“Goodness of Fit” revisited: Temperament and Parenting

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What is Temperament?

• Personality traits that have
  – early appearance in ontogenesis
  – heritability
  – continuity

Buss and Plomin, Temperament: Early Developing Personality Traits, 1984
Early Notions of Temperament

Phlegmatic       Choleric

- In 400 B.C. the theory of the “four humours” was first recorded

- Blood, yellow bile, black bile (spleen), and phlegm

- These humours corresponded with the four seasons and the four elements (earth, air, fire, water)

Sanguine       Melancholic
Four personality types

• Sanguine (blood): cheerful, outgoing
  – Air, spring, warm/moist

• Phlegmatic (phlegm): cool and apathetic
  – Water, winter, cold/moist

• Melancholic (black bile): depressive, ruminating
  – Earth, autumn, cold/dry

• Choleric (yellow bile): easily angered
  – Fire, summer, hot/dry
Four Humours and Health

• Mental health was inseparable from physical health, as both relied on a balance among the humours
Four Humours and Medical Treatment:

- **Fever**: hot/dry, fire, yellow bile
  - Balance with cold/wet
  - Cool bath

- **Runny nose**: cool/moist, water, phlegm
  - Balance with hot/dry
  - Bundle up in blankets, drink warmed wine

- **Overexcitement (mental or physical)**: hot/moist, sanguine
  - Balance with *bleeding*
The Four Humours Evolve: 1958

Psychoanalysis

• Freud felt that common drives were present at birth, but did not focus on ‘constitutional’ differences in personality

• Formative experiences and parents’ behavior were important in the formation of health and neurosis
Alexander Thomas and Stella Chess

- New York longitudinal Study, begun in 1956

- Followed 133 individuals from 84 families from infancy to adulthood

- When data from the first 22 children were analyzed, nine traits were found to be stable over time in ALL of them

- These 9 traits were felt to be independent, orthogonal axes of temperament

Nine Dimensions of Temperament

- Activity
- Rhythmicity (regularity)
- Approach/withdrawal
- Adaptability
- Sensory threshold (sensitivity)
- Intensity
- Mood
- Distractibility
- Persistence/attention span
Activity

• Affinity for physical motion, motor “idle speed”
  – Noted as early as pregnancy
  – Active infants crave constant rocking, carrying, movement
  – May walk earlier (though not necessarily better)
  – In older children, running, jumping, impatience with waiting in line, difficulty staying in seat
Activity in Child and Parent

• High activity infant, low activity parent
  – Parent may feel drained by child’s restlessness

• Low activity infant, high activity parent
  – Infant may feel overwhelmed, be fussy, feed poorly
Rhythmicity (regularity)

• Innate drive for regularity in
  – Feeding
  – Sleep
  – Elimination
  – Daily routine

• Bath, bedtime, waking, dressing, homework, household chores
Rhythmicity in Child and Parent

• High rhythmicity child, low rhythmicity parent
  – infant may not feed well, parent may feel irritated by child’s demands for meals on time, participation in ‘rituals’ at bedtime, bath time

• Low rhythmicity child, high rhythmicity parent
  – parent discombobulated by infant’s irregular schedule, may feel their child is ‘resistant’ to toothbrushing, getting up in the morning, etc.
Approach/Withdrawal

• Turning toward or away from new
  – People
  – Things
  – Experiences

• Affects response to sitters, new day care or school experiences

• Trying out a new sport
Approach/Withdrawal in Child and Parent

• Approaching child, withdrawing parent:
  – Child may be frustrated by parent’s limitations on exploration, due to parent’s anxiety

• Withdrawing child, approaching parent
  – Child may be overwhelmed by new experiences that the parent assumes are fun and exciting
  – If parent can present new activities gently but firmly and with reassurance, child may benefit from “pushing the envelope”

• Withdrawing child, withdrawing parent?
Adaptability

- How long does it take to adjust to a change in the environment or routine?
  - New sibling
  - Moving
  - School change
Adaptability in Child and Parent

- Parents ‘call the shots’ re: environmental change (birth of siblings, changing homes or schools)

- A child with low adaptability will need more support and reassurance, and take longer to adjust to changes
  - A more adaptable parent may underestimate the stress faced by the child
Sensory Threshold

• Reaction to strong sensory input: pleasure vs. anxiety

• Loud sounds
  – Pleasure and excitement
  – Covering the ears and hiding

• Flavors
  – Enjoying different textures and flavors
  – Refusing all but a few familiar foods
Sensory Threshold/Sensitivity

• Touch
  – Liking rough play, not caring about the feel of clothes, or sticky hands
  – Preferring not to be held, needing tags removed from clothing, socks without seams

• Vision
  – Enjoying a carnival, a soccer match, rearranging the furniture
  – Demanding to go home, keep the environment predictable
Sensitivity in Child and Parent

• Sensitive infant, stimulus-loving parent

  – infant seems ‘fussy’ because parent seeks and generates loud, bright, busy environments which overload infant’s sensory processing capacity

  – Parent may feel rejected when child avoids hugs, most foods

  – Child’s reluctance to participate in rough and tumble activities they love (team sports) may be a contentious issue
## Intensity: Amplitude of Response

<table>
<thead>
<tr>
<th>emotion</th>
<th>Low intensity</th>
<th>High intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>anxiety</td>
<td>quiet, reserved, clingy</td>
<td>wailing, protesting</td>
</tr>
<tr>
<td>happiness</td>
<td>smiling, relaxed</td>
<td>jumping up and down, squealing</td>
</tr>
<tr>
<td>anger</td>
<td>quiet, scowling, withdrawal</td>
<td>full-blown tantrum</td>
</tr>
<tr>
<td>sadness</td>
<td>quiet, withdrawn, tearful</td>
<td>wailing and gnashing of teeth</td>
</tr>
</tbody>
</table>
Intensity in Child and Parent

• Intense child, low-intensity parent
  – Parent may be alarmed or annoyed by child’s “over the top” responses
  – But a calm parent can be very helpful in restoring child to baseline

• Low-intensity child, intense parent
  – Child may be overwhelmed by parent’s emotions
  – Parent may not perceive subtle cues about child’s feelings
Mood

• Baseline affect
  – Independent of mood disorders

• Cheerful/optimistic or gloomy/irritated

• Some people experience great hardship yet feel mostly gratitude for the good things

• Others may have comparatively easy lives, yet focus on resentments, unfairness, loss
Distractibility

• Tendency to switch focus easily
  – Some toddlers will forget the knife you just took away because of the spoon in its place
  – Some toddlers will protest and fuss

• Some children (and adults) can work well in a noisy setting, or with TV on

• Others need quiet
Persistence (Attention Span)

- Ability to sustain effort over time
  - Part of ‘ambition’, ‘laziness’

- High: Frustration is tolerated in order to reach the pleasure of achieving a goal
  - Mastering a musical instrument

- Low: Frustration quickly leads to the abandonment of effort
Types: Clusters of Traits

- Around 65% of children fit one of these:
  - Difficult- 10%: irregular, avoidant, not adaptable, negative mood, intense
  - Slow to warm- 15%: inactive, avoidant, not intense, negative mood
  - Easy- 40%: regular, approaching, adaptable, positive mood

Various publications, Chess and Thomas
Types: Clusters of Traits

- Undercontrolled: willful, restless, inattentive, impulsive
- Overcontrolled: shy, obedient, self-critical, liked by adults
- Resilient: self-confident, able to concentrate, self reliant, open

Goodness of Fit

- When caregivers’ interventions combine with child’s temperament so that *culturally appropriate behavior* and *optimal development* result

- Not necessarily a ‘match’
Temperament x Environment

• When a parent and child have similar temperaments on one or more axes, empathy is easy but it may not always be optimal for development

  – An avoidant sensitive parent who has mastered some coping skills can be an ideal coach; if not, they can reinforce child’s anxieties

  – An intense, outgoing, dominant child may benefit from navigating life with a less intense parent
Temperament x Environment

• Another adult can provide complementary input
  
  – primary parent needs to trust and allow the input and be able to contain anxiety
  
  – marital relationship quality is important
  
  – In traditional two-parent families, mother often is “gatekeeper”

**TEMPERAMENT QUESTIONNAIRE**

Child’s Name: ______________________  Mother’s Age: ______________________

Completed By: ______________________  Relationship to Child: ______________________

The purpose of the questionnaire is to understand your child’s temperament (the inborn part of the personality). Ten categories are listed. Behaviors commonly associated with each trait are rated on an easy-difficult spectrum. Look for long-standing features, sometimes present in infancy, but certainly evident by the age of 3. If you are concerned about new problem behavior do not include it.

Most parents are upset and worried about their child when they first complete this questionnaire, because of this they usually exaggerate the difficult behavior. Try to be objective. If a characteristic is long-standing but is now increased, rate it as it is now but put an * next to it.

Use the following rating scale:
- 0 = Not at all or just a little (not a problem)
- 1 = Sometimes (mild to moderate problem)
- 2 = Often (clearly a problem)
- 3 = Very often (very much of a problem)
- 4 = Nearly always or always (a severe problem)

### I. ACTIVITY LEVEL
General statement about degree of movement
- On the go, can’t sit still [ ]
- Fidgets, squirms, taps [ ]
- Trouble playing quietly [ ]
- Resists it (e.g. seat belt) [ ]

### II. SELF CONTROL
Ability to delay action or dominate
- Impulsive, acts without thinking [ ]
- Easily over-stimulated [ ]
- Loses control – can become aggressive [ ]
- Does not wait, turns, interrupts [ ]
- Easily frustrated, impatient [ ]
- Behavior is unpredictable [ ]

### III. CONCENTRATION
Ability to maintain focus in the face of distractions
- Trouble staying focused [ ]
- Easily distracted [ ]
- Quickly loses interest unless very involved [ ]
- Disorganized, loses things [ ]
- Forgetful [ ]

### IV. INTENSITY
The way emotions are expressed
- Forceful [ ]
- Loud [ ]
- Overwhelming [ ]
- Strong emotions, whether happy, angry, or sad [ ]

### V. REGULARITY
Predictability of physical functions
- In infancy was hard to put on a sleep schedule [ ]
- Erratic sleep patterns [ ]
- In infancy was hard to put on a feeding schedule [ ]
- Erratic appetite patterns [ ]

### VI. PERSISTENCE
Single-mindedness, which may be positive or negative
- Strong willed [ ]
- Stubborn [ ]
- Relentless doesn’t give up [ ]
- Gets stuck, “locked in” [ ]
Nice Temperament Questionnaire

So What’s New?

- Researchers hypothesized that the evolutionary strategy to best maximize survival AND innovation in humans might be:
  - For most children to be resilient in almost any circumstance
  - And for a few to be more sensitive: suffering functional impairment from sub-optimal nurturing, but excelling and innovating when conditions unusually good

Ellis B and Boyce WT, Biological Sensitivity to Context. Current Directions in Psychological Science: June 2008 183-187
Dandelions and Orchids

• Toddlers with ‘externalizing behaviors’
  – Oppositional, aggressive, uncooperative

• Randomized to receive no intervention or mother-child videotaping and educational sessions

• Children with the ‘risk’ gene for externalizing behaviors (DRD4) responded MORE strongly to the intervention after 1 yr

Ellis B and Boyce WT, Biological Sensitivity to Context. Current Directions in Psychological Science: June 2008 183-187
Summary

• Exploring parent and child temperament is a high-yield intervention
  – It focuses on healthy variations, not illness
  – It is fun for most parents!
  – It can result in helpful changes in how parents interpret their child’s behavior, and provides tools for inventing new strategies