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Children's Services, Central Area

Educational Psychology and Specialist Support

Research Briefing Paper for Schools, Settings and Services

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- **Make research studies published in journals accessible to practitioners**
- **Provide a foundation for those with similar interests to discuss topics relevant to their work**
- **Contribute to developing a research ethos within Norfolk Children's Services**

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Research Briefing Paper 3: May 2010

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We are grateful to the British Psychological Society for allowing us to reproduce items from their free Research Digest service. Particular thanks are given to the Research Digest's Editor Dr. Christian Jarrett (christianjarrett@gmail.com).
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1. **Thirty years on - the babies judged negatively by their mothers**

Broussard, E., & Cassidy, J. (2010). Maternal perception of newborns predicts attachment organization in middle adulthood. Attachment & Human Development, 12 (1), 159-172 http://dx.doi.org/10.1080/14616730903282464

Author weblink: http://www.bsos.umd.edu/psyc/mcfdl/index.html

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If a mother has a negative perception of her baby when it's just one month old, there's a strong possibility that same baby will have attachment problems as an adult, thirty or forty years later. That's the claim of a longitudinal study that recommends screening new mothers to see if they have a negative perception of their child, so that any necessary action can be taken to stop the transmission of attachment problems from mother to child.

Elsie Broussard and Jude Cassidy recruited twenty-six adults in the area of Pittsburgh, whose mothers had signed up to a longitudinal study up to forty years earlier. Back then, in the 60s and 70s, the mothers had been asked to rate their one-month-old babies on factors like crying, spitting, sleeping, feeding and predictability, and then do the same for the 'average baby'. Twelve of the babies were judged to be at risk because their mothers had rated them more negatively than an average baby. Back to the present, and the researchers interviewed the adults using the Adult Attachment Interview, which includes questions about memories of their childhood, their memories of separation and loss and whether they felt affected by their parents' behaviour. Based on these kinds of questions, the participants were classified as being securely or insecurely attached, the latter classification suggesting that they have ongoing problems forming healthy emotional attachments to other people.

The key finding is that 9 of the 12 adults who, so many years earlier, had been perceived negatively by their mothers were today classified as insecurely attached adults, compared with just 2 of the 14 adults who'd been positively perceived by their mothers. '...These findings reflect transmission from one individual's representational world to that of another,' the researchers said. In other words, the researchers believe that a mother who views her baby negatively has attachment problems and these problems tend to be passed onto that baby, even affecting his or her attachment style thirty or forty years later.

How could a negative attachment style be transmitted in this way? Apparently, earlier work in Broussard's lab showed that 'mothers with a negative perception of their infants had limited awareness of their infant's states, had difficulties recognising their infant's signals, and lacked a flexible and effective range of responses.' Moreover, the researchers surmised, babies with mothers who perceive them negatively may fail to come to see their mother as a secure base and may come to feel 'rejected and unloved, feelings that may contribute to an insecure state of mind [in adulthood] with respect to attachment.' Given their results, Broussard and Cassidy suggested more professional support be given to new mothers, especially during the critical early period between hospital discharge and the next contact with medical staff.

As with so many studies that look for effects of parenting on children, this study contains a serious confound that's barely touched upon by the researchers. The effects that Broussard and Cassidy attribute to parenting and attachment style could well be genetic. We're not surprised when the children of tall parents grow up to be tall. Perhaps we shouldn't be surprised that the children of insecurely attached parents grow up to be insecurely attached themselves.

2. How infants affect how much their carers engage with them

Vallotton, C. (2009). Do infants influence their quality of care? Infants' communicative gestures predict caregivers' responsiveness. Infant Behavior and Development, 32 (4), 351-365 http://dx.doi.org/10.1016/j.infbeh.2009.06.001

Author weblink:
http://www.fce.msu.edu/FacultyWebPages/Claire_Vallotton/vallotton.html

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Young children benefit socially and intellectually the more their carers engage and respond to them. Recognising this, we can train nursery staff to be as responsive to the children in their care as possible. But a new study by Claire Vallotton raises an interesting and under-examined issue - what if there's something about some infants that leads their carers to engage with them more, thus giving them an advantage over their peers.

Vallotton filmed interactions between 18 student caregivers and 10 infants (aged between 4 and 19 months) at the Infant and Toddler programme at the UC Davis child development lab. Carers working here were taught "baby signing" - this is a gesture-based system for pre-verbal infants and adults to communicate with each other. For example, pointing the hands inwards, towards the mid-line, with fingers touching, is the sign for "more".

The student carers interacted with their designated child one-on-one, and importantly for this research, they occasionally switched which child was under their care, thus allowing Vallotton to see if some children consistently provoked more engagement from different carers.

There were some general effects: boys and older children provoked more attentiveness from their carers. But Vallotton's more novel finding was that infants who responded more to their carers' signs, either with signs of their own or with conventional gestures such as pointing or waving, tended to provoke more engagement and responsiveness from their carers.

This carer responsiveness was measured with a scale containing items such as "follows child's gaze" and "is at the child's physical level". Crucially, it was not an infant's total amount, or variety, of signing or gesturing that was related to more carer attentiveness. It was specifically an infant's amount of gestural response to the carer's own attempts at communication. In other words, the carers engaged a lot more with babies and toddlers who responded to them. This may sound obvious but it suggests the carers were biased, probably subconsciously. They were effectively making more effort with the infants who interacted with them more.

Obviously a major factor limiting the generalisability of this research is the use of baby-signing in this care group. However, Vallotton thinks her findings probably do apply more generally. "Caregivers [were] more responsive to infants who use more gestures, regardless of whether those gestures were conventional pointing or infant signs," she said. And the take-home message, she concluded, is that "infants' communicative behaviours affect caregiver responsiveness ... Increasing infants' use of gestures and signs may be a means to enhance responsiveness in caregiver-child interaction, a possibility that should be tested experimentally."

3. **What's in a baby's smile?**

M PARLADE, D MESSINGER, C DELGADO, M KAISER, A VANHECKE, P MUNDY (2009). Anticipatory smiling: Linking early affective communication and social outcome. Infant Behavior and Development, 32 (1), 33-43
http://dx.doi.org/10.1016/j.infbeh.2008.09.007

Author weblink: http://www.pitt.edu/~icl/

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Watch a nine-month-old baby playing with his mother and it's already apparent that the child is a truly social being. You'll doubtless see him smiling and directing his mother's attention to share what he's interested in. But according to Meaghan Parlade and colleagues, not all babies at this age have equal social skills - subtle differences in their social behaviour can be discerned and are predictive of social and emotional adjustment eighteen months later.

One such behaviour that varies between babies is what the researchers call "anticipatory smiling" - the act of looking at an object, such as a toy, smiling, and then gazing at mum, dad, or some other social partner, with that smile still in place. By way of contrast, a "reactive smile" is where the baby looks at a toy, turns to their mum and smiles only after making eye contact. The "anticipatory smile" is deemed a more advance social skill because it reflects a motivation to engage others using positive emotion.

Parlade's team videoed babies interacting with their care-givers when they were six, eight, ten, twelve and thirty months old. What they found was evidence of a clear developmental trajectory: babies at six months who smiled more at a suddenly unresponsive parent (a test known as the "still face" procedure) also tended to employ more "anticipatory smiles" between the age of eight and twelve months, and in turn, those babies who used more "anticipatory smiles" tended to be more socially competent at thirty months, as judged by such things as their ability to play well with other children and talk about feelings. By contrast, earlier use of "reactive smiles" did not have this association with later social competence.

"These associations suggest a line of continuity between infants' emotional expressivity during early social situations and later adaptive relatedness with others," the researchers said. "Anticipatory smiles may signify an awareness of the separate attentional state and affective availability of the other."

4. Babies can tell the difference between happy and sad music

R FLOM, D GENTILE, A PICK (2008). Infants' discrimination of happy and sad music. Infant Behavior and Development, 31 (4), 716-728. http://dx.doi.org/10.1016/j.infbeh.2008.04.004

Author weblink: http://fhssfaculty.byu.edu/Faculty/raf47/

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By nine months of age, babies can already tell the difference between jolly jingles and sad ones. You can probably imagine that demonstrating this was no mean feat for researchers, given the obvious difficulties of asking babies what they think.

Ross Flom and colleagues took advantage of the fact that babies tend to look longer at something that's novel. Of course, this depends on their ability to tell that something is new and different.

Dozens of babies aged between three and nine months were presented with a video image of a male or female actor with a neutral facial expression. Musical excerpts were played through speakers located near this face.

Each experimental trial always began with all happy or all sad music. After a while the babies stopped looking for so long in the direction of the face and music - they "habituated" to it. Soon afterwards, the researchers changed the music. If it had been happy at the start, they changed it to sad, and vice versa.

For three-month-olds, changing the mood of the music made no difference - they were still bored by it and didn't look much in the direction of the face and music. By contrast, for nine-month-olds, changing the mood of the music grabbed their attention. They realised it was different and started looking in the direction of the face and music more often. The results for five and seven-month-olds were mixed. A switch from sad to happy music grabbed their attention, but from happy to sad did not - the researchers aren't entirely sure why this is, but it may have something to do with sad music being inherently less interesting.

A couple of control conditions made the results more persuasive. Firstly, the 3-month-olds began looking more in the direction of the music if the display changed to show a spinning turtle - so their lack of a reaction to the musical change can't have been due to fatigue. Also, the attention of the older babies wasn't grabbed simply by playing a new piece of music of the same mood - the mood had to change.

Although the older babies recognised a change in the mood of the music, it's not clear how much this really meant to them. "We make no claims about whether infants perceived affect in the music or experienced either happiness or sadness while listening to it," the researchers said.

5. Experts point to lack of gesturing as reason for smaller vocabulary in poor children

Meredith L. Rowe, Susan Goldin-Meadow (2009). Differences in Early Gesture Explain SES Disparities in Child Vocabulary Size at School Entry. Science, 323, 951 - 953. http://www.sciencemag.org/cgi/content/abstract/323/5916/951

Author weblink:
http://goldin-meadow-lab.uchicago.edu/postdocs.html#meredithrowe

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Psychologists at the University of Chicago say one explanation for why children from poorer families have smaller vocabularies is that their parents communicate with them using a narrow range of gestures.

The use of gestures, such as pointing, has been recognised as an important aspect of child development for some time. For example, the amount a child gestures at a young age predicts her later vocabulary size.

In this study, Meredith Rowe and Susan Goldin-Meadow observed 50 families from a range of socioeconomic backgrounds in the Chicago area. They first measured the variety of gestures and speech used by parents and their children during a 90-minute session when the children were 14 months old, and then they measured the children's vocabulary when they were aged 54 months.

Rowe and Goldin-Meadow found that parents and children from poorer backgrounds (i.e. of low socioeconomic status) used a narrower range of gestures when they interacted with each other compared with parents and children from more affluent backgrounds. This link between socioeconomic status and child gesturing disappeared when parental gesturing was controlled for statistically, thus suggesting, but by no means proving, that parental gesturing could be playing a causal role.

Next, Rowe and Goldin-Meadow found a link between family socioeconomic background and children's vocabulary at 54 months - an association which was weakened when the children's range of gesturing at 14 months was taken into account. In other words, at least part of the reason children from poorer backgrounds have smaller vocabularies seems to be because they use a narrower range of gestures when they're aged 14 months. Combining this observation with the earlier finding about the role of parental gesturing, implies but by no means proves, that one reason children from poor backgrounds develop smaller vocabularies is because their parents gestured to them less when they were younger.

"Given our findings, it seems fruitful for future research to explore whether parents and children can be encouraged to increase the rate at which they spontaneously gesture when they speak," the researchers said.

6. Another look at a mistake babies make

J. TOPAL, G. GERGELEY, A. MIKLOSI, A. ERDOHEGYI, G. CSIBRA (2008). Infants' Perseverative Search Errors Are Induced by Pragmatic Misinterpretation. Science, 321 (5897), 1831-1834 http://dx.doi.org/10.1126/science.1161437

Author weblink: http://www.mta.hu/index.php?id=773

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Psychologists think they've found a new explanation for a classic mistake made by babies.

If you repeatedly hide an object under an opaque cup, each time allowing a ten-month-old baby to retrieve it, and then you hide it one last time under a second cup - where do you think the baby will look for it? The chances are, she'll probably look under the first cup, even though she's just that moment watched you put it under the second!

It's a strange mistake and one made famous by the grandfather of developmental psychology, Jean Piaget. The great man believed babies make this mistake because they've yet to grasp the idea that objects continue to exist even when they can't be seen. By his account, babies think the object will come into existence as a consequence of their act of looking.

More modern explanations think the mistake has more to do with memory or the inability of babies to inhibit their temptation to look under the first cup - they've found it under the first cup so many times, they can't stop themselves from looking there again.

But now Jozsef Topal and colleagues have provided evidence supporting an alternative explanation. They argue that when we communicate with babies using eye-contact and chirpy chatter, they have an innate tendency to assume that what we're communicating to them is a general fact about the world.

So when you hide the object under the first cup and you look and talk to the baby, she thinks you're telling her that this type of object is generally found under this cup.

Topal's team tested this explanation by performing the hiding test with three groups of ten-month-olds. For one group, the adult tester sat at right-angles and made no eye contact or communication with the babies. When the object was finally hidden under a second cup (after being repeatedly hidden and retrieved from a first cup), lo and behold, the babies were far more likely in these conditions to subsequently look for it in the right place (57 per cent of them did so, compared with 14 per cent of babies who were tested under typical conditions involving eye-contact and talk).

For the final group, the hiding task was performed with the tester concealed behind a curtain - these babies looked for the object under the second cup 64 per cent of the time.

Topal's team aren't saying that inhibition and memory don't have anything to do with this classic error - after all, even without eye-contact and talk the babies did still sometimes look in the wrong place. However, they say their account has the advantage of explaining why, under usual conditions, babies nearly always look in the wrong place (if they were simply clueless, you'd expect them to look in the correct place at least half the time).

"Human infants are highly social creatures who cannot help but interpret the ostensive communicative signals directed to them," the researchers wrote. "Although such a disposition prepares them to efficiently learn from adults, in certain situations it can also misguide their performance."

7. How to increase altruism in toddlers

Over, H., & Carpenter, M. (2009). Eighteen-Month-Old Infants Show Increased Helping Following Priming With Affiliation. Psychological Science, 20 (10), 1189-1193 http://dx.doi.org/10.1111/j.1467-9280.2009.02419.x

Author weblink: http://bit.ly/3PEcnz

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Surely one of the most charming sights is of an adult struggling to reach an object, only for a toddler to pick up that object and hand it to the adult, as research has shown they so often will. Psychologists think such ingrained altruism has evolved as a consequence of our species' dependence on group living for survival. Supporting this account, Harriet Over and Malinda Carpenter have shown that subtle exposure to the sight of two apparently companionable dolls, stood side by side, is enough to increase the likelihood that an 18-month-old will help an adult pick up some dropped sticks.

Sixty 18-month-old infants were shown eight photos of household objects, such as teapots, books or shoes. Crucially, infants were divided into four groups, with each group shown one of four versions of these photos. One "affiliated" version featured in the background two dolls standing together side by side; another version featured a doll in the background on its own; the third version featured two dolls facing away from each other; and the final version merely had toy bricks in the background.

After they'd been shown these photos, another experimenter walked over to the infants and dropped a bunch of pens on route. Amazingly, the infants who'd seen the photos with the companionable dolls in the background were three times as likely as the other infants to help the experimenter by spontaneously picking up one or more sticks and handing it to the experimenter.

Further analysis showed it's not that the infants who'd seen the photos with companionable dolls were caused to be in a better mood, nor that they spent longer looking at the photos, than the other infants. Rather, according to the researchers, "the connections between affiliation to the group and prosocial behaviour are ... so fundamental that, even in infancy, a mere hint of affiliation is sufficient to increase helping."

Over and Carpenter said their finding has important implications for research - paving the way for future investigations of other non-verbal social influences on infants' behaviour - and also for real life. "Our data suggest that surprisingly subtle changes to our social environment may promote prosocial behaviour in our children."

8. **Three-year-olds keep fictional game worlds separate**

Skolnick Weisberg, D., & Bloom, P. (2009). Young children separate multiple pretend worlds. Developmental Science, 12 (5), 699-705 http://dx.doi.org/10.1111/j.1467-7687.2009.00819.x

Author weblink: http://www.rci.rutgers.edu/~deenasw/index.html

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The Alien vs. Predator series of films provide a rare exception to the usual rule that fictional worlds are separate, with pretend entities in one not existing in any other. In 2006, Deena Skolnick and Paul Bloom showed that young children aged between three and six years already understand this idea well. For example, the children said that the comic hero Batman could touch his side-kick Robin, but couldn't touch the sea sponge cartoon character SpongeBob. Now Weisberg (nee Skolnick) and Bloom have built on these findings, showing that young children also keep fictional game worlds separate when they are playing.

An initial study involved 50 three- and four-year-olds. Each child sat with two experimenters, a toy bear, a toy doll and a central pile of toy blocks. The first experimenter, located to the right, introduced the child to the doll Mary; together they pretended it was her bath-time and the child used one or more blocks as bath objects, such as soap. Then the second experimenter, located to the left, introduced the child to Bruno the bear. They pretended it was his bedtime and the child used one or more blocks in the game, for example as a pillow.

The crucial part came next, as the first experimenter told the child that Mary had grown tired and needed to sleep, whilst Bruno had woken and wanted to wash. Rather than using the toy block already established to be a pillow in Bruno's world, the children, regardless of age, nearly always reached for a new block from the pile to use as a pillow for Mary. Similarly, rather than using Mary's soap, most children reached for a new block to use as soap for Bruno. This remained the case in a follow-up study in which the researchers took great effort to ensure the children understood that the objects in one game world were available, and no longer being used by another toy character.

"Just because something was a pillow in Bruno's world did not necessarily mean that it was a pillow in Maggie's world," the researchers said.

Concerned that the parallel play arrangements of the first two studies were unnatural, the researchers also performed a third and final study where two games were played in sequence. This time, if the researcher announced between game sessions: "I'm bored, let's play something else" the children were far less likely to transfer pretend objects from one game to another compared with an alternative situation in which the researcher merely said they should take a break between play sessions. In other words, the children seemed to understand when the researcher intended that they create a new fictional world.

"The results from these three studies suggest that children keep different pretend play games separate from each other, imposing subtle structure on their make-believe worlds," the researchers said.

9. **Young children's moral understanding more sophisticated than previously thought**

Nobes G, Panagiotaki G, & Pawson C (2009). The influence of negligence, intention, and outcome on children's moral judgments. Journal of experimental child psychology, 104 (4), 382-97 http://www.ncbi.nlm.nih.gov/pubmed/19740483

Author weblink: http://www.uea.ac.uk/swp/people/gnobes

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When her Daily Mail column about Stephen Gately's death provoked an avalanche of complaints, the disgraced Jan Moir issued a press statement in which she said "it was never [her] intention" to upset people. Defensively speaking, Moir's choice of words was astute. In judging moral responsibility, we adults focus almost exclusively on intention rather than outcome. Stated starkly, the person who deliberately attempts to kill an innocent, but fails, is judged as more evil than the person who accidentally kills an innocent. Now researchers have a taken a fresh look at how these moral processes develop in children. Classic studies by Piaget and others claimed to show that, in contrast to adults, young children focus on outcomes, not intentions. However, in their new work, Gavin Nobes and colleagues argue that children do focus on intentions, and that Piaget and others failed to take account of the influence of perceived negligence - that is, unintended actions that really ought to have been foreseen.

Dozens of children aged between three and eight years, as well as adults, were presented with short, illustrated stories in which intentions and outcomes were systematically varied, being either positive or negative. To give you an idea, the stories involved bicycle crashes, dropped cups, and games of catch. Crucially, half the participants were told that the key protagonist had taken great care, whereas the other half were told that he or she had been careless - for example, stacking cups in one hand and not paying attention.

When judging the acceptability of a protagonist's actions and the punishment they deserved, both children and adults were principally influenced by the person's intention. Intentions to commit bad actions were judged harshly regardless of the outcome. This contradicts Piaget's classic work, which claimed to show that children focus on outcomes.

Nobes team think the reason for the conflicting results has to do with negligence. They found that children tended to interpret bad outcomes as betraying negligence even when they'd been told that a person had been careful. It's as if young children haven't yet fully grasped that accidents can happen even when a person has been careful (the researchers point out this is an issue of the children's practical, not moral, understanding). Therefore, when a bad outcome was combined with what they assumed was perceived negligence, the children tended to judge a person harshly, just as adults do when they think a person has failed to take due care. In Piaget's and other earlier work there was no measure of negligence so such patterns would have just appeared as though the children were focusing on outcomes and ignoring intentions.

"The findings indicate that the moral judgements of young children are influenced neither principally by outcome (as Piaget claimed) nor only by outcome and intention (as many subsequent researchers have assumed)," Nobes team concluded. "The intention-outcome dichotomy should be expanded at least to the intention-negligence-outcome trichotomy."

"Children demonstrate surprisingly sophisticated and differentiated moral reasoning," they added.

10. **What do young children know about managing fears?**

Sayfan L, & Lagattuta KH (2009). Scaring the monster away: what children know about managing fears of real and imaginary creatures. Child development, 80 (6), 1756-74 http://www.ncbi.nlm.nih.gov/pubmed/19930350

Author weblink: http://mindbrain.ucdavis.edu/people/lsayfan

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The recent film adaptation of Maurice Sendak's Where the Wild Things are prompted much debate about whether it's appropriate to subject children to material which they could find frightening. It's rather topical then that a new research paper has looked at young children's understanding of fear reduction strategies, finding them to be more precocious than previously realised.

Liat Sayfan and Kirsten Lagattuta presented 48 children aged between 4 and 7 years with picture-based short stories. The children were asked to imagine that they were the central character. The stories involved the child, either alone or with a companion, catching sight of a possible threat - either what could be a dangerous creature, such as a bear, or what might be an imaginary frightening creature, such as a ghost. The pictures were drawn such that the presence or not of the threats was ambiguous.

Even the youngest children recognised that people differ in how vulnerable they are to fear, seeing adults as being less prone than children and men less prone than women. The girls were more sensitive to these differences than the boys.

Another gender difference was that, at all ages, the girls tended to propose more avoidant fear reduction strategies - such as running and hiding - compared with the boys' suggestion of more aggressive strategies, including going on the attack.

Surprisingly perhaps, children at all ages suggested that the story characters could use psychological (e.g. 'imagine that my mummy is there') as well as behavioural (e.g. 'go to my room') strategies to overcome their fears, although this tendency did increase with age. Another developmental change was that the older children proposed more 'reality affirming strategies' (e.g. 'I can remember that ghosts aren't real') whereas the younger four- and five-year-olds proposed more so-called 'positive pretense' strategies (e.g. 'I'll use a sword to fight the dragon').

'These data advance current knowledge about the development of children's understanding of mind, emotion, and coping during childhood,' the researchers said.

11. **At what age do children recognise the difference between sarcasm and irony?**

Glenwright M, & Pexman PM (2010). Development of children's ability to distinguish sarcasm and verbal irony*. Journal of child language, 37 (2), 429-51 http://www.ncbi.nlm.nih.gov/pubmed/19523264

Author weblink: http://home.cc.umanitoba.ca/~glenwrig/lab.html

This item originally appeared in the British Psychological Society's Research Digest, Issue 160. See www.researchdigest.org.uk/blog

People hold strong feelings about the meanings of irony and sarcasm. Just look at the reaction to Alanis Morissette's global hit 'ironic' - despite commercial success, the apparent misunderstanding of irony conveyed by the song provoked a chorus of derision (at least everyone agreed that this state of affairs was ironic). So I'd say it's with some courage that Melanie Glenwright and Penny Pexman have chosen to investigate the tricky issue of when exactly children learn the distinction between sarcasm and irony. Their finding is that nine- to ten-year-olds can tell the difference, although they can't yet explicitly explain it. Four- to five-year-olds, by contrast, understand that sarcasm and irony are non-literal forms of language, but they can't tell the difference between the two.

So that we're all on the same page, here's what Glenwright and Pexman recognise as the distinction between sarcasm and irony. In both cases the speaker says the opposite of what they mean, but whereas an ironic statement is aimed at a situation, a sarcastic remark is aimed at a person and is therefore more cutting.

Glenwright and Pexman presented five- to six-year-olds and nine- to ten-year-olds with puppet show scenarios that ended with one of the characters making a critical remark. This remark could be literal, aimed at a person or situation, or it could non-literal, again aimed either at a person (i.e. sarcastic) or situation (i.e. ironic). To illustrate: two puppets are playing on a trampoline, one falls on his face. 'Great trampoline tricks,' the other character says, sarcastically. Contrast this with two puppets playing on a saggy trampoline with little bounce. One of them says 'great trampoline', an ironic remark.

To gauge the children's depth of understanding, the researchers asked them to rate how mean the utterances were (using a sliding scale of smiley to miserable faces) and asked them which character they most identified with - the idea being that in instances of sarcasm they would, out of sympathy, identify more with the target of that sarcasm.

The children's responses showed that both age groups recognised the non-literal utterances as intending to mean the opposite of what was said. However, only the older age group showed a sensitivity to the difference between irony and sarcasm. They, but not the younger children, rated sarcastic utterances as meaner and were more likely to identify with the target of sarcasm, presumably out of sympathy. The older children's comprehension was not complete, though. In open-ended questioning they were unable to explain their differential response to sarcasm and irony.

'By nine to ten years of age, children's sensitivity to the distinction between sarcasm and verbal irony highlights their impressive understanding of how people's feelings are affected by others' speech ...' the researchers said. 'We investigated one distinction here, but there are other non-literal forms that should be examined, such as understatement and hyperbole.'

12. The use of Circle of Friends with socially isolated children in schools

James, A.B. and Leyden, G. (2010) Putting the Circle Back into Circle of Friends: A Grounded Theory Study. Educational and Child Psychology 27(1) 54-65

Summary by Dr. Alistair James, Assistant Central Area Educational Psychologist

'Circle of Friends' (CoF) was originally developed in Canada as a social tool for including vulnerable children or adults within their mainstream communities (Pearpoint, Forest, Snow, 1992). Within the UK context, CoF has been increasingly introduced by schools as a strategy for including pupils, with a range of challenging needs or behaviours, who have become rejected by or isolated from their peers.

This paper examines the potential influence of the Circle group on positive outcomes for socially isolated children in schools. It reviews evidence from current qualitative and quantitative studies and a Grounded Theory analysis of a research study undertaken by the lead author. The design involved interviews with twenty-five facilitators of CoF within mainstream schools in a large Shire County and an outer London suburb. The children comprising the COF groups ranged in age from seven to twelve years.

The psycho-social processes emerging from the analysis contribute to our theoretical understanding of the part played by the Circle Group in providing social feedback and social support for the focus child and influencing their relationships with the wider class group.

13. **A day at the museum - how much do children remember?**

Gross, J., Hayne, H., & Drury, T. (2009). Drawing facilitates children's reports of factual and narrative information: implications for educational contexts. Applied Cognitive Psychology, 23 (7), 953-971 http://dx.doi.org/10.1002/acp.1518

Author weblink: http://www.otago.ac.nz/phonebook/dep-psycho.html

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Museum corridors are often populated by clipboard-bearing school children enjoying a day away from the classroom. These museum trips seem like a good idea, but how much do children really learn from their day out? According to Julien Gross and colleagues, young children actually remember a great deal, especially if they are given the chance to draw as they recount their museum experience.

Fifty-eight lucky New Zealand school children, aged approximately six years, were taken for a day visit to the Royal Albatross Centre and Historic Fort in Dunedin. One to two days later, the amount of information recalled by the children depended to a large degree on how they were tested. Asked to freely recall the visit, the children remembered a significant amount of factual and trivial, "narrative" information, uttering an average of ten factual clauses. Crucially, this amount of factual recall doubled when they were allowed to draw at the same time as they recounted the day's events. By contrast, the children performed relatively poorly when given a traditional comprehension test in the form of 12 questions.

A second study largely replicated these findings with a second group of children who were tested on their memory for the museum visit after seven months. The amount of information they recalled remained substantial but was reduced, as you'd expect after a longer delay. Also, the benefit of drawing now only affected recall of narrative information, not facts.

Why the difference in performance between free recall and the comprehension test? Analysis of the content of the children's free recall revealed that they tended to remember facts that were not tapped by the traditional comprehension test, which had of course been devised by adults. This tallies with previous research showing that children and adults tend to focus on different aspects of the same events.

Gross's team said the results "demonstrated that children learned and remembered an extraordinary amount of information about a school trip to a museum" even after a lengthy delay. The findings also showed that giving the children the opportunity to draw, significantly increased the amount of accurate information they recalled. This is consistent with previous, forensically motivated research showing that drawing facilitates children's verbal reports of their experiences.

An earlier theory for why drawing aids children's recall is that, rather than improving their memory for an actual event, it helps them tap their general knowledge for material that's relevant to the topic. However, Gross's team said their new findings showed there must be more to it than this, because drawing helped the children recall specific facts they could only have learned at the museum. Other possible explanations include the idea that drawing aids motivation and attention, provides memory cues, and that adult interviewers make more encouraging noises when children draw.

This latter explanation was borne out by the current study, with interviewers in the drawing condition making twice as many encouraging noises like "uh huh" and "wow".

Our coverage of this research precedes the Campaign for Drawing's Big Draw series of events running throughout October, and coincides with the Independent on Sunday's Drawing for Britain competition.

14. The Perceptions of Children and Parents as Consumers of Special Educational Provision

Thatcher, J. (2010). The perceptions of children with Specific Learning Difficulties/Dyslexia and their parents as consumers of Special Educational Provision: An examination of the views and influence of partners working within a Special Educational Needs ecosystem on outcomes for children with dyslexia. Unpublished doctoral thesis, University of East London

Summary by James Thatcher, Central Area Educational Psychologist

Within a context of ecological theory, this research study explores the views that children and families have about special educational support they have received; how far there is similarity of views between the various partners in a special educational needs sub-system about key aspects of provision for children with dyslexia; whether any views, or similarity or difference in the views, of partners about approaches are related to outcomes for children; whether the age or gender of young people is related to outcomes; and how greater user participation could be utilised to help promote systems change and improve the quality of provision for children with dyslexia. Ecological theory postulates the notion that we all function in a number of systems (family, school, work etc.) and changes in any one of those systems can affect our functioning in other systems.

The research study involved seeking the views on provision of a group of children who had been identified as having dyslexia, their families, teachers, and educational psychologists. This was done by asking all potential participants to complete a rating scale and to make comments on provision, by examining outcome data (SATs and self-esteem scores) for those pupils, and by carrying out four in-depth interviews.

Quantitative analysis indicated that attainments increased with age for both boys and girls with dyslexia in the sample. No relationship was identified between attainments, and gender or self-esteem.

A little evidence emerged that linked the views of children about provision to outcomes, but an association between the congruence or dissonance of views of partners within a system and outcomes, remains to be demonstrated statistically. On the basis of the qualitative analysis, it was concluded that the views of partners do influence each other, and therefore utilization of ecological theory offers opportunities for effecting systems change and improving outcomes for children.

A key finding was that while there is dissatisfaction among some children and parents arising from their experiences of school and Local Authority SEN systems, there is nonetheless, essential similarity of views between the four sets of partners about approaches to dyslexia that should be followed.

Using thematic analysis, two main themes were identified in interview and questionnaire responses: 'Non-intentional factors that can impact significantly (positively or negatively) on pupils with dyslexia'; and 'Intentional approaches that can impact significantly (positively or negatively) on pupils with dyslexia'.

The analysis suggests that the former set of factors is perceived by users to be of greater importance in influencing progress for children with dyslexia than intentional approaches introduced by schools or the Local Authority. These systemic factors include the presence or otherwise of a comprehensive system of early identification of dyslexia; anticipation of the likelihood that secondary difficulties will develop, and establishing methods to prevent this; teacher knowledge of dyslexia; and, the degree to which schools make reasonable adjustments. Commenting on intentional approaches to address dyslexia, all four sets of partners were of the view that a graduated range of provision in mainstream schools is the preferred approach.

Within each of the two main themes of unintentional and intentional factors, analysis suggests a high level of agreement between the four sets of respondents on a number of sub-themes. Three other main themes are identified by respondents (how far the views of users are elicited and used in planning approaches; the aspirations of young people to overcome their difficulties; and, the longer-term effects of dyslexia on the family and employment prospects).

Outcomes from thematic analysis lead to conclusions about the positive value of participation by users as partners in an SEN sub-system.

The outcomes of this research study are discussed within the context of the application of ecological theory to school and Local Authority special educational systems, and of user participation. It is argued that user participation is an essential component of using an ecological systems approach to bring about change in school and Local Authority SEN systems and thus, improvement in outcomes for children with dyslexia.

15. **How do children's books portray people who stutter?**

K.J. LOGAN, M.S. MULLINS & K.M. JONES (2008). The depiction of stuttering in contemporary juvenile fiction: Implications for clinical practice. Psychology in the Schools, 45 (7), 609-626 http://dx.doi.org/10.1002/pits.20313

Author weblink: http://web.csd.ufl.edu/super.html

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Stuttering is a form of speech disorder characterised by difficulty getting words out, and involves repetitions or prolongations of sounds. These difficulties usually arise in early childhood and one way of helping children who stutter could be for them to read novels that involve a character who stutters. However, whether such books will be helpful depends on how stuttering is portrayed. To find out Kenneth Logan and colleagues identified and reviewed 29 children's fictional books published since 1988, all of which featured a stuttering character (plot summaries of some of these are available at http://www.mnsu.edu/comdis/kuster/stutter.html).

Overall, Logan's team concluded that the books were accurate and sensitive enough to be useful in therapy. However, looking more closely, it was clear that the books scored a mixture of misses and hits.

The gender imbalance in stuttering was underestimated: the books suggested boy's exhibit stuttering twice as often as girls, when the reality is three to four times. In real life, the condition is usually mild but it tended to be severe in the books. There were some inaccuracies in the way symptoms were presented. For example, in The Treasure Bird, the character Jessy exhibits final sound repetitions (e.g. "bird-d") which is extremely rare.

Also, whereas stuttering runs in families and is seen by modern experts as an inherited pre-disposition that may be triggered by environmental circumstances, only a few of the books mentioned that stuttering is heritable; in fact the causes of the condition were seldom discussed.

Having said all that, the books often gave moving insights into the frustrations of stuttering. "My heart and head hold so many words and thoughts, but my mouth is like a jailer that won't release them," says 15-year-old Frederick in The Only Outcast.

The books also captured the variability of symptoms - the fact that people who stutter are often fine in some circumstances (e.g. when singing) but not others. The novels also conveyed the trauma of teasing experienced by many stutterers, and the frustrations of having a listener attempt to fill in their words for them - a typical response which only makes things worse.

Regarding treatment - the books rarely dealt with typical speech therapy, instead focusing on characters' use of idiosyncratic strategies or the benefits of social and emotional support. Although a serious weakness, this latter aspect actually chimes with a recent qualitative study of stutterers, in which many of them said emotional support had been pivotal in their recovery.

"Although empirical details at times take a back seat to adventure, intrigue and character development in this genre," the researchers concluded, "the books nearly all succeeded at offering young people who stutter a sense of hope - and that of course is an excellent starting point for anyone seeking to change how they live."

16. **What does a doodle do? It boosts memory and concentration**

Andrade, J. (2010). What does doodling do? Applied Cognitive Psychology, 24 (1), 100-106 http://dx.doi.org/10.1002/acp.1561

Author weblink:
http://www.plymouth.ac.uk/pages/dynamic.asp?page=staffdetails&id=jandrade

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You know you're bored when you start shading in the squares of your notebook. Apparently it's a habit that could be helping you to concentrate. In a neat little experiment, Jackie Andrade asked forty participants to listen to a monotone two and a half minute phone message about arrangements for a party. They were told the message would be dull, that there was no need to memorise it, but that they should write down the names of the people who would be able to attend the party. Crucially, half the participants were also told to 'doodle' as they listened, by shading in the squares and circles of their note-paper.

Afterwards, the doodlers had noted fractionally more of the correct names (7.8 on average vs. 7.1 - a statistically significant difference). What's more, moments later, the doodlers also excelled in a surprise memory test of the guests' names and the places mentioned in the message, recalling 29 percent more details than the non-doodlers.

Andrade said more research is obviously needed to find out how doodling helps us maintain our attention. However, her theory is that by using up slightly more mental resources, doodling helps prevent the mind from wandering off the boring primary task into daydream land. This study is part of an emerging recognition in psychology that secondary tasks aren't always a distraction from primary tasks, but can sometimes actually be beneficial.

17. **Advocacy for children with learning difficulties**

Fields, K. L. (2009). Advocacy for Children with Learning Difficulties and Communication Support Needs the use of Peer Advocates and the Effect of the Role of the Advocate. Unpublished doctoral thesis, University of East London.

Summary by Dr. Karen Fields, Northern Area Educational and Child Psychologist

It can be a challenge for professionals to gather the views of children with complex needs, especially if there are profound difficulties and the child does not use a formal communication system. One of the ways around this has been through the use of advocates, both formally and informally (for example asking the class teacher, Teaching Assistant or Parent). This research used interviews and thematic analysis to look into advocacy and found that there were differences in the advocacy given according to the role of the advocate.

This study also looked at using peers as advocates, even where the peers had learning difficulties themselves. It had previously been thought that children with learning difficulties would find it difficult to advocate for another child. This research found that children were able to advocate for a non-verbal peer and that their views added to the information.

The research looked at various methods of gathering views and concluded that advocacy is a useful tool but that the information should be gathered from several advocates to try and build the best picture of the child in question. No two advocates in the study advocated the same thing for the child in question and the peers were able to give another perspective to the advocacy gathered.

18. **Right-handers sit to the right of the movie screen to optimise neural processing of the film**

Okubo, M. (2010). Right movies on the right seat: Laterality and seat choice. Applied Cognitive Psychology, 24 (1), 90-99 http://dx.doi.org/10.1002/acp.1556

Author weblink: http://www3.psy.senshu-u.ac.jp/~mokubo/matiaE.html

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Although our bodies appear largely symmetrical on the outside, the way our brains are organised and wired is rather more lop-sided. This is obvious to us in relation to handedness, whereby the brain is better at controlling one hand than the other. The idea that, for many of us, the left-hemisphere is dominant for language is also widely known. However, functional asymmetry between the brain hemispheres also affects our behaviour in more subtle ways that are still being explored. The latest example of this comes from Japan where Matia Okubo has shown that right-handers have a preference for sitting to the right of the cinema screen, but only when they are motivated to watch the film. The finding is consistent with the idea that in right-handers, the right-hemisphere is dominant for processing visual and emotional input. By sitting to the right of the screen, the film is predominantly processed by the right-hemisphere and the suggestion is that, without necessarily realising it, right-handers are choosing to sit in an optimal position for their brain to digest the movie.

Okubo presented 200 students with a grid showing the seats available in a cinema (a central area was shown as occupied; the screen was at the top of the grid). In the first experiment, all the students were told that the film was enjoyed by friends and critics, with half also told that the story was sad and depressing and to imagine that they'd rather avoid seeing it. For students who only heard the recommendation, the right-handers were far more likely to choose a seat to the right of the screen (74 per cent did so), whereas the left-handers and mixed-handers didn't show a bias for one side or the other.

For the students who were put off the film, none showed a preference for the right-hand seats, regardless of their handedness. This suggests that we only choose an optimal seat for our brain organisation when we're motivated to watch the film. Left-handers and mixed-handers are known to have a more balanced distribution of function across their hemispheres so this could explain why they didn't show the opposite bias to the right-handers.

A second experiment was nearly identical, but this time half the students were told the film was excellent and depressing, whereas the other students were simply told they wouldn't enjoy it. Again, when they were motivated to watch the film, even a depressing one, the right-handers showed a bias for seats to the right of the screen. 'People tend to adopt the most effective manner in which their hemispheric functions can be utilised,' Okubo said, adding that: 'It is tempting to think that some other undiscovered behavioural asymmetries can also be discovered through this approach'.

This new research comes after a past study showed that adults with a more artistic, less analytic thinking style (associated with the right hemisphere) were more likely to sit on the right-hand side of the classroom; and another that showed people are more likely to exhibit the left side of their face (controlled by the right hemisphere) when asked to express emotion in a family photo, but to show their right profile when asked to pose as a scientist.

19. **Social flow - how doing it together beats doing it alone**

Walker, C. (2010). Experiencing flow: Is doing it together better than doing it alone? The Journal of Positive Psychology, 5 (1), 3-11 http://dx.doi.org/10.1080/17439760903271116

Author weblink: http://www.sbu.edu/About_SBU.aspx?id=11376

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Ever had that wonderful, timeless feeling that arises when you're absorbed in a challenging task, one that stretches your abilities but doesn't exceed them? Pioneering psychologist Mihaly Csikszentmihalyi called this state 'flow'. Countless studies have shown that flow is highly rewarding and usually provokes feelings of joy afterwards. Little researched until now, however, is the idea of 'social flow', which can arise when a group of people are absorbed together in a challenging task. In a new study, Charles Walker finds that social flow is associated with more joy than solitary flow - 'that doing it together is better than doing it alone'.

An initial survey asked 95 student participants to describe experiences they'd had of solitary and social flow and to rate how joyful these occasions were. On average, social flow activities, including singing in a choir and hiking up a mountain with an outdoor club, were associated with more joy than solitary flow activities including painting with watercolours and cycling alone over rolling hills.

Two further studies delved deeper. Thirty students played a ten-minute bat and ball game with a partner, and on their own against a wall. The main task was to keep the ball off the ground. The rules were modified according to results from pilot work to ensure that the solitary game was as challenging as the version in pairs. Despite the two game versions being equally challenging, the dyad version was rated by participants as being more joyful and provoked more emotions usually associated with flow, including feeling alive, focused and cheerful.

In a final study, 48 participants played another bat and ball game. This time everyone was in pairs but some participants played a 'high interdependent' version in which they had to pass the ball to their own partner before their partner hit it over the net to the other team. The challenge for the two pairs was to cooperate in keeping the ball off the ground. By contrast, participants in a 'low interdependent' version had to hit the ball back and forth with their partner, again with the task of keeping the ball of the ground as long as possible.

The key finding is that the participants in the high interdependent condition were rated as more joyful than participants in the low interdependence condition, based on self-report and on scores given by trained observers who watched their facial expressions and body language.

Crucially, the high interdependent participants were still rated as more joyful even when the analysis was restricted to just those participants from each condition who'd found their respective tasks equally challenging and requiring of skill. In other words, with 'flow' kept as constant as possible across the two conditions, the more interdependent version of the game still appeared to provoke more joy.

Charles Walker said more research is needed to uncover why more social tasks lead to a form of flow that provokes more joy. However, he surmised that the contagious nature of emotion could be one reason. Another factor could be that people working together actually raise the challenge of a task - this would certainly tally with previous research showing that groups take more risks than individuals. In the context of this study, high interdependent participants were seen raising the challenge by passing the ball behind their backs or under their legs.

Walker said future research should find a way to directly measure flow and that the ultimate purpose of social flow needs to be explored. 'Much work remains to be done at all levels to further describe and explain the interesting and intriguing phenomenon of social flow,' he said.