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Structure and stability of temperament in infancy and early childhood



Although we began our studies by using temperament measures which came from previous US research, we were able to develop measures more suitable for Australian children as we went along. For the infancy period, for toddlerhood and for school-aged children up to 7 years, we developed shorter versions of the original questionnaires which put together the best items identified in the research with this sample, as representing measures of temperament in Australian children.

Infancy and toddlerhood

We found that five particular temperament dimensions best characterised the infants in our sample: Approach (shy versus outgoing); Rhythmicity (regularity of biological functions such as sleeping); Cooperation/Manageability (ease of adaptation to everyday events such as nappie changing,); Activity/Reactivity (active reaching for objects, and intensity of reactions); and Irritability (crying and fussing). We developed a 30-item Short Temperament Scale for Infancy which is being used by many researchers across Australia. Using three of the temperament dimensions, Cooperation, Irritability, and Approach, we also developed a composite 'Easy-Difficult' Temperament scale. Children scoring at the difficult end of this scale were more likely to show problems such as colic, crying and sleep difficulties. As expected, we also showed that our infants were different from those in the original US temperament study samples, in terms of their temperament profiles.

We carried out similar analyses for the data on temperament in toddlers and found that similar dimensions best represented temperament in the sample one to two years later in development. The major dimensions listed above also appeared in the toddler study with the addition of a dimension called Persistence. This led us to the development of a Short Temperament Scale for Toddlers which, like the infant scale, provides normative data for Australian children. This allows comparisons across studies from different research groups examining temperament in young children.

We also found some social class differences in children's temperament. Families from higher socio-economic status levels; i.e. those with more years of education and more skilled/professional types of employment, tended to rate their children generally as somewhat easier in temperament. Temperamental differences between our Australian and the US samples of children were again evident at the toddler stage, with Australian children somewhat more easy-going and less active than those from the US.

Early childhood: 3–7 years

Beginning with another US instrument, the Childhood Temperament Questionnaire (Thomas and Chess 1977), we analysed the temperament profiles of children across the 3–7 year age span, and again derived a shorter form of the scale suitable for Australian children. The temperament dimensions which emerged at this age-range were:

Inflexibility (difficulty in dealing with anger and frustration, and adjusting to challenges); Persistence (a steady approach to tasks and the capacity to persist to completion); Sociability (reactions to new people and situations, friendly-confident, versus shy); Rhythmicity (eating and sleeping routines); Activity/Mood (cheerful liveliness versus negative mood and unresponsiveness); and Threshold (level of sensitivity to noises, and discomfort). Boys tended to be rated slightly more towards the difficult end of these temperament dimensions, especially on flexibility and persistence. That is, they were perceived as less flexible, adaptable and persistent, compared with girls. There were also some social class differences with higher socio-economic level children rated as more persistent, sociable, flexible, and active/cheerful, but these differences were quite small.

Stability of temperament

The question of how stable or similar across time child temperament might be is important, because if an individual's temperament style is very variable across time and across situations it can be argued that it is a very weak and fragile concept, and that it is not likely to be a strong predictor of later social and psychological wellbeing. We explored the stability of our maternal ratings of temperament from infancy to eight years. Similar dimensions of temperament, broadly speaking, emerged at different age levels, that is, the dimensions remained constant as described in the previous section. We found a substantial level of stability of temperament among the children on the major temperament dimensions. Those children who were at the extreme ends of temperament dimensions such as Persistence and Adaptability, that is, were very persistent or very adaptable, tended to stay that way over time; those who were around the middle tended to change to some extent. The temperament dimension showing the greatest stability over time was Rhythmicity. This may not be surprising since it is a relatively concrete factor, measuring clear behaviours such as patterns of sleeping, eating and toileting. It may also reflect stable family routines as well as 'innate' or inborn characteristics. Persistence increased in stability over time, perhaps because it becomes more and more relevant as a behavioural style which is important in schooling. Approach and Inflexibility temperament dimensions also showed substantial stability across time. In other words, the child at the shyer end of, for example, the Approach dimension, was likely to stay that way, and the child at the more sociable end of this dimension was similarly likely to remain so.

Validity of temperament ratings: are we really capturing the 'nature' of the child?

One of the challenges of temperament research is that we are reliant often on reports of temperament-related behaviours from mothers, fathers, or teachers. Are these reports a true assessment of the child's temperament? It seems reasonable to argue that mothers generally know most about their young children and that they are the best sources of information on early development. Teachers see the children in different environments and have a wider range of children for comparison. Each rater contributes important information.

One question we considered was whether these perceptions truly reflected the nature of the child as shown in objectively-observed behaviour. To investigate this question we observed and videotaped the behaviour of forty 7-year-olds and their mothers in interaction at home, as they completed some problem-solving tasks. About half of the children had shown a consistently difficult temperament and half had shown a consistently easy temperament over previous years. (It is important to note that the person doing the observations did not know to which group any child belonged.)

Analyses of the video-taped observations showed that the children with a difficult temperament were more negative and argumentative than the easy temperament group. Mothers reacted to the characteristics of the children in response to their negative behaviours in a variety of ways which demonstrated individual styles in their efforts to manage the child – that is, there were no systematic differences between mothers of easy and mothers of difficult children in the way they responded. This study also showed that the children with observed difficult temperament were much more likely to have behaviour problems (almost all of the ‘difficult’, compared with none of the ‘easy’ children). Here we were able to show that maternal ratings of difficult temperament characteristics had validity, in that they were consistent with the actual behaviour of the children as rated by a person who had no knowledge of their temperament profile.

Further reading

See items 11, 18, 19, 21, 24, 37, 41 and 43 in the list of Australian Temperament Project publications at the end of this book.