., 2013)





Continuity of attachment from infancy to adulthood is moderated by the presence of the OXTR G/G phenotype (Raby et al., 2013)

Rethinking the centrality of attachment in developmental psychopathology

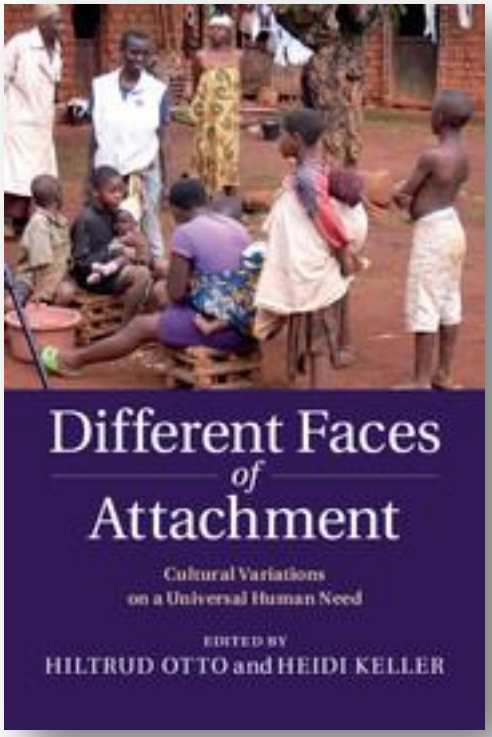


PDs are enduring behaviors; their features include an intrapersonal component (dysregulation of arousal, impulse, and affect), an interpersonal component (dysfunctional relationship patterns), and a social component (which creates conflicts with others and with social institutions) . Attachment theory accounts for these four characteristics of PDs and provides an ideal standpoint to understand these disorders, integrating psychological, psychiatric, genetic, developmental, neuroscientific, and clinical perspectives.

OK!
ATTACHMENT
IS NOT
EVERYTHING!

'The universal socialization task for cultures regarding attachment concerns the learning of trust, not ensuring the "secure" attachment of an individual child to a single caregiver in a dyadic relationship. The question that is important for many, if not most, parents and communities is not, ***"Is [this individual] child 'securely attached?'"****, but rather,* ***"How can I ensure that my child knows whom to trust and how to share appropriate social connections to others?*** *How can I be sure my child is with others and situations where he or she will be safe."*

Thomas S. Weisner, 2014



Attachment and modern evolutionary theory

- Attachment theory, as originally conceived by Bowlby, was an approach that sought to **locate child emotional development** in a way that made sense **in evolutionary terms**.
- In line with a social-cultural perspective:
  - Particular **attachment styles** are themselves one piece of **social communication** that the familial context is promoting **about the most effective way to function** in the prevailing culture.
  - Attachment is part of a **social signaling system** telling the child to prioritize developing capacities particular patterns of behavior
  - **BPD** entails **triggering** particular **style of adaptation to ensure survival**, albeit one that **causes pain** to the **person** and is challenging to the immediately surrounding **environment**
  - For example, **sexual risk taking behavior** in adolescents with a childhood history of neglect is a way of ensuring that they will contribute to the gene-pool.
- Clinical **implication**:
  - **Hard to change** because genes communicate this adaptation is most likely to **ensure survival** (of the genome)

Mentalizing, attachment and the family

- **Lower** levels of **mentalizing**, greater **aggressiveness** and higher **sensitivity** to perceived threats are **adaptive** responses **to** certain cultural **environments**
  - **hypersensitivity to** issues of shame and **honour**
  - lack of **faith in** the support of external **authorities** and institutions
  - families are charged with psychologically enculturating their children to **maximise likelihood of survival**.
- **Social learning** from the immediate **family and culture** can help us account for the relationship between individual behaviours – adolescent male gun crime, for example – and the culture that engenders it.
- **Mentalizing intervention** to succeed **needs to** occur in the context of the family, and enhance the quality of **mentalizing** within the **family system**

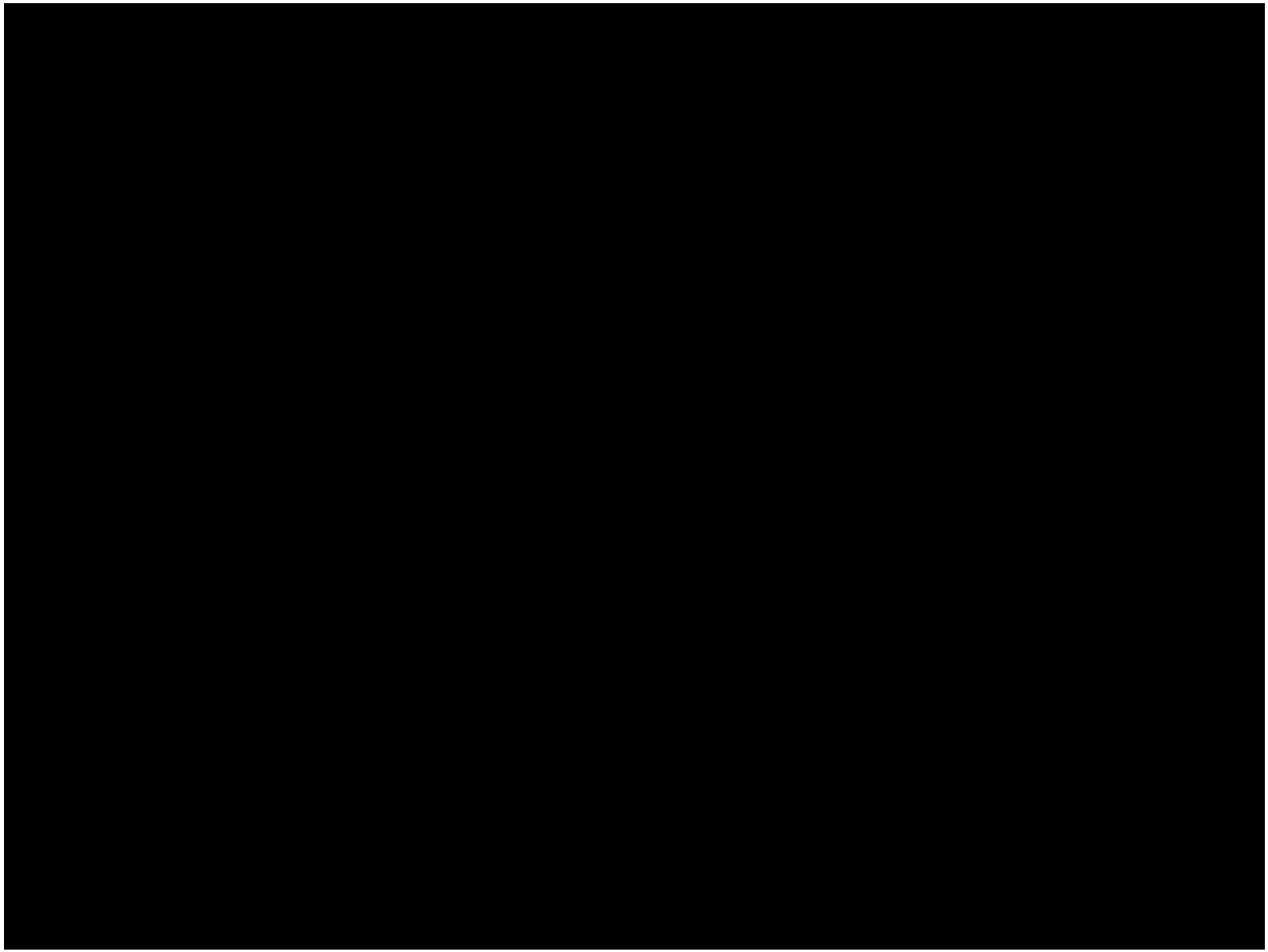
The journey from attachment to communication

The theory of natural pedagogy and epistemic trust (Gergely & Csibra, 2008; Fonagy & Allison, 2014)

- New form of evolution (late Pleistocene) **based on learning and the transmission of cultural knowledge**
- The challenge of discerning of epistemic trustworthiness and the need for **EPISTEMIC VIGILANCE!**
- The pedagogic stance is **triggered** by **ostensive** communicative **cues** (E.G. turn-taking contingent reactivity, eye contact)
- Ostensive cues have **in common**
  - Person **recognized as a self**
  - Paid special attention to (**noticed as an agent**)

ET= Epistemic Trust

Innate Sensitivity to Contingency



Triggering the Pedagogical Stance

- Ostensive cues **function to trigger epistemic trust**:
  - **Opening** channel to **receive** knowledge about social and personally relevant world (CULTURE)
  - Going **beyond** the **specific experience** and acquire knowledge relevant in many settings
  - Triggers opening of an evolutionarily protected **epistemic channel** for knowledge acquisition
- **Mimicry** may be protected by human evolution because it generates epistemic trust
  - **Social smile** (recognition of self) increases imitation because smile generates epistemic trust and opens channel to receive knowledge

Experimental illustration of ostensive cues

Gergely, Egyed et al. (2013)

Subjects : 4 groups of 18-month-olds Stimuli: Two unfamiliar objects

1: Baseline – control group

No object-directed attitude demonstration

Simple Object Request by Experimenter A

Subjects: n= 20 Age: 18-month-olds

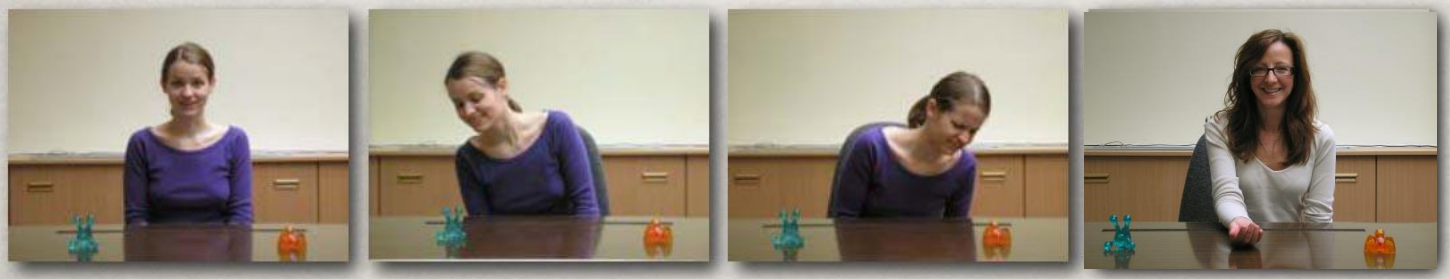
Ostensive Communicative Demonstration

Requester: OTHER person (Condition 1)

Learning from Attitude Expressions

18-month-olds

Ostensive Expression - Generalization



Non-Ostensive (Non-Communicative) Demonstration

Requester: OTHER person (Condition 2)

Learning from Attitude Expressions

18-month-olds

Ostensive Expression - Generalization

Non-Ostensive Expression - No Generalization

Percent Giving Positive Object

71

40

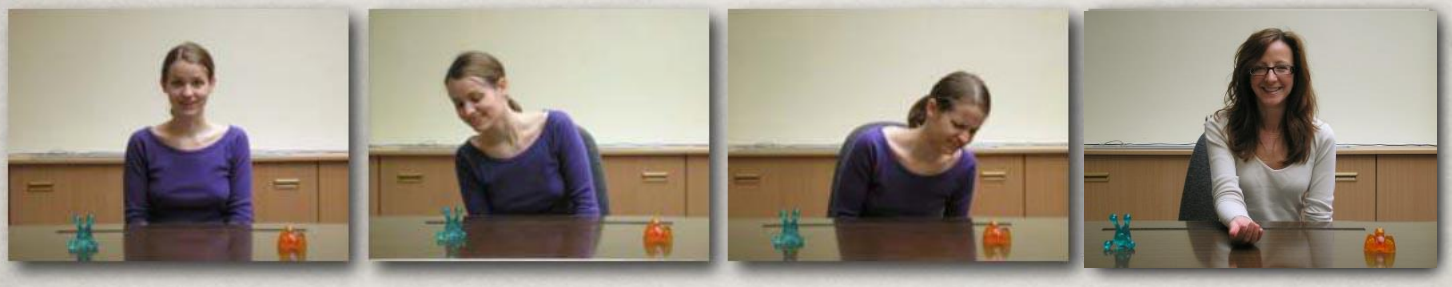
Condition 4: Non-Ostensive (Non-Communicative)

Demonstration Requester: SAME person

Learning from Attitude Expressions

18-month-olds

Ostensive Expression - Generalization



Non-Ostensive Expression - No Generalization

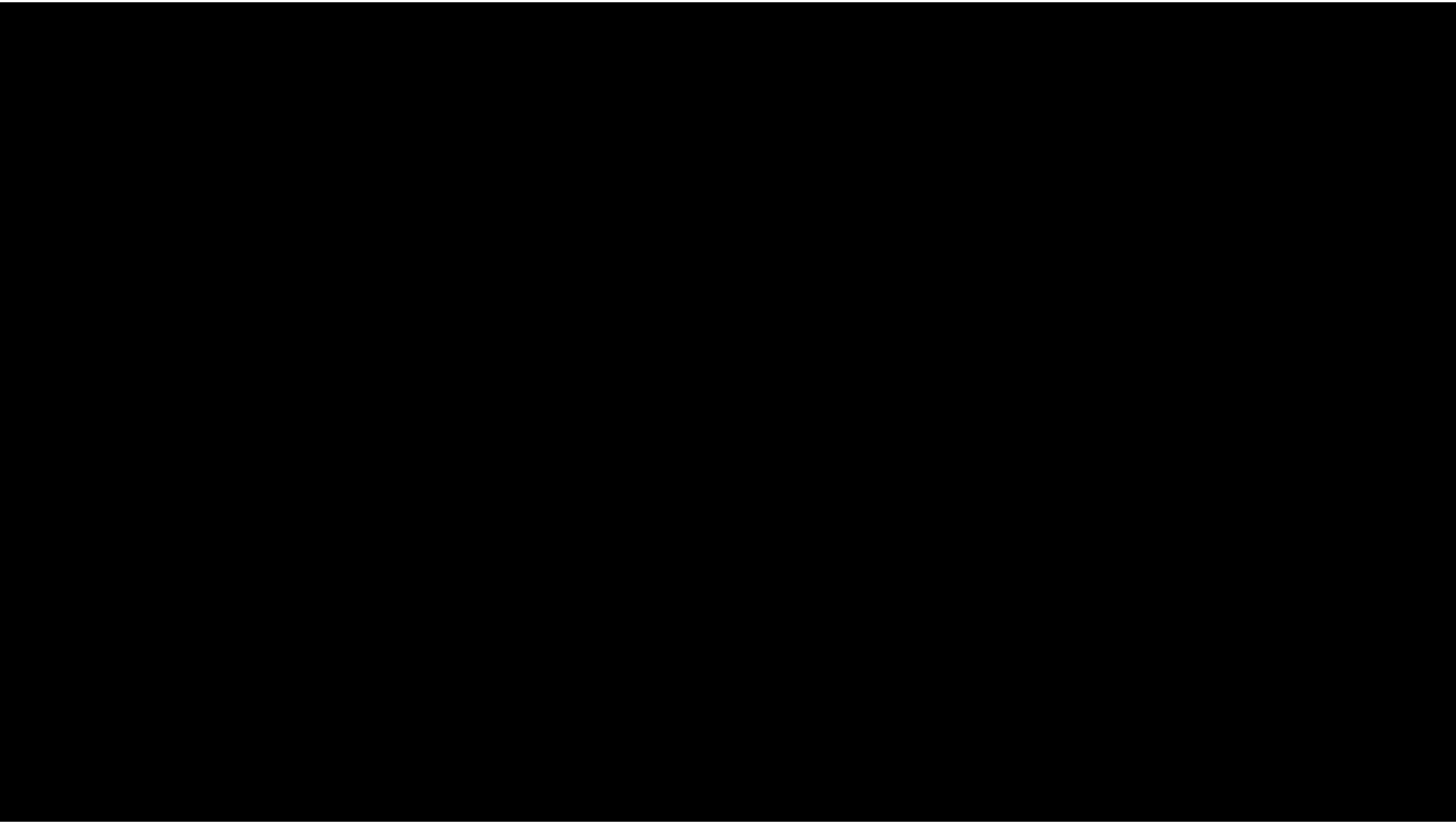
Non-Ostensive Expression - Person-Specific Attribution

Egyed et al., in prep.

Social Cues that Create Epistemic Trust

- **Attachment to** person who responded **sensitively** in early development is **special condition** for generating epistemic trust ➔**cognitive** advantage of security ➔ including neural development (Van Ijzendoorn et al.)
- Generally any **communication** marked by **recognition** of the listener as **intentional agent** will increase **epistemic trust and** likelihood of **communication** being **coded** as
  - **Relevant**
  - **Generalizable**
  - To be retained in **memory as relevant**

- **OSTENSIVE CUES TRIGGER EPISTEMIC TRUST WHICH TRIGGERS A SPECIAL KIND OF ATTENTION TO KNOWLEDGE RELEVANT TO ME**



Transdiagnostic structure of mental disorder

Life-course structure to psychopathology

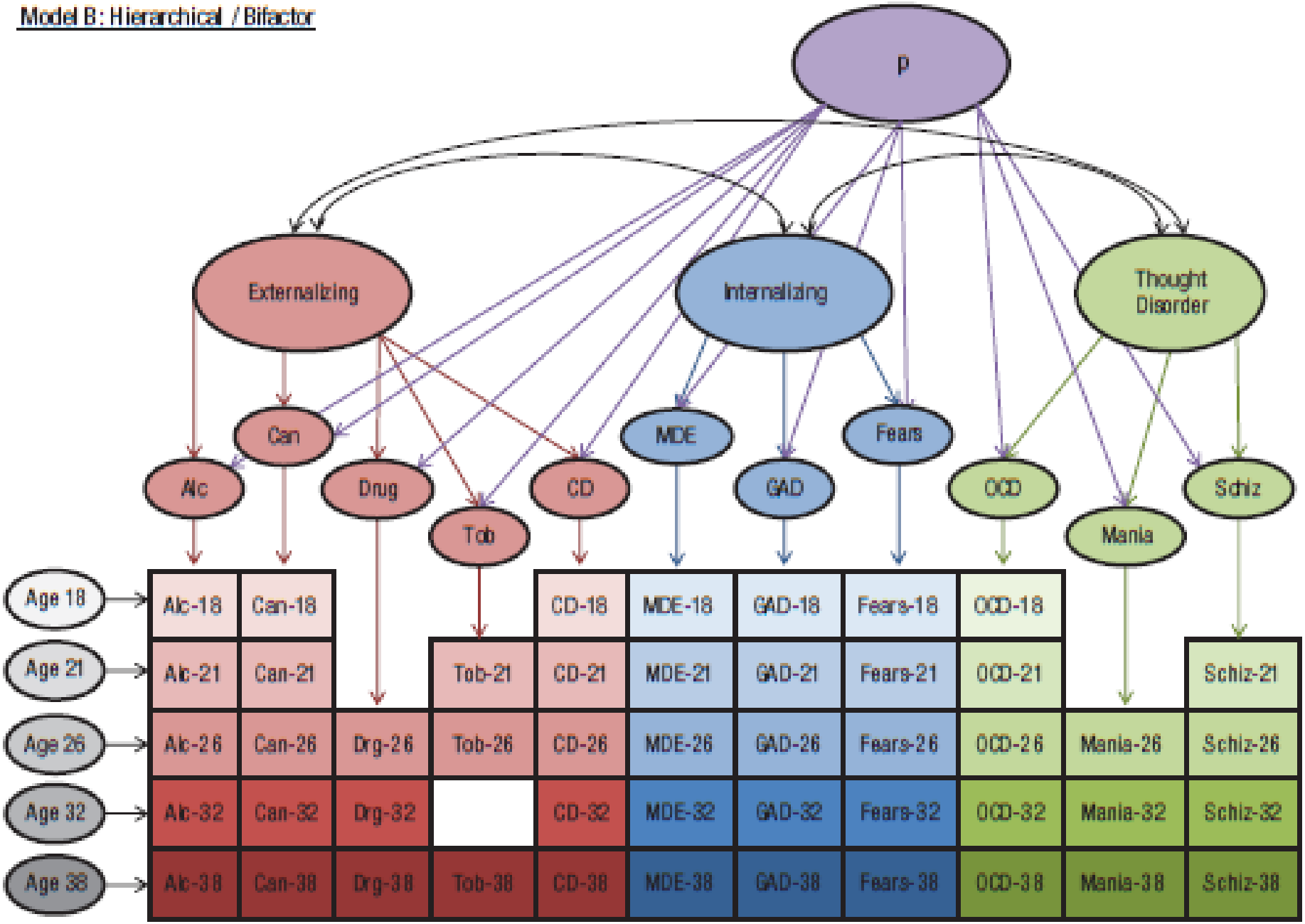
Need for longitudinal research designs

- **Extant research** on structure of psychopathology focuses on individuals who report **symptoms within** a specified **period**
  - Biggest puzzle is why people change clinical presentations over time (adolescent conduct problem adult depression)

- **Mixing single-episode**, one-off cases **with recurrent** and chronic cases which differ in:
  - **extent** of their **comorbid** conditions
  - the **severity** of their conditions
  - **etiology** of their conditions.

- Some individuals more **prone to persistent psychopathology**.

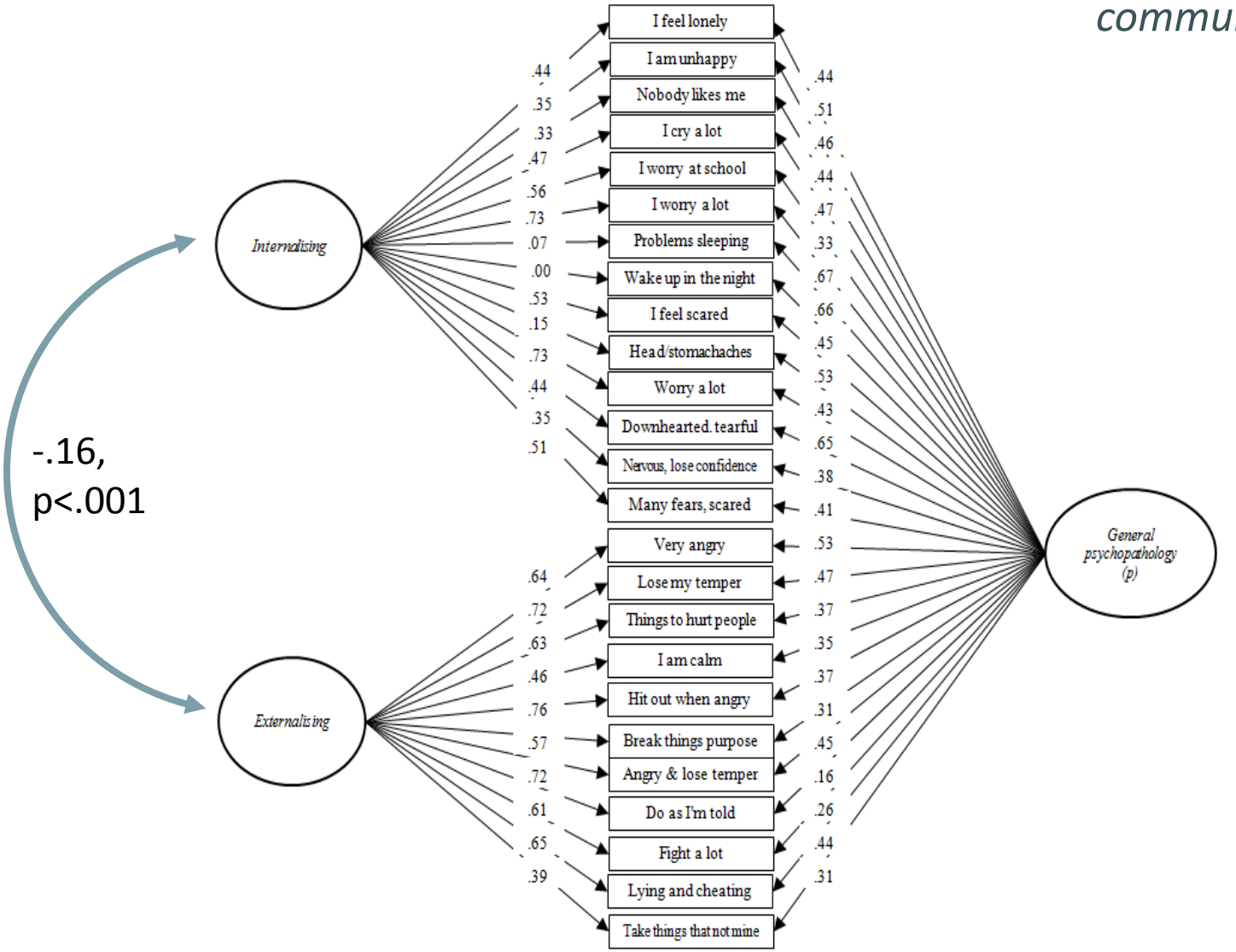
Model B: Hierarchical / Bifactor



Caspi et al., 2013 The p Factor One General Psychopathology Factor in the Structure of Psychiatric Disorders? *Clinical Psychological Science*.

Bi-factor model with the item-loadings

community-based sample aged 11-14 years (N= 23, 477)

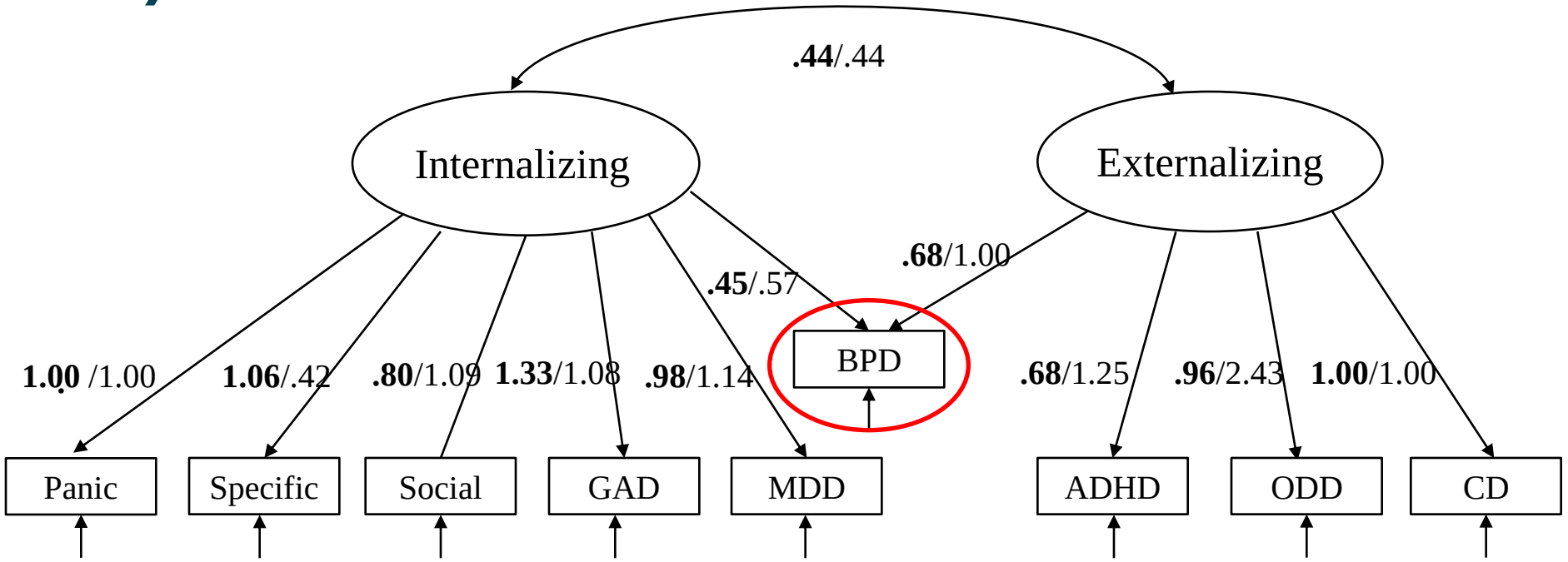


Patalay, Fonagy, Deighton, Belsky, Vostanis and Wolpert (2015)

Logistic regression predicting future caseness

Predictor N=10,270	B	Wald Chi-square	Odds-ratio
2-factor model			
Internalising	.49***	76.4	1.80
Externalising	1.41***	689.64	4.11
Bi-factor model			
Internalising	.22	4.43	1.25
Externalising	1.43***	413.74	4.16
P-Factor	2.33***	479.01	10.30

BPD loads on internalizing and externalizing and shows invariance across gender (Sharp et al., 2014)



The scalar model did not result in a significantly worse fit than the configural model: robust $\chi^2_{diff}(6, N = 434) = 12.51$, $p > .05$, CFI = .95, TLI = .93, RMSEA = .05 (90% CI: .03-.07).

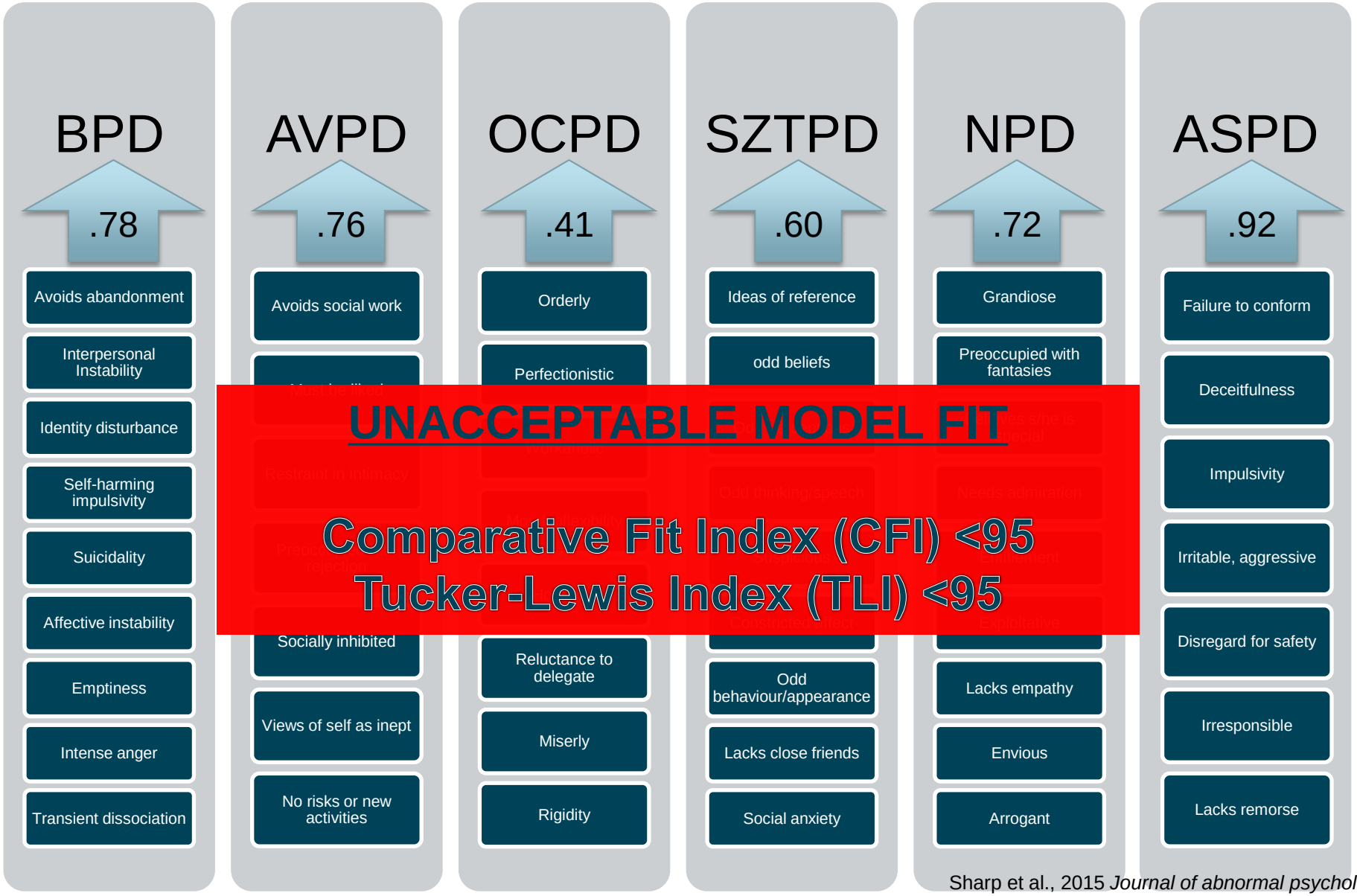
BPD as the 'g/P-factor' of personality pathology (Sharp et al 2015)

- Evaluated a **bifactor model** of PD pathology in which a **general** (g) **factor** and several **specific** (s) **factors** of personality pathology account for the covariance among PD criteria
- **966 inpatients** were interviewed for 6 DSM–IV PDs using **SCID-II**
- Confirmatory analysis **replicated DSM-IV PDs**, with high factor correlations

P factor in PDs: the DSM factor structure

Sharp et al., 2015 *Journal of abnormal psychology*

N=966 inpatients



UNACCEPTABLE MODEL FIT

Comparative Fit Index (CFI) <95

Tucker-Lewis Index (TLI) <95

Sharp et al., 2015 *Journal of abnormal psychology*

P factor in PDs: the DSM factor structure

N=966 inpatients

	BPD	AVPD	OCPD	SZTPD	NPD	ASPD
BPD	-					
AVPD	.60	-				
OCPD	.48	.46	-			
SZTPD	.61	.43	.22	-		
NPD	.47	.18	.55	.01	-	
ASPD	.55	.31	.04	.16	.56	-

In spite of internal coherence at a criterion level, DSM personality disorders, within individuals, are not neatly separable. **They are not discrete phenomena**

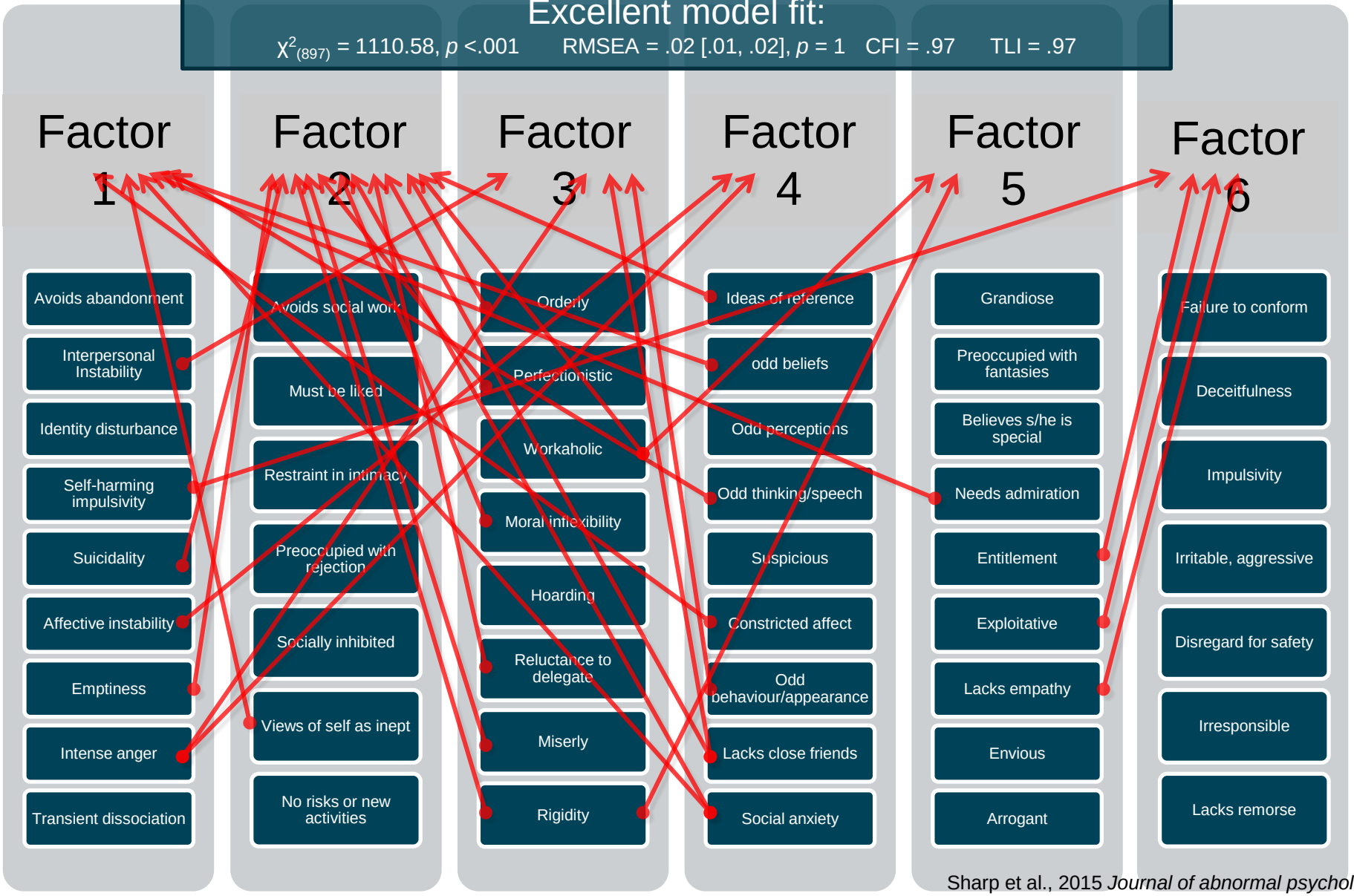
Sharp et al., 2015 *Journal of abnormal psychology*

P factor in PDs: does EFA replicate the DSM factor structure?

N=966 inpatients

Excellent model fit:

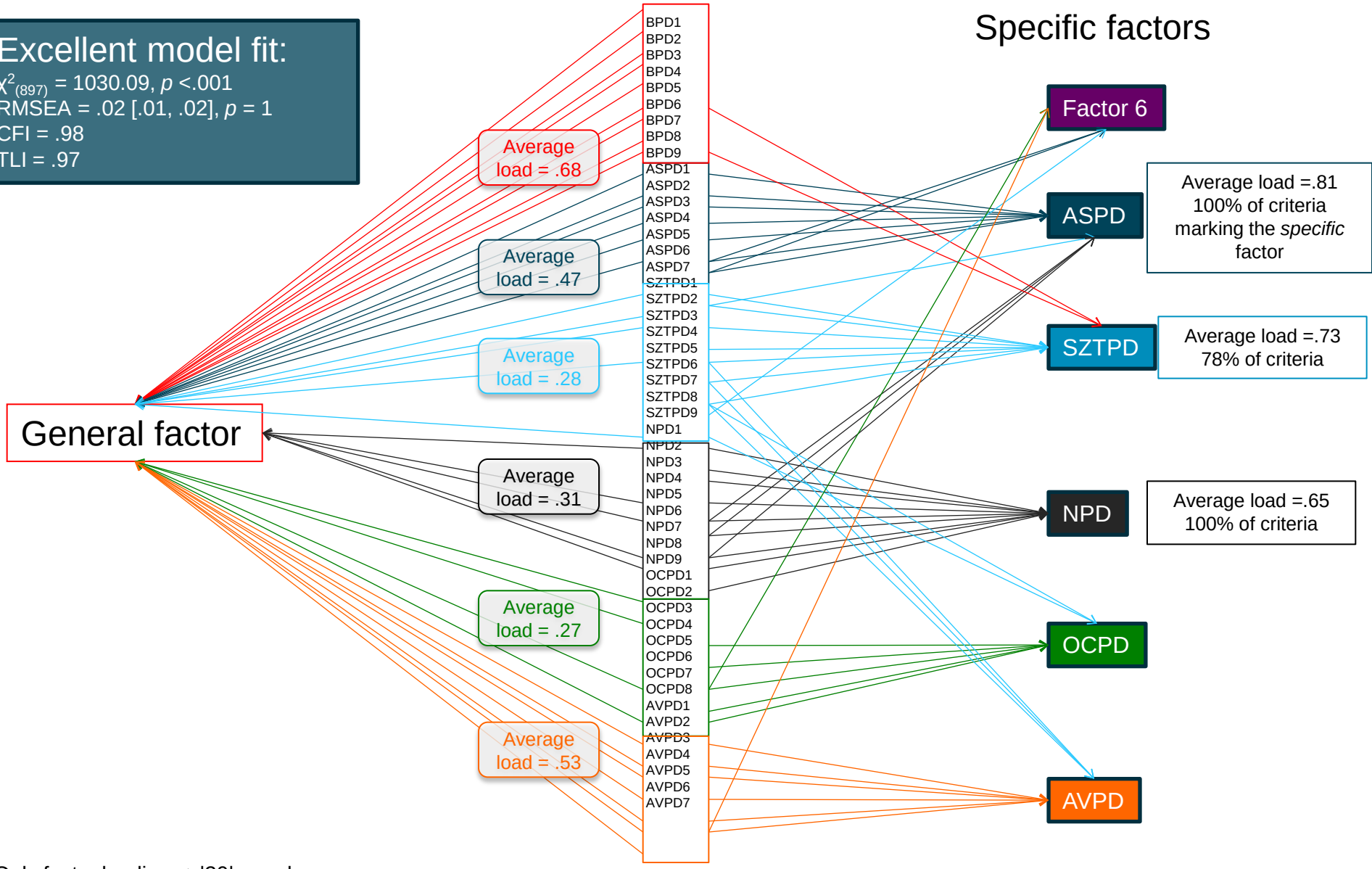
$\chi^2_{(897)} = 1110.58$, $p < .001$ RMSEA = .02 [.01, .02], $p = 1$ CFI = .97 TLI = .97



Sharp et al., 2015 *Journal of abnormal psychology*

P factor in PDs: Exploratory bifactor model

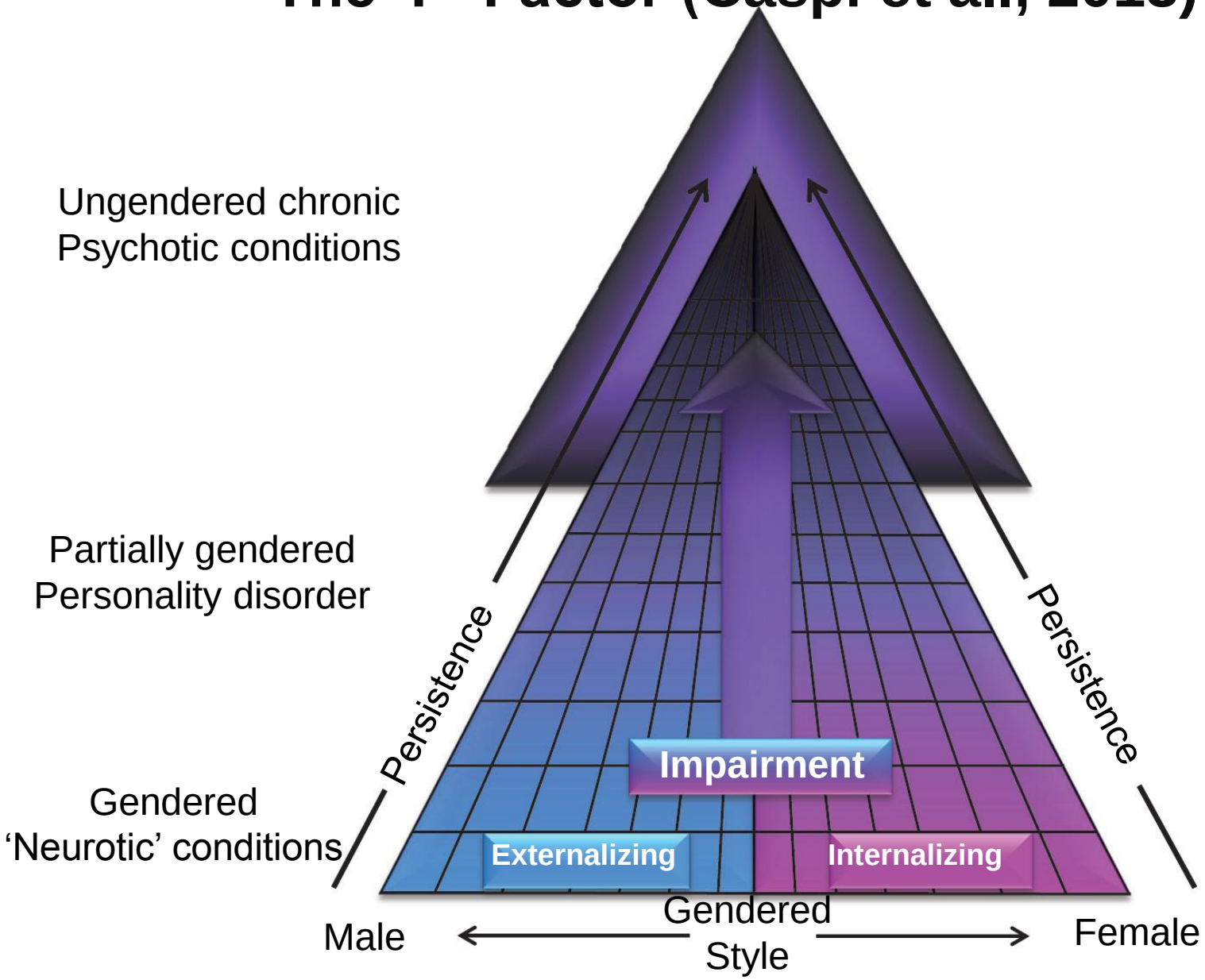
Excellent model fit:
$\chi^2_{(897)} = 1030.09$, $p < .001$
RMSEA = .02 [.01, .02], $p = 1$
CFI = .98
TLI = .97



Only factor loadings >|30| are shown

Sharp et al., 2015 *Journal of abnormal psychology*

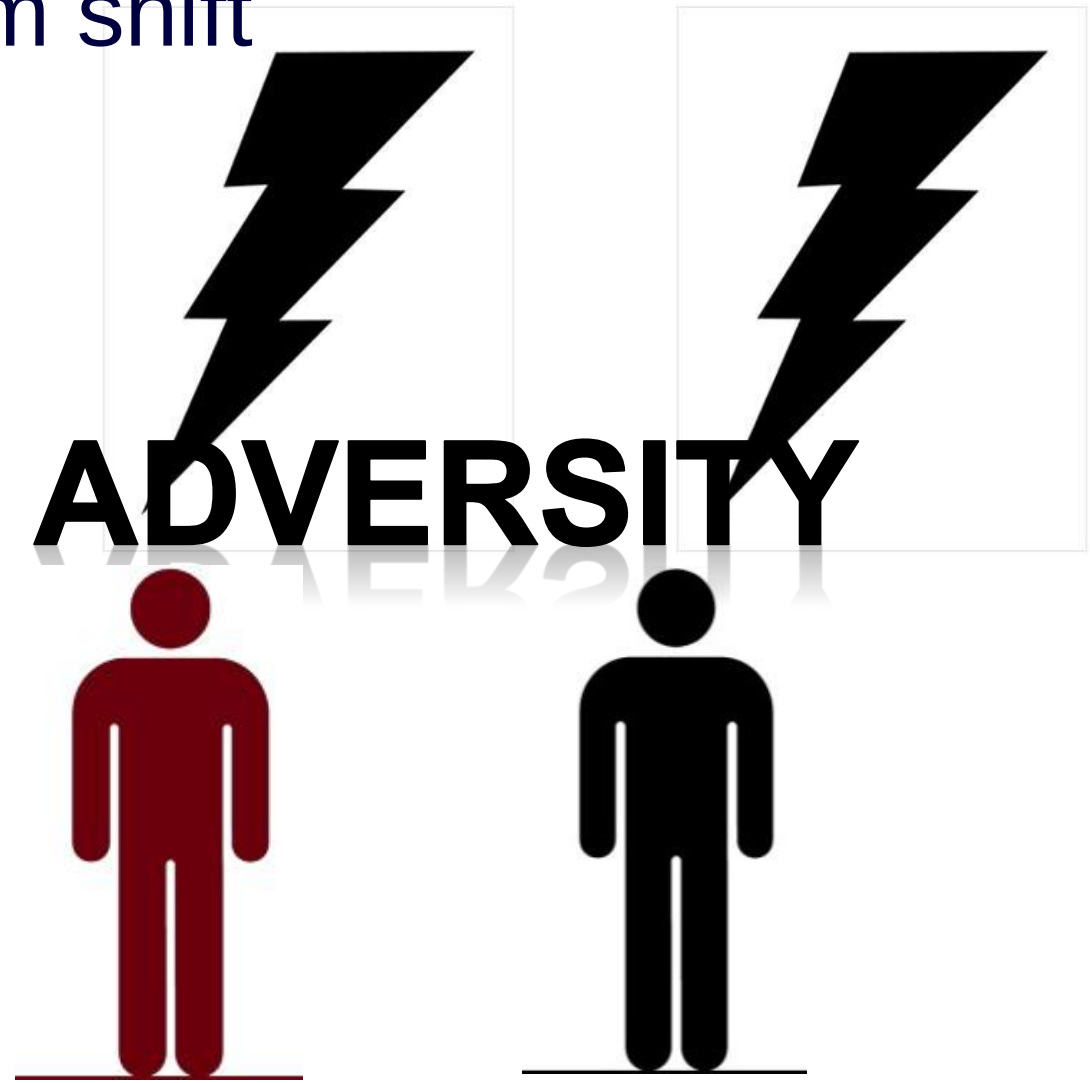
The ‘P’ Factor (Caspi et al., 2013)



Persistent psychological distress and the lack of epistemic trust

Understanding the ‘P’ or ‘g’ factor as an absence of expected resilience

From disease- to health-oriented research: A paradigm shift



Formerly: Investigating the **mechanisms that lead** to stress-related illness

Now: Investigating the **mechanisms** that **protect** against illness

Basic assumption of resilience research: Resilience is **not** simply due to an **absence of disease** processes but reflects the work of **active adaptation** mechanisms with a biological basis

(Kalisch et al)

Active refers to any **resource demanding process** and may apply to cognitive as well as behavioral processes

(Kalisch et al., in press)

Resilience has been conceptualised variously as a…

Tool

Characteristic

Potential

Attitude

Act

Asset

Value

Strength

Process

Trait

Skill

Resource

Knowledge

Recovery

Dynamic interaction

Protective factor

Response

Disposition

Capacity

Performance

Positive influence

Competency

Transactional relationship

Functioning

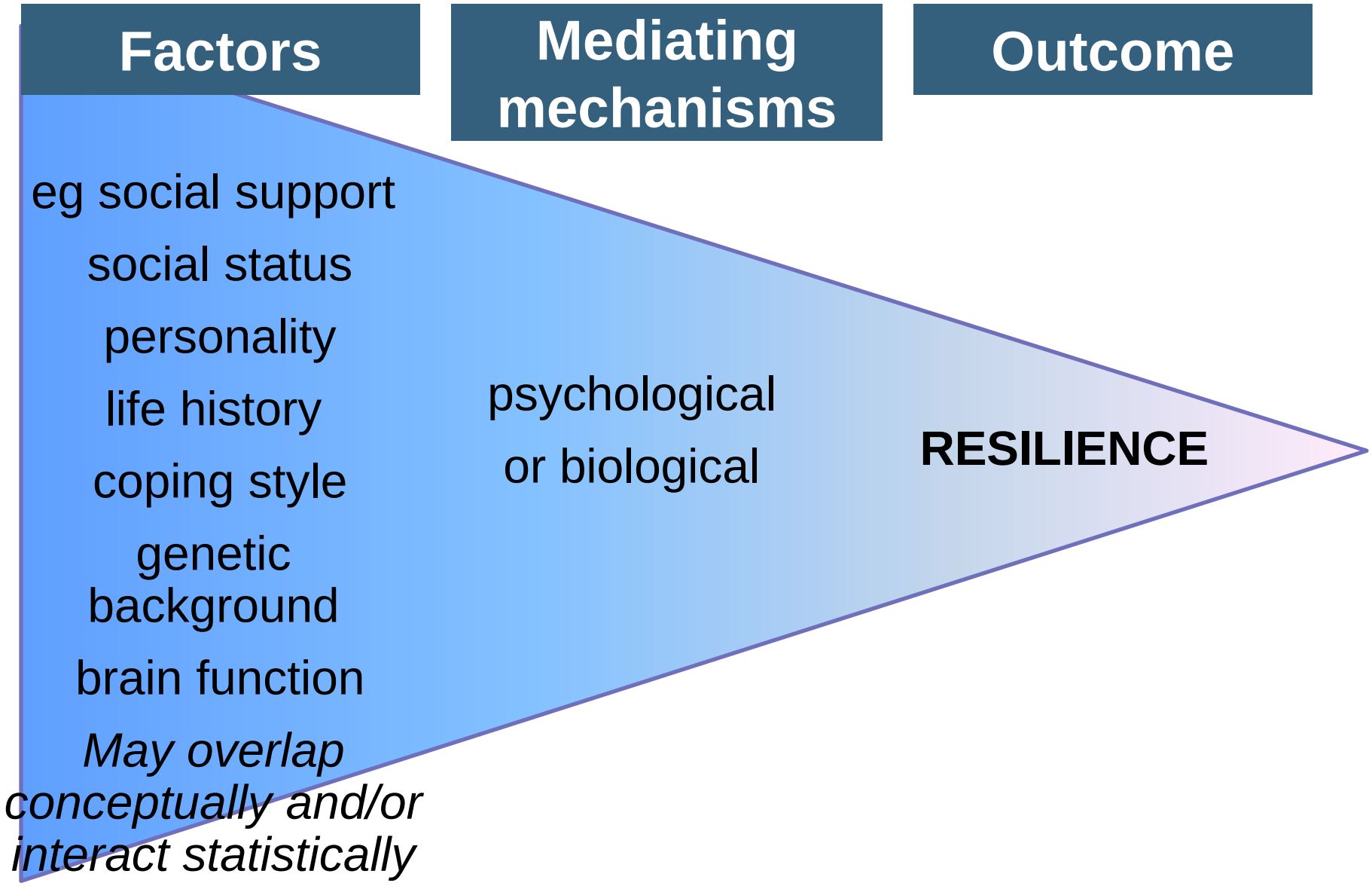
Ability

Tendency

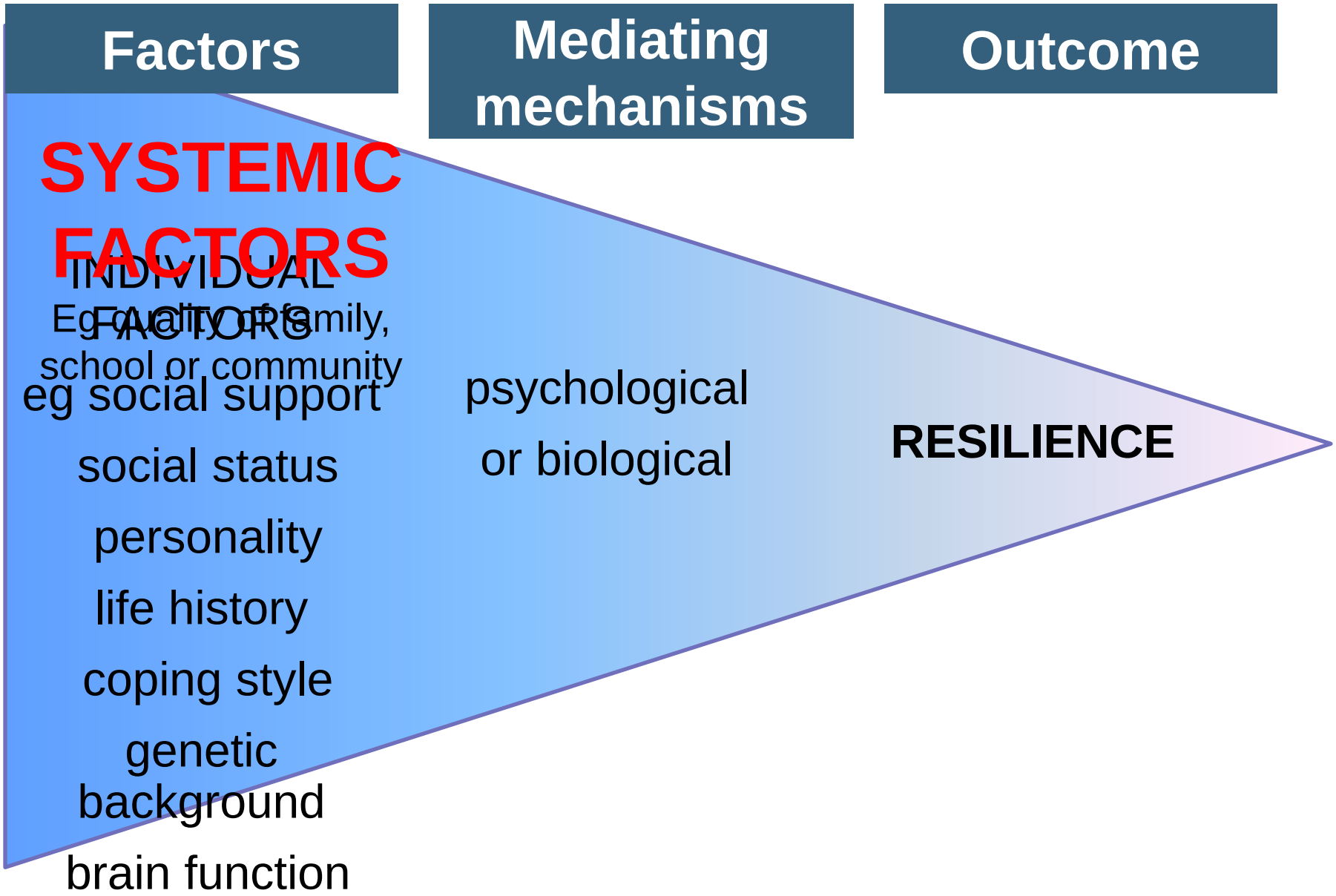
Adaptation

*The ability of a system to **resist dynamically** a perturbation or adverse condition that challenges the **integrity of its normal operation** and to **preserve** function as a result in reference to some initial design or normative functional standards.*

Bringing order to the conceptual chaos



The role of systemic factors



What is it that patients with BPD lack?

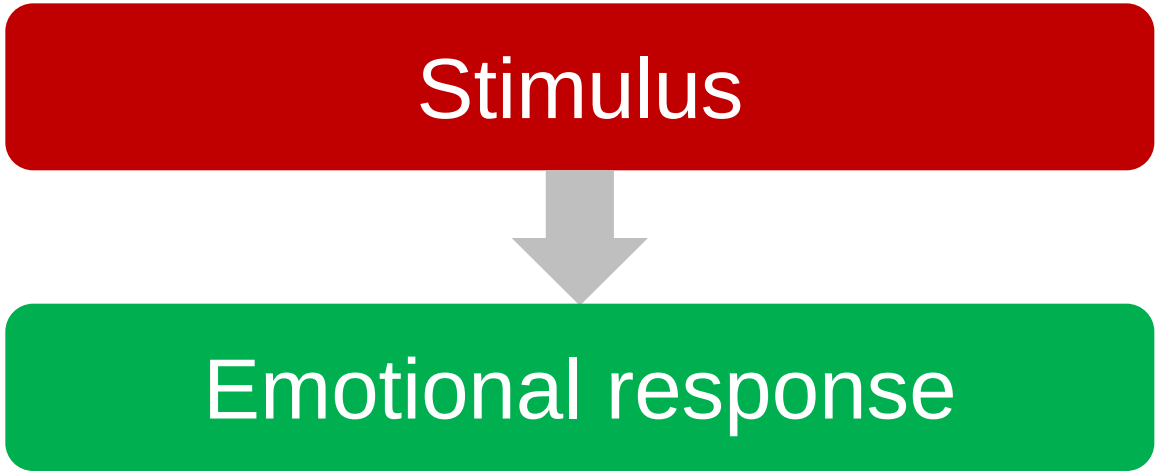
- Individuals with intense persistent distress (high ‘P’ scorers) are by definition **not resilient:**
- They are **oversensitive** to possibly difficult social interactions (they **cannot interpret the reasons for other’s actions** reliably)
- **Cannot set aside** (put out of their mind) potentially **upsetting memories** of experiences leaving them vulnerable to **emotional storms**

How appraisal shapes our experience

Not Enough

Except our experience is social: not with physical objects but with people

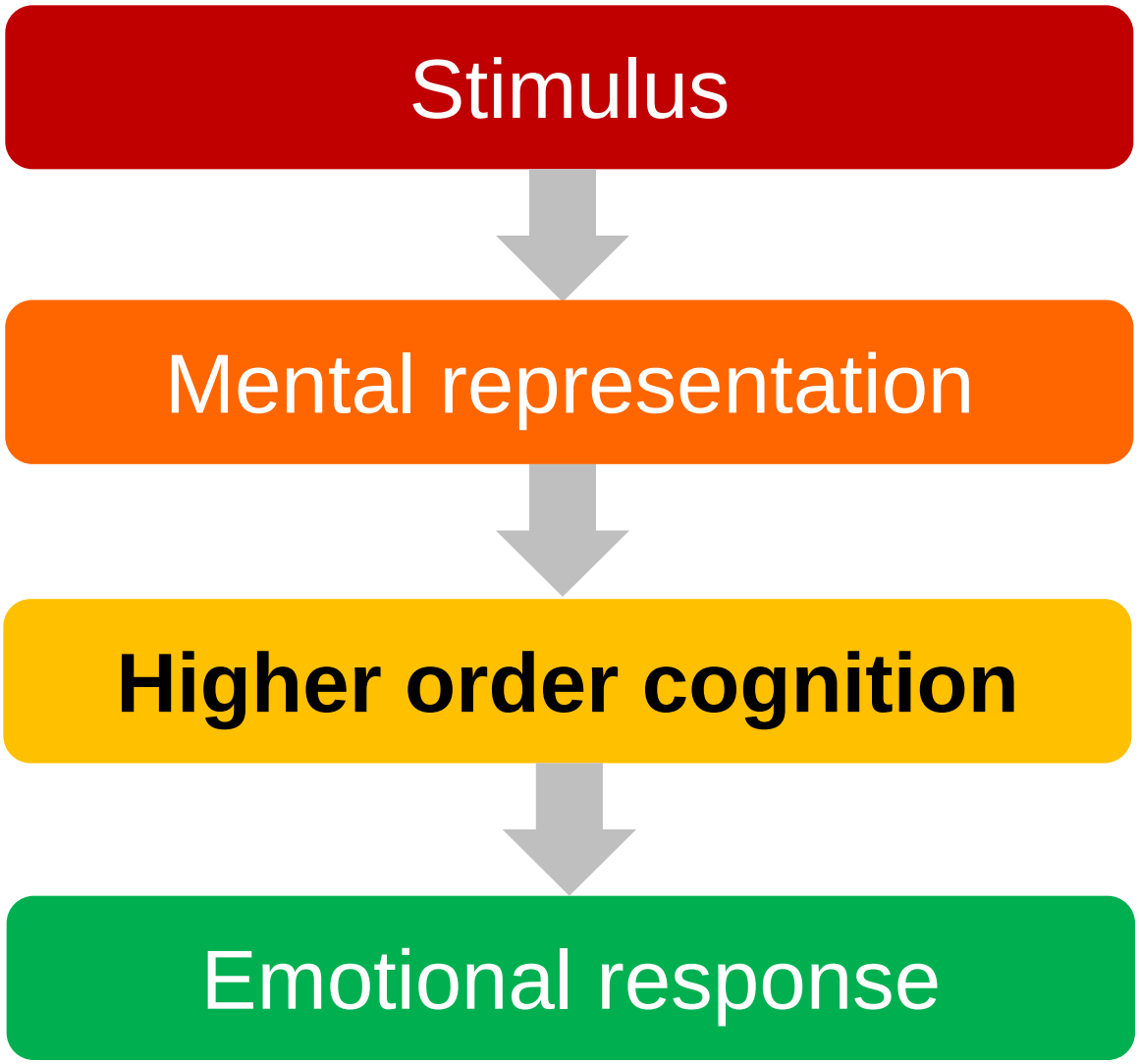
Appraisal theory



The type, quality and extent of emotional reactions (including stress reactions) are **not** determined by simple fixed stimulus-response relationships…

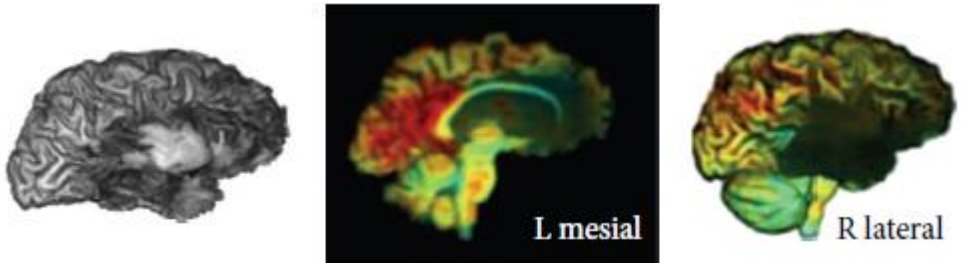
The process underlying **resilience** is driven by **top-down cognition**

Appraisal (higher order cognition) theory



…but by **context-dependent evaluation of motivational relevance**

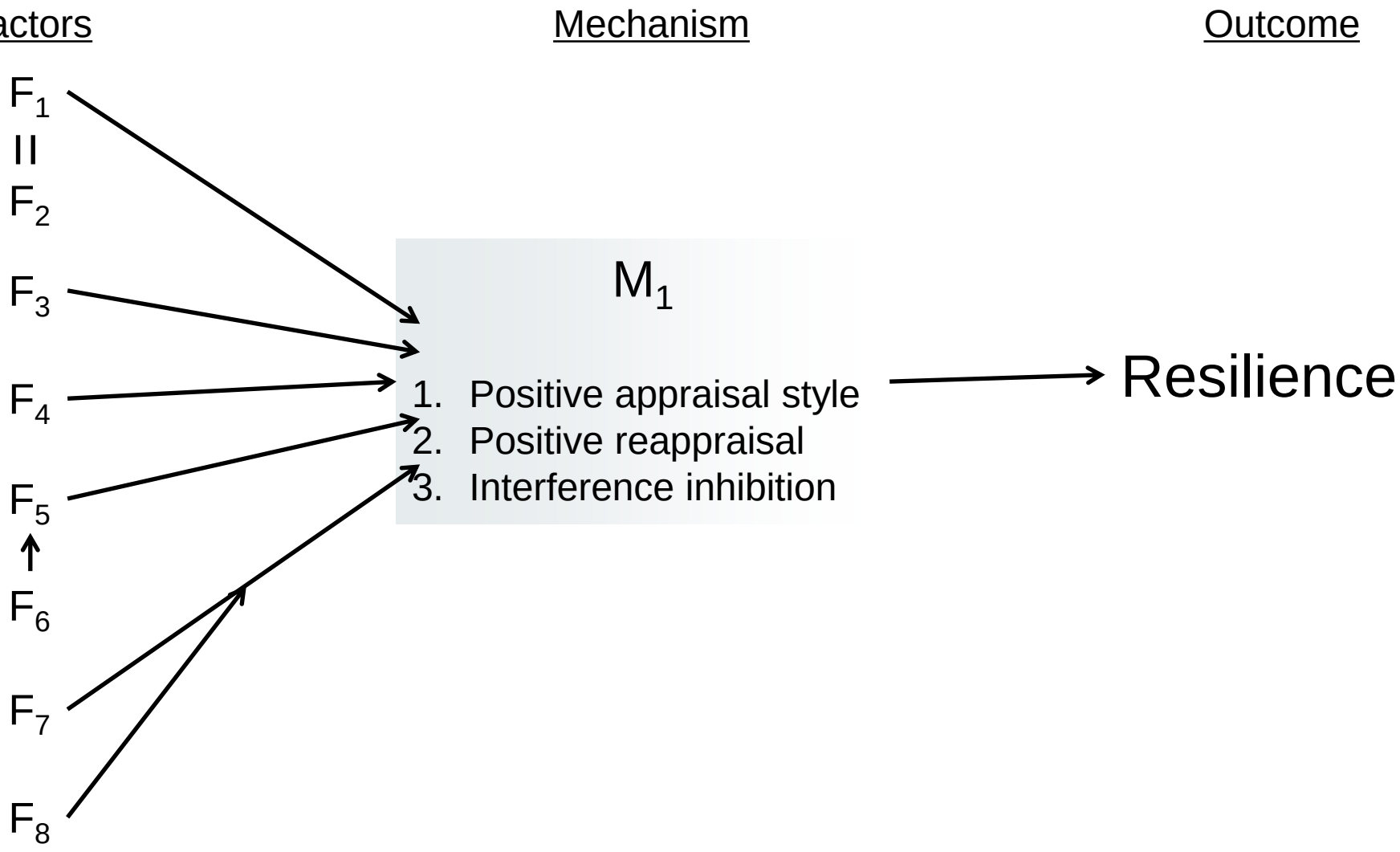
- Brains can **preserve** core aspects of the functional architecture of **information processing** that sustains higher order cognition **in spite** of substantial **structural damage** (Rudrauf, 2014, Advances in Neuroscience)
    - Full **AD** diagnosed postmortem in **25%-67%** of elderly with **no** prior cognitive **impairment** (Dubois et al., 2012).



    - **"Higher-order cognition" unites** in a functionally integrated **subjective frame**
        - **executive** functions
        - **attention**,
        - **self-awareness**

Positive appraisal style theory of resilience

(PASTOR)



Kalish et al, 2014

Positive appraisal style theory of resilience (PASTOR)

M_1

Process Class 1(PC_1)

1.1 Positive appraisal style

or Interference in

→ Resilience

stress responses are prevented by a process of classifying the situation positively based on its similarity with positively valued prior experiences or cultural stereotypes

- Mildly aversive situations
  - Do not necessarily or automatically generate stress response
- Dominant role of memory content
- Undemanding neuro-cognitive processes

Amygdala:
deactivation

Prefrontal cortex
Dorsomedial deactivation
Ventromedial activation

Kalish et al, 2014

Positive appraisal style theory of resilience (PASTOR)

M_1

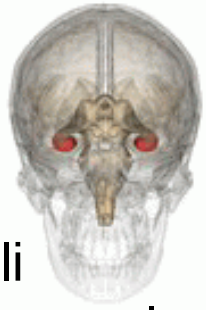
1. Positive appraisal
2. Positive reappraisal
3. Interference inhibition

→ Resilience

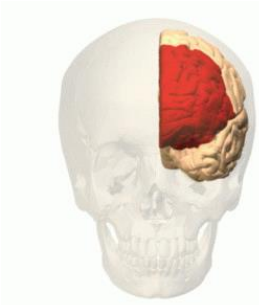
Process Class 2(PC_2)

Reappraisal attenuate *ongoing* stress responses by appropriately adjusting negative and/or generating complementary positive appraisals

- Strongly aversive situations
  - The stress response is essentially unavoidable
  - Situation automatically classified as negative
- Implies changes in the meaning of the stimuli
- Cognitive reappraisal in terms of intentional mental states



Hippocampus: activation



Ventromedial prefrontal cortex: activation of mesocortical dopamine system

Kalish et al, 2014

Positive appraisal style theory of resilience (PASTOR)

M_1

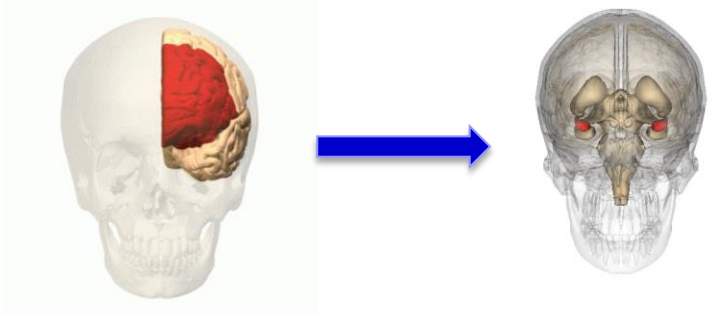
1. Positive appraisals
2. Positive reappraisals
3. Interference inhibition

→ Resilience

Process Class 3(PC_3)

Implies the inhibition of conflictive negative appraisals and interfering *emotional reactions* to information processing

- Strongly aversive situations
  - Situation automatically classified as negative
  - Inhibition allows for reappraisal to consolidate
- Not sufficient for reappraisal. Protects the acquisition of new appraisals
- Might be a trait-like capacity that remains malleable

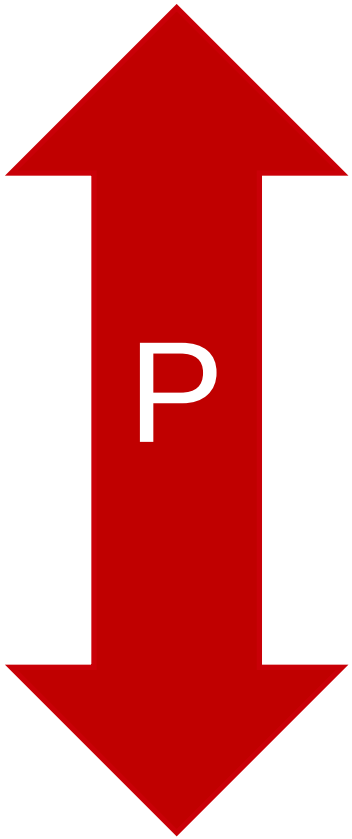


Ventromedial prefrontal cortex: activation of efferents towards…

Amygdalar interneurons: deactivation

Kalish et al, 2014

‘P’ Factor



Resilience

‘P’ Factor

Resilience

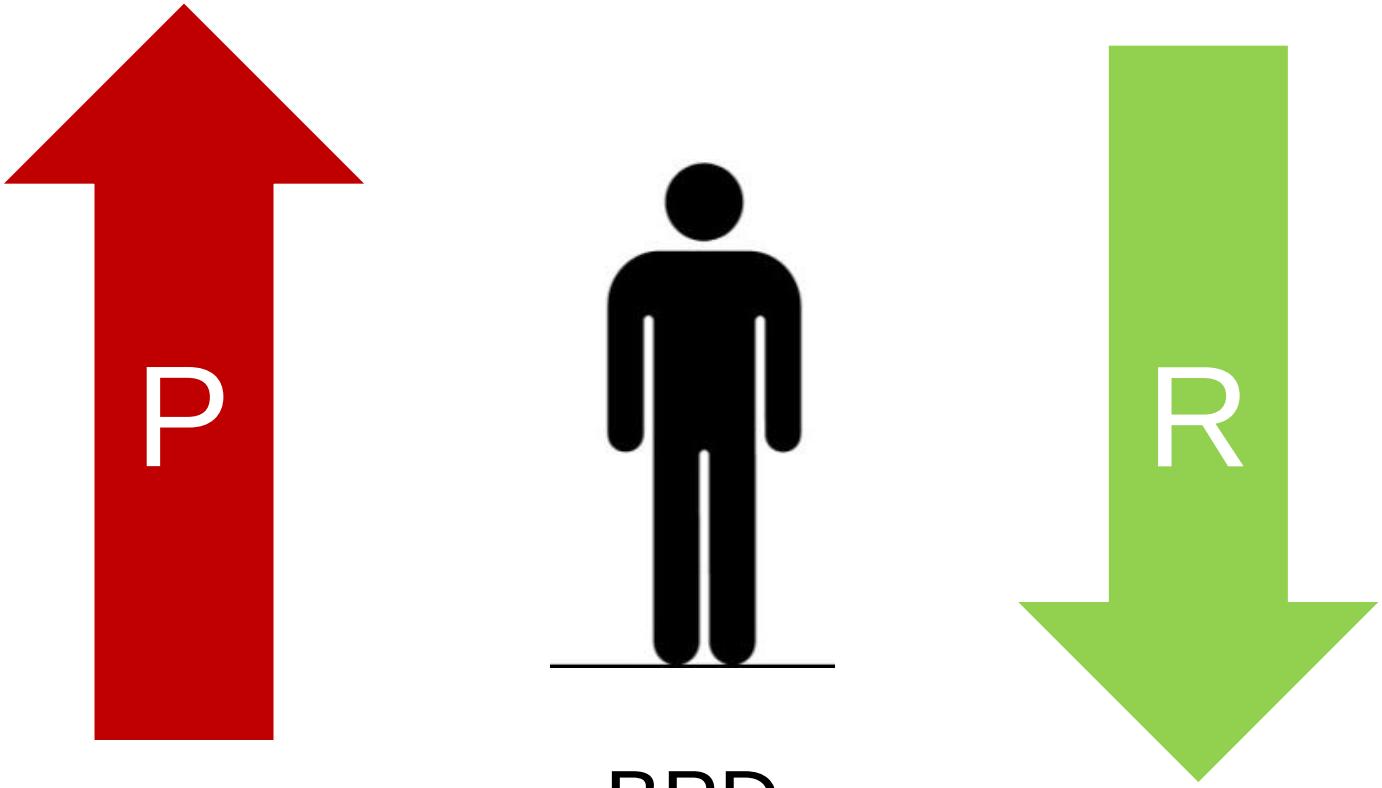
P

R

Normal/
neurotic

‘P’ Factor

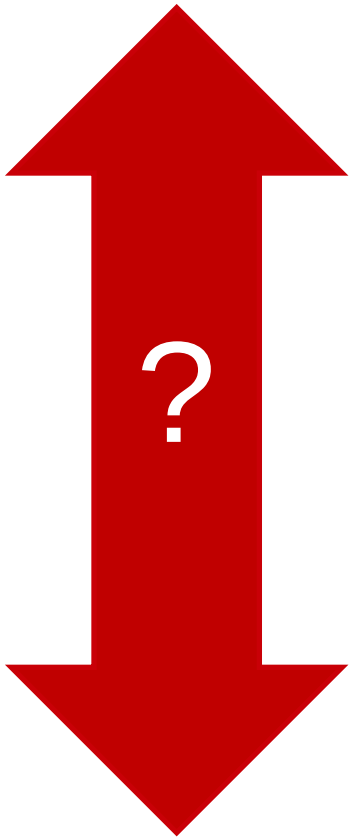
Resilience



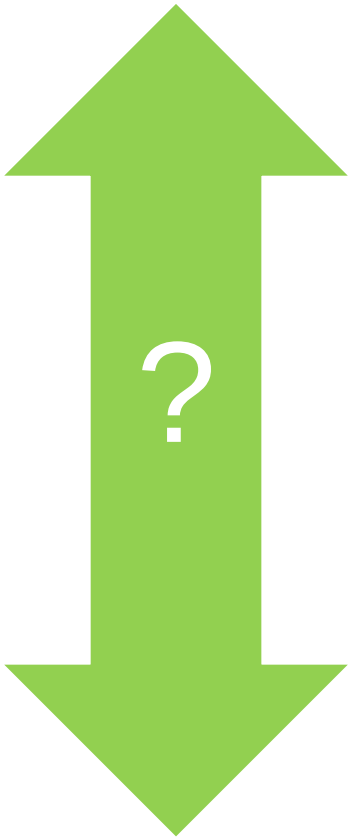
BPD

‘P’ Factor

Resilience

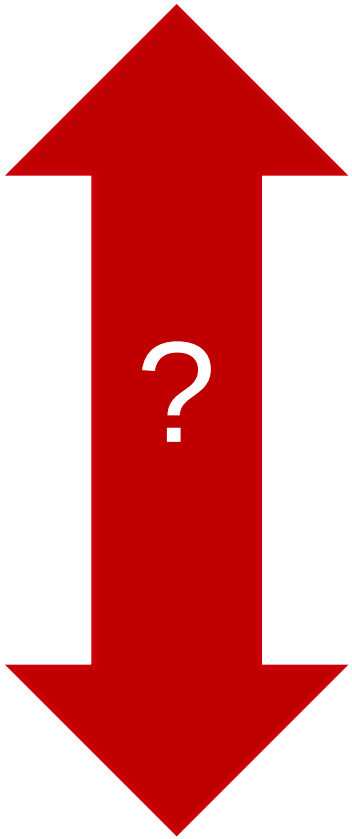


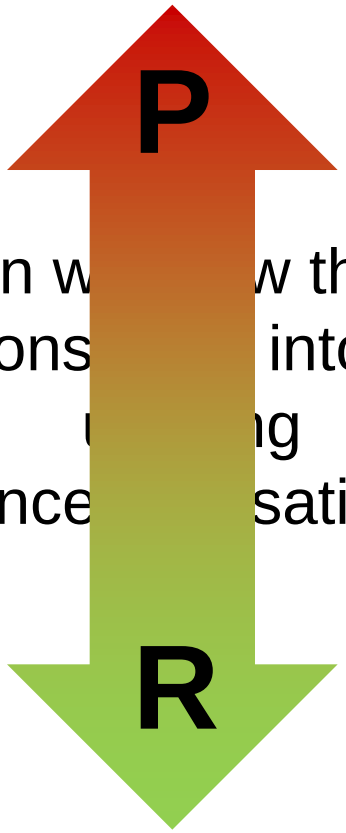
Can we draw these constructs into a unifying conceptualisation?



‘P’ Factor

Resilience





Can w w these
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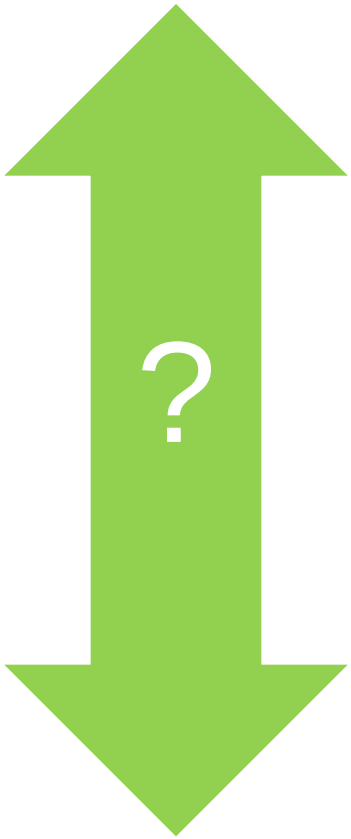


The current bio-psycho-social MZ model of BPD as an absence of resistance to social stress

- The **'P' factor** of **general vulnerability** to psychopathology is actually an indication of the **absence of resilience** (**psychological** equivalent of **immune system** response, Higgitt & Fonagy, 1992)
  - The **nature of** the **stressor** (abuse, bullying, neglect, maltreatment or everyday social stress) is **not relevant**
  - **Most toxic** stressors **attack** the **mechanisms** of **resilience**
- While patients with limited comorbidity problems (regardless of severity) have high resilience (unlikely to be effected by subsequent stressors) those with **BPD** have **low resilience** and are likely to **succumb to** psychosocial **stress**

The current bio-psycho-social MZ model of BPD as an absence of resistance to social stress

- **'P' and 'R'** are inversely related because they are **identical** at the level of **mechanisms**
  - **Low 'R'** reflects an **adaptation** consequent on serial **communication** problems in development combined with genetic vulnerability characterized by **epistemic hypervigilance** which prevents or **undermines a reappraisal process** and results in **apparent rigidity** (imperviousness to social influence)
  - The **failure** to engage in **meaningful reappraisal** creates a general **vulnerability to** psychosocial **stress** (low 'R') which yields to the **high** prediction of future **psychopathology** from 'P'
  - Increasing **mentalizing** increases **epistemic trust** which in turn generates **resilience through** improved capacity for **appraising** and **re-appraising** stressful **events**

Being mentalized in the context of an attachment relationship

Ability to form and learn from social connections

Ability to reappraise via mentalizing where necessary to repair, preserve, develop and increase these connections throughout life

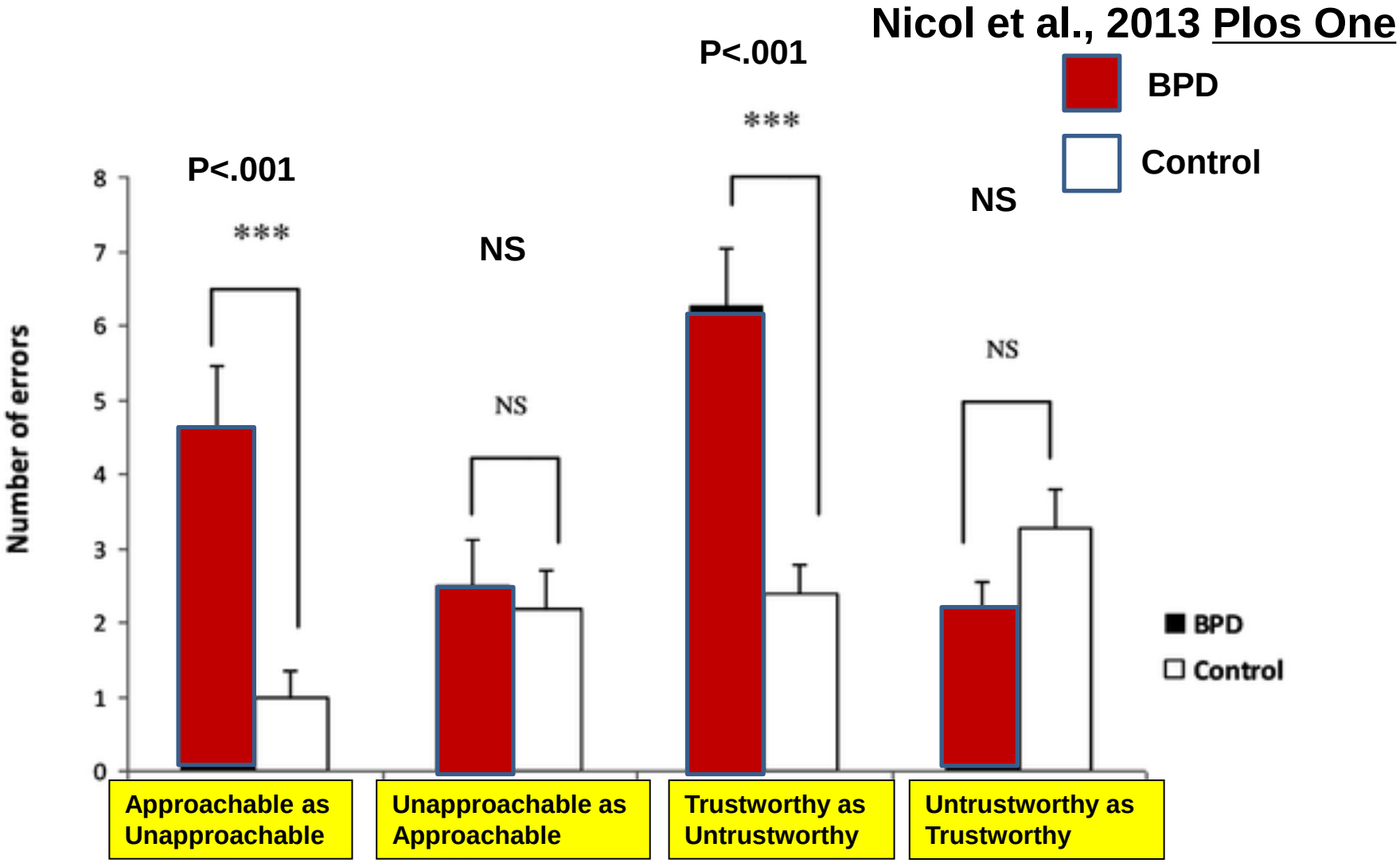
Implications for understanding and treating BPD

The nature of psychopathology in PD

- Social adversity (most deeply **trauma following neglect)** is the **destruction of trust in social knowledge** of all kinds →**rigidity**, being **hard to reach**
- Cannot change because **cannot accept** new information **as relevant** (to generalize) to other social contexts
- **Personality disorder** is not disorder of personality but **inaccessibility to cultural communication** relevant to self from social context
  - Partner
  - Therapist
  - Teacher

} **Epistemic Mistrust**

Judgment bias for approachability and trustworthiness of faces.



Direction of bias

Epistemic mistrust not believing what one is told

- It is the consequence of **high levels of epistemic vigilance** (the **over-interpretation** of motives and a possible consequence of **hyper-mentalization**, Sharp et al., 2011)
- The recipient of a communication assumes that the communicator's **intentions are other than those declared** and therefore not treating the communication deferentially
- Mostly it consists of **misattribution of intention** and seeing the reason's for someone's actions as malevolent and to be treated with **epistemic hyper vigilance**
- Most important consequence is that the **regular process of modifying stable beliefs** about the world (oneself in relation to others) remains closed


I hear you
but I'm not
listening

Implications: The nature of psychopathology

- **Epistemic mistrust which can follow perceived** experiences of **maltreatment** or abuse leads to **epistemic hunger** combined with **mistrust**
- Therapists ignore this knowledge at their peril
- Personality disorder is a **failure of communication**
  - It is not a failure of the individual but a **failure of learning relationships** (patient is **'hard to reach')**
  - It is associated with an **unbearable sense of isolation** in the patient generated by epistemic mistrust
  - Our inability to communicate with patient causes **frustration in us** and a tendency to **blame the victim**
  - We feel they are not listening but actually it is that they find it **hard to trust** the truth of what they hear

Openness to the (social) environment is usually adaptive…

Openness to the (social) environment is usually adaptive…

Openness to the (social) environment is usually adaptive…

…but so is hypervigilance under certain circumstances

Epistemic hypervigilance

High ‘P’ factor/ absence of expected resilience

Epistemic trust

Resilience/ low ‘P’ factor

Building a social network in adolescence

When the capacity to form bonds of trust is shaky and tends to break down…

…we lose our safety net

Reconceptualising BPD: understanding not in terms of disease mechanisms…

…but as an absence of expected resilience or lack of epistemic trust…

…which may once have been adaptive

Implications for understanding how treatment 'works'

How can we overcome the therapeutic impasse?

You're not listening to me! If you're still not better, you have only yourself to blame!

How can we overcome the therapeutic impasse?

I feel so alone. I can hear the things you're saying perfectly well. I just don't know if I can take the risk of believing them.

Evidence based or promising treatments

Psychotherapy for BPD

- A range of structured treatment programmes for BPD shown to be effective in studies
  - DBT
  - TFP
  - SFT
  - CBT
  - SPT
  - DDP
  - CAT
  - GPM
  - CMT
  - MBT

- But do they work for the reasons the developers suggest?

What happens when you ask a room of psychotherapists whose approach is the most effective?

What can be done to end this unseemly behaviour?

Can we do any better than agreeing with the Do Do Bird?

"Everybody has won, and all must have prizes."

The DoDo bird sounds like a pigeon

If we can’t do better than say everything works than my career as a treatment developer is over and I might as well turn into a DoDo bird!

Oh dear! Better come up with an answer quick!

The paradigmatic common factor is…

“Can we pull a rabbit out of a hat here?”

!!


Mentalize!
MakeAGIF.com

How do you think your audience might be feeling right now?

Bored

Sleepy

Is it time for coffee yet?

Fonagy should write a new talk

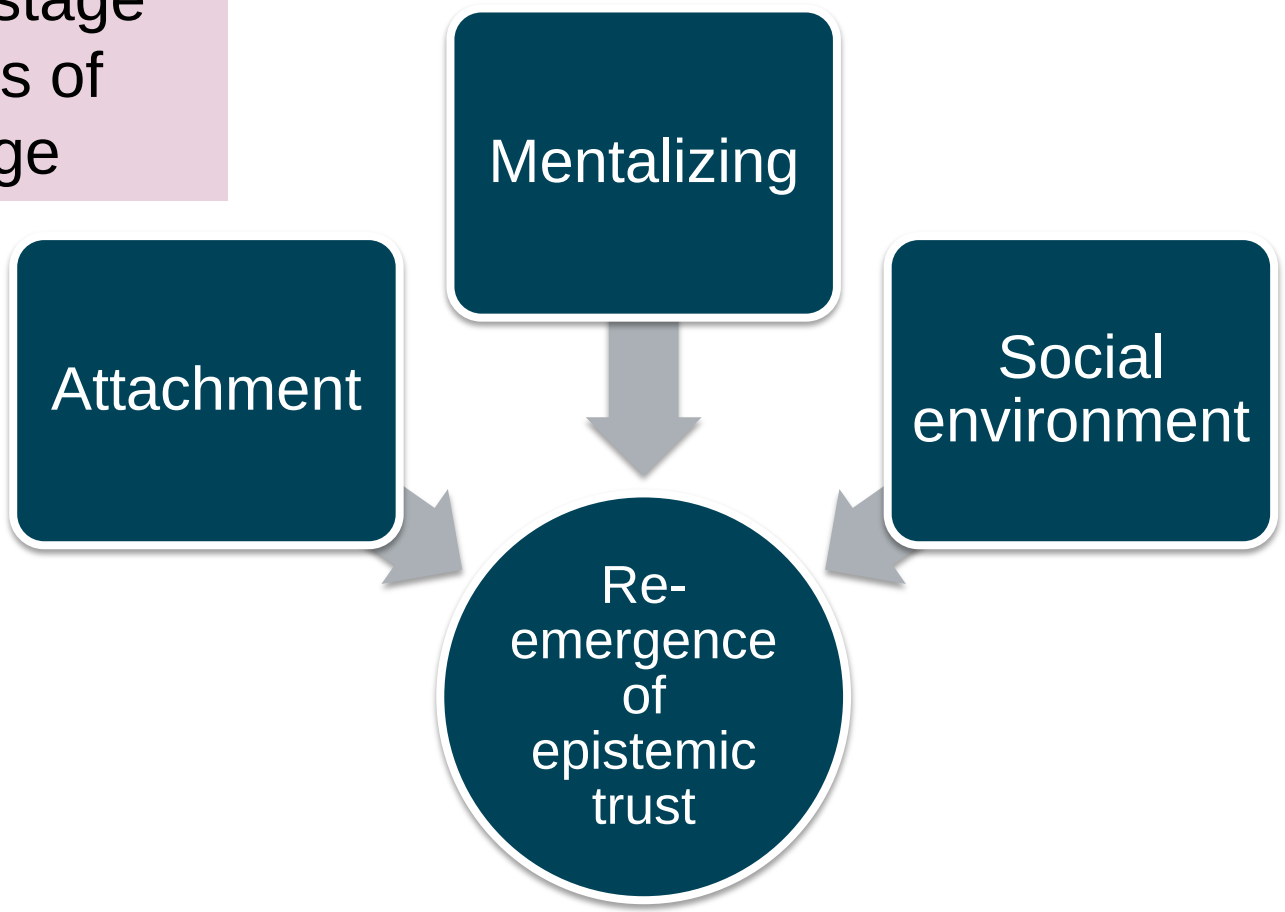
Psychotherapists listening to an account of mentalizing as the effective component of all therapies

Time for a change?

Implications for treatment development

The theory of epistemic trust as the underlying structure of psychopathology implies a new psychotherapeutic driving force: (re)opening epistemic trust to allow for social (re)learning

A three-stage process of change



Three stages of a cumulative process that makes psychotherapy effective

Communication System 1

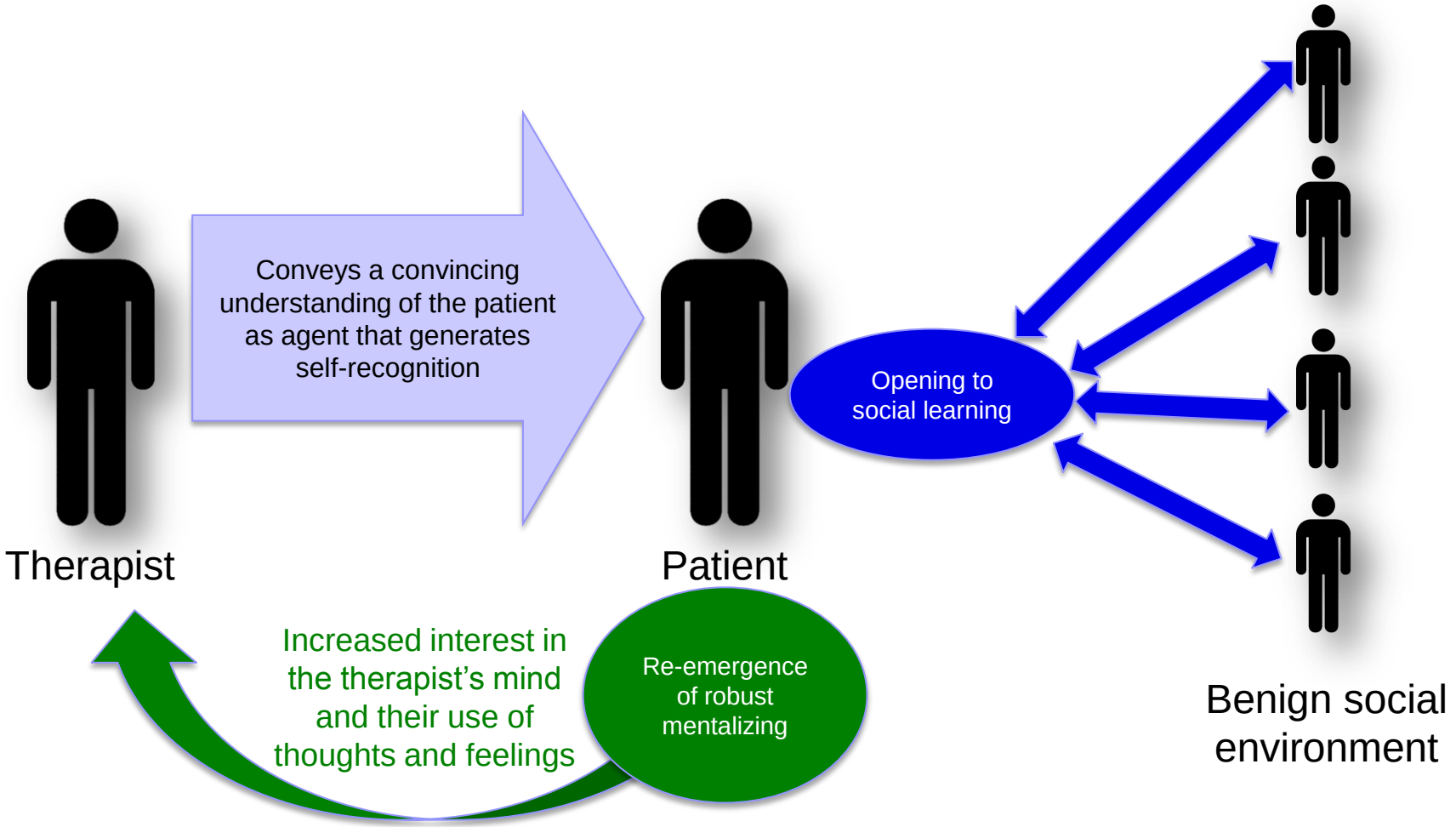
Content

Communication System 2

Epistemic trust in psychotherapy

Communication System 1

Generalisation of epistemic trust



Role of Mentalizing in Learning in Therapy

*All evidence based models **present models of mind**, **disorder** and **change** that are **accurate**, **helpful** to patients and increase capacity for understanding but **need to get over** epistemic **hypervigilance** ('not true', 'not relevant to me')*

- **Mentalizing** interventions demand **collaboration** (working together)
  - Seeing from **other's perspective**
  - Treating the **other as** a **person**
  - **Recognizing** them as an **agent**
  - **Assuming they** have things to **teach you** – since mental states are opaque
  - Responding **contingently** to a patient

Mentalizing is the **catalyst** to activate effective ingredient of therapy

Communication System 1:

The teaching and learning of content

- The first stage of any effective treatment involves the transmission of **substantive content** to the patient:
  - Their psychopathological **state**
  - **Coherent and credible** for the patient to accept
  - Personally **relevant**
  - Patient recognised as an **agentive self**
- Besides the content, this stage is a subtle and **rich** process of **ostensive cueing**.
  - Therapist **must mentalize** the patient **to** find **and transmit content** that is **personally relevant** to them

The content provides valuable ways for the **patient to** understand (**mentalize**) **themselves** and their **reaction to others**

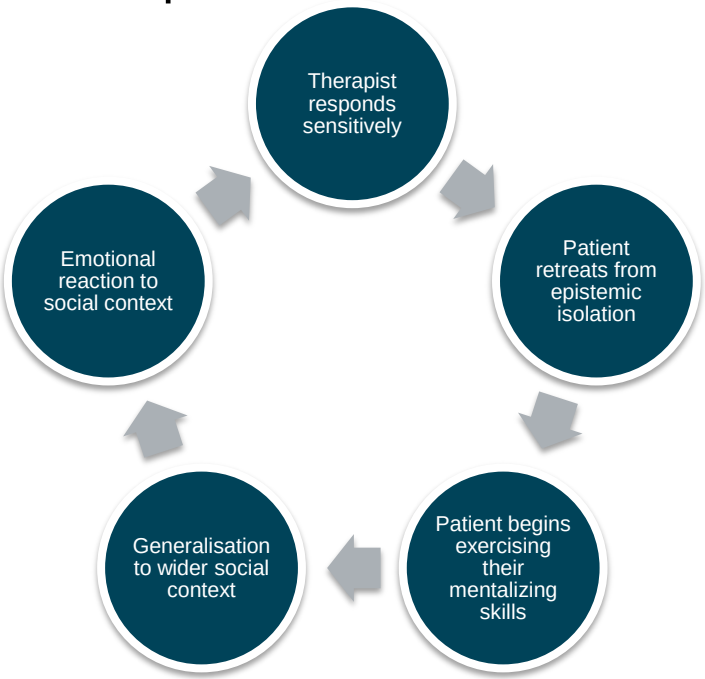
The process of transmission involves the patient **recognising the truth and relevance** of the content: **relaxation of epistemic mistrust**

Communication System 2:
The re-emerging of robust mentalizing

- Constant **mentalization** of the patient **by** the **therapist**
  - **Recognising** the patient as an **agentiveness of** patient's **self**
  - **Marking** the patients **experiences** acknowledging the **patient's emotional state**
  - Use **ostensive cues** to denote:
    - **Personal relevance** of the transmission
    - **Generalisable** social value of the transmission
- By mentalizing the patient effectively, the therapist models mentalization:
  - Open and **trustworthy environment**
  - **Low arousal**

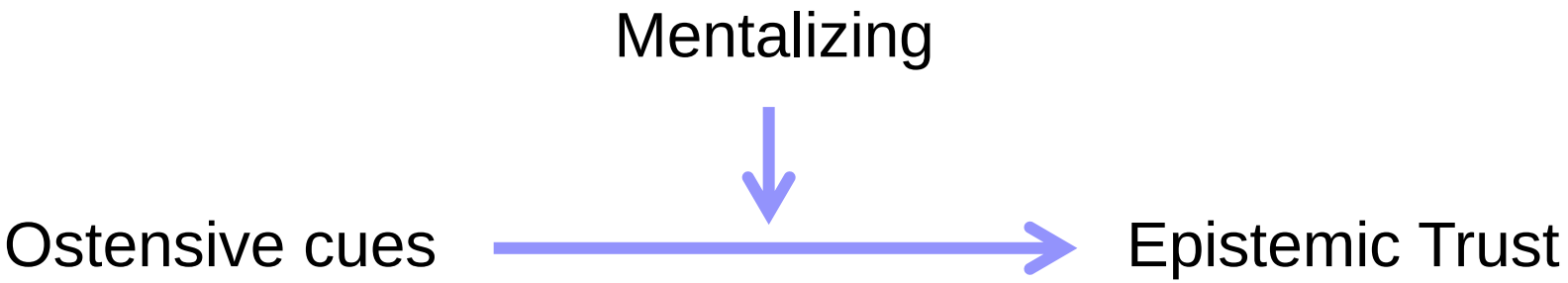
This must be understood as a complex, **non-linear progression**

A **virtuous cycle** is put in motion:



Improving **mentalizing** is **not** the **main goal** of therapy, but it enables the patient to **learn from** their **wider** social **context**

Why patients with high capacity for mentalizing improve more in psychotherapy?



Mentalizing moderates the impact of therapeutic communication because ostensive cues of the therapist are frequently erroneously interpreted by a poorly mentalizing individual and epistemic trust is not established.

With improved mentalizing the communication of the therapist is appreciated and accurately interpreted as to be trusted and has the intended influence on the patient

The mentalizing stance in therapy

(Bateman & Fonagy, 2006)

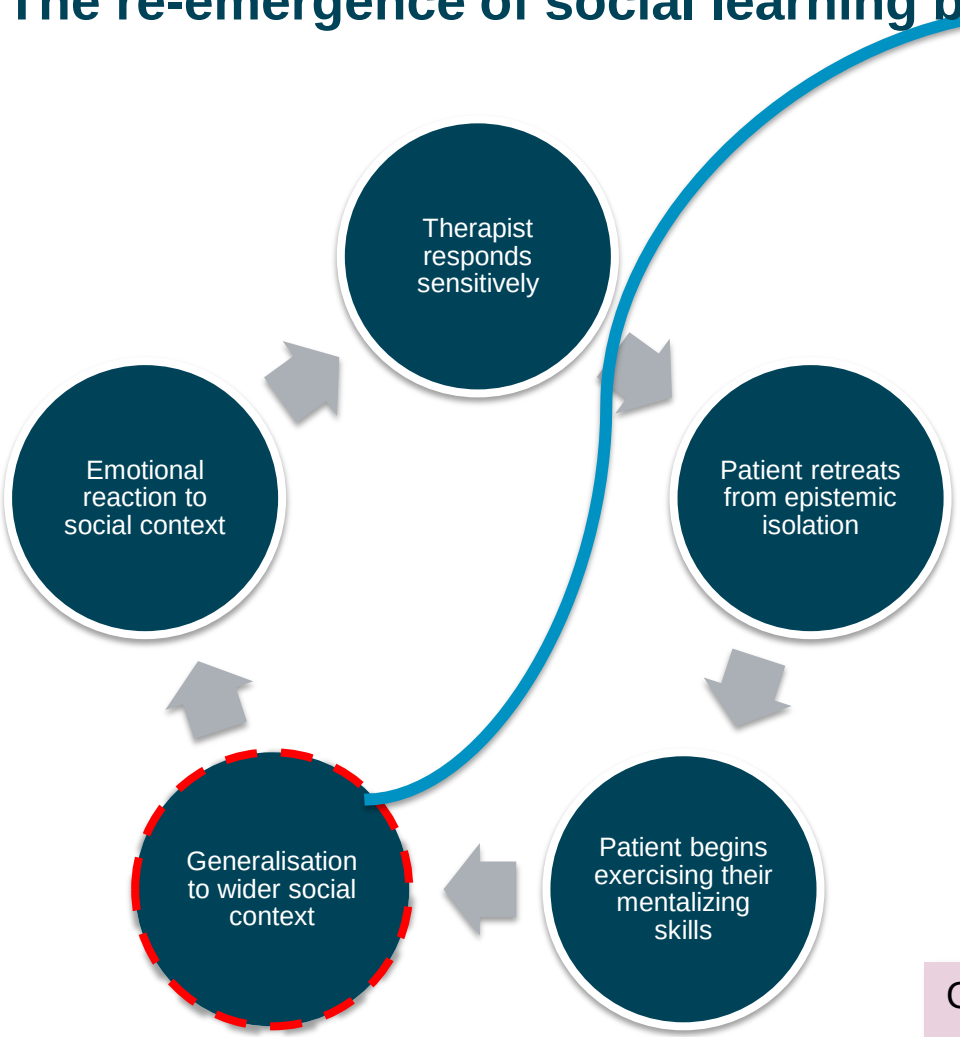
- The **mentalizing** stance **entails epistemic trust**
  - nonjudgmental **inquisitiveness**, curiosity, open-mindedness, uncertainty, **not-knowing**, and interest in understanding better (Allen et al., 2008, p. 183).
  - **Benevolence,** acceptance, respect, and **compassion** are implicit in the mentalizing stance (Allen, 2013a; Allen et al., 2008).
- Moreover, fostering epistemic trust entails **transparency** on the part of the **therapist**.
  - "The patient has to find himself in the mind of the therapist and, equally, the therapist has to understand himself in the mind of the patient if the two together are to develop a mentalizing process. Both have to experience a mind being changed by a mind" (Bateman & Fonagy, 2006, p. 93).

Mentalizing, epistemic trust and psychotherapy
(Fonagy, Luyten & Allison, 2015)

- The very experience of having our subjectivity **understood**—of being mentalized—is a necessary **trigger** for us to be able to **receive and learn form** the **social knowledge** that has the potential to change our perception of ourselves and our social world
- The **gift of a mentalizing** process **in psychotherapy** is to open up or **restoring** the patient's **openness** to broader **social influence**, which is a **precondition for social learning** and healthy development at any age (Allen & Fonagy, 2014; Fonagy & Allison, 2014)**.**
- The **greatest benefit** from a therapeutic relationship comes from **generalizing epistemic trust beyond therapy** such that the patient **can continue to learn** and grow from other relationships.

Communication System 3:

The re-emergence of social learning beyond therapy



- Improved epistemic trust
- Robust mentalizing
- Less rigidity in social interactions
- Accumulation of benign social experience
- Growing robustness of mentalizing capacity

Generalisation of social learning is highly contingent on the environment being largely benign

THE SOCIO-ECONOMIC ENVIRONMENT DOES BUFFER THE INDIVIDUAL PSYCHE

The general increase in Epistemic Trust

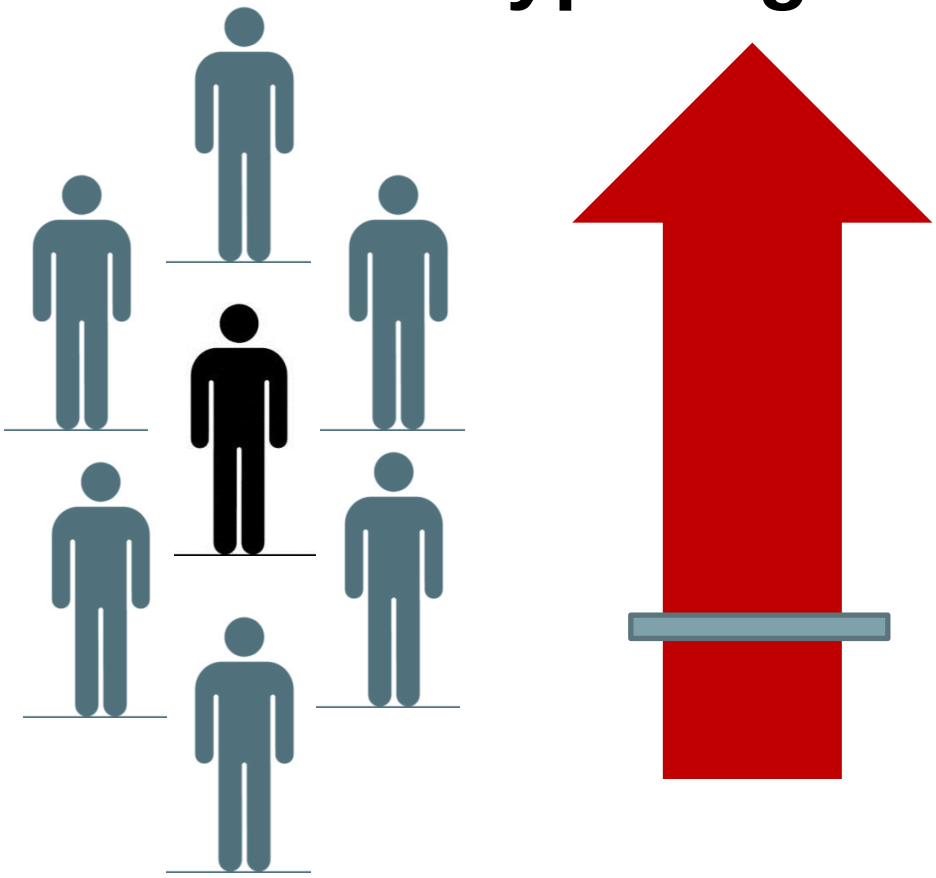
- Therapy is not just about the **what** but the **how of learning:**
  - **Opening the person's mind** via establishing **epistemic trust** (**collaboration**) so he/she can once again trust the social world by changing expectations
  - It is **not just what is taught** in therapy that teaches, but the evolutionary **capacity for learning from social situation** is rekindled
  - Therapy interventions are effective because they open the person to **social learning experience** which feeds back in a virtuous cycle

Communication System III: Beyond therapy

- Enhanced mentalizing **achieves improved social relationships**
- Improved epistemic trust/abandonment of rigidity **enables learning from experience**
- But **change** is probably **due to** how a person uses their **social environment**, not to what happens in therapy
- **Benefit** remains **contingent on what is accessible** to patients in their particular social world
- *We predict that psychotherapy is more likely to* ***succeed if*** *the individual's* ***social environment*** *at the time of treatment is by and large* ***benign***

Expanding to cover the need for supporting the therapists and consultation

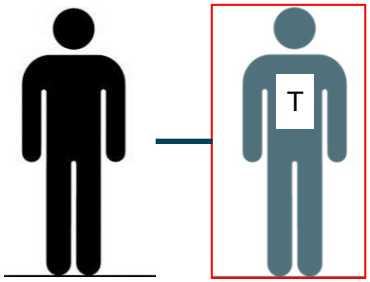
Epistemic hypervigilance



ADAPTATION = adaptation to a particular social context

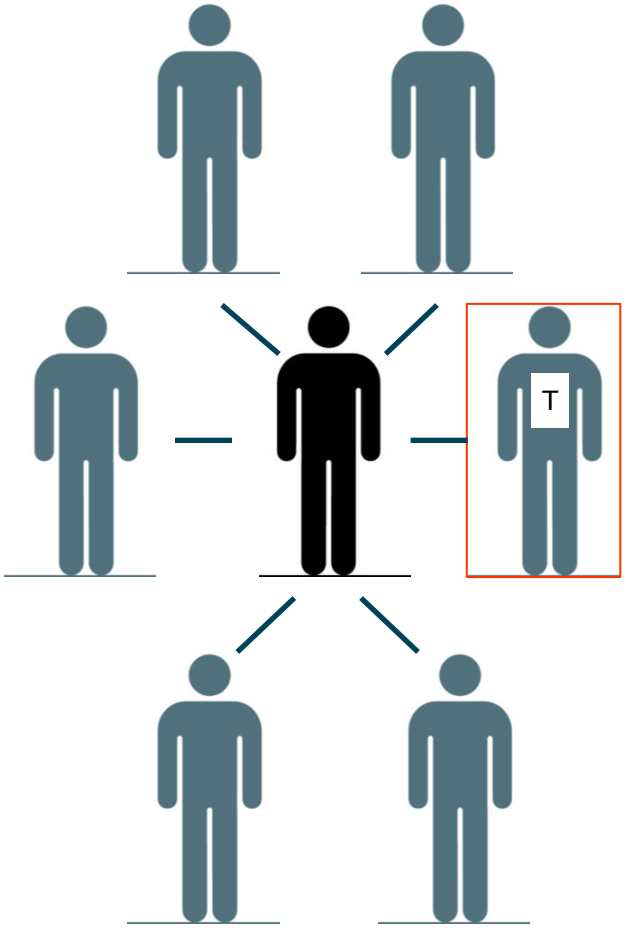
Epistemic trust

Traditional therapeutic model



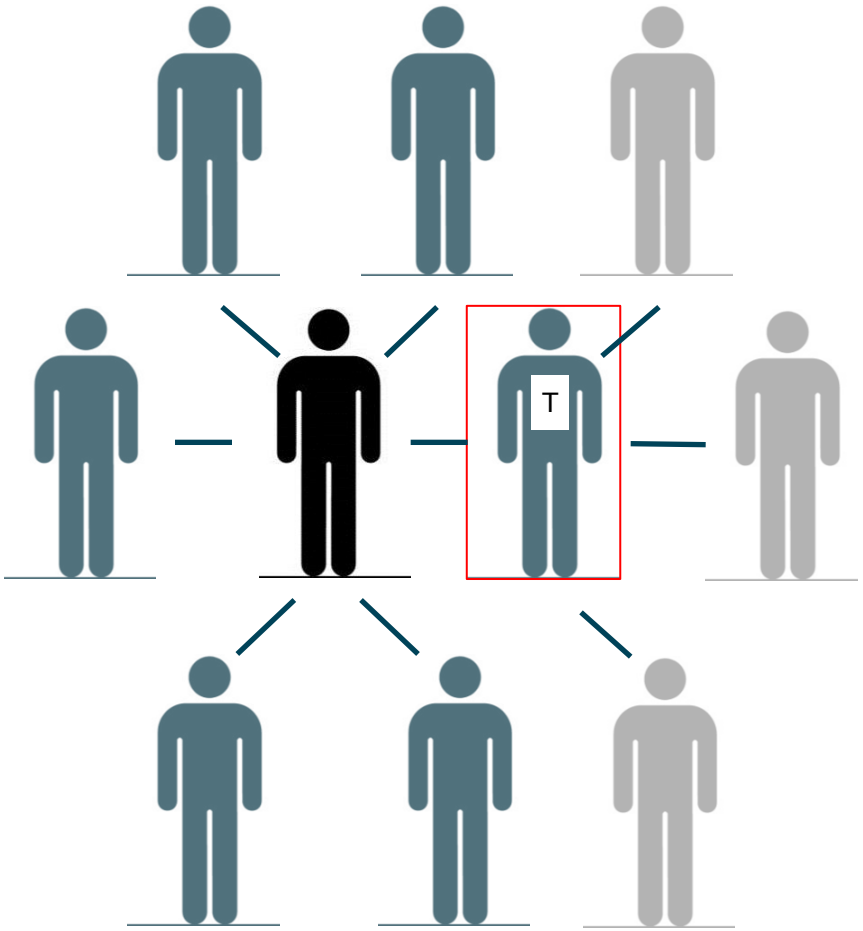
Patient and therapist are **isolated** in a room

Traditional therapeutic model



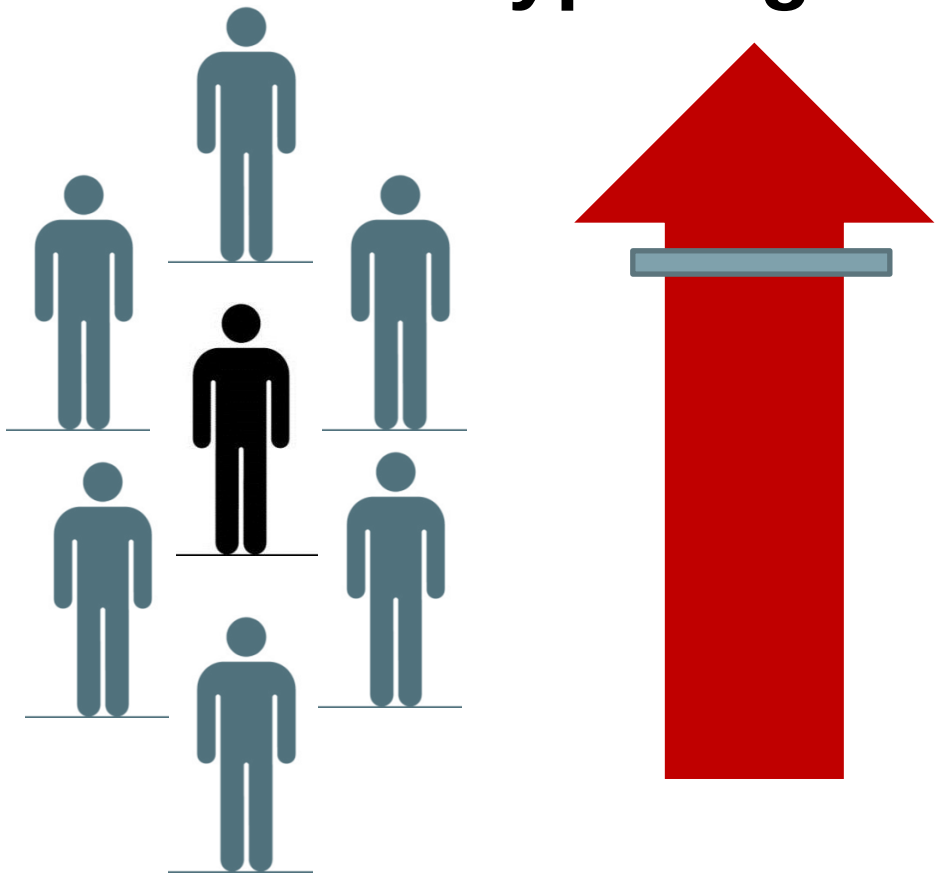
But the reality is that the therapist becomes **part** of the patient's (**dysfunctional**) **social system ➔ systemic** intervention may be required to address this

Systemic intervention



The therapist requires their **own system of support** relationships with other clinicians in order to **scaffold** their **capacity** to **mentalize** and facilitate epistemic trust

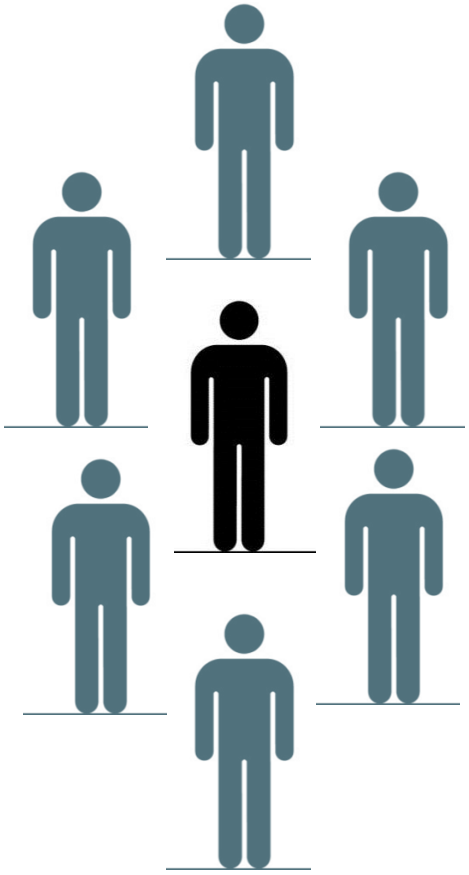
Epistemic hypervigilance

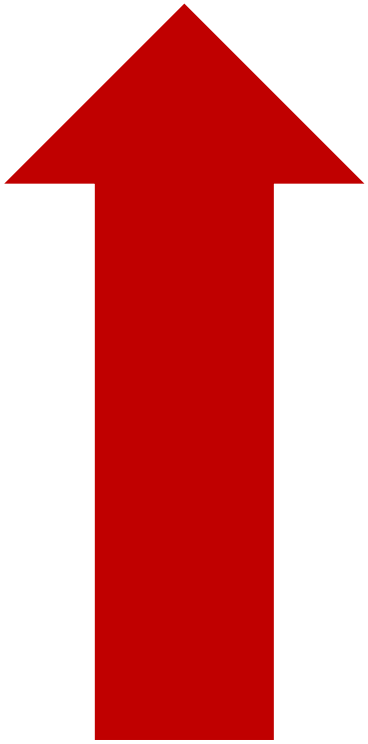


From individual to systemic approach: **AMBIT**

Epistemic trust

From individual to systemic approach: AMBIT





ADAPTATION = adaptation to a particular social context

Epistemic trust

Thank you for bearing with my meanderings!

And once again the slides:

P.Fonagy@ucl.ac.uk