

<p><b>General</b></p> <p>Two approaches - what makes people develop in similar ways (e.g. developmental milestones; underlying processes) and what makes people different from each other (also looks at underlying processes but focuses on individuality.)</p> <p><b>Adult personality</b> - how people differ from each other; remains relatively stable. A tendency to behave in particular ways.</p> <p><b>Type vs Trait theories</b></p> <p>Ideas of type - <b>Theophrastus</b> (6 types); <b>Hippocrates</b> (4 types - choleric, phlegmatic, sanguine, melancholic)</p> <p><b>Myers-Briggs</b> is a modern <b>type</b> inventory (Thinkers, Feelers, Sensers, Intuiters)</p> <p>Trait theories use dimensions by which to assess personality - e.g. Neuroticism-Stability; Extraversion-Introversion. Built by statistical techniques such as factor and cluster analysis to find out which words that describe traits go together.</p> <p>Three main trait theories:</p> <p><b>Eysenck</b> - two primary traits; introversion-extraversion, neuroticism-stability with two secondary traits of intelligence and psychoticism. Makes argument the two main traits are biologically based - nativist viewpoint (others on a continuum.)</p> <p><b>Costa &amp; McCrae</b> - OCEAN/Big Five. (Tellegen MPQ similar - 11 sub factors grouped into three traits)</p> <p><b>Cattell</b> - 16PF - eg Reasoning; Sensitivity; Livelines</p> <p>All three share view there is a limited set of stable characteristics - dimensions along which people vary. Adult personality arises from genetic predisposition combined with experience/choices made.</p>	<p><b><u>Book 1 Chapter 5 - Temperament and Development</u></b></p> <p><b>Temperament</b></p> <p>Idea that there is a biological basis to infant's characters. <b>Rutter</b> - an abstract notion of a trait or disposition to act, evidenced by consistent qualities of behaviour over time (i.e. not just one act.)</p> <p>Seen as separate from cognitive aspects of development - empirical studies show no link between temperament and intelligence, for example.</p> <p><b>Individual Differences</b></p> <p>Traits defined, data gathered from large numbers of children to examine variation. This kind of research has also attempted to identify types as well (sub-groups of traits with particular high/low scores.) Quantitative methodology.</p> <p><b>Bates</b> suggests three broad categories: <b>Emotional responses; attentional orientation patterns; motor activity</b> as defining behaviour in pre-school (and younger) children.</p> <p><b>Stability</b> - idea that if someone shows a particular characteristic, this will remain largely similar over a period of years.</p> <p><b>Continuity</b> - idea that similar range of behaviours indicates a characteristic at a particular age - e.g. crying = fearfulness at 18mo; verbalisation of fear at 3 y.o.</p> <p>Temperament &amp; first five years (<b>Rothbart</b>)</p> <p>Dev. Period - Temperament component</p> <p><b>Newborn</b> - distress; sociability; activity; orienting &amp; alertness; approach/withdrawal to novelty</p> <p><b>Early infancy</b> - above plus smiling; laughter; vocalisation; stimulus seeking/avoidance; frustration</p>	<p><b>Late infancy</b> - as before plus inhibition of approach; effortful control; fear</p> <p><b>Pre-school +</b> - as before plus continued development of effortful control</p> <p><b>Problems in the definition of temperament</b></p> <p><b>McCall</b> - no generally accepted consensus on a definition of temperament, but <b>Bates'</b> categories point to the main areas a helpful theory of temperament would need to address.</p> <p>Temperament is a general tendency to behave in a particular way or show a specific style of behaviour.</p> <p><b>Buss &amp; Plomin</b> use 'genetically based' to differentiate temperament from other aspects of individual differences. They suggest high heritability (&gt; .6) to make this distinction. <b>Hinde</b> objection - no obvious cut-off for heritability; behaviour may change depending on age and environment too.</p> <p><b>Buss &amp; Plomin</b> metastudy of four twin studies (around 4 y.o.) show MZ twins 0.63 Emotionality; 0.62 Activity; 0.53 Sociability. DZ twins do not show any correlation.</p> <p><b>Hinde</b> argues biological rootedness is not the distinctive issue in temperament - rather, the <b>coherence</b> of a child's behaviour across situations and time. A combination of biology (e.g. reward pathway) and experiences.</p> <p><b>Stability of individual differences</b></p> <p><b>Colorado adoption project (Plomin et al)</b> is a longitudinal study which shows <b>stability</b> in children's E&amp;S scores as they aged. Correlation of 0.6 found for age 1 to age 2 for E&amp;S, less for A. Age 2 to 3 E,A,S all at around 0.65. Age 3 to 4 E&amp;S still around 0.65, but A below 0.6 again. Important, as adult personality may be subject to ongoing effects of temperament, not just people's experiences.</p>
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**Dunedin Study (Caspi et al)** - 1,000 children born in 72-73. 5 main types identified at age 3 (well adjusted, under-controlled, confident, inhibited, reserved.)

23 years later, adult personality assessed. Each of the 5 groups had a specific profile on a Big-5 questionnaire as rated by close friends.

Confident children -> Most extraverted adults  
Inhibited children -> Least extraverted  
Under-controlled -> Least agreeable, least conscientious, highly neurotic  
Well adjusted & confident -> more open to experience

On an MPQ questionnaire:

Under-controlled -> highest on negative emotionality  
Confident -> least inhibited (low constraint)  
Inhibited -> most inhibited & lowest positive emotionality  
Reserved -> low levels of positive emotionality

Note - these findings are group differences. There is considerable variation between individuals.

*Conclusions: 1<sup>st</sup> year of life, temperament does not relate to later behaviour. Beyond 1<sup>st</sup> year, temperament is a significant influence on behaviour - stability of individual differences is established.*

### **Situation specificity**

If temperament has a biological basis, then it should be seen consistently in a variety of settings.

**Hinde & Tobin** - found 'coherence of temperament' in 4 y.o. at home and in playgroups. Behaviour not the same in all settings, but temperamental features seen in one context were seen in the other. Therefore temperament is of value in describing the coherence in children's behaviour.

### **Emergence of individual differences**

**Wilson** - intelligence shows higher heritability in early adulthood than in childhood - therefore early or late emergence is not a necessary characteristic of a biologically rooted behaviour.

### **Measuring Temperament**

**NYLS (Thomas & Chess)** - parents questioned. Danger of bias through social desirability, or expectations rather than the actual behaviour of the child. Most common on checklists and questionnaires; diaries also show some bias too. **Hagekull et al** compared parental reports with direct observation and give agreement between 28% (sensory sensitivity) to 69% (attentiveness) between the two sets of measures.

**EAS - Buss & Plomin** - is an example of a temperament questionnaire.

### **Four Theories**

**Thomas & Chess** - nine dimensional framework

Activity level; quality of mood; approach; rhythmicity; adaptability; threshold of responsiveness; intensity of reaction; distractibility; attention span

Not possible to confirm the 9 dimensions as independent aspects of temperament. Has been difficult to replicate the results of the NYLS elsewhere (**Hubert et al.**)

Did imply that different temperament types can be identified.

Difficult temperament construct - perceptions by the parent? **Vaughan et al** found mother's ratings of temperament could be identified reliably before the child was born. However, still a link between temperamental difference reported by mothers before 2y.o. shown in behaviour problems at 3-6 years (**Bates and Bales**)

### **Buss & Plomin - EAS Framework**

Influenced by **Eysenck's** theory of personality. Most closely allied to psychometric test construction. They claim the 3 dimensions can account for most variations in temperament and they relate directly to **Eysenck's** theory of adult personality.

### **Kagan - inhibition to the unfamiliar**

**Rutter** suggests temperament profiles/clusters more useful clinically. Example of such an approach is **Kagan** - a categorical theory of temperament types (in contrast to the dimensional approaches of T&C and B&P.) e.g. substantial majority of children who show extreme shyness in middle childhood is due to enduring qualities of their behaviour, not just recent stresses/upsets. He argues that specific sites in the brain responsible for regulating emotional behaviour and long term memory are responsible for differences in behaviour style.

### **Dunn & Kendrick - Embedding Temperament in Social Relationships**

Based on observations that a new baby provokes behavioural changes in most children. Therefore behaviour is not independent of the situation a child is in - social context influences it too. Behavioural style in a setting is consistent, but is a property of the relationship a child has with another person. If the relationship is stable, then so will the temperamental differences.

### **Influence of temperament on development**

#### **Direct effect -**

Short attention span + very impulsive => difficulties in learning situations (**Tizard & Hughes**)

Older children - **Keogh** three factor model of Task Orientation, Personal-Social Flexibility & Reactivity will have a direct effect on ability to learn.

### *Direct effect of child temperament on parents -*

**Bell and Sameroff & Chandler** - transactional model. Child produces their own experiences directly, but also through the influence its behaviour it has on its caregivers.

*Indirect effect via 'goodness of fit'* - individual differences in temperament have to be considered in the context of the environment. E.g. child low on adaptability and high on rhythmicity will struggle more with parents who have an erratic pattern of childcare. Same child will be well suited to parents who have regular routines.

**Lerner et al** - impact of temperament & maternal employment. A child with difficult temperament may cause a mother to opt to go out to work to avoid it; or may have the opposite effect of making the mother feel constrained to stay at home because of childcare difficulties.

Goodness of fit = child's temperament w.r.t. the mother's tolerance. **Lerner & Galambos** using data from the NYLS found that children with difficult temperament had mothers with more restricted work histories.

### *Indirect effect via susceptibility to psychosocial adversity -*

Temperament related to susceptibility to stress. E.g. frequent hospitalisation of pre-school children produces a risk in later educational and behavioural terms, but only if they are from a poor background (**Quinton & Rutter.**)

### *Indirect effect on range of experiences -*

Older children can influence the environments they come across and he experiences these create. Greater mobility & independence => greater selection of experiences. Which ones they select will depend on temperament. E.g. **Rutter** - impulsive, active children most likely to have accidents.

**Scarr & McCartney** - genetic makeup influences the environment children experience through 3 routes:

Passive gene-environment correlations - occur if parents have similar temperament to the child.

Evocative gene-environment - occurs when child's behaviour solicits specific responses from carers

Active gene-environment - child actively seeks environments that suit its behavioural disposition

As the child becomes older, the mix will change. Passive & evocative effects dominate at first. Active effects will increase as the child has greater freedom to select its own activities.

### *Attachment and temperament -*

No evidence of temperamental differences in infants being associated with secure vs insecure attachment types (metastudy, **Goldsmith & Alansky.**)

Caregiver sensitivity in first year often influences attachment quality (**De Wolff & Van Ijzendoorn**) - but few direct effects on infant attachment found (**Egeland & Farber.**)

However, the combination of child and caregiver individual characteristics does predict attachment (**Belsky & Isabella; Notaro & Volling**) - supporting transactional model. Further evidence from **Mangelsdorf et al** - individual characteristics of either the child or mother may be less important than the context of the relationship within which the characteristic occurs.

Tim Holyoake 2009 - <http://www.tenpencepiece.net/>

### **Conclusions**

Infant behaviour shows regularities and systematic characteristics

Temperament is about the differences in the way behaviour is organised in different individuals - not the organisation of behaviour per-se.

Range and scope not fully determined - EAS is a good starting point; attentional ability variations suggested by **Bates** as well.

Differences may be part genetic, part biological - but many other factors also help to determine this.

Differences in temperament will affect development.