Measuring Development in Culture

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Age at Attainment of Selected Motor Milestones

- Crawl: US (Bayley 1969), Kokwet
- Roll from Back: US (Bayley 1969), Kokwet
- Sit Steadily: US (Bayley 1969), Kokwet
- Walks Alone: US (Bayley 1969), Kokwet
Settings: Observation / Diaries
- Physical setting which discourages infant on ground;
- Social setting which includes sibling caretakers;

Customs: Observation / Interview
- Back-carrying provides incidental exercise (legs and back)
- Caretaking by siblings
- Deliberate teaching of stepping, walking, and sitting.

Parental ethnotheories: Interview
- All mothers believe teaching to walk is essential.
The Developmental Niche

**Three subsystems**

1. The physical and social settings of the child’s daily life;
2. The culturally regulated customs of child care and child rearing;
3. The psychology of the caretakers.

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**Three corollaries:**

1. The subsystems are in a continual process of mutual adaptation with the individual child (gender, temperament, skills, maturity).
2. The subsystems operate together with powerful though incomplete coordination as a system.
3. Each of the subsystems is functionally embedded in other aspects of the larger ecology.
Parental ethnotheories are…

“a shared system of ideas held by a community of parents about children and their development, the family, and the self as parent, together with related goals and ideas about action.”
Total Sleep per 24 hours

International Study of Parents, Children, and Schools

Hours per 24

Age

6 mos 18 mos 3 yrs 4.5 yrs 7-8 yrs

Holland Italy Spain Sweden US-CT US-Camb

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The International Baby Study

**USA:** Charles M. Super, Sara Harkness, Marjolijn J. M. Blom, Douglas A. Granger, Rachel Luck, Rucha Londhe, Nivedita Ranade, Colleen Veseley, Danijela Korom, Monica Idzelis, Alison Levitch, Beth Russell, Caroline Johnston, Yeonsoo Yoon, Aram Cho, Xin Feng, Chen Zhu

**The Netherlands:** Marjolijn J. M. Blom, Sara Harkness, Charles M. Super, Dymphna van den Boom, Saskia van Schaijk, Margreet deLooz

**Italy:** Giovanna Axia, Ughetta Moscardino

**Spain:** Blanca Huitrón, Jesús Palacios

**Korea:** Jong-Hay Rha, On-Kang Hyun
Infant Rest and Stimulation in the Netherlands and the U.S.
Dutch Babies Sleep More Than US Babies
(actigraph, Sadeh algorithm, 8 months old, 10.7 hrs vs 9.0 hrs, $p = .01$ ES $[d] = .81$)
Infant Cortisol

(adjusted for age within age-group)
**United States**

**Caretaker Psychology:** Belief that infant stimulation is very important

**Settings:** Many toys, stimulating adornments on seats, play mats, etc.

**Customs:** Parents talk more to infants, offer more objects, and are physically close more often.

**Holland**

**Caretaker Psychology:** Belief that rest and regularity are very important

**Settings:** Environment with less clutter and fewer stimulating toys

**Customs:** Parents allow infants to rest, stimulate less

**Demonstrated Differences**

- Sleep
- Activity level
- Cortisol
- Temperament
- Self-regulation

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Toddlers’ Diarrheal Disease in Bangladesh
The Developmental Niche in Rural Bangladesh

- **Settings**
  - Early infancy – on hip or lap
  - Later infancy and toddlerhood - free in courtyard
  - Small free-range animals in courtyard
  - Including flies etc.

- **Customs**
  - Rinse hands after defecation, no soap, dry on clothing
  - Bottle feeding of baby
  - Clean up for smell only

- **Psychology of Caretakers (ethnotheories)**
  - Importance of cleanliness, BUT
  - No understanding of germs
### Methods for Studying the Developmental Niche

<table>
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<tr>
<th>Method</th>
<th>Components Identified</th>
<th>Components Measured</th>
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<tr>
<td>Participant observation and ethnographic interviewing</td>
<td>Settings, customs, and caretaker psychology</td>
<td>(none)</td>
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<tr>
<td>Spot observations, diaries</td>
<td>Settings, customs, and caretaker psychology</td>
<td>Settings (and customs)</td>
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<td>Behavior observations</td>
<td>Customs, and caretaker psychology</td>
<td>Customs</td>
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<td>Semi-structured interviews and focus groups</td>
<td>Customs, and caretaker psychology</td>
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<td>Structured questioning</td>
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<td>Caretaker psychology and customs</td>
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<tr>
<td>Passive enumeration</td>
<td>Caretaker psychology and customs</td>
<td>Caretaker psychology</td>
</tr>
<tr>
<td>Formal methods: free listings, clustering, multidimensional scaling, consensus analysis …</td>
<td>Customs and caretaker psychology</td>
<td>Caretaker psychology, and customs</td>
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