



The ATP-G3 team

Director ATP-G3 study Craig Olsson

\*\*

Generation3



Management attachment data collection
 Evelyn Tan, Jessica Opie
 Attachment and Caregiving Coding
 Rebecca Knapp, Evelyn Tan, Jessica Opie, Anna
 Booth, Sharyn Bant, Mariel McClure, all current
 and past members of the ATP-G3 MAC Lab
 Data Analyses and Meta-analytic research
 Christenkor Corevised

 Christopher Greenwood, Alexandra Schnabel, George Youssef, Jessica Opie, Emily Kothe Epigenetic studies
• Joanne Ryan, Catherine Maud

Clinical case analyse

Eliza Hartley, Caitlin Bishop, Genevieve Le Bas, Alexandra Schnabel, Claire Lubotsky, Nicola Read

The ATP-G3 CATI team & the ATP Consortium



Both are heavily associated with infant attachment disorganization.

Without question....





Infant attachment disorganisation is associated with significant developmental deviations

In infancy Neuro-biological, epigenetic and molecular variations In later childhood

Poor social-emotional & relational competence In adulthood

Far higher prevalence personality disorders Stress related effects on health

(Beeney et al., 2017 ; Carlson, 1998; Forbes, 2009; van ljændoorn, Schuengel, & Bakermans-Kranenburg, 1999;Weinfield, Whaley, & Egeland, 2004)

#### Disorganised attachment

Behavioural incoherence in the infant, in interaction with a caregiver, during moments of key need

 bizarre or inexplicable behaviours under the circumstances.

These behaviours impede the achievement of the very thing they need: protection from threat and fear.

Thought to represent the subjective experience of *"fear without solution"*.



#### Genesis in the disorganised caregiving system

Parents "unresolved/disorganised" state of mind re loss/abuse

- Interference from enduring frightening emotion or ideation .
- Aarked by interactions that are
  punitive, hostile, confrontational, controlling,
  submissive or constrictive, timid, dissociated
  disruptive, conflict laden, or anomalous

- disengaged, passive, role-reversed
  frightening/threatening, frightened

And by subjective experiences of helplessness and/or hostility

(Britner, Marvin & Pianta, 2005; George and Solomon 2008/2011, Hesse & Main, 1999, 2000, 2006; Humber & Moss, 2005; Lyons-Ruth, Yellin, Melnick, & Atwood, 2005; Macfie et al 2008; Main and Hesse 1990; van Izendoorn, 1995)



Disorganised attachment in the general population vs clinical samples

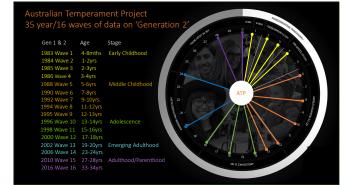
## Today:

- 1. Australian intergenerational attachment research
  - a) The Australian Temperament Project (ATP) Generation 3 Study
- b) ATP-G3 MAC Lab (Melbourne Attachment and Caregiving Lab)
- 2. Attachment security and disorganisation
- a) Calibrating to early relational security
  b) Calibrating to early relational confusion, or trauma
  c) Calibrating to disorganising caregiving
- 3. Lifecourse pathways toward infant disorganisation
  - a) New meta-analytic findings
  - b) New ATP-G3 findings
- c) Variations with disorganisation type and etiology
- 4. Toward disorganisation in Generation 3: 35-year case studies from the ATP-G3
- 5. Universal detection of, and response to, early relational disorganisation
- a) The MERTIL project

### Now:

- 1. Australian intergenerational attachment research a) The Australian Temperament Project (ATP) Generation 3 Study
  - b) ATP-G3 MAC Lab (Melbourne Attachment and Caregiving Lab)







#### Our homes: Royal Children's Hospital & Deakin University

- Our lab work

   • Running SSP assessments at 1 & 4 and the AAI
   Gaining reliabilities in gold standard methods
   (each 200-450 hours of study)

   • (each 200-450 hours of study)
   Micro-coding of attachment and caregiving

   • Maintaining External reliability: Judith Solomon, Bob Marvin

 Our teaching

 • Providing training in attachment and caregiving assessment

 • Extensions into translational work

 • First Australian Infant Attachment Reliability Program – 2019

#### The MAC Clinic - 2019



The ATP-G3 Melbourne Attachment & Caregiving Lab Director Prof Jennifer Maintosh Managers Evelyn Tan and Jessica Opie





The MAC Lab....What's in a name?



# Now:

- 2. Attachment security and disorganisation
- a) Calibrating to early relational security
  b) Calibrating to early relational confusion, or trauma
  c) Calibrating to disorganising caregiving

#### Attachment

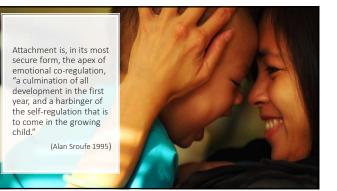
A <u>unique</u> **emotional** bond between infant and care-giver, powered by a bio-behavioural system

#### Why attachment?

- Evolved with the *express* purpose of
- protecting the infant from *fear or* threat real or perceived.
- regulating stress
- promoting joy, delight & exploration

Bowlby (1969/1982) Ainsworth (1978)







#### Seeing the relevant behaviours

Ainsworth's Strange Situation The gold-standard assessment of attachment security for children 1-5 years Designed to illustrate the baby's

- a) attentional shifts in the attachment-exploration balance under stress
   b) strategy for obtaining relief from anxiety/fear and restoring homeostatic readiness for sociability/exploration
   Effective balance of two primary strategies:
- proximity seeking and contact maintaining Vs deployment of secondary strategies: contact resistance and proximity avoidance



The Infant Strange Situation Procedure (Ainsworth) Episode 1: Parent and Baby, Free Play (3 minutes)



Episode 2: Stranger enters, with no interaction for 1 minute...



Episode 3: Then Stranger interacts with parent and then with baby (2 minutes)





Episode 4: Parent leaves and baby is alone with Stranger (up to 3 minutes)



Episode 5: Reunion 1 (3 minutes)



Episode 6: Parent leaves again



Episode 7: Stranger returns, comforts, plays (up to 3 minutes)



Episode 8: 2<sup>nd</sup> Reunion (3 minutes)





# SECURITY

- (from the Latin, se-cur, without worry, care, concern)
- Feelings of being free from harm, not apprehensive about danger (Bowlby, 1975)
   A full range of difficult emotions are felt, held and dealt with, within a securely held environment
   Less susceptible to chronic or intense anxiety and fear

- Sets up confident expectation in relationships
  Significant life-course advantages of a secure start to attachment life.

The white and the black tear. The affective world, in effective balance

Organised secure use of primary strategies...



### Insecure behavioural strategies

Insecure but organised strategies are conditioned, presumably as an evolutionary function of natural selection (Main, 1990)

They are either:

Organised (Avoidant, Resistant)Disorganised



#### Attachment Avoidance

Highly adaptive to care in a restricted emotional range

#### Involves

- Delayed greeting, disinterest- ignoring
- Avoiding shared gaze, not sharing emotionsLittle "interactive spark"
- Tracking the caregiver from a distance
- Minimising display of negative emotion
- Masking their need



#### Attachment Resistance

Highly adaptive to unpredictable or 'timid' care

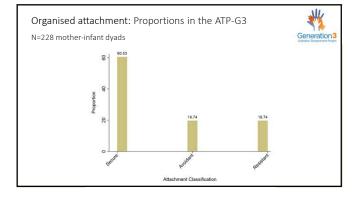
Involves

- Seeking while resisting comfort
- Amplifying need

Lower play/exploratory competence

Upset, subtle angerThe carer can't miss the signal.







# Disorganised attachment

Recall the purpose of the attachment system.

What happens if, in their peak moment of need, the caregiver is both their only source of safety and a threat...

The baby experiences:

Unresolvable confusion or Fear without solution...

The baby is lost in an approach-avoid conflict



# Approach/Avoid confusion





#### The Infant D Indices

- I. Sequential Display of Contradictory Behavior Patterns
- II. Simultaneous Display of Contradictory Behavior Patterns
- III. Attachment Behavior Directed Away from Parent IV. Resistance or Anger Directed Away from Parent or Constricted
- V. Anomalous Behaviors or Postures
- VI. Freezing, Stilling, and Slowed Movements and Expressions
- VII. Direct Indices of Fear or Apprehension Regarding the Parent VIII. Direct Indices of Confusion or Disorientation on Reunion



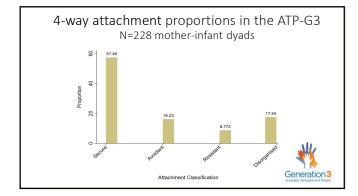
### D Scale (Solomon 2013)

- 1. No signs of disorganization/disorientation.
- 3. Slight signs of disorientation.

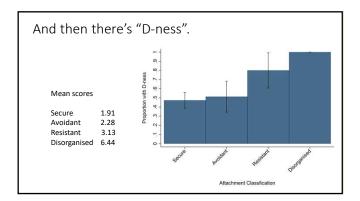
5. Moderate indices not sufficient for D class Cut point for a Classification of Disorganised Attachment = 5.5

7. Definite D attachment status: not extreme.
 9. Definite D attachment status: extreme









# Attachment Continuity and Transition Across Early Childhood: A Meta-Analysis

Jessica E. **Opie**, Jennifer E. McIntosh, Timothy B. Esler, Carol George, Allan Schore, Emily J. Kothe, Evelyn S. Tan, Chris Greenwood, Craig A. Olsson (under review)

Collated 24 studies (**N** = **3422**) Attachment test-retest spanned two+ major developmental periods: Infancy (12-20 months) Toddlerhood (21-35 months) Pre-school (36-53 months)

School entry (54-75 months)	

		0	pic	ctui.	2018	,		
	a Correla	ties (four way)	laura	Austant	Andreader	Designation	Aggregated parties	rea Organized
Print, Catholicad     Ford, Catholicad     Ford, Catholicad     Ford, Catholicad     Ford, Catholicad     Forder, Catholicad     For	angerranger en	hil-init-iti	1 + + + + + + + + + + + + + + + + + + +	, <b>  .</b>	+		4. H. H.	يالك بكسية
No water Hard 2004 Learning of a (2015) Mark Annual Lineary Angel (2015) Mark Annual Lineary Angel (2015) Mark Annual Lineary (2016) Mark (2017) Mark (201	Basiffic B	· · · · ·	11 Here 20	11 11		*		• 1. 1. 1.
Mary Basena, Name of States (States)	Tetterer		÷.	÷.				ini.
Total a second s	Personal Inc.							Hu H
Papellankoud - School entry Stockhool - School entry	77	101 10	101 733			90	144 (72) (4) L (12)	
Anachael - School extry Anacore et al. (Sch) Anacore et al. (Sch) Anacore et al. (Sch) All Made	Nord	in the second			-	-#	- <u>+.</u>	11.0



### Attachment Continuity and Transition Across Early Childhood: A Meta-Analysis

Jessica E. Opie, Jennifer E. McIntosh, Timothy B. Esler, Carol George, Allan Schore, Emily J. Kothe, Evelyn S. Tan, Chris Greenwood, Craig A. Olsson (under review)

#### The good news, and the bad...

High stability of attachment security: 2 in 3 • Suggests security is the normative homeostatic state.

#### Attachment disorganisation stablility: 1 in 3 Rates of attachment disorganisation increase from infancy to school entry • What leads to D pathways?

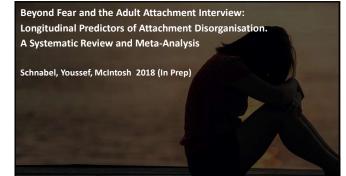
#### Now:

10

- 3. Lifecourse pathways toward infant disorganisation

# a) New meta-analytic findings b) New ATP-G3 findings

- c) Variations with disorganisation type and etiology



# Where does D come from? Meta-Analytic and Systematic Results Meta-analytic Results iable (N) (95% CI) p 2. 2 (125) .28 (.11, .43) <.01

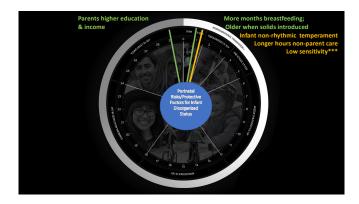
Maternal		25 (35,13)	<.01
intrusiveness	2 (305)	.31 (.19, .42)	<.001
Perinatal loss	2 (126)	.26 (.09, .42)	<.01
Maternal metacognition	3 (329)	23 (33,12)	<.0001
Infant sex^ (Boys)	4 (328)	.26 (.16, .36)	<.0001

#### Systematic Review Results 1. Adolescent mothers; Single parenthood; Lower education Less effective social support networks Elevated PTSD symptoms; Paranoia during pregnancy Low reflective functioning re trauma Pre-natal methadone use Parenting stress; Marital conflict/violence

- Parenting see as, marker connect voltage
   Distressed crying & mother's attitude to crying
   Infant wariness of novelty and fearful faces
- 9. NICU placement at birth
- 10. Less time breastfeeding
- We applied these to the ATP dataset...



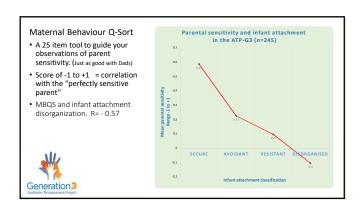
Significant findings for D scale and D classification. ATP-G3 Study

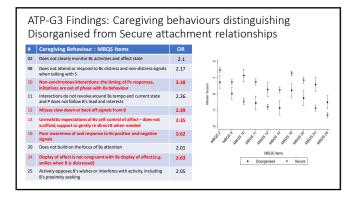


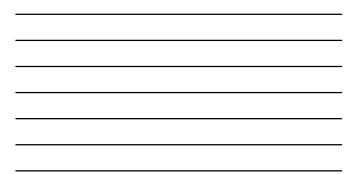


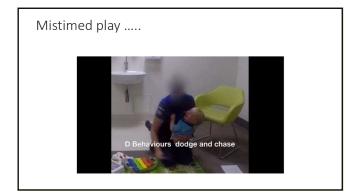
# Where does disorganising care come from? Studies in the ATP-G3 MAC Lab

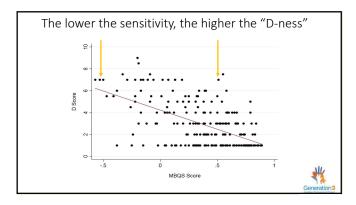








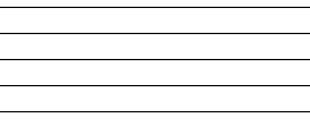






# Different forms of disorganising care?





### Now:

- Australian intergenerational attachment research
- h) ATP-G2 MAC Lab (Melbourne Attachment and Caregiving Lab
- Attachment security and disorganisation
- a) Calibrating to early relational securit
- b) Calibrating to early relational confusion, or tra
- c) calibrating to disorganising caregiving
- Lifecourse patriways toward miant disorga
- b) Now ATD C2 findings
- c) Variations with disorganisation type an
- 4. Toward disorganisation in Generation 3: 35 year case studies from the ATP-G3

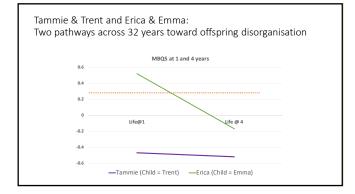
#### ATP-G3 MAC Lab Studies of Disorganisation

Deakin University Clinical Doctoral Students Grounded theory study (Hartley, Bishop, McIntosh) Identified 400 key variables across 35 years to explore pathways to D

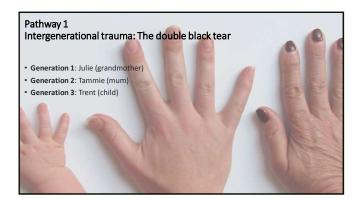
Ethics & Confidentiality (Letcher, Barker) Ethics approval, Consent Obtained All identifying information altered, and cases merged

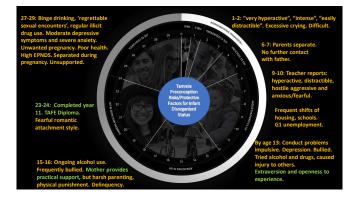
Data extraction (Le Bas and Greenwood)

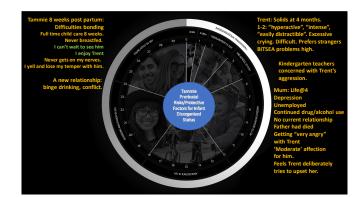
Case Studies (Hartley, Bishop, Le Bas, Schnabel, Lubotzky, Read) • For G3 children with Disorganised attachment classificati by 1 and/or 4 years, what is the intergenerational story?











#### Infant SSP: Separation and Reunion Behaviours

Dys-synchrony and multiple indices of disorganized response. Attachment classification: D D score is 8.5 Many indices of direct apprehension. MBQS score is -0.47

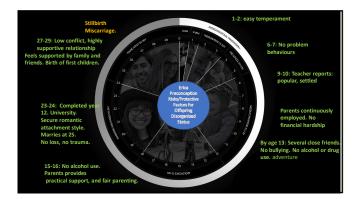




Dys-synchronous affect throughout. Hostile controlling interactions.









#### Infant SSP

Emma on First Separation: Secure and organized pattern of behaviour on reunion Attachment Classification: Secure (B4) D scale = 3



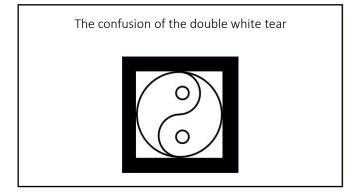


#### Pre-school SSP

Dys-synchronous affect throughout Attachment classification: D/IO

#### MBQS score is -0.17





# Distinguishing forms of disorganising "fear"

I am afraid of what I feel, even though you are here

You were loved, and you love me

- I am not afraid of you, but...
- I am not arraio of you, but...
   Something is interfering with your caregiving
   I am afraid of what I feel in this moment, because
   I am confused by you
   I feel alone in your presence
   I cannot regulate this stress state alone

The background
Rushed and working under a stress pile up.
Your history prepared you for "the white tear", and not
"the black tear"

I am left with unresolvable confusion when I am in need, and my attachment behaviours show it.



# The chaos of the double black tear



# Distinguishing forms of disorganising "fear"

#### I am afraid of what I feel, because you are here

You were loved *and* hurt by those who loved you • You love me, and yet when I am highly vulnerable, and in great need you may hurt me, physically or emotionally The background:

Your history only prepared you for "the black tear" You have been frightened by parenting me

I am left in a state of unresolvable fear, and my attachment behaviours show it

Continuously disorganised across early childhood = A stable sense of chaos.



#### Now:

- Australian intergenerational attachment research
- h) ATP-G3 MAC Lab (Melbourne Attachment and Caregiving Lab
- Attachment security and disorganisation
- a) Calibrating to early relational securit
- b) Calibrating to early relational confusion, or tra-
- c) Calibrating to disorganising caregiving
- Lifecourse patriways toward infant disorgan
- b) New ATP-G3 findings
- a) Variations with disard
- Toward disorganisation in Concration 2: 25 year case studies from the ATD C2
- 5. Universal detection of and response to early relational disorganisation
- a) The MERTIL project

# The big ticket items in the prevention of disorganized attachments

- Nurturing the developing care-giverPromoting affective balance: "the
- zone of proximal development"
- Earliest detection of overwhelmed and overwhelming caregiving
- Earliest response to trauma
- Attention to the triad





A program of training and support for the 1500 strong MCH frontline A warm, full, multi-layered learning experience

- Online learning
- In-person skills training
- Resources







• the parent-infant relationship and disruptions in emotional interaction in everyday settings parent capacities, anxieties and their impact on infant care

• feel more confident in their role of attachment figure



# 

## **Online Chapters &** In-person Skills Training

- 1. Infant trauma: a relational, developmental and humanising framework
- 2. Attachment development and the transmission of caregiving trauma
- 3. Recognising caregiver trauma 4. Recognising neonate and infant attachment trauma
- 5. Recognising pre-school trauma
- 6. Creating supportive conversations for a shared recognition of risk 7. First responses to trauma on the MCHN frontlines
- 8. Enhanced responses to trauma (Enhanced/Coordinators)
- Response to complex scenarios: skills training



# Resources Factsheets Articles

Podcasts

Links Networks Associations

Beyond post-partum intervention

- Mobilising for prevention in the general population through merging of public health and clinical perspectives
- Comprehensive monitoring projects: Deakin University Centre for Social and Early Emotional Development



