New for 2009- Feb update
Hard-to-find classics 5: Van Ijzendoorn & Kroonenberg (1988)

e-xtension

Dr. Julia Russell's

Psychology Column

Reference

Van Ijzendoorn MH & Kroonenberg PM (1988) Cross-cultural patterns of attachment: A meta-analysis of the Strange Situation. Child Development, 59, 147–156.

Introduction

Infants and their carers form strong, reciprocal bonds. For the infant this attachment is important for survival helping to ensure that it receives the attention – food, warmth and comfort – that it needs from adults. Ainsworth & Wittig (1969) devised the 'Strange Situation' procedure to test the nature of an infant's attachment. The type of attachment can be classified as:

· Secure (type B)
· Resistant (type C)
· Avoidant (type A).

This test has become a standard way to assess infant attachment and shows that not all infants are securely attached. Ainsworth et al (1978) tested many infants and concluded that a typical ratio for America was approximately 20% type A, 70% type B and 10% type C. This has come to be used as the 'standard' against which other samples are measured.

One comparison that has been conducted is to use the Strange Situation to look for similarities and differences in attachment patterns between cultures. As there are cultural differences in child-rearing practices and expectations of children's development, some cultural differences might be expected. However, since an infant's basic needs are universal, there should also be some similarities.

Van Ijzendoorn & Kroonenberg set out to overcome three key problems they had identified with previous studies of cross-cultural patterns. These were:
· Small sample sizes – which may not be sufficient to provide reliable findings from which to generalise about whole populations.
· The relative extent of intra-cultural versus inter-cultural differences – that is, whether any differences reported between cultures are actually any greater than those variations existing within cultures.
· The use of differences from the American 'standard' distribution of attachment types – which, they argued, being based on a narrow sample itself, may not be very standardised at all.

As well as describing patterns of attachment, this study is useful as an example of cross-cultural research in general. Van Ijzendoorn & Kroonenberg compared studies using an identical methodology (the strange situation, mother-infant, A,B,C types) so it is also a simple example of a meta-analysis.
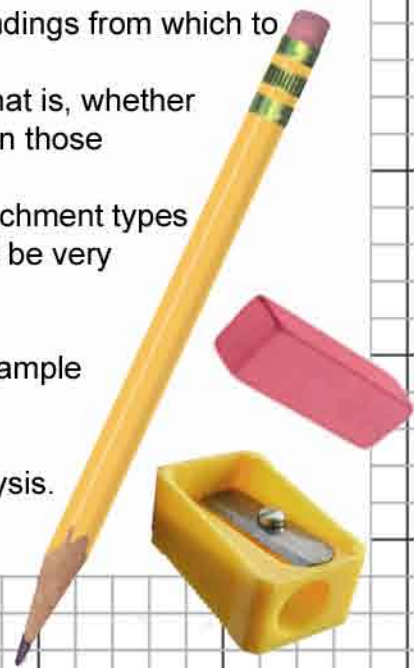
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Figure 1 Are there cultural differences in attachment

Other concepts illustrated in the paper include:
· Measures of central tendency: mean, mode
· Use of bar charts

Aim
To investigate the reported rates of different infant attachment types in a range of cultures.

Procedure
The investigation was a meta-analysis, that is, it used information reported in other studies and combined this data to produce a comparison across cultures. The selected studies had all:
Used the strange situation
Observed only mother-infant pairs (ie not father- or other carer-pairs)
Classified infants into one of the attachment types A, B or C.

The choice of studies also excluded any identifying special groups of children, such as those with Down's syndrome, any with less than 35 pairs and any using children older than 2 years. The total included 32 samples from eight countries and represented 1990 strange situation classifications.

Findings
The data were analysed in three ways:
· To see whether, within each sample, there was a pattern in the distribution of children over different attachment types.
· To compare the extent of intra- and inter-cultural differences in terms of overall variation
· To evaluate specific similarities and differences in the profiles of samples (ie whether the proportion of A, B and C classifications was similar).

In all samples from all countries with the exception of one sample from Germany, type B was the modal attachment type. This is one illustration of the similarities between cultures.

Table 1 shows the average distributions for each cultural group

Cultural group	number of studies used	number of mother-infant pairs	% attachment type		
			A	B	C
Germany	3	136	35	57	8
Great Britain	1	72	22	75	3
Netherlands	4	251	26	67	6
Sweden	1	51	22	75	4
Israel	2	118	7	64	29
Japan	2	96	5	68	27
China	1	25	25	50	25
USA	18	1230	21	65	14
Total	32	1990	21	65	14

The findings from the USA are somewhat misleading. Whilst the average distribution closely resembles the 'global' figure (differing by less than 1%) the US samples were very varied. For example:

· Easterbrooks & Lamb (1979) reported almost all (94%) type B
· Kennedy & Bakeman (1984) found a third of the infants they tested were type C (and only 47% type B)
· Antonucci & Levitt (1984) found that 36% of their sample were type A

However, Ainsworth et al's sample (used as the 'standard') was close to the centre of the possible variation (with percentages of 21% type A, 67% type B and 12% type C).

Intra- and inter-cultural comparisons produced some interesting findings:

· One of the German samples was as different from another German sample (Berlin) as Berlin itself was from an Israeli kibbutzim sample or one of the US samples
· One of the Japanese samples (Tokyo) was more similar to two of the US samples than to the other Japanese sample
· The Israeli city sample was more like one of the US samples than the other Israeli (kibbutzim) sample.

The graph in Figure 2 illustrates the extent of some intra-cultural differences and some inter-cultural similarities. Using the whole of the data, Van Ijzendoorn & Kroonenberg found that the intra-cultural variation was nearly one and half times that of the inter-cultural variation. In other words, there were bigger differences within cultures than there were between them. As you can see, in some countries the intra-cultural variation is very large (eg in Germany and the USA). Within others (such as the Netherlands and Japan) there is much less variation. The Japanese and Israeli samples contributed the most to the range of cross-cultural differences.

Figure 2 A comparison of samples within and between cultures
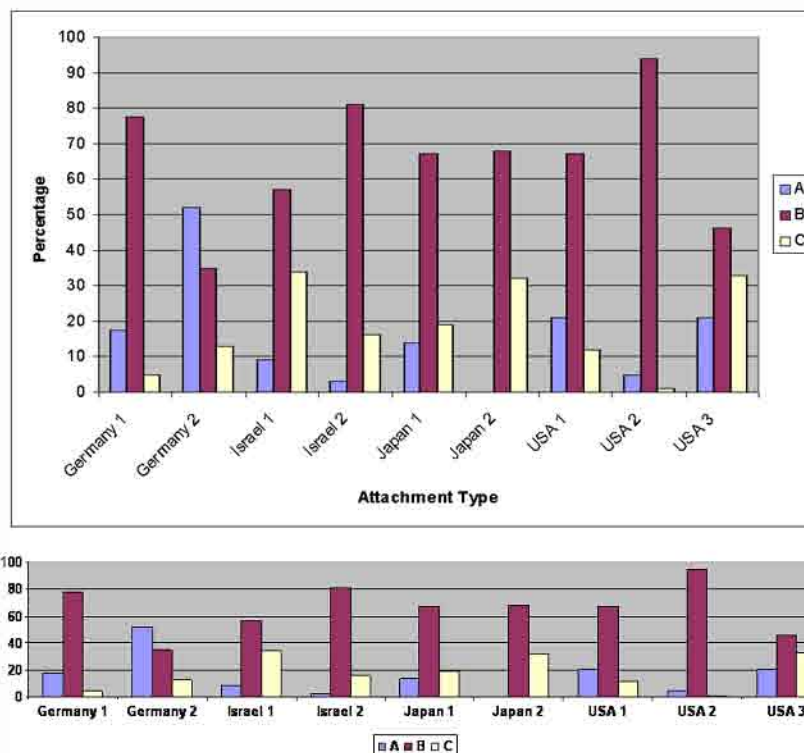
Conclusion
There are important inter-cultural similarities, such as the predominance of securely attached (type B) infants. Whilst there are some inter-cultural differences the intra-cultural differences are somewhat greater. Some of these differences may be attributable to characteristics of the sample, such as the socio-economic status of the participants and their exposure to environmental stressors.

Comments
One possibility is that the inter-cultural differences might be explained by differences in protocol as different researchers are involved. However, in at least some of the studies illustrating large inter-cultural differences the same investigator was involved so these are unlikely to be due to procedural or coding differences.

Questions
1. Why was it important that the studies providing samples for the meta-analysis all used the strange situation, did not used father-infant pairs and did not classify using type D attachment?

2. Studies with small group sizes were excluded from the analysis even if they fitted the other criteria. Suggest two reasons why this was done.

3. a) Plot a bar chart of the data on attachment type in Table 1.
   b) Describe two cross-cultural differences apparent from your graph.

Ideas for activities
1. This clip of video shows the full Strange Situation procedure – try watching it with the sound off – can you identify the stages? What attachment type do you think the baby is displaying? Watch it again with the sound up to check. http://uk.youtube.com/watch?v=QTsewNrHUHU

2. Use books or the Internet to find out why the Strange Situation may not be a good test of attachment in all countries. Explain what implications this would have for the validity of cross-cultural comparisons.

3. Look at the details of this Canadian project about cross-cultural issues and attachment: http://www.attachmentacrosscultures.org/about/about15.htm . You may also like to look at this slideshow: http://www.brunel.ac.uk/786/ppt/psychology/IARR2006.ppt#267

References
Ainsworth MDS & Wittig BA (1969) Attachment theory and the exploratory behaviour of one-year-olds in a strange situation. In Foss BM (ed) Determinants of Infant Behaviour, vol 4: 113-36. London: Methuen.

Ainsworth MDS, Blehar MC, Waters E & Wall S (1978) Patterns of Attachment, a psychological study of the strange situation. Hillsdale, NJ: Erlbaim.

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