

Stress reactivity during the adaptation to child care

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“...a break in the continuity of the mother-child relationship at a critical stage in the development of the child’s social responses may result in more or less permanent impairment of the ability to make relationships.”

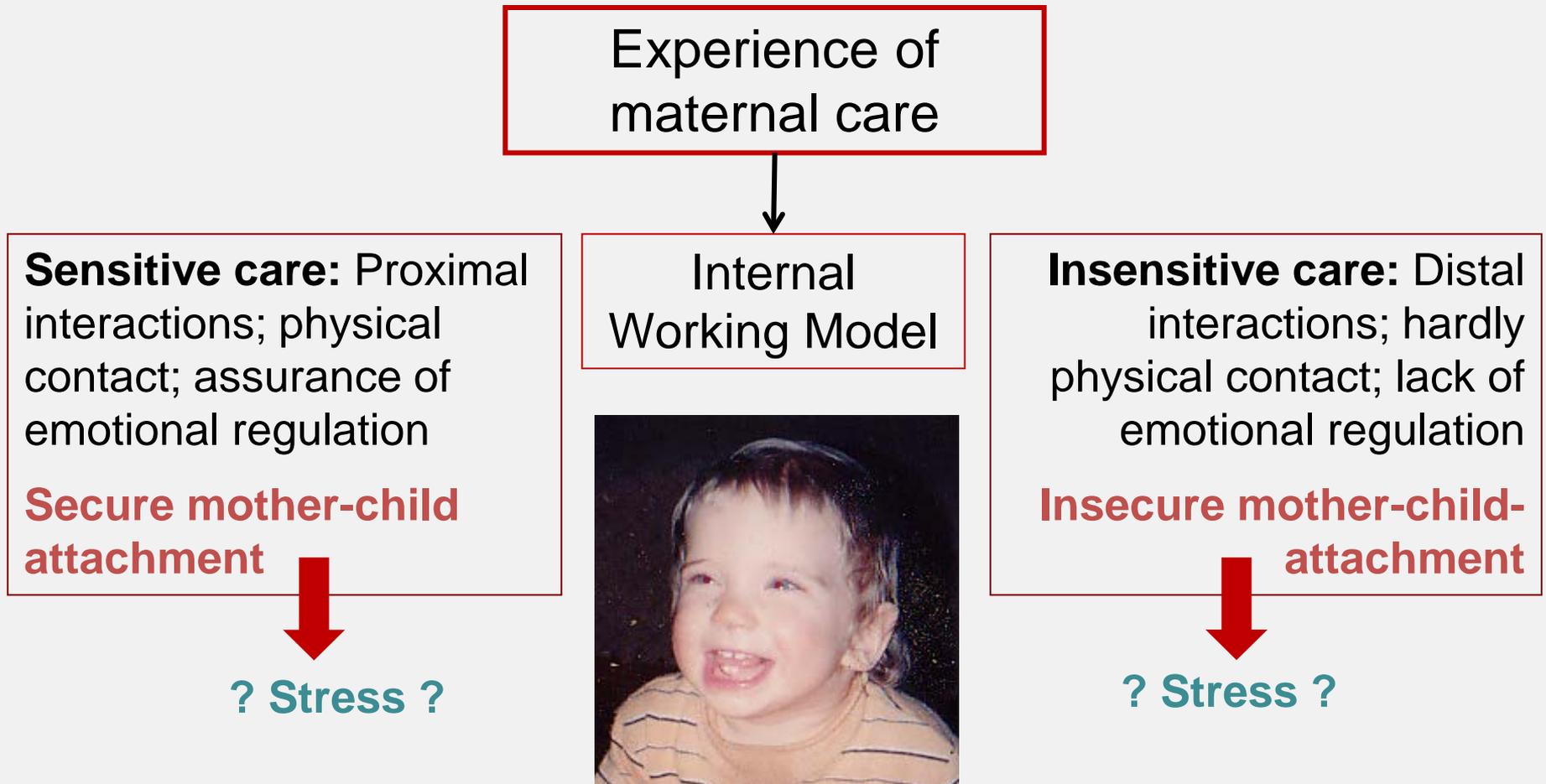
Bowlby, J., Ainsworth, M., Boston, M. & Rosenbluth, D. (1956). *The effects of mother-child separation: A Follow-Up study. British Journal of Medical Psychology*, 29, 211-247.

Question I: How does experience of maternal care affect children's stress reactivity?

Question II: Does child attachments towards mother change due to the stress that children experience at child care entry?

Question III: How can care providers in child care help children to adapt?

Question I: How does experience of maternal care affect children's stress reactivity?





Berlin Adaptation Study

Research foundation: DGF [Ah 55/2-1/2-2/2-3/2-4]

Project management: Lieselotte Ahnert
Interdisciplinary Center für Applied Research on Socialization

in Cooperation with

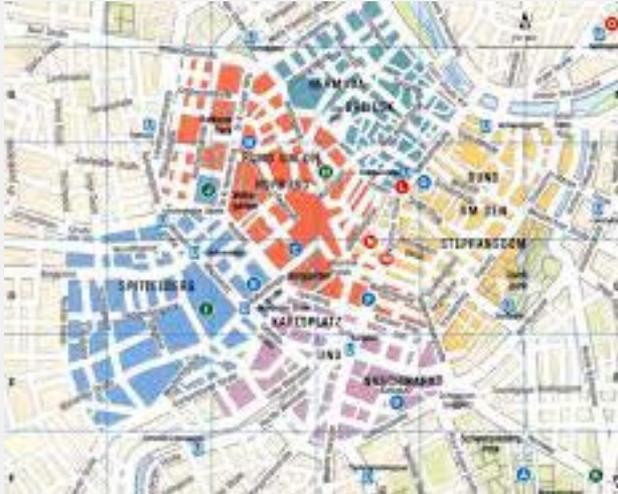
Megan Gunnar, University of Minneapolis/USA
Michael E. Lamb, NICHD, Washington/Bethesda/USA



Stress measure



Vienna Child care Study



Research foundation: FWF [P19567-G14]
Project management: Wilfried Datler
Department of Psychoanalytic Pedagogy

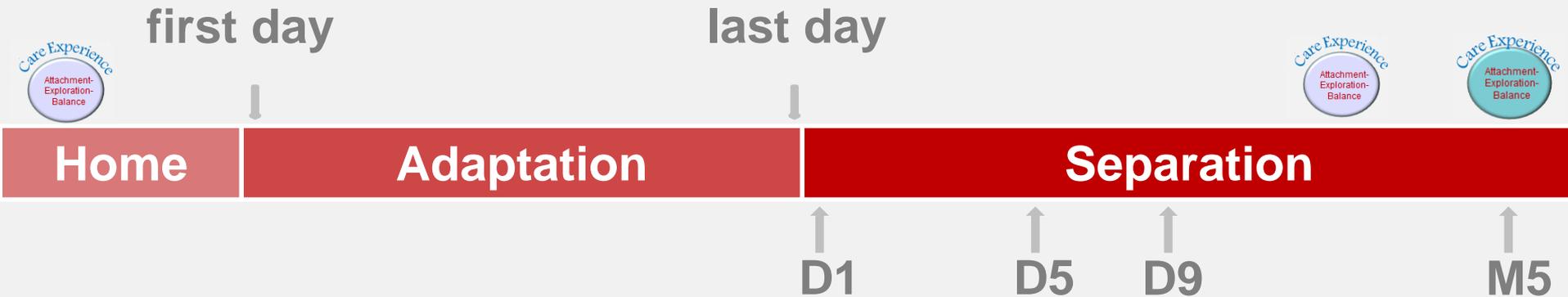
in Cooperation with Lieselotte Ahnert,
Tina Eckstein-Madry & Gregor Kappler
Department of Developmental Psychology



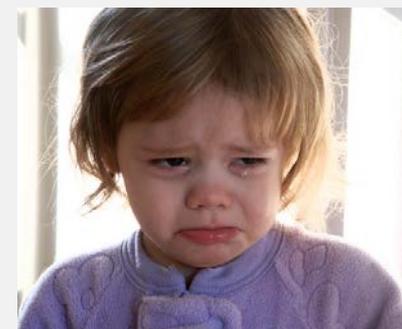
Stress measure



Berlin Adaptation Study



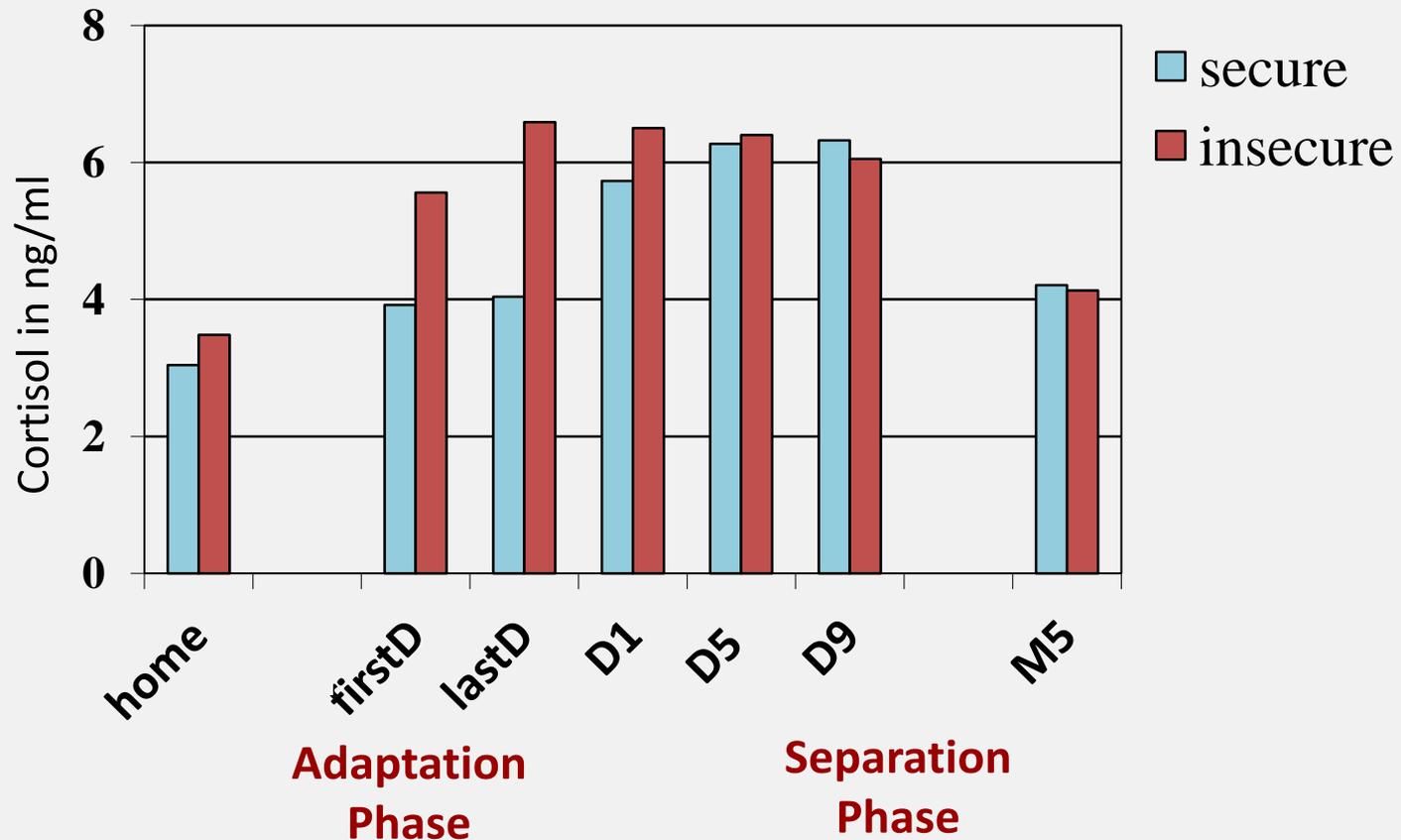
Stress measure



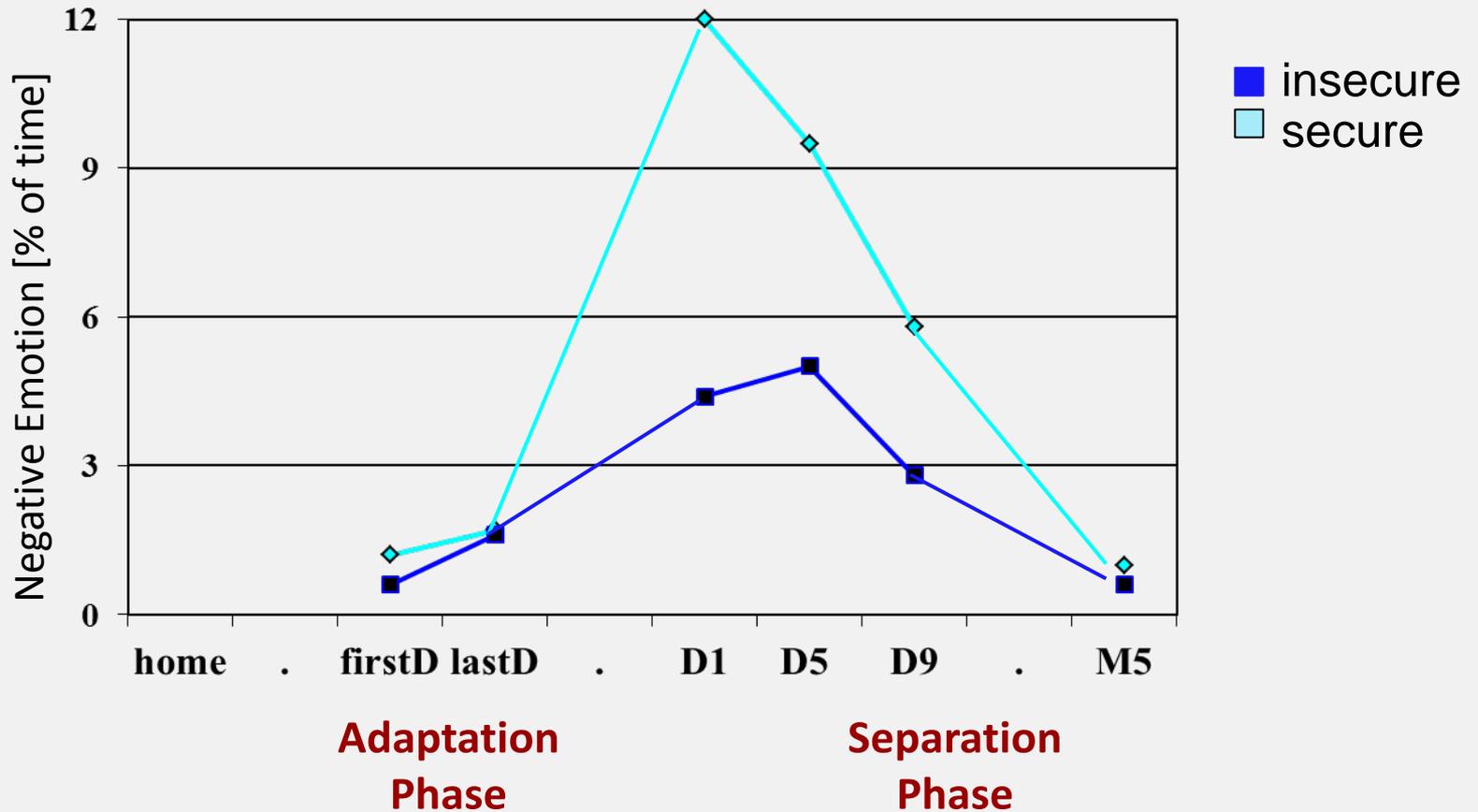
Ahnert, L., Gunnar, M., Lamb, M. E., & Barthel, M. (2004). Transition to child care: Associations of infant-mother attachment, infant negative emotion and cortisol elevations. *Child Development*, 75, 639–650.

Question I: How does experience of maternal care affect children's stress reactivity?

Cortisol levels in different contexts



Neg. emotion levels in different contexts



Relation between neg. emotion and cortisol levels

Physiological stress — negative emotions



Securely attached children: high
Insecurely attached children: low

concordance of cortisol levels with negative emotions

Summary:

Adaptation



Stressful for the children, even when mothers were still present.

Mothers of children with secure attachments partially buffered their stress reaction.

Separation



Stressful especially for secure attached children.

Securely attached children: more negative emotions that are more convergent with their physiological stress reactivity.

Question II: Does child attachments towards mother change due to the stress that children experience at child care entry?

Before	After	
	Secure	Insecure
Secure	29%	21%
Insecure	20%	30%



Attachment security to mothers **changed** in 41% of the children during the transition to child care

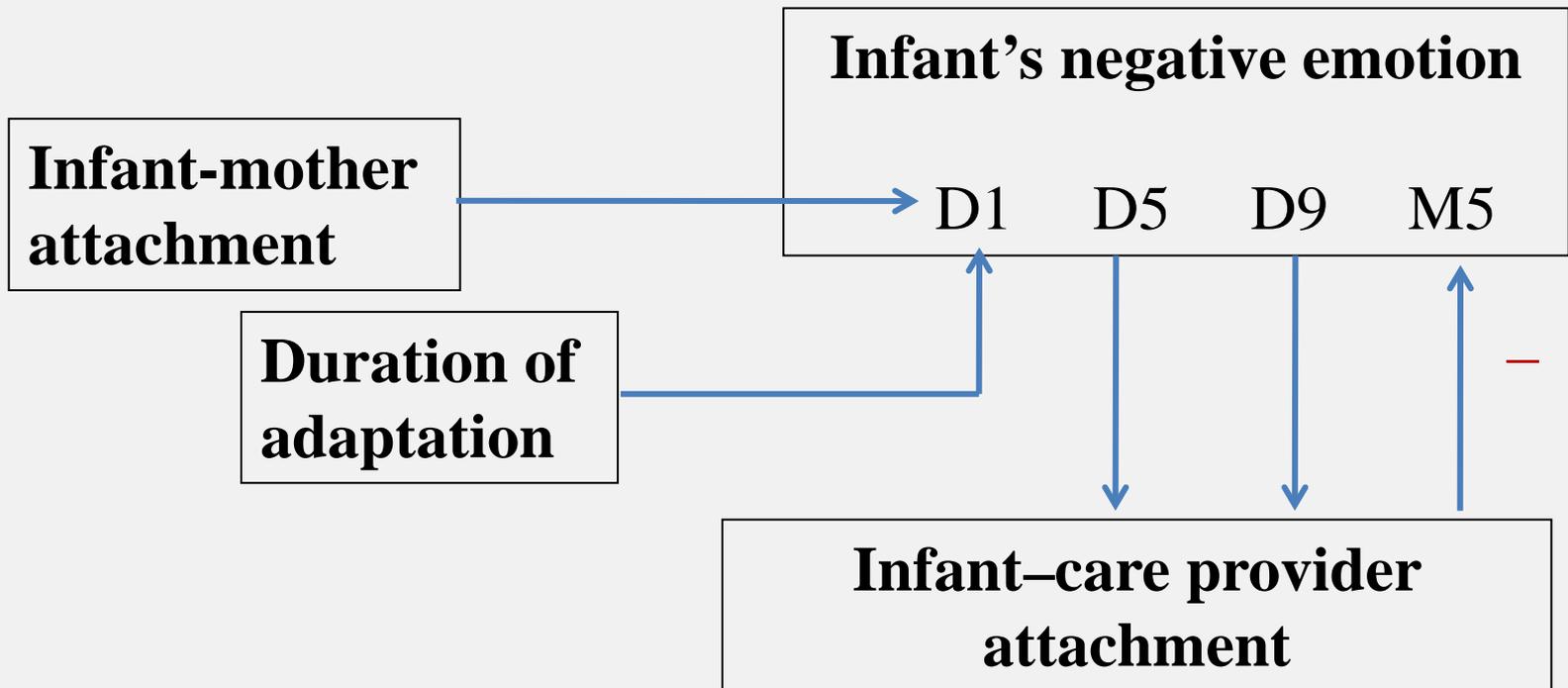
Attachment patterns were relatively **instable** post child care entry depending on the duration of the adaptation with mother.



„Even human infants show a marked capacity to adapt the specificity of their comfort responses to more communal caregiving. For example, human infants in day care will accept comforting from a larger set of adults than did the children reared strictly within a nuclear family .. “

Polan, H. J. & Hofer, M. A. (1999). Psychobiological origins of infant attachment and separation responses. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 162-180). New York: Guilford.

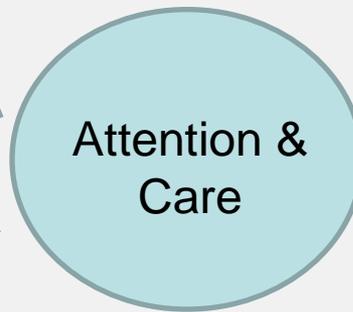
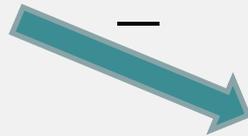
Question III: How can care providers in child care help children to adapt?



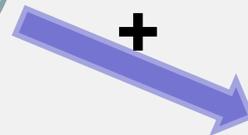
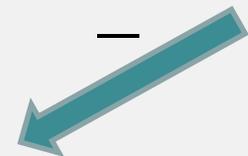
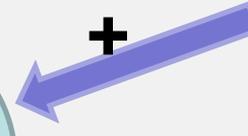
Whining-Crying: Basis for the formation of an attachment relationship to the care provider!

Summary:

Little whining
and crying



A lot of whining
and crying



hardly develop a
secure careprovider-
child **attachment**

develop a **more secure**
careprovider-child
relationship

Vienna Child care Study

Child care entry



Stress measure



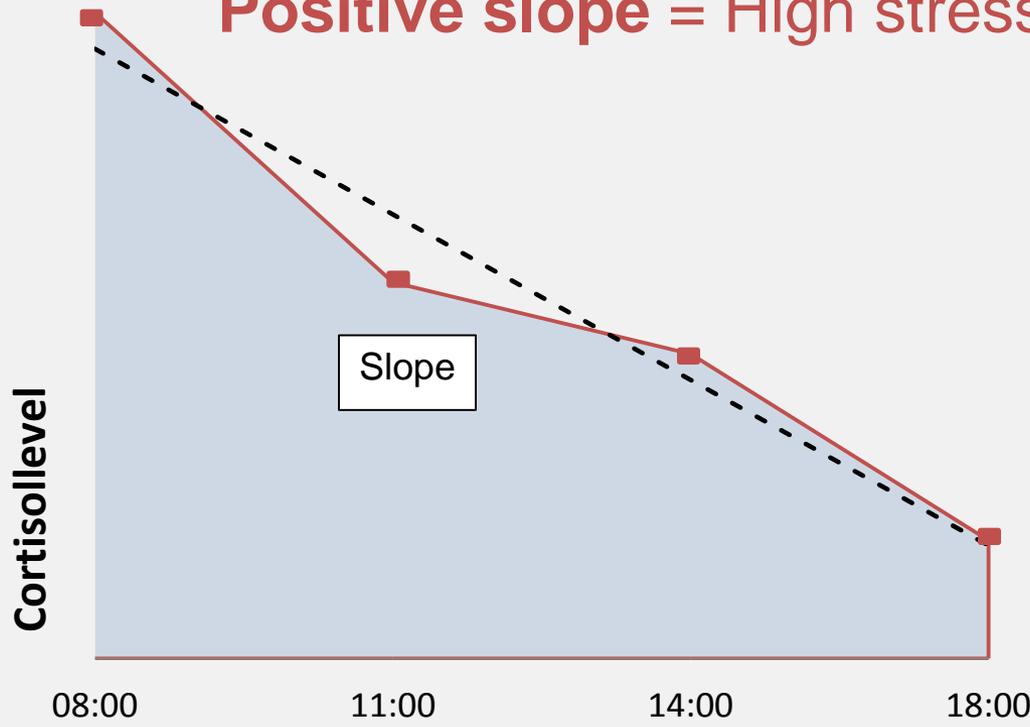
Extension in terms of age!
10-36 months

Diurnal profiles of cortisol

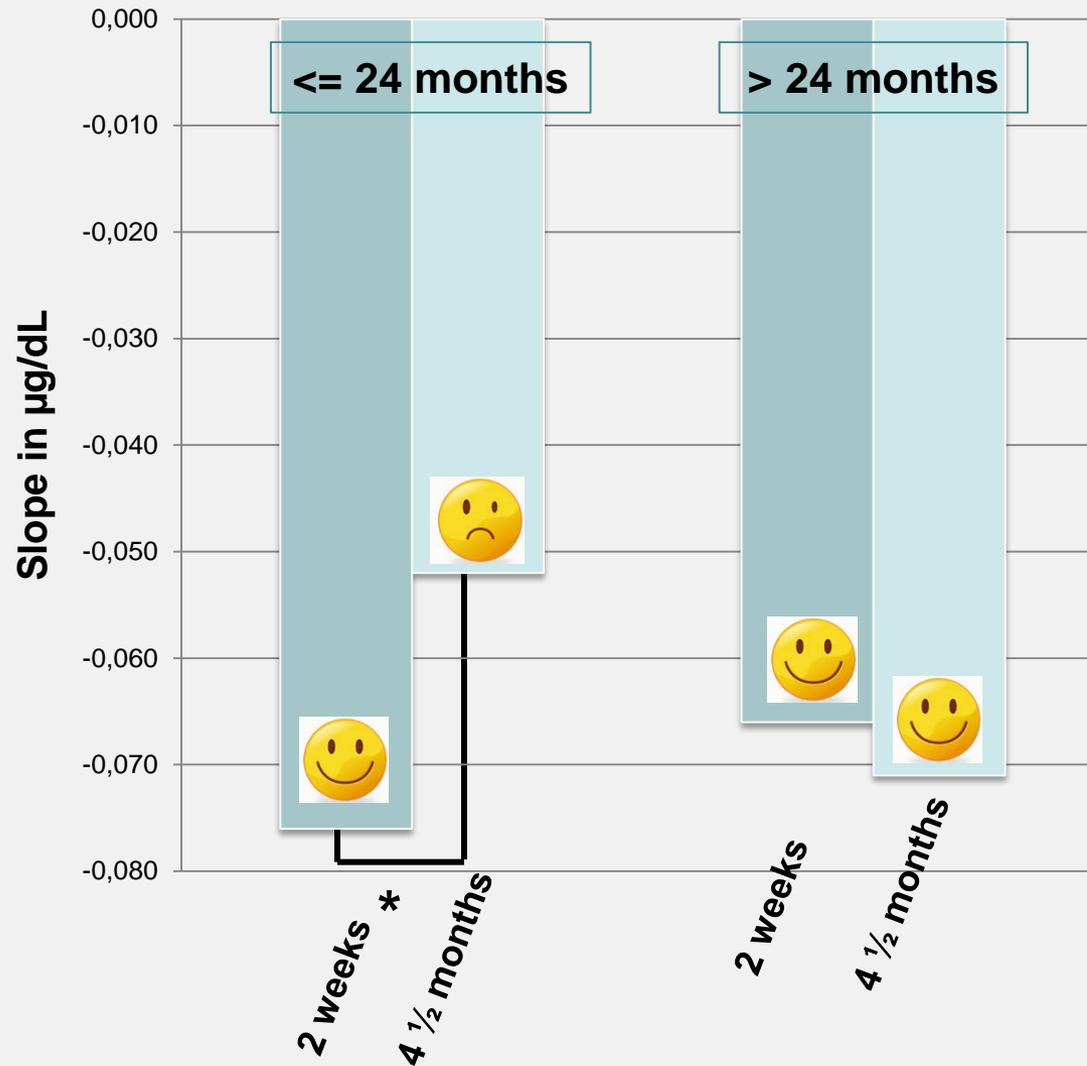
Slope = indicator for the stress reactivity over the day:

Negative slope = Low stress reaction 😊

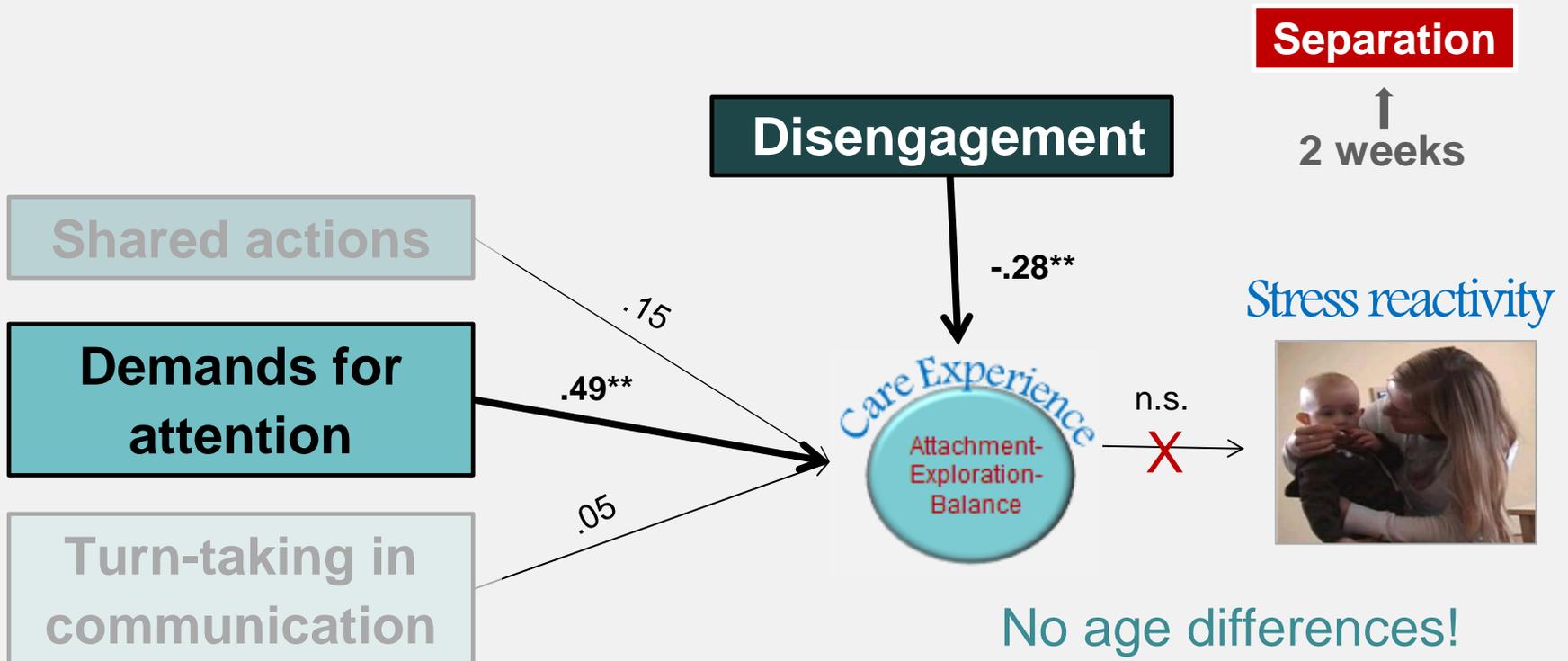
Positive slope = High stress reaction 😞

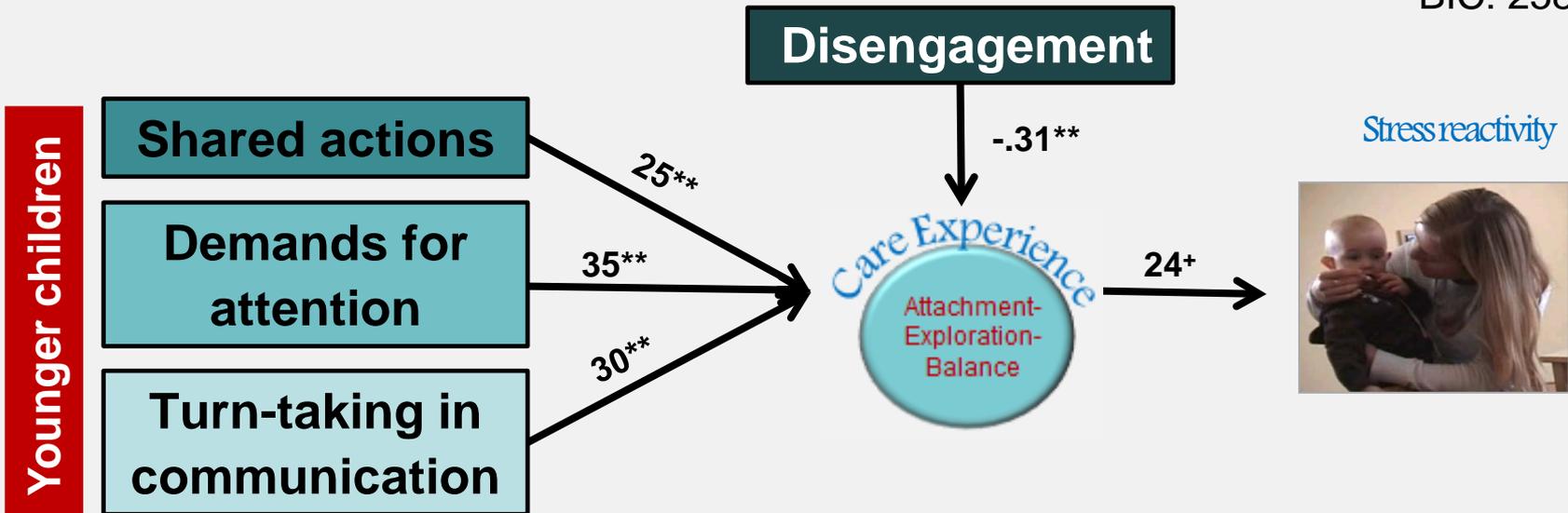
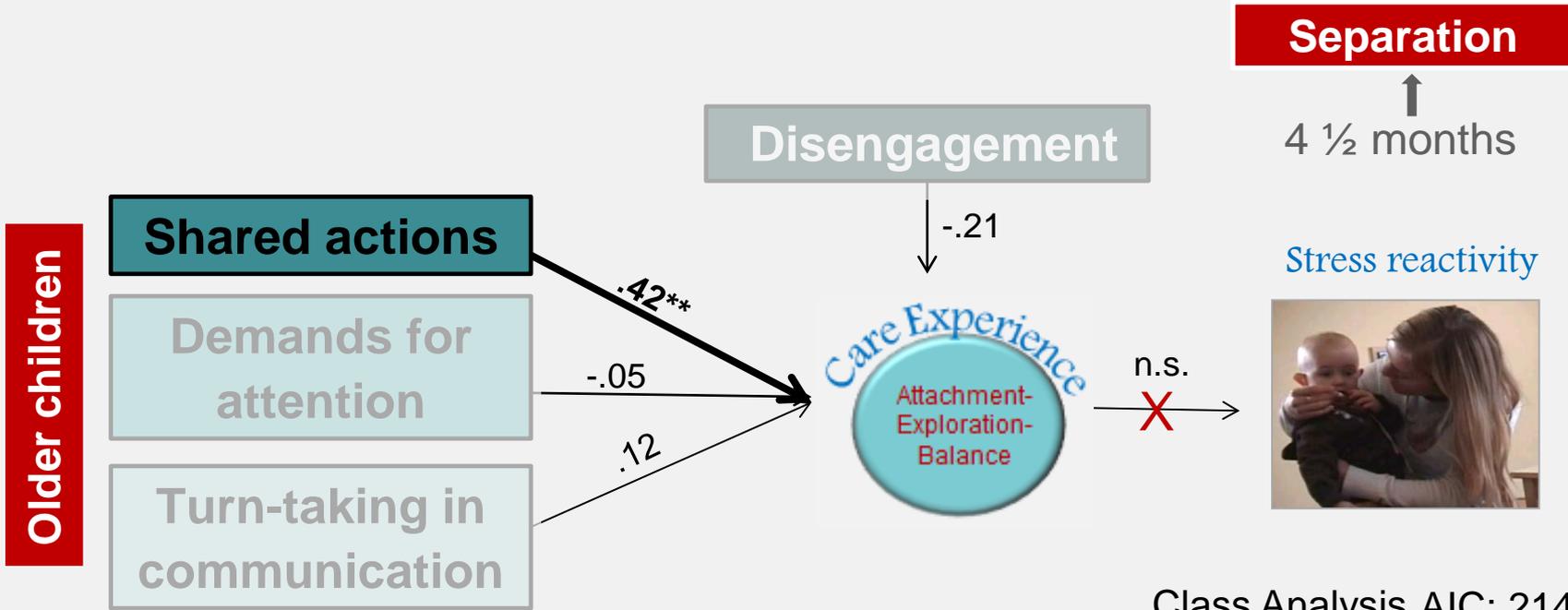


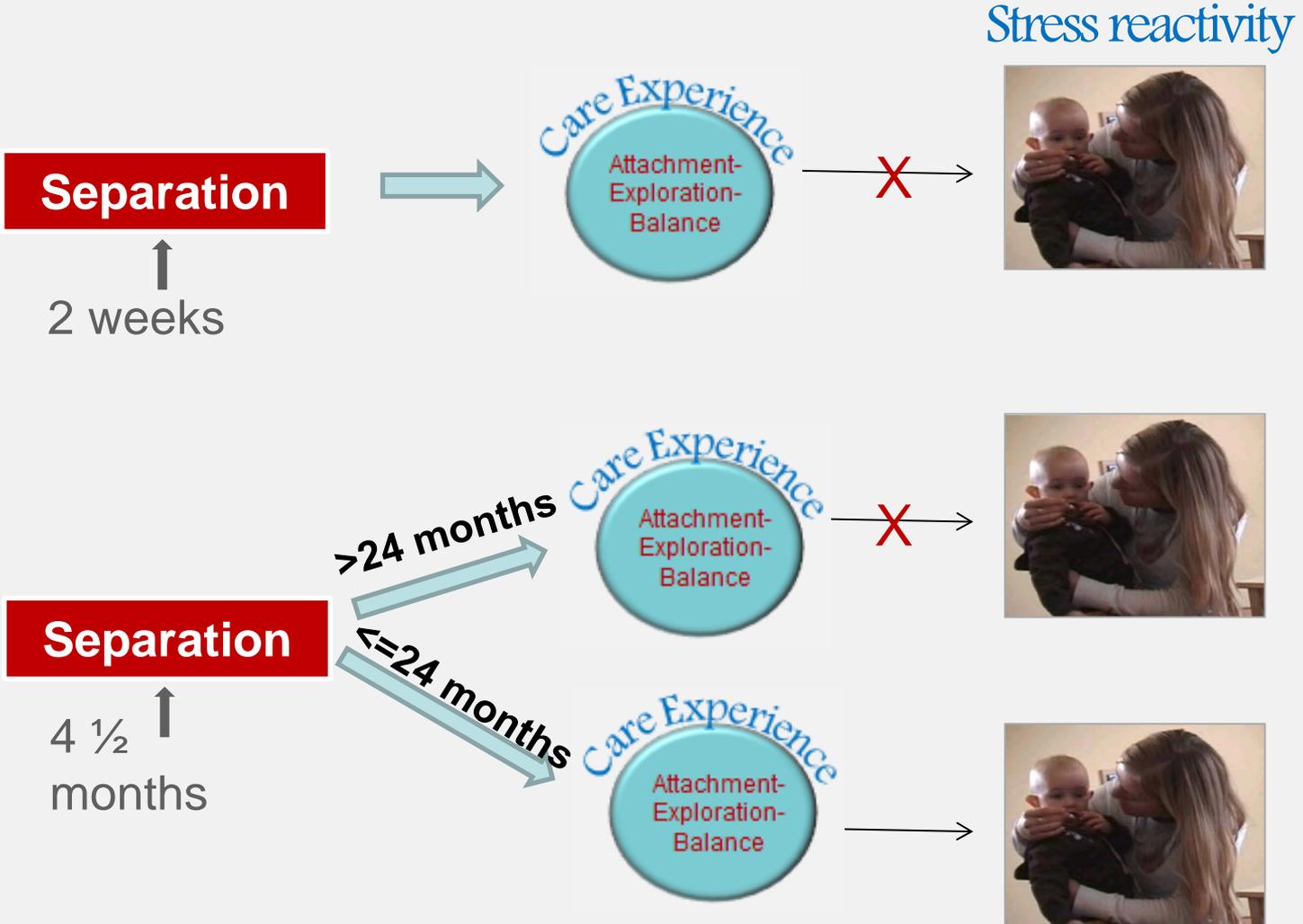
Cortisol change post child care entry



Question III. How can care providers in child care help children to adapt?





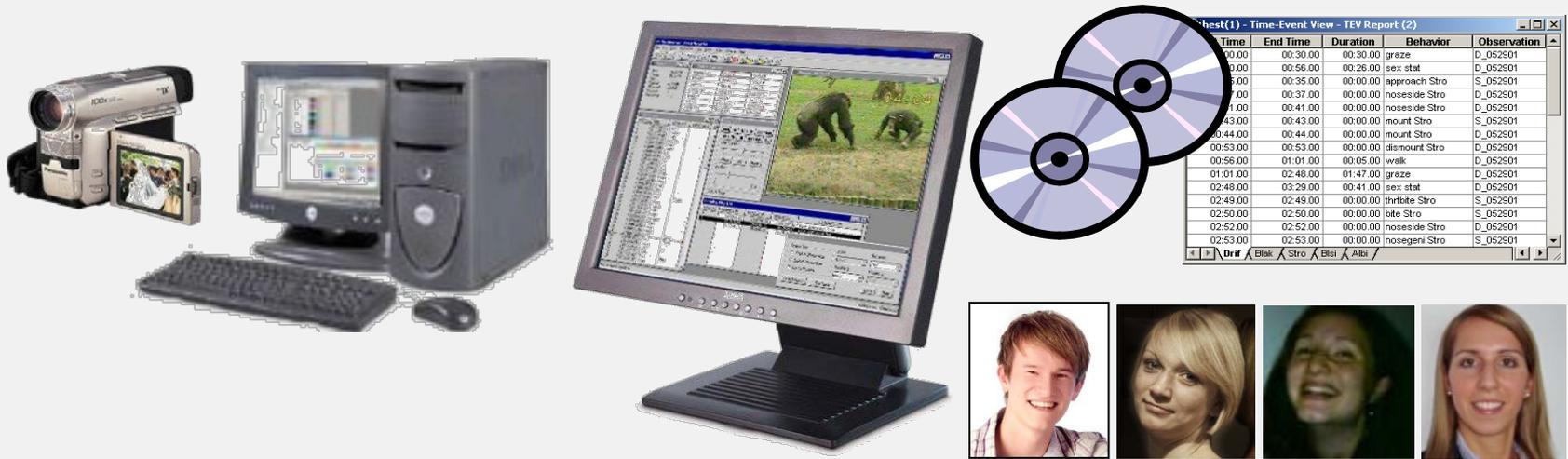


Ongoing research strategies:



Computer based microanalysis of peer interactions:

Social Behavior between Peers (proactive/ reactive)
Play Behavior (Play Context & Types of Play)



Computer based microanalysis of care provider-child interactions:

Interactional Orientation
 Interactional Intensity
 Behavioral Qualities
 Physical Proximity
 etc.

Question I: How does experience of maternal care affect children's stress reactivity?

Adaptation to child care was stressful for children, especially under 24 months of age. However, **securely attached** children benefit from the **protective function** of their mothers.

Sustainably, **mild chronic stress** could be observed, especially in younger children when the mother had finished the adaptation, and went back to work.

Securely attached children showed stress **more offensively** and **in concordance** to their cortisol levels.

Question II: Does child attachments towards mother change due to the stress that children experience at child care entry?

YES, but children changed not only from **secure to insecure**, but also from **insecure to secure** post child care entry.

Mother-child attachments remained secure or changed from insecure to secure **the longer** the mother **adapted** the child to child care.

Question III. How can care providers in child care help children to adapt?

Children who were **more stressed** at child care entry and displayed **more negative emotions** got **more attention and care from the care providers. These children** develop a **more secure attachment** relationship with their providers in child care.

This has been observed especially in children under 24 months of age.

Once children had developed **secure care provider-child attachments**, care providers did buffer child negative emotions.