Child

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| **Topic**  | **Methodological Issues of the topic in General** | **Background**  | **Key Research**  | **Evaluation** | **Application** |
| Intelligence (Biological) | 1. Correlations and case studies cannot separate nature and nurture
2. IQ tests are self-reports – demand characteristics
3. Self-reports allow you to identify WHY as well as WHAT
 | What psychologists mean by intelligence and biological factors that could affect it | Van Leeuwen *et al.* (2008) | * Freewill vs determinism
* Nature vs nurture
* Reductionism vs holism
* Usefulness
 | At least one method of assessing intelligence |
| Pre-adult brain development (Biological)  | 1. Brain scans cannot be faked but the anxiety may affect the results
2. Post-mortems cannot show cause and effect, just the effects
3. Longitudinal studies can show before and after, but not what exactly causes change
 | Brain development and the impact of this on risk taking behaviour  | Barkley-Levenson & Galván (2008) | * Ethical issues
* Free will vs determinism
* Psychology as a science
* Reductionism vs holism
* Usefulness of research
 | At least one strategy to reduce risk taking behaviours using knowledge of brain development |
| Perceptual development (Cognitive) | 1. Animal experiments may not be generalizable to humans
2. Lab experiments allow cause and effect to be determined
3. Lab experiments may have tasks which lack mundane realism
 | Perceptual development in children and how this can be studied in babies & animals  | Gibson & Walk (1960) | * Ethical issues
* Nature vs nurture
* Psychology as a science
* Reductionism vs holism
* Usefulness of research
 | At least one strategy to develop perception in young children |
| Cognitive development & education (Cognitive)  | 1. Lab experiments allow cause and effect to be determined
2. Lab experiments may have tasks which lack mundane realism
3. Ethnocentric as how education is done is culture specific
 | Cognitive development in children and the impact of this on education | Wood et al. (1976) | * Ethical issues
* Free will vs determinism
* Psychology as a science
* Usefulness of research
 | At least one cognitive strategy to improve revision or learning |
| Development of Attachment (Social) | 1. Lab experiments allow cause and effect to be determined
2. Lab experiments may have tasks which lack mundane realism
3. Ethnocentric as the Strange Situation is culture specific
 | The development of attachment and impact of the failure to develop attachments  | Ainsworth & Bell (1982) | * Ethical issues
* Free will vs determinism
* Nature vs nurture
* Psychology as a science
* Usefulness of research
 | At least one strategy to develop an attachment friendly environment. |
| Impact of advertising on children (Social)  | 1. Ethnocentric: Methodological issues of the topic
2. Correlations don’t show cause and effect
3. Case Studies can be idiographic
 | The influence of TV advertising on children & stereotyping in such advertising  | Johnson & Young (2002) | * Ethics
* Individual v situational
* Nature vs nurture
* Reductionism vs holism
* Usefulness
 | At least one strategy to reduce impact of advertising which is aimed at children |

Key Study Summaries

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|   | Van Leeuwen | Barkley-Levenson | Gibson & Walk | Wood | Ainsworth & Bell | Johnson & Young |
| Aim  | To assess the presence of assortative mating, gene environment interaction and heritability of intelligence in childhood using a twin family study | To investigate the influence of brain development on risk taking behaviour. To identify neural development of Expected Value (EV) in adolescent brains | To investigate whether perception is innate | To investigate how children of different ages react to tutoring | To investigate whether infants use their mother as a secure base in order to explore their environment | To investigate whether advertisers script differently for boys and girls. |
| Sample  | 112/214 families of twins about to turn 9, with an extra sibling 9-14 years, drawn from Netherlands twin registry, and only families with children with no medical disabilities | 19 healthy, right-handed adults (ages 25-30), 22 healthy, right-handed adolescents (ages 13-17), volunteer sampling through poster and internet adverts in USA. | 36 babies from 6 to 14 months with mothers. Unspecified number of cats, rats, turtles and chickens | 30 children from Massachusetts, USA. Equal number of 3, 4 and 5 year olds and equal ratio of male to female | 56 infants, opportunity sample. | Sample Adverts from children's cartoons on commercial networks, an independent New England station and Nickelodeon used in 1996, 1997 and 1999 |
| Procedure | All gave consent, compensated for travel costs and children given a present. Families completed questionnaire or DNA cheek swab at home - to confirm zygosity. Children completed Raven's standard progressive matrices (SPM), adults completed Raven's advanced progressive matrices (APM). Researchers looked at phenotypic assortment and social homogamy | Natural experiment, independent measures design, conducted in a laboratory. IV = adult / adolescent. DVs = performance on a simple mixed gambles game and fMRI scan to show volume / activity of Ventral Striatum (VS). Intake session = neuro-imaging, consent forms, spending per month (mean for adolescents = $52.50; for adults = $467). One week later = fMRI session. During scan, series of gambles with a 50% probability of gaining the amount shown and a 50% probability of losing the amount shown on the other side of the spinner. Range of profit values between +$5 and +$20 and loss amounts between−$5 and −$20, for a total of 144 trials per participant.  | Lab experiment, repeated measures with babies, quasi with animals. Placed on visual cliff, mother called from the shallow side and then from the deep side | Pyramid blocks – 5 mins to play with no instruction. Then tutor used standardised instructions and 1-2-1 help if necessary to show child how to put the blocks together. Child asked to do the same | Controlled observation, independent measures design. Strange Situation Process - infant enters the room with the mother, the infant plays with the mother present, the stranger enters, the mother leaves the infant alone in the room with the stranger, the mother returns. | Content analysis. Ads classified into 1. Food, 2. Toys, 3. Educational and Public Service Announcements, 4. Recreational facilities and 5. Movie or TV. Ads for toys chosen for analysis and used three categories; 1. targeted for boys, 2. targeted for girls and 3. Adverts targeted to both. Analysed to see emphasis placed on gendered voice e.g. voiceovers, verb elements, amount of speaking lines and use of the word power. |
| Results | No significant sex differences. No effect of cultural transmission on variance of IQ. High spousal correlation shows phenotypic assortment. People with lower IQ are more sensitive to environmental influences. | Adolescents behave similarly to adults when there is no risk involved. Amount of disposable income does not affect reaction times. The higher the EV of the win the more likely the adolescent was to gamble in comparison to the adult. More activation of the VS in adolescents as the EV increased.  | 100% moved across gap when mum was at shallow side. 11% when mum was at the deep side. | Youngest: needed more help - the tutor has to show them how to complete task, more likely to go off task, needed more motivation. Middle: needed tutor to prompt and correct mistakes, needed the most verbal help. Oldest: needed least help, only needed tutor to confirm that what they were doing was correct. | Securely attached = 70%, Insecure resistant = 10%, insecure avoidant = 20% | 1. For boys = action figures most common (37%) for girls = posable figures most common (44%). 2. Boy-oriented adverts used 'deep, loud and aggressive voices' (80%); girl-oriented adverts used 'high pitched sing-song voices' (88%). 3. 21% of boy-oriented adverts used the word power(ful); heard once in girl-oriented adverts. |
| Conclusions | Genetic factors are the main influence on IQ BUT environmental factors do interact. Spousal resemblance is due to phenotypic assortment (individuals choose one another due to similar intelligence levels) rather than social homogamy (individuals of similar intelligence levels are clustered together and so more likely to mate) | Adolescents behave similarly to adults when there is no risk involved. Adolescents place greater value on rewards than adults do. Adolescents more likely to have VS activity linking to increased risk taking behaviour | Both nature and nurture influence the development of depth perception. Binocular cues such as motion parallax are innate, while monocular cues such as size constancy are learned. Humans and other animals have developed some depth perception by the time of the onset of mobility, which is specifically suited to their habitat and behaviour of their species. | Shows that scaffolding is effective. Smaller children need more direct support whereas older children need less. | Attachment behaviour may be increased or decreased by the environment, but we are predisposed to seek proximity to our attachment figure (nature). | Gendered language is promoted through ads - children learn stereotypical behaviours promoted by ads and imitate these. Ads use gender stereotypes because previous marketing like this had been successful and more profit made with gender targeted toys. |