HYPERMENTALIZING IN BPD: A MODEL AND SOME DATA

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Borderline Personality Disorder

- Emotion (e.g. anger, affective instability)
- Interpersonal (e.g. unstable relationships and abandonment fears)
- Cognitive (e.g. dissociation)
- Behavioral (impulsivity, self-harm)

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Aims of the talk

- Interpersonal relationships in BPD
- Empirical support for social-cognitive basis of BPD
  - Emotion recognition
  - Mentalizing (theory of mind)
- Model
  - New model to guide research and clinical work in BPD

Interpersonal relationships in BPD

- "Stop walking on eggshells"; "I hate you – don't leave me".
- Greater number of breakups (Labonte & Paris, 1993).
- Impairment in social relationships (Skodol et al., 2002).
- Lower marital satisfaction (Bouchard & Sabourin, 2009).
- Prospective (CIC; Chen et al., 2004): more impairment in social relationships as indicated by increased frequencies of conflicts with parents, friends and siblings.
- Children: hostile attribution biases; enmeshment with best friends (Crick et al., 2005).
- Greater number of breakups and conflicts in romantic relationships (Daley, Burge, & Hammen, 2000).
- Higher levels of dating violence (Reuter, Sharp & Temple in press).

Interpersonal relationships in BPD

- #1: Frantic efforts to avoid real or imagined abandonment
- #2: A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluations
- #3: identity disturbance manifests itself most often in situations in which an individual feels a lack of a meaningful relationships, nurturing and support
- #4: impulsivity includes unsafe sex and anger outbursts in the context of relationships
- #5: suicidal behaviors often precipitated by threats of separation or rejections
- #6: affective instability criterion reflect the individual's extreme reactivity to interpersonal stresses
- #8: anger often elicited when a caregiver or lover is seen as neglectful, withholding, uncaring, or abandoning

Emotion recognition in BPD

- Alterations in emotion recognition in adults
  - Negative emotions
  - Verbal descriptions of others' mental states (Bland et al., 2004)
  - Error patterns in facial recognitions (Wagner & Linehan, 1999)
  - Morphing studies (Domes et al., 2008)
  - Multimodal studies (Minzenberg et al., 2006)
- Alterations in emotion recognition in adolescents
  - Attentional bias to negative faces (Von Ceumern-Lindenstjerna et al., 2010)
  - Slower at identifying change for anger and happiness in morphing task (Robin et al., 2012)
- Enhanced emotion recognition
  - Quicker to identify change in morphing task (Lynch et al., 2006)
  - Enhanced learning over the course of morphing experiment (Domes et al., 2008)
  - Increased accuracy in identifying emotional content of videos (Frank et al., 1986)
  - Superior mental state discrimination (Fertuck et al, 2009)
  - Equivalence in ability to use facial expression to guide social decision making (Franzen et al., 2011)
- No differences in emotion recognition
  - Adults (Frick et al., 2012,; Minzenberg et al., 2006)
  - Adolescents (Jovev et al., 2011)

Conclusions: emotion recognition

- Negative bias or hypervigilence for negative emotion
  - Not specific to social stimuli
  - May not be specific to BPD (depression not controlled for)
  - Associated with enhanced amygdala responses, and reduced OFC and PFC function (Donegan et al., 2003; Minzenberg et al., 2007; Frick et al., 2012)
- More complex tasks distinguishes BPD
  - Minzenberg: Facial vs prosodic (the aspect of speech that communicates meaning by variation in stress and pitch independent of lexical and syntactic content) vs integrated facial/prosodic stimuli
  - Dyck: untimed vs. timed
- High arousal

Mentalizing/theory of mind

- Evidence in support of mz deficits
  - Faux pas task and empathy: impairment in cognitive but not affective ToM/empathy (Harari et al., 2010)
  - MASC: impaired mz for complex mz (Preissler et al., 2012)
- Evidence against mz deficits
  - Happe's Advanced Test of ToM: no deficits (Arntz et al., 2009)
  - Eyes Test: no impairment (Schilling et al., 2012; Fertuck et al., 2009)
  - Cartoon test of sorting social interactions: comparable performance (Ghiassi et al., 2010)
  - Simulated multi-round trust task in which fairness and emotional expression was manipulated: both BPD and non-patients make use of facial expressions to guide decisions. BPD patients ignore behavior-incongruent facial expression when offers are low → superiority because they are not "fooled" by experimental manipulation (Franzen et al., 2011)

Conclusions: mentalizing

- Findings somewhat echoes emotion recognition findings
- Complexity of tasks: lack of integration between implicit (non-reflective) and higher-order (more reflective) mz (Fonagy & Luyten, 2009)
- No ecological validity – Franzen's study has most ecological validity but fails to demonstrate deficits
- Deficits appear only under conditions of high arousal
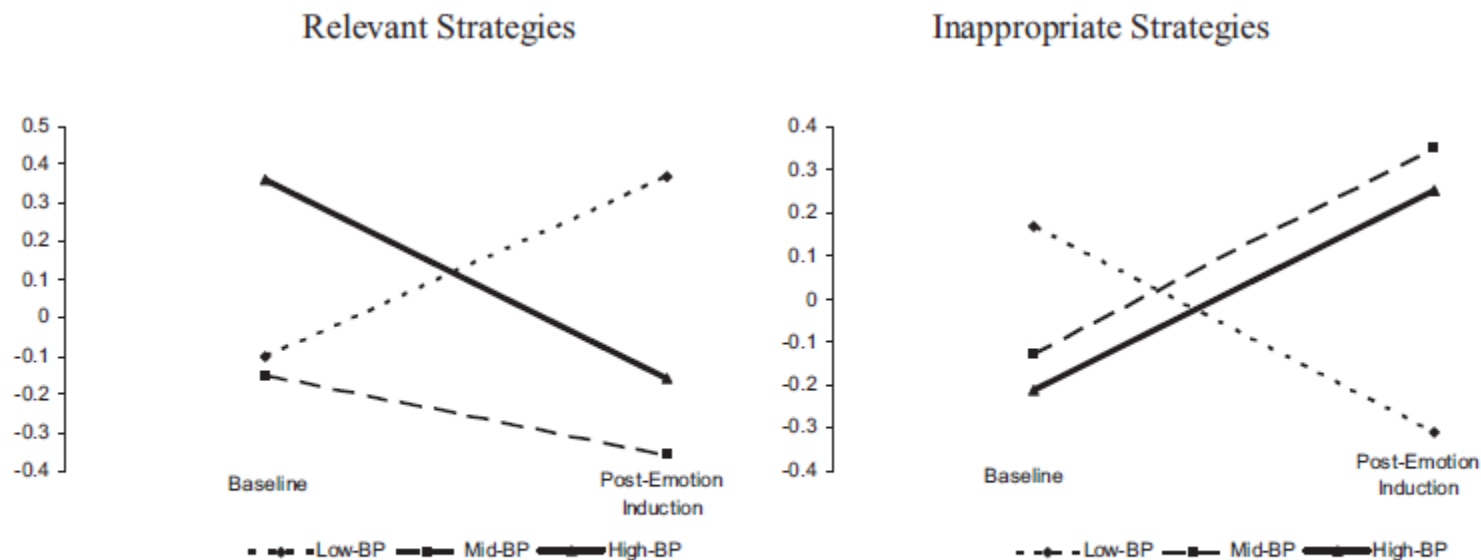- E.g. Dixon-Gordon et al (2011):

Figure 2. Scores on Relevant and Inappropriate scale means at baseline and postemotion induction for high-borderline personality (BP), mid-BP, and low-BP groups.

So….

- Findings are inconsistent
- Are individuals with BPD good mindreaders or not?
- Why do they sometimes appear to be good mentalizers or mindreaders and other times they do not?
- Could it be that they are good mindreaders, but that their mindreading is altered in some way?

Sample

- N = 111 (62 girls; 49 boys)
- Mean age 15.5
- Psychiatric characteristics
  - 80% mood disorder
  - 52% anxiety disorder
  - 24% externalizing disorder
  - Modal number of disorders = 2
  - 48% above cut-off for internalizing (YSR)
  - 37% above cut-off for externalizing (YSR)
  - 23% (n = 24) met criteria for BPD (CI-BPD)

The MASC (Dziobek et al)

You will be watching a 15 minute film. Please watch very carefully and try to understand what each character is feeling or thinking.

Now, you will meet each character.

This is Sandra

This is Betty

This is Cliff

This is Michael

Sharp, et al. (2011). *JAACAP*

You will be watching a 15 minute film. Please watch very carefully and try to understand what each character is feeling or thinking.

Now, you will meet each character.

This is Sandra

This is Betty

This is Cliff

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The film shows these four people getting together for a Saturday evening.

The movie will be stopped at various points and some questions will be asked. All of the answers are multiple choice and require one option to be selected from a choice of four. If you are not exactly sure of the correct answer, please guess.

When you answer, try to imagine what the characters are feeling or thinking at the very moment the film is stopped.

Clip A from Scene 1:

A young and attractive woman named Sandra opens the front door.

Clip B from Scene 1:

Upon opening the door, a man, who looks to be around the same age as Sandra, enters the house.

Clip C from Scene 1:

Before she can answer, he tells her that she looks terrific. He asks whether she did something with her hair.

1. What is Sandra feeling?

a. her hair does not look that nice

b. she is pleased about his compliment

c. she is exasperated about Michael coming on too strong

d. she is flattered but somewhat taken by surprise

Clip D from Scene 1:

Sandra touches her hair and starts to say something but the young man compliments her by telling her that her hair looks very classy.

The movie then stops and subjects are asked to answer the following question:

Sharp, et al. (2011). *JAACAP*

Mentalizing and borderline traits

	Age	BPFSC	Int	Ext	YPI	Tot ToM	Ex ToM	No ToM	Less ToM	DERS
Age	1.00	-								
BPFSC	-.03	1.00								
Int	.11	.53**	1.00							
Ext	.07	.60**	.35**	1.00						
YPI	.13	.36**	.26*	.61**	1.00					
Tot mz	.27**	-.22*	-.03	-.12	.06	1.00				
Hyp mz	-.25**	.41**	.25**	.27**	.16	-.78**	1.00			
No mz	.02	-.08	-.13	-.03	-.04	-.38**	-.02	1.00		
Less mz	-.14	-.13	-.29**	-.16	-.33**	-.49	.04	.17	1.00	
DERS	-.02	.75**	.62**	.48**	-.32**	-.11	.25**	-.09	-.09	1.00

Definition

- Excessive theory of mind (Dziobek et al., 2006)
- Social-cognitive process that involves making assumptions about other people's mental states that go so far beyond observable data that the average observer will struggle to see how they are justified (Sharp et al., 2012).
- Due to confusion between self-and other-mental states: overactive and exaggerated resonance with the other's mental states in BPD.
- Overattribution of mental states to others and their likely misinterpretation.
- For example (Sharp et al. 2012): person A invites person B to dinner, but B replies hurriedly that she is unavailable because she has a prior engagement. A then assumes that B does not want to spend time with her because of a minor incident of misunderstanding that she recalls from several years ago, where A did not turn up for B's birthday party. A then generates a complex narrative about B's "overreaction" and her apparent "inability to forgive".
- This is referred to this as hypermentalizing because A was using mental states to explain B's actions, but overattributed mental states that were unlikely to be real, and more reflective of A's own mental states at the time of the original misunderstanding.
- Fourth, fifth and sixth order theory of mind!
- That hypermentalizing is the ONLY type of mz that relates to BPD traits when all types of MZ is considered points to a model of hypermentalizing for BPD.

Sharp, 2014
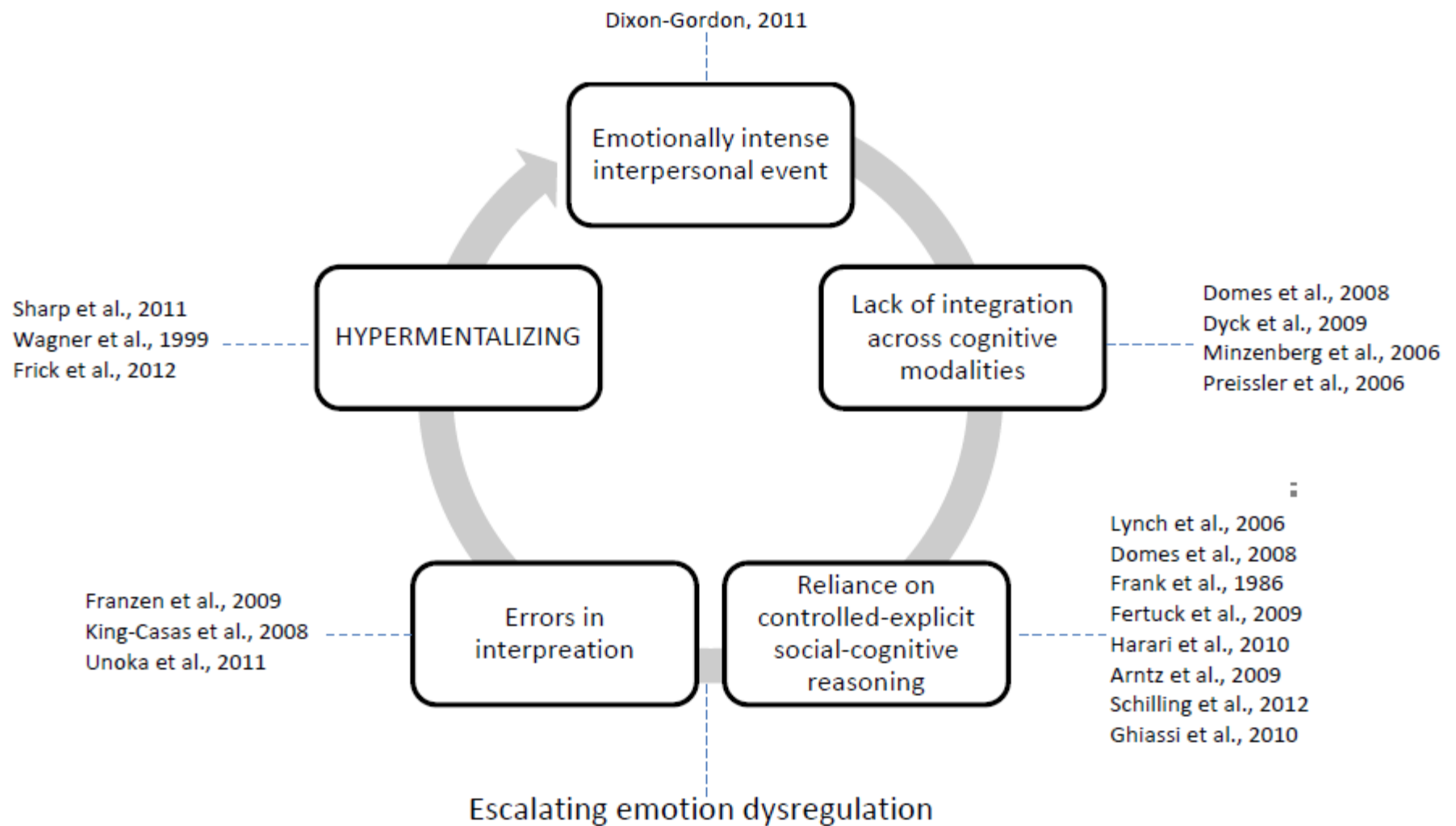
The optimal mentalizer

- Maintains executive control over integrated cognitive processing during emotionally intense interpersonal interactions.

- This allows the individual to move fluidly between automatic-implicit and controlled-explicit social-cognitive processing as demanded by the situation.

- Able to adaptively modify social-cognitive processing in a contextually appropriate manner that maximizes fitness with environmental demands, thereby reducing errors in interpretation.

- In BPD, this means turning the dial down, not up!

But why hypermentalize?

Overactive and exaggerated resonance with the other's mental states in BPD

HYPERMENTALIZING

Future research

- Origin of hypermentalizing
- A developmental focus is needed
  - When does this style emerge?
  - Whether and how it changes over development?
  - Do social-cognitive variables interact with developmental transitions to increase or decrease the risk for BPD?
  - Temporal stability of hypermentalizing?
  - Gender differences?
- Individual differences in adolescence may be particularly important as these capacities mature during adolescence
- Hypermentalizing may be only weakly predictive of BPD, but may predict core components of BPD e.g. EF and ER.
- Interaction with environmental factors
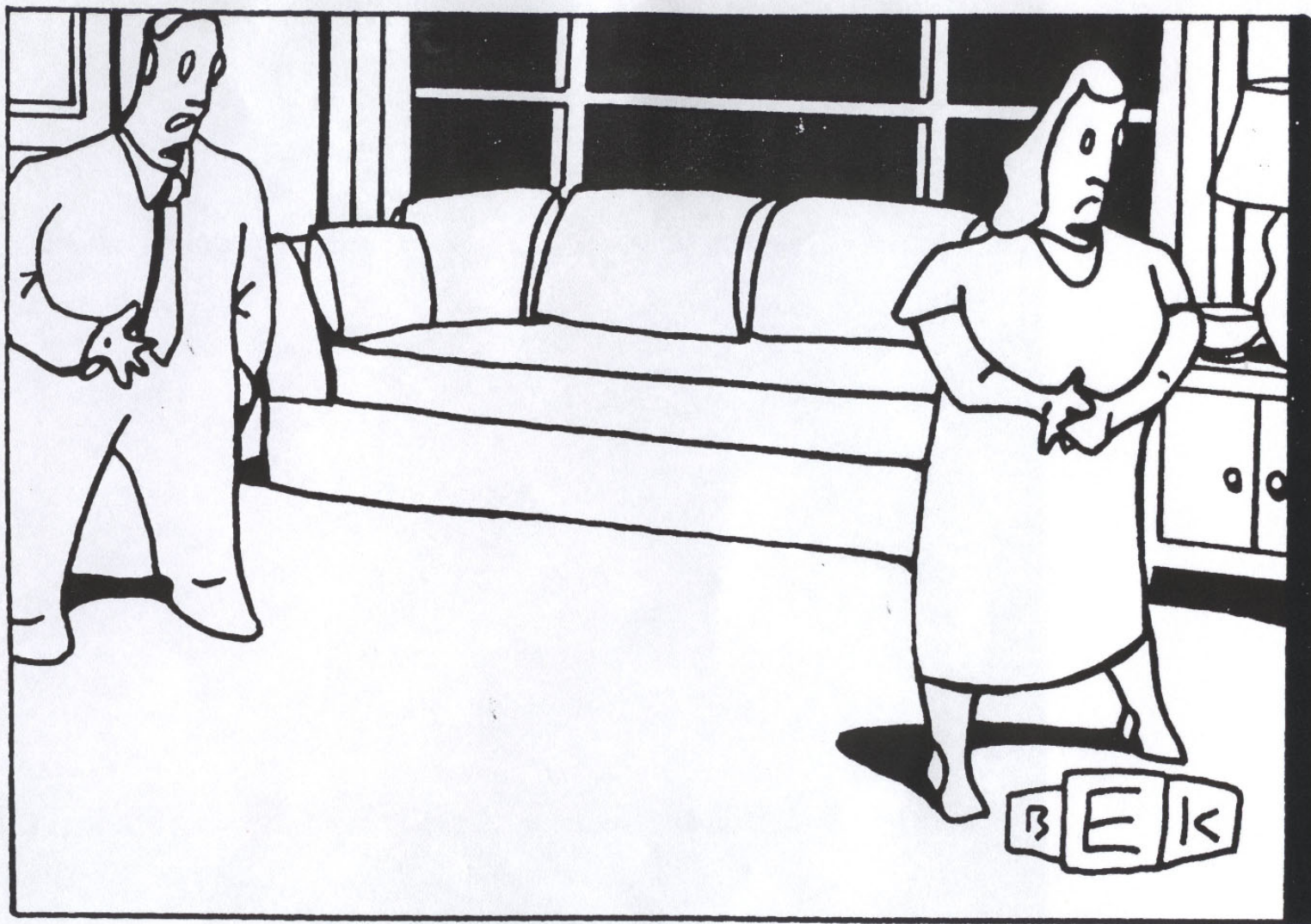
"Of course I care about how you imagined I thought you perceived I wanted you to feel."