Welsh Branch

Annual Student Conference, Coleg Glan Hafren, Cardiff, 19 April 1997

Coping with occupational stress: The case of teachers
J CLAPP, University of Wales, Cardiff

It is well documented that stress is becoming an increasingly serious problem for teachers, leading to poor mental and physical health and lower job satisfaction. The sources of stress that have been identified as being particularly potent include pupil misbehaviour, time pressures, poor working conditions and poor school ethos. Although there have been a large number of studies focusing on teacher stress, the role of coping has gained in importance only in the last five years or so. This study looks at the role of coping as a moderator of the stress-strain relationship. The scales that are used in the study are pertinent to the role of teachers and so are more accurate than general stress measures. It is hypothesised that control coping strategies are effective in reducing the effects of particular types of stressors and that escape strategies are maladaptive forms of coping with certain types of stressors. The methodological problems and suggestions for the future are also addressed.

Actual and perceived distribution of food related tasks in the home
PJ DICKINSON, University of Wales Institute, Cardiff

The study aimed to determine the relationship between gender and performance of food-related household tasks (FRHT). Forty-six families throughout Great Britain were surveyed, via questionnaires, concerning the actual and perceived level of participation in these tasks in a cross-sectional survey. The study noted that more women than men decided on the weekly food budget; more females than males did the food shopping; more females than males prepared the food for family consumption. Disagreement about who does the cooking, however, was low. Overall, women from the sample spent more time on both FRHT and other household tasks per week than men. Interestingly, both men and women suggested that the woman has and should have a greater workload than the man. Furthermore, despite the inequalities in domestic effort, both men and women considered their own levels of effort to be fair. It can be concluded that although the concept of gender equality has been adopted in principle, in the practice of FRHT this does not appear to be the case.

Discrimination in human associative learning
R DOWLING, University of Wales, Cardiff

This experiment is designed to examine the role of similarity in discrimination learning. It closely follows the work of Pearce (1995) which criticises the current leading theory of discrimination learning, the Roscoria-Wagner theory (1972) for its prediction, from their equation, that if the discriminations are more similar then the discrimination will be easier to solve. Instinctually this prediction is illogical and the results of Pearce & Redhead (1993) and Pearce (1995) dispute this prediction. This experiment was carried out with humans to test whether human discrimination learning conformed to the equation of Roscoria-Wagner. However, the results seem to follow the pattern and therefore the criticism of Pearce. A new theory which can explain the results of this experiment is configurable theory (Pearce, 1987).

‘Improving guesswork’: An evaluation of Canter’s (1990) multivariate model of offender profiling
N ELLIS, University of Wales Institute, Cardiff

Pinzotto & Finkel (1990), indicated that professional profilers constructed more accurate profiles than detectives, psychologists or students for sex offence cases, but not homicide cases. In an attempt to investigate profiling more scientifically, Canter & Heritage (1990) developed a model by examining numerous offences to see if there were any observable structure to them. This study examined whether this model is more accurate in constructing profiles than the use of psychological knowledge, or a control group. Subjects were given a crime scenario and asked to complete a multiple choice profiling questionnaire. Preliminary analysis suggests no differences between the groups. The results are discussed with reference to subjects perception of their accuracy.

How important are age and tenure differences within the manager–employee dyad context?
O EPITROPAKI, University of Wales, Cardiff

The role of supervisor-subordinate age and organisational tenure differences as possible moderators of the relation between employees leadership perceptions and related work outcomes was investigated. The results of the study seem to support the interaction effect of the above relational demographic variables with Leader-Member Exchanges (LMX) and outcome variables, with most prevailing that of superior-subordinate organizational tenure difference (OTD). Employees with high OTD yielded a more extreme pattern of ratings (high LMX and high outcomes or low LMX and low outcomes) than employees with low OTD. The implications of these findings for a better understanding of the dynamic context of manager-employee relation are discussed.

Effects of priming in lateralization tests for bilingual word recognition.
J EVANS, University of Glamorgan

To consider the effects of priming in lateralization tests for bilingual word recognition, 80 matched English-Welsh bi-lingual subjects were given the same visual half-field test. While one group of 30 subjects were primed with the stimulus words prior to the test, the second group of 30 subjects were not primed. Analysis revealed that priming subjects with stimulus words prior to the
test significantly increased the number of words recognised (F=5.74; p=0.020). However, further ratio analysis, using calculated indices of laterality, revealed that while priming did not significantly affect laterality for English word recognition (t=0.0866; p=0.05), priming did significantly affect laterality for Welsh word recognition (t=2.4507; p=0.02).

'I wouldn't trust him': The space between the eyes as a physiognomical feature

R J PORTALSKA, University of Wales College of Cardiff

One of the most highly regarded facial features, in terms of interpersonal perception, are the eyes. We explored that distance between the eyes has some effect on perceived trustworthiness. A three-condition, unrelated design, using a manipulated photograph with wide-, normal-, and close-set eyes, employed a personality rating scale consisting of 45 items on four dimensions, which was developed and extensively piloted for this study. The data collected from a sample of 120 men allowed for some judgement to be made concerning distance between the eyes and interpersonal perception, according to the dimensions, ability, mood, socialability and morality.

How differing job characteristics and degree of skill utilisation affect the job satisfaction of pharmacists

S HOWELLS, University of Wales, Cardiff

Job characteristics of community pharmacists have changed over recent years. The emphasis has moved from dispensing to a retail and business component. Such a shift has not occurred within the hospital pharmacy. It was hypothesised that community pharmacists who have experienced such a shift would experience a reduction in skill utilisation which should negatively affect job satisfaction. Despite no significant difference in job satisfaction between the hospital and community pharmacists, it was found to be positively correlated with skill utilisation and opportunity for skill use accounted for a significant amount of the variance for intrinsic job satisfaction.

Opening the ‘Black Box’: The implementation of a National Health Service employee assistance programme

S HUDSON, University of Wales, Cardiff

The implementation of the NHS counselling service was studied using a prospective, longitudinal design. Ten per cent of Trust staff received questionnaires before and after the service’s launch. Staff awareness, attitudes and intention to use the service were assessed. Beyer & Trice’s model of implementation (1978) provided the framework for the investigation and it was largely supported. General and specific awareness increased, but attitudes and intentions did not.

Memorial and strategic determinants of tactile recency

P MAHRER & C MILES, University of Wales, Cardiff

Tech experiments examine memorial and strategic influences upon the tactile recency effect. Experiment 1 shows that both presenting-to-be-remembered items in silence and presenting items with an objective stimulus backwards yield equivalent magnitudes of tactile recency. However, under backwards counting is not vulnerable to either a 10 sec interval (condition 2) or a 30 sec suffix item experiment (3). We suggest that the robust recency effect found following backwards counting is a consequence of disproportionate rehearsal, whereas the recency effect found

Language in the right hemisphere

H MYATT, University of Wales Institute, Cardiff

The aim of the study was to evaluate the contribution of the right hemisphere in extralinguistic tasks, such as the interpretation of metaphor, and the interaction between the right hemisphere and the left hemisphere. There was no significant difference between male and female distractor task response times (independent t-test), but scores for the left hemisphere distractor were faster, however, (related t-Test p=0.01). Spearman’s Rho failed to detect a significant correlation between distractor score and the chi-square test. Chi-Square Test showed no significant differences between correct responses in different distractor conditions. Post hoc analysis revealed no difference in interpretation errors may be due to item difficulty. Thus the role of the right hemisphere was not assessed adequately by distraction.

Burnout in mental health professionals

M PAPATANASIOU, University of Wales, Cardiff

Burnout is a syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment. Its implications are considered to be dangerous for the workers, the recipients and the organisations. The literature, although based on self-reports and cross-sectional studies, indicates that burnout is related to mental, physical, behavioural and attitudinal manifestations (Schaufeli & Maslach). Burnout is related to turnover, intention to quit and absenteeism. One hundred and seventy mental health professionals from mental health services in Greece took part in this study. Participants completed the modified Greek Maslach Burnout Inventory (MGBMI) and the Greek General Health Questionnaire (GHQ) as well as a demographic questionnaire. Factor analysis on the MGBMI yield three factors. A small number of items had high factor loading on others factors than those identified by Maslach, Monos & Papadatou (1991). The reliability coefficients were high for the Emotional Exhaustion (EE) and for the Personal Accomplishment (PA) subscales but moderate for the Depersonalisation (DE) subscale. Moderate levels of burnout were identified. Discriminant analysis on the level of EE showed that GHQ score made the largest contribution to the overall discrimination function. Suggestion for further modification of MGBMI are made. Interpretation in light of suggestions for research in the concept of burnout are discussed.

What makes a good sales agent? An investigation into personality and self-assessment in the workplace

N PEEL, University of Wales Institute, Cardiff

The study examined the impact of employees' subjective perceptions of team cohesiveness, charismatic leadership, and leader-member exchange (LMX) upon employees' job satisfaction, job-related well-being, and perceived organizational culture. Analysis revealed significant relationships as well as demonstrating the overriding importance of LMX over the other variables (including demographics). The interaction effects of certain demographic variables was also examined, revealing some significant relationships. These findings were consistent with the notion that a mature relationship with your leaders that could actually be considered more of a partnership (high LMX), a charismatic leader (high transformational leadership), and a perceived organizational culture which are important factors within the concepts of work satisfaction and general feelings of well-being.

Welsh parents on English schools – a matter of attitude?

N PROSSER, University of Wales, Cardiff

It would be expected that Welsh-speaking parents with a positive attitude towards the Welsh language would send their children to Welsh medium primary schools. This study proposes to compare the attitude of monolingual (English) parents and Welsh-speaking parents towards the Welsh language. It was intended to discover if language attitude played a role in their school choice. The sample consisted of monolingual and bilingual parents who had decided to send their children to English medium schools. Data were collected by way of a postal questionnaire via 20 English primary schools across Wales.

The relationship between body type, personality and self-reported delinquency

S RUCK, University of Wales Institute, Cardiff

Sheldon, 1942 (in Holing, 1989) suggested a link between personality and body type. Furthermore, he later claimed a link between body type and criminal behaviour. This study examined whether there is a link between body type, their personality and their self-reported criminal behaviours. The subjects design comprised 100 subjects obtained by opportunity sampling. Kruskal Wallis one-way-analysis revealed a significant difference in neuroticism between body types, but no significant difference in extraversion or delinquency rates between body types. A significant negative correlation was observed between extraversion and delinquency scores and a significant positive correlation was found between neuroticism and delinquency. The findings of this study fail to provide any strong supporting evidence for a link between body shape, personality and self-reported delinquency.

‘Geeks and Freaks’: The male, ‘anti-social’ stereotype of the computer enthusiast

N SELWYN & G SCOTT, School of Education, University of Wales, Cardiff

The popular stereotype of the frequent computer user is one of a male, socially inadequate and isolated individual – a perception which causes many students to avoid coming into contact with IT when in school. This paper reports on a preliminary study examining the gender and social competency of both frequent and infrequent computer using students in Year 12 (n=117). The results suggest that students who are highly oriented towards IT are just as likely to be female as they are male and are no less sociable, popular or self-assured than their non-IT peers. The paper postulates that the vast increases in IT use in schools over the last 10 years has created a significant positive correlation to which increasing numbers of students are subscribing.

The effectiveness of the first letter retrieval strategy in episodic memory

A SERGEANT, University of Wales College of Swansea

There has been little previous research on the
First Letter Retrieval Strategy (FLRS) as an aid to the recall of both episodic and semantic memory. This paper reports on a study which evaluates the effectiveness of the FLRS in conjunction with an alternative set of three strategies (AS). Eighty subjects were shown a 15-minute video of a police arrest; they were then tested on the recall of both visual and verbal items using a 26-item questionnaire. The subjects were tested in one of four conditions, where they were given instructions on (1) the FRS only, (2) the AS only, (3) the FRS only, or (4) no instructions on the use of a memory strategy. The results demonstrate the effectiveness of both strategies, however, there are apparent sex differences. The AS condition, which included visualisation, proved to be a more effective technique for eliciting previously unretrieved material for male subjects than the FLRS. Conversely, the FLRS proved more effective than the alternative strategies of the AS condition for female subjects. These findings are discussed in relation to past research.

Investigating the working model of self: How do individuals with different attachment styles describe themselves? SK SHAW & KB CARNELLEY, University of Wales, Cardiff

Two experiments attempted to replicate Milculincer’s (1995) finding that people endorse positive and negative traits differentially as a function of attachment style (Bowlby, 1969). In order to extend research in this area, both studies investigated the valence as well as the type of words that each attachment style chose as self descriptive. The self-report measure supported Milculincer’s results, and revealed a trend for attachment styles to choose different types of words as self-relevant. The computer-based Stroop test (Stroop, 1935) failed to replicate any results. Limitations of the study include the choice of words, more sample-relevant words might have reached significance, and the use of a computer-based Emotional Stroop test. The results of the experiments, and the use of the AS only, (3) the FRS only, or (4) no instructions on the use of a memory strategy. The results demonstrate the effectiveness of both strategies, however, there are apparent sex differences. The AS condition, which included visualisation, proved to be a more effective technique for eliciting previously unretrieved material for male subjects than the FLRS. Conversely, the FLRS proved more effective than the alternative strategies of the AS condition for female subjects. These findings are discussed in relation to past research.

Developmental phonological disorder – a case study K STOCK, University of Wales Institute, Cardiff

Developmental phonological disorder may persist into adulthood. A single subject design was used to study an adult with developmental phonological disorder, using a battery of phonemic processing tests. Residual speech, reading and spelling problems were investigated. The existence of input, as well as output, difficulties was confirmed. The nature of the differences between ability at single sound level and in sequences of sounds. Results of tests were related to a phonological disorder model. Deficits were found in input processing as well as with phonological awareness and segmentation. Particular difficulties were noted in processing of non-words and consonant clusters, while processing of single sounds was intact. Findings indicated the subject may have adopted a whole-word approach to speech processing and reading. Remediation of phonological disorder could work from the whole-word level downwards, as well as at single sound level.

An investigation into the relationship between personality and friendship R TRELFA, University of Glamorgan

This study has been designed to investigate the interaction between personality and friendship. Forty five undergraduate students were given a questionnaire comprising of Eysenck’s extraversion/introversion and empathy scales and a questionnaire concerning the quantity and quality of subject’s friendships. It was found that extraversion was the best predictor of both quality and quantity of friends. Empathy did not have a moderating effect as it was predicted to have and the only gender differences were in the reasons given for making friends: females reported that they were more likely to make friends with someone because of their warm personality and males because of physical attractiveness.

POSTERS

A test of the Roscoria-Wagner theory (1972) of discriminant learning R DOWLING, University of Wales, Cardiff

This experiment is designed to examine the role of similarity in discriminant learning. It closely follows the work of Pearce (1995), which criticises the current leading theory of discriminant learning, the Roscoria-Wagner theory (1972), for its prediction from their equation that if the discriminations are more similar then the discrimination will be easier to solve. Instinctually this prediction is illogical and the results of Pearce & Redhead (1993) and Pearce (1995) dispute this prediction. This experiment was carried out with humans to test whether human discrimination learning conformed to the explanation of Roscoria-Wagner. However, the results seem to follow the pattern and therefore the criticism of Pearce. A new theory which can explain the results of this experiment is configural theory (Pearce, 1987).

The relationship between type A behaviour and coronary heart disease L DURRELL, University of Wales, Cardiff

Past work regarding individual differences and health problems have focused on type A behaviour and coronary heart disease. Due to the problem of type A being over-inclusive studies have focused on isolating elements of the behaviour pattern. This experiment is concerned with the type urgency component of type A behaviour. Time urgency correlates with general health problems in addition to coronary heart disease. This study asks whether an individual’s perception of time is related to type A behaviour and/or health problems. The study used a within-subjects design, taking three measurements of time perception (production, reproduction and rate of tapping), the Bortner Scale (to measure type A) and the Pennebaker Inventory of Limbic Languidness (as a measure of health). Results showed that type A behaviour was positively correlated to health problems. The more subjects over-estimated a time interval the longer durations were between taps. Over-reproduction of a tone’s duration is associated with health problems. The implications of the results with regard to health psychology are discussed.

The role of similarity in human discrimination learning E PHILLIPS, University of Wales, Cardiff

The present study set out to test two theories of animal discrimination learning: an elemental theory (Roscoria, 1972) and a configural theory (Pearce, 1987). However, in contrast to the previous work on discrimination learning, the participants were human. The findings of the first experiment supported configural theory as a theory of human discrimination learning. The second experiment tested a further prediction made by configural theory. Pearce (1987) proposed that the presentation of an irrelevant stimulus on every trial of the discrimination would actually facilitate the discrimination, whereas the results from this study did not support this proposal. The presence of an irrelevant stimulus was actually found to make the discrimination harder to solve.

English as a second language: Structural complexity, morphological complexity, hesitations and self-corrections in three linguistic groups C VALLIANATOU, University of Wales, Cardiff

The present study investigated spontaneous speech in English as a second language, comparing oral narratives of native English speakers and native Greek speakers of different levels of fluency. The story-tellings have been analysed in terms of their structural and morphological characteristics, by using the system devised by Saffran, Berndt & Schwartz for measurement of production in agrammatism as well as in terms of the number and location of pauses and the number and type of self-corrected words. In accordance with previous findings, differences were found among the three groups in time needed to produce the output, in hesitations and self-corrected words, and in a number of scores measuring structural complexity. Implications for the effects of transfer from the native language and for the underlying cognitive processes are discussed.

Age of acquisition effect in word naming and lexical decision tasks in Greek M VENIERAKI, University of Wales, Cardiff

This study investigates the age of acquisition (AOA) effect in word recognition in the Greek language. Sixteen native Greek speakers rated a list of 600 singular nouns for AOA and a further 36 received the same word naming and lexical decision tasks, half of whom in a reverse order. AOA always exerted a significant effect upon speed of processing in the two tasks when word frequency was controlled. Opposite to certain previous findings, however, frequency was not confounded with AOA but had an independent effect on both tasks upon all presentations but word naming when it was presented after lexical decision. Possible theoretical implications of this pattern of results and the role of age of acquisition in word recognition are discussed.

Coping and emotional distress reported by caregivers in relation to inappropriate behaviours in adults after severe head trauma C VINE, University of Wales, Cardiff

The relationship between inappropriate behaviours in head injured (HI) people, as reported by their carers, and the emotional well-being of the carers is investigated. The 38 subjects were self selected from all carer members of two branches of Headway. Of these, 21 were the spouse and 13 were parents of a HI person. Inappropriate behaviours and well-being were found to be significantly correlated with coping acting as a mediating variable. No significant differences were found between parents’ and spouses’ well-being. Inappropriate behaviour severity, but not well-being, was found to be correlated with the level of social support sought.
Catching emotions: The role of facial expression

A ATKINSON, King Alfred’s University College, Winchester

Recent work in neuropsychology and developmental psychology has shown that human beings use emotional expressions as a mechanism for ‘emotional contagion’, or the ‘catching’ of an emotion from another, namely, by way of the recognition of the other’s expression. This work suggests a close connection between the neural mechanisms underlying the ability to recognise an emotion and those underlying the experience of that emotion in the same organism. And, as I shall explain, there are good evolutionary reasons why we might expect this; namely, that such a connection provides a way of learning emotional reactions that are important to survival. The possibility that there is a neurological and evolutionary basis for a connection between experiencing emotions and recognising them in others, if confirmed, bears upon two theoretical claims. (1) The association helps explain the fact that sometimes a person (and particularly, an infrequently exposed to an animal’s emotional expression) becomes the object of a physiological or psychological reaction just from looking at his or her face. (2) The phenomenon of contagion helps explain a possible way of understanding the capacity to recognise another’s emotional expression. I elaborate these two claims, and explain how they are pertinent to recent discussions of emotional contagion in the mental simulation literature.

A critique of freedom in existential psychotherapy

M CHEUNG CHUNG, University of Sheffield

The aim of this paper is to provide a critique of the freedomを求めたのexcluded within existential psychotherapy. I argue that the foregoing concept, which essentially has overtones of Cartesian ‘indeterminism’, is not clearly defined, but seemingly full of contradiction. The demonstration of the argument begins with a description of one thesis of indeterminism with which existential psychotherapists are likely to be sympathetic. This thesis indicates that there is a universal causality principle in inorganic matters, but that it cannot be applied to the realm of human actions. The argument then goes on to show that while existential psychotherapists are claiming this thesis, they in fact contradict themselves by revealing a doctrine of determinism hidden within various parts of their theoretical frameworks. The paper ends by pointing out that if the above argument is true, it is very important for existential psychotherapists to revise their fundamental belief of freedom in practice; otherwise, it can be misleading to clients and that they might not benefit from therapy.

Bodily signs of insanity: Still looking in the twentieth century

A COLLINS, Lancaster University

The phrase ‘bodily signs of insanity’ on the body has been an enduring one: from the stone of madness in medieval times to the physiognomies of the late eighteenth and early nineteenth centuries. In common with most eighteenth century writers Herder’s views on language contained a view of human nature and indeed also a psychoanalytic and a philosophical. This paper also elaborates upon these interconnections and shows the extent to which they were taken up and further developed in the late 1920s by the Russian psychologists Lev Vygotsky and Alexander Luria.

1906: The psychology lectureship at Edinburgh University

IL HUNTER, Edinburgh

In 1906 the University of Edinburgh (established since 1582) created its first post explicitly concerned with a subject called ‘psychology’. This was ‘The George Combe Lectureship in Psychology (General and Experimental)’. I explore the creation of this lectureship by using a variety of documentary records, including an inaugural lecture of 1891 on ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the philosophical sciences; minutes of the University Court and Senate; the story of ‘The present position of the psychological fold despite his sternest criticisms of the discipline. Whereas Stephenson, despite his early successes as Consultant Psychologist to the British Armed Forces and post-war appointment as Director of the Oxford Institute of Experimental Psychology, was lost to the discipline when he moved from the University of Chicago to a research professorship in the Sociology of Journalism at the University of Michigan where he remained until his death. The contemporary legacy of Gibson and Stephenson is remarkably similar: their students and colleagues have established institutional structures to perpetuate and develop the traditions – a scholarly society, a journal, annual conferences, and an email list or Web Page. Moreover, the ideas of both Gibson and Stephenson are sufficiently radical to be seen as revolutionary if they were to be adopted successfully. The relevance of some contemporary theories of scientific change for an understanding of the current disciplinary standing of the ecological and q-methodological traditions is assessed.
S LOVIE, University of Liverpool (HPP Chair's Address)

The BPS has always believed that it was founded in 1901 and hence that its Centenary (whose celebration the Society is at last starting to plan) must be in 2001. This paper is designed to challenge this long-held, unquestioned position by arguing that the modern Society was actually founded as early as 1897 by a small team of insiders led by Charles Myers who almost overnight created the Society that we have today. Myers' account only provides historical support for my thesis, but will also outline the means whereby Myers and his band ventured over the feeble but entrenched old guard within the Society who, at one stage, seemed prepared to sanction the disappearance of the Society as an independent body rather than see it change in ways that it found objectionable.

Designing minds: DSM and the culture of Americal psychiatric diagnostics in the late twentieth century
MS MICALE, University of Manchester (Invited Speaker)

The notion of 'intuition' is examined in relation to psychology. It is argued that psychology as a process that may be contrasted with rational and deliberative thinking in two-process models of cognition. It is also characterised as an unconscious aspect of the human cognitive system. Differences are analysed with reference to twentieth century notions analogous to intuition, and their relevance and implications are discussed.

Piaget's epistemic subject
W MAYS, Manchester Metropolitan University

This paper critically examines Piaget's concept of an epistemic subject, which has certain similarities with Kant's transcendental self. However, unlike Kant, Piaget believes that the epistemic subject is not given a priori but is gradually constructed over time. At first, he claims the young child has no concept of himself as a subject and that only at a later date does this result as a social process in which role-taking plays an important part. For Piaget the epistemic subject is closely linked with the appearance of formal thinking. Unlike the empirical subject the epistemic subject has a certain permanence about it, remaining constant during the course of one's development.

The behaviourist theory of language acquisition
A century of psychology at UCL
L C BURKE, University College London

The modern age of psychology was designed by a small team of insiders led by Cyril Burt's retirement, dramatically changed the direction of the Department from an obsession with individual differences to one which embraced all aspects of experimental psychology.

Science and society, researched by mass observation
M ROISER, Thames Valley University

In the nineteenth and early twentieth century huge advances were made in science and technology. But, by the mid-twentieth century, this industrial society was afflicted by economic crisis and the threat of war. Not surprisingly public attitudes to science and scientists were ambiguous and distrusting. The Mass-Observation movement assessed and reported ordinary opinions and stereotypes during the 30s, war-time and its aftermath. It used panel responses, street interviews and media analyses. Among other things it dealt with attitudes to science and scientists, media coverage of technological advancements, and people's immediate feelings about the nuclear bombing of Japan. It engaged in a propaganda campaign to improve the public image of science in co-operation with leading scientists of the time. It criticised the arts-educated establishment whose influence fostered anti-scientific attitudes, it argued. This paper recounts the movement's work in this area and explores its implications for the recent revival of the study of the public understanding of science.

Who is the subject of research? Power relations in feminist qualitative research
A ROSE & E MITCHELL, University of Westminster

This paper acknowledges the problematic nature of feminist qualitative research, in its implicit restatement of the power relation between researcher and subject. We note the difficulties of 'Representing the Other' (Wilkinson & Kitzinger, 1996), and the potential for the framing of the research process. The self-conscious narrative gains in dignity for the subject more than it loses in 'truth' as discovered by the researcher. Notwithstanding the feminist reservations on Macintrye's concept of practice outlined by Frazer and Lacey (1994), we advocate the emancipatory value of telling one's own story.

The founding of the Psychological Laboratory at University College, London: ‘Dear Galton ... Yours truly, J.Sully’
ER VALENTINE, Royal Holloway, University of London

The events leading up to the founding of the Psychological Laboratory at University College, London 100 years ago are examined in the light of correspondence from and to Francis Galton, in the Galton papers at University College London Library. Although Sully is rightly credited with the initiative in setting up the laboratory, correspondence reveals that he was dependent on Galton for detailed advice at every stage of the process. It is generally known that most of the apparatus came from Hugo Münsterberg on his departure from Freiburg, Germany. The purchase allowed, in part, to offset the spiralling costs of technological advancements, and people's immediate feelings about the nuclear bombing of Japan. It engaged in a propaganda campaign to improve the public image of science in co-operation with leading scientists of the time. It criticised the arts-educated establishment whose influence fostered anti-scientific attitudes, it argued. This paper recounts the movement's work in this area and explores its implications for the recent revival of the study of the public understanding of science.

Rationality reconsidered
J WHEELER, University of Hull

Rationality seems shy of definition, despite having played a foundational role in both philosophy and psychology for ages past. Its meaning remains linked to the term, with no one assuming generality. Its shyness may be natural given the reception...
rationality often now receives: It frequently appears as a term of derogation, and in a restricted sense (in company with other perfectly respectable terms such as ‘metaphysics’). One of the largest places where rationality comes out to play in psychology is in framing reason-giving; for example, explaining shyness by reference to beliefs about one’s social appearance. I outline a project of examining and refining the different roles that rationality plays in various domains within psychology.

Ethics symposium: Expanding ethics I. Visiting ethical issues in undergraduate courses (again?): Token, chimera, charade or chameleon?
A GALE, Professor of Experimental Psychology (part-time), University of Portsmouth.
I am, if anything, a professional teacher of psychology. My concern is with undergraduate courses in psychology. Most departments probably hand out to students copies of the Society’s ethical guidelines for the treatment of human participants. They probably don’t have much formal discussion about the guidelines, the role of ethics in research, nor any discussion about the differences in how the APA and BPS guidelines were evolved, nor about how and why they have changed over time, and when they will change again. There are, roughly speaking, five areas of ethical concern which ought to inform psychology courses: (a) why you mustn’t cheat in science, (b) the changing role of the subject/participant and why you need to have good manners when obtaining information from other people, (c) the ethical consequences of distortion of the public reputation of groups by psychologists (women, blacks, the elderly), (d) the moral implications of studied neglect of important social issues by psychologists, and finally (e) the issues the Society guidelines actually focus on, namely, consent, debriefing, confidentiality and so on. My experience is that students take to such issues with enthusiasm. In this age of political blandness, where students rarely seem to read a newspaper, waking them from their quasi-dogmatic slumbers seems to be intrinsically a good thing. Finally, a word about ethical committees in psychology departments. They are also a good thing, but are in danger of being token devices to appease, not quite a charade but a bit of formalism.

2. Rights and values in psychological research
P STANDEN, University of Nottingham
Oliver argues that academic research has been of no help to people with disabilities: he exhorts social scientists to put their skills at the disposal of disadvantaged people, to use for their own empowerment. He and others raise many questions about psychological research that go beyond the minimum standards laid down by the Society: for example, what choices do people have when they take part in research, beyond consenting to participate? what responsibilities do psychologists acquire when they discover something to the disadvantage of participants? and how does entry and subsequent abandonment of the research relationship affect participants? This paper explores philosophies underpinning the language of ‘rights’ and political concerns to empower people. It also considers an alternative framework, that of a coherent value system which develops interactionally, as important influences on psychologists as they plan and carry out research.

The British Psychological Society 1999 Proceedings
Worry and problem-solving in chronic pain sufferers: Factors in the development of disability?
S GLADWIN, University of Bath

Chronic pain poses a challenge to sufferers, health care workers and policy makers, and its prevalence is increasing in the UK. Pain creates a multiplicity of problems: physical, psychological, social and economic. Despite this, the aetiology of chronic pain is unclear. Particularly, the role of cognitive processes in the development and maintenance of disability is poorly understood.

The current study examines cognitive processes that may be of central importance; the role of worry, and the related activity of problem-solving. The paper reports the first stage of this study involving the design of a large-scale survey of the factors of interest. As the report is of work in progress, the presentation focuses on practical issues, the development of the study, evaluation of available research tools, gaining ethical approval, and recruitment of participants, as well as theory development.

Cortical activation during the perception and imagery of rotational movement
J BARNES, University of London

Functional MRI (fMRI) was used to investigate local changes in blood flow in the human visual cortex of six healthy volunteers while performing perception of rotation and mental rotation. For perception of rotation subjects viewed a pair of figures similar to those described by Shepard and Metzler (1971) of which was rotating. In the mental rotation task subjects mentally rotated one of two stationary figures into the same orientation as the other and then decided whether the two figures were identical or mirror images. The control task was identical except both of the cube assemblies were stationary and in the same orientation. Analysis of group data for perception of rotation activated bilateral areas corresponding to V5 Mental rotation activated areas within the medial frontal and anterior cingulate as well as bilateral lingual gyri. An area within the inferior temporal gyrus, representing a small inferior extension of V5, was activated by both perception and imagery tasks. These results support that although there are small areas common to both perception and imagery unique components exist for the perception of rotation and mental rotation.

Stimulus-response compatibility
LM BELL, Aston University

The continuing debate into whether information processing works on a continuous or discrete nature is of interest in the development of models depicting stimulus response compatibility effects. A measure of response compatibility is proposed based on a synthesis of previous research mainly in the Flanker task paradigm which depicts purely continuous processes. The model explains compatibility effects in terms of differences between accumulated activation strengths in competing response channels. Besides compatibility effects the model offers a simplistic explanation of speed accuracy trade off and uses a dynamic neural network concept as the basis for accumulated activation strength.

The effects of single and multiple dose administrations of caffeine on performance
CF BRICE & A SMITH, University of Bristol

The aim of the present study was to compare the effects of a single and multiple dose administrations of caffeine (4 x 65 mgs) and placebo on performance of a range of psychomotor tasks and subjective mood. Levels of caffeine in the two dose conditions were calculated to ensure that caffeine levels present in the body were equivalent. A within subjects design was employed. Twenty-four male participants performed in both multiple and single dose conditions for both caffeine and placebo manipulation. A improvement in performance efficiency was observed on tasks measuring accuracy and reaction time, as was an increase in performance efficiency. No significant interactions were found between caffeine and dose conditions. The results illustrate that the positive effects of caffeine can be observed following consumption of both realistic and large single doses. In terms of administration of caffeine as an experimental drug it appears that dose regime does not influence the behavioural effects of caffeine.

Life histories of obese women
E BORKOLES, Leeds Metropolitan University

In this cultural climate the condition of obesity is treated as a departure from societial expectations, hence as a form of social deviance (Björntorp, 1997). The Flanker task was used to explore the lifestyles and experiences of six, western, white obese women who were sampled purposively (matched for age, class and social class) and contrasted for social class, e.g. middle vs. working class). It was found that only those women who identified strongly with appearance norms seem to suffer from self esteem and negative self-images. By contrast, those who have been able to dissociate themselves from the cultural ‘standards’ find satisfaction in their lives through their activities and accomplishments and, thus, maintain positive self-images and reported high self-esteem. This contradicts other studies of obesity and self- esteem that suggests that all obese women suffer from low self-esteem (Crandall, Biernat, 1990).

The construct of impulsivity and its relation to attention deficit hyperactivity disorder
GKL BUTLER, University of Greenwich

Attention deficit hyperactivity disorder (ADHD) is a disorder of childhood, which in some individuals continues into adolescence and adulthood. The main symptoms are inattention, hyperactivity and impulsivity. Impulsivity can be a necessary or beneficial trait, however it can also lead individuals to engage in impulsive and self-harm behaviours. As impulsivity is a multi-dimensional construct there exist a plethora of tools for its measurement. Yet the construct remains one with no general consensus as to how to measure it and how best to define it. This leads to the question of how does impulsivity manifest itself in adolescents with ADHD and which measures tap this? Consequently measures which distinguish adolescents with ADHD from non-ADHD adolescents must be determined empirically. The proposed research will address these issues using a variety of objective measures of impulsivity. It also aims to assess if these measures are sensitive to psycho-stimulant medication.

Quality of life in young people with and without chronic illness
J CARTER, University of Manchester

Quality of life (QoL) is a subjective concept for which there is no consensus about definition or which domains it entails. Nevertheless, there is a broad literature about it and numerous diverse measures claim to tap QoL for people in different circumstances, particularly in the area of disease. ‘QoL instruments’, usually questionnaires, are increasingly used for purposes such as clinical trials. A new research project aims to investigate QoL qualitatively in young people (children and adolescents) with and without chronic illness. Semi-structured interview have been carried out with more than 70 young people (aged 8-17 years) in good health. The aim is to use the responses to develop a model of QoL. The responses of young people with either arthritis or asthma will be compared with those of this can help evaluate the impact of these illnesses on QoL and to inform the development of QoL measures for young people.

The use of complex auditory stimuli for localisable alarms
K CATCHPOLE, University of Leeds

Many auditory warnings, such as those employed on emergency service vehicles, should be accurately localised by the listener. Patterson (1982), auditory warnings have been designed around a set of pulses consisting of tonal complexes based on a fundamental frequency and several harmonics. As the accuracy of auditory localisation is highly dependent on the spectral content of the sound source, localisation accuracy of the source is maximised when the source is a pure tone or complex of pure tones. Therefore, investigations concerned with manipulating the source characteristics of auditory warnings to aid the listener in detecting the location of the sound source.

Emotional indicators in children’s human figure drawings.
M CATTE & M COX, University of York

This research focussed on the use of children’s drawings as a projective technique. The human figure-drawings of a group of 44 emotionally-disturbed boys of primary school age, were compared with two groups of well-adjusted boys: one matched for chronological age and another for mental age. A comparison based on Koppitz’s (1968) original emotional indicators and another, based on a revised list of indicators devised from new UK normative data showed that the emotionally-disturbed children included significantly more indicators in both the isolated and isolated-adjusted peers. The results replicated Koppitz (1968) and suggested that the difference was not due to the isolated-age. The clinical usefulness of the Koppitz test is questioned, since the number of indicators in any one drawing is quite small and a high number of clinical children produced an insignificant number of indicators.

Helping to explain young people’s inconsistent use of contraception
L COLEMAN, University of Southampton

Unintended teenage conception and sexually transmitted infection is a public health matter of great concern. Aspects of the project’s aims and design are presented illustrating the two phases of data collection that took place: a self-administered questionnaire (SAQs) and an interview. Results from the SAQs illustrate an association between contraceptive use (at first intercourse with the most recent sexual partner) and the timing of the first discussion about contraception (p<0.001). This significance was maintained once age, social deprivation and previous sexual experience were controlled. This finding is mirrored in the interviews, which offer additional detail as to why some people find it difficult to initiate such discussions. The preliminary results illustrate the limited application of the traditional social-cognition models of health related behaviour to the study of contraceptive use, and particularly question the assumed relationship between a person’s intention and their behaviour.

The British Psychological Society 1999 Proceedings
87
The impact of the BSE crisis on young adults  
NS COULSON, University of Plymouth  
BSE re-emerged as a major public health issue following a government statement that a new strain of the human disease CJD is potentially linked to the consumption of infected bovine offals (via human consumption of infected meat or contact with infected bovine offals). For almost 10 years the British government had been insistent that there was no link between BSE and CJD and that beef was safe. This new information has caused worldwide concern about the safety of British beef. In this study, structured interviews were conducted using 36 students, aged 18-24. Each participant was asked about their views regarding perceived risks and trust in information sources, factors influencing food choices and dietary behaviour. Qualitative analysis suggested that the role of risk in influencing food choices (in relation to BSE and CJD) may be grounded, at least in part, in their own patterns of dietary behaviour. In addition, the extent to which various sources of information were used and trusted varied between individuals. The results of the study are considered in relation to both food choice and risk perception. Implications for risk communications are discussed.

Male sexual assault victims:  
Attributions of blame and gender role stereotypes  
M DAVIES, University of Central Lancashire  
Most studies that have investigated attributions of blame made towards male victims in sexual assault situations have considered only female victims of male perpetrators. Studies investigating blame towards male victims of sexual assault are still scarce. Few studies have investigated the impact of perpetrator gender on blame attributions towards male victims and no previous studies have considered whether sexual orientation of the victim affects blame attributions made towards them. The present study intends to extend the current literature to investigate the role of perpetrator gender and sexual orientation of the victim in a sexual assault depiction. Respondents were required to read a scenario in which victim sexual orientation and perpetrator gender were varied between subjects and to complete a questionnaire designed to measure attributions of blame towards the victim. The results are discussed in relation to societal gender roles and suggestions for further research are proposed.

An investigation into the effects of nicotine on reward motivation and frontal cognitive functioning  
L DAWKINS, Goldsmiths College  
This study examined the influence of nicotine on processes believed to be dependent on brain dopamine. The study investigated the effects of cigarette smoking and abstinence on reward-motivational processes and frontal cognitive functioning, and whether a transdermal nicotine patch produced similar effects. The children's non-word repetition test: Which aspect of phonological working memory is it measuring?  
H GRAINGER, University of Central Lancashire  
A number of studies have established a relationship between phonological working memory (PWM) and vocabulary (V), (Lehmann, 1997). Twenty expert singers took part in two separate sessions. In each session they memorised a song, one with words in English and one with words that mean nothing, with 36 subjects taking part in total. Results are discussed in the context of the interaction of words and music in memory.

The use of intention to judge wrong-doing in children with autism  
C GRANT, University of Sheffield  
This paper examines moral understanding in children with autism, moderate learning difficulties (MLD) and clinically normal children. Participants responded to six stories, each presented to all possible combinations of intention (intentional/ unintentional) and type of damage (personal injury/property damage) were tested to find the ability to understand others mental states. All MLD and normal children passed tests assessing mental state understanding. The autistic participants were split into two groups on the basis of their performance: Group 1 had a poor understanding of mental states; Group 2 had a good understanding. It was hypothesised that (i) Group 1 would base judgements of culpability on consequence; (ii) Group 2 would judge in terms of intention. All participants with autism performed surprisingly well when making judgements of culpability. However, Group 1 was less able to provide a justification for its judgements. Results are discussed in terms of problems with generativity.

Study to identify the QoL factors affected for the elder individual with late-onset epilepsy  
M GRIFFITHS, Liverpool Hope University  
The research design incorporates both quantitative and qualitative methodologies. Methodological triangulation will enable the evaluation of the validity of the quantitative data and can be used as an instrument for identifying QoL variables for this elder (65 years plus) client group with late-onset epilepsy. Triangulation will also help to overcome the limitations of the quantitative measure as an ‘expert-specific’ measure as well as the richness of data that can be evolved through ‘patient-specific’ qualitative data. Qualitative methods are used to generate hypotheses. Qualitative results show that the psychosocial QoL variables of anxiety and depression are significantly affected for this client group. The QoL variable of employment (frequently cited as the predominantly affected variable in new-onset ‘adult’ [18-74 years] epilepsy research) has not been reported as valid for this (65 years plus) client group. Therefore, an over generalisation regarding employment as the most predominantly affected QoL variable (within this theoretical framework) has been found to exist. Subsequent results are expected to bear out this finding to greater significance. Subsequent results are also expected to imply a trend of greater impact on psychosocial variables for the elder new-onset sufferer of epilepsy.

Emotional state, eating habits, and nutritional knowledge  
C GOSSELIN, University of Surrey  
The purpose of this study was to determine whether nutritional knowledge had a greater affect on eating behaviour than emotion. The administrative of the Dutch Eating Behaviour questionnaire (DEBQ), the State and Trait Anxiety Index (STAI), and a diet knowledge quiz (DKQ) included level of nutritional education which was not related to healthy eating, but may be indicative of unhealthy eating in individuals reporting high scores on either STAI or DEBQ. The results also identify a multidimensional profile of emotional eating in normal weight subjects, that is determined by level of severity along an eating behaviour continuum. Several relationships between the psychometric measures of eating behaviour, anxiety, age and BMI, were found where subjects were split into corresponding groups. Participants were asked to recall three days of their food intake. In particular, significant findings between State and Trait Anxiety, Restrained and BMI, Emotion and Age replicates the work of previous authors and indicates the predictions of Restrain Theory, a fundamental construct in eating behaviour.

Breast reconstruction: who has it and why? 

The British Psychological Society  
1999 Proceedings
Breast reconstruction describes a range of surgical procedures that can restore a breast shape for women who have undergone mastectomy following a diagnosis of breast cancer. Policy documents recommend it should be routinely available to women who have undergone mastectomy, yet comparatively few women elect to undergo reconstructive surgery. This presentation focuses on three separate studies (a retrospective questionnaire survey, focus groups and prospective interviews) to investigate women’s reasoning with regard to reconstruction, perceived satisfaction with their decisions and whether they would recommend it to friends. Each study involves women who underwent mastectomy with or without reconstruction. Results related to lay person and group focus are discussed, as is the design of the prospective study.

CA HAYNES, JNV MILES & K CLEMENTS, University of Derby
Sensation seeking has been measured primarily by the Sensation Seeking Scale Form V (SSSV, Zuckerman, Eysenck & Eysenck, 1978), which conceptualises sensation seeking as consisting of four subscales. Limitations with this measure led Arnett (1994) to propose an alternative conceptualisation of sensation seeking, the Arnett Inventory of Sensation Seeking (AISS), which contains two subscales. Limitations with both measures related to the nature of sensation seeking prompted the present study which aimed to test the dimensionality of the two scales. 822 participants completed the two measures of sensation seeking. The sample was divided randomly in half, and structure equation modelling (LISREL 8.2) was applied to test the fit for structure of the two measures. Sample 1 was used to test the proposed model and the adjusted model after suggestions relating to causality, synergy. Sample 2 was used to confirm the adjusted model. Neither of the proposed models fit the data, however, after modification two subscales from the SSSV, and the modified AISS fit the data and were confirmed by sample 2. It is concluded that neither model is acceptable as originally proposed. Arnett subscales are not as adequate as general measures of sensation seeking. The nature of possible subscales requires further investigation, and a new measure of sensation seeking is required.

Children’s understanding of illness K HOLDSWORTH, University of Plymouth
This poster discusses the replication and extension of an American study (Hergenrather, 1991) and compares the structures of illness schemata of children with varying ages including an additional age group (3-4 years old). Children were shown to have different levels of understanding of illness, independent of age, gender and previous experience. Twenty children were interviewed in four age groups (5-6 years old, 7-8 years old, 11-12 years old, 13-14 years old) (n=80) for one hour. The children were asked to sort out pictures of everyday objects and pictures relating to childhood symptoms and treatment of illness and to answer 26 multiple choice questions relating to illness recognition and causality. The results showed that the mental representations of children of different ages develop were dependent on their level of knowledge. Less knowledgeable children organised schemas around concepts of illness, whereas more knowledgeable organised their concepts around the disease process. There are implications for child health education and clinical practice.

Privileged parasites or treasured possessions? Social representations of students in the 90s J HORWOOD & K GLEESON, University of the West of England
Students have been seen as a subculture, containing distinctive elements (Niblett, 1969). They are targeted specifically by advertisers, using imagery which resonates with notions of the drunken squanderer and the angry activist. In reality students are a group that does not have a way of life distinct and separate from the rest of society, it is a common concern of both young people and the elderly. Their responses were related to their child’s performance and their competencies, parental supervision, and their safety tasks. Findings were discussed in relation to academic environmental competencies, and the role of supervision in developing safety-related competencies.

Joyriders: Are they driven to it? SK KELLETT & H GROSS, Loughborough University
The term ‘addiction’ has been applied to both substance and non-substance behaviours, including some criminal behaviours. More recently the term addiction has been applied to non-substance behaviours. For example, there is evidence that suggests that joyriding is a ‘clinically addictive’ behaviour. The overall aim of this study is to investigate whether joyriding can be usedly ‘diagnosed’ as a clinically addictive behaviour. The study is qualitative, via in-depth interviews with both joyriders and those who have the care and control of joyriders. Interview data highlights examples of addiction criteria in joyriding, indicating that joyriding may be described as having an addictive quality in some individuals. However, further investigation is needed to consider the use of the term addiction as a diagnostic resource.

Gender stereotyping and children’s preferences for musical instruments AC HARRISON, Keele University
This study investigated children’s preferences for six musical instruments, in particular examining the influence of gender roles and stereotypes. This paper reports findings from the initial stage of a longitudinal study. During individual interviews, 357 children (aged 7-8 years) stated their preferences for learning to play the six instruments that are associated with boys and girls. The extent to which these instruments were assessed. Intervention concerts were performed at two of three clusters where gender-related beliefs about music are strong, whereas girls’ preferences for the instruments following concerts would be played by either sex. Girls’ and boys’ preferences for the instruments following concerts were designed to investigate girls’ reasoning with regard to music, perceived satisfaction with their decisions and whether they would recommend it to friends. Results related to lay person and group focus are discussed, as is the design of the prospective study.

Desperately seeking sensation seeking: Confirmatory factor analysis of two models D HARCOURT, N RUMSEY & N AMBLER, University of the West of England & Frenchay Healthcare Trust, Bristol
Accidental injuries are the largest cause of death in children between the ages of 1 and 14 years (HASS, 1992). Supervision plays an important part in reducing childhood injuries. It was hypothesised that a relationship would exist between parents’ perceptions of their child’s safety-related competencies, and their child’s performance on safety tasks. Parental accident-likelihood beliefs were expected to influence this relationship. Hypothesis parental responses were related to their child’s performance on a variety of safety tasks. Results showed that parents’ perceptions of their child’s abilities did not predict parental supervision. Parental accident-likelihood beliefs were negatively related to perceptions of the child’s abilities; however, this was not related to test recorded supervision negatively predicted performance on safety tasks. Findings were discussed in relation to children’s environmental competencies and the role of supervision in developing safety-related competencies.

Expanding personal meanings of stress at work G KINMAN, University of Hertfordshire
Although numerous empirical studies have been conducted that list and/or classify the antecedents and outcomes of stress at work, little attempt has been made to consider the nature of stress at work by analysing data obtained from semi-structured interviews with 32 working adults. Results indicate that: (a) stress is an important construct, having an addictive quality in some individuals. However, further investigation is needed to consider the use of the term addiction as a diagnostic resource.

What do other people think about my organisation: Organisational image and identification O KYRIAKIDOU, University of Surrey Organisational identification is defined as the perceived oneness with an organisation and the socialisation of its members. Supervision plays an important part in reducing childhood injuries. It was hypothesised that a relationship would exist between parents’ perceptions of their child’s safety-related competencies, and their child’s performance on safety tasks. Parental accident-likelihood beliefs were expected to influence this relationship. Hypothesis parental responses were related to their child’s performance on a variety of safety tasks. Results showed that parents’ perceptions of their child’s abilities did not predict parental supervision. Parental accident-likelihood beliefs were negatively related to perceptions of the child’s abilities; however, this was not related to test recorded supervision negatively predicted performance on safety tasks. Findings were discussed in relation to children’s environmental competencies and the role of supervision in developing safety-related competencies.

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S ISLAM, University of Lincolnshire and Humberside
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What do other people think about my organisation: Organisational image and identification O KYRIAKIDOU, University of Surrey Organisational identification is defined as the perceived oneness with an organisation and the experience of the organisation’s successes and failures as one’s own. While identification is considered important to the organisation, it has not been clearly operationally defined. This study tests a proposed model of organisational identification. Self-report data from 158 employees in one different organisation was used to test the organisational identification with the organisation was associated with (1) the hypothesised organisational factor of perceived external image, (2) the hypothesised individual factor of organisational tenure and
Belief bias and presentation order in syllogistic reasoning

NJ LAMBELL, SJ HANDLEY & JSIBT EVANS, University of Derby
Research by Evans, Banston & Pollard (1983) demonstrated that children's reasoning was mostly associated with reference to the conclusion of a syllogistic argument. Three experiments were designed to test the hypothesis that presenting the conclusion before the premises should make participants more susceptible to the influences of belief. Experiment 1 demonstrated no increase in belief bias compared to the standard presentation format but there was a reduction in logical competence. Experiment 2 reported a similar drop in logical competence associated with the presentation of the conclusion. Experiment 3 confirmed the findings of the previous two experiments. It was concluded that belief bias does not tend to arise as a result of the initial consideration of the conclusion. It was also concluded that participants' tendency to reason more competently from the premises to the conclusion is more likely to be a result of the logical independence of the phenomena under scrutiny. In this paper, we recommend that the concept of belief bias be defined as the 'sceptical', 'faithful' or 'subjective' nature of the phenomenon itself. It is important to note that belief bias exists only in the relationship between these, and other factors. This conceptualisation of addiction has been developed as the 'complex systems approach' (Larkin & Griffiths, 1998). We go on to argue that within such an approach, addiction resides within the individual's subjective experience of a problematic relationship with the activity is crucial, if a meaningful dialogue is to occur between academic and lay understandings of addiction.

A study into the complexity of disputes amongst nursery school children

D MCWILLIAM, University of Strathclyde
Pre-school research findings suggest that curriculum guidelines, such as those given in The Scottish Office Education Department's (SOED) 5-14 English Language Document, may tend to underestimate children's competence. The present study seeks to clarify and elaborate on earlier findings by systematically observing, recording and categorising pre-schoolers' conflict exchanges in the natural set-up of their nursery schools. Different types of dispute strategies were identified and were found to vary in terms of the degree of linguistic complexity. Complexity was then examined across gender, class and type of play activity in two schools. Results indicate that children are linguistically more complex than their lower class peers. No significant gender differences were found but type of play activity had a notable effect.

Both symbolic and construction activities were associated with complex exchanges whereas solitary pursuits or sand and water play were not. The results may have future implications for both educational policy and practice.

The role of video in recall for personally experienced events

C MILLWARD, SD POWELL & DJ MESSER, University of Herefordshire
It has been argued that children with autism have specific difficulties in remembering personally experienced events (Powell & Jordan, 1993). In addition they are known to have more general difficulties in memory processes related to the ‘self’. One possible explanation for this is that children with autism cannot internally reflect upon their own past. This study examined the utility of explicit self reflection via videotape feedback as an approach for improving the consolidation and subsequent encoding of personally experienced events for children with autism and children with moderate learning difficulties. Results showed that child with autism’s memories for personal events was comparable to the children with moderate learning difficulties when given video feedback. This was not true when the children with autism had to remember without this medium. Theoretical and practical implications are discussed in the light of these findings.

MIMICS (HuMan Imitating Machine in Computer Software): A methodology for increasing end-user satisfaction and decreasing cost driven developments in group support systems

A MORLEY & R FRASER, University of Plymouth
Support systems, like software development in general, tend to follow the traditional waterfall model of development. It is argued that this process leads to levels of commitment to a product that create pressures to complete the software, at the cost of optimal end-user satisfaction. An approach is outlined in which the behavioural and psychological impact of partially developed systems can be assessed prior to completion. Once outcomes are favourable at this stage need further resources be committed to the development process. The success of such an approach is demonstrated through the design of a system that assists computer-mediated decision makers overcome the well documented reliance upon normative communication of a hierarchical based approach used by face-to-face groups.

The relationship between children's humour and their developing theory of mind

S MORRISON, University of Strathclyde
Incongruity has been identified as the key element which produces the humour perceived in jokes based on multiple meanings. Previous studies of children's humour development have tended to view the cognitive abilities required to understand incongruity-resolution humour from a Piagetian perspective. However, they are also key abilities in the developing theory of mind. The present study investigated the relationship between children's humour understanding and their development of the theory of mind. The performance of six-year-olds and second-year-olds on three theory of mind tasks with their peers choose not to educate their disabled children have often ignored parents' vast store of knowledge about their child. As the diagnostic term of 'cerebral palsy' covers a wide variety of childhood disability, educational provision for children with cerebral palsy can be problematic from the perspective of parents. In the UK the choice of education for children with special needs lies with Local Education Authorities. Some parents choose not to educate their disabled children in mainstream or special schools and instead opt for an independent system of education. One such independent system of non-traditional education is conductive education. The aim of this study is to explore the use of Grounded Theory (Strauss & Corbin, 1996) and Narrative Analysis (Reissman, 1993), the factors influencing the choice of education for children with special needs and to explore the psychological perspectives of parents on long-term programmes of conductive education. In analysts of the data, existing theories are tested, new theories generated and recommendations made for future research.
in the low spatial span group, but no interaction was present in the high spatial span group. The pattern of belief biased responding did not differ between high and low articulatory spans groups. It was concluded that these results support the notion that limitations of spatial WM are a determinant of belief bias in syllogistic reasoning.

Cognitive processes in women with eating disorders
S QUINTON, University of Manchester

On Stroop tasks, anorexic and bulimic women have shown interference effects for disorder-relevant items. The current study addressed the processing of information unrelated to eating per se, yet relevant to these disorders (i.e., control, perfectionism, self-criticism). Forty-one disordered and 42 age-matched non-eating-disordered control women completed a novel information-processing task. Results were not as predicted, with the eating-disordered women failing to show an attentional bias for these words. However, compared to the controls, these women showed a characteristic ‘cognitive style’ concern response accuracy and response time. Implications for future research and clinical interventions are suggested.

Tell me what you’re feeling: A study of tacit diagrams
AIG RAMSAY, University of Hertfordshire

Tacit diagrams can be a tremendous information resource for visually-impaired people. Unfortunately, existing visual representations in the design of these diagrams and, consequently, no effective training procedure can be developed to improve visualisation in the design of tacit diagrams. The development of a ‘universal code’ of tacit representation would alleviate this problem substantially. To that end, a series of interviews was carried out with visually-impaired people, addressing their understanding of both shapes and representational concepts (such as perspective and occlusion). Participants were asked to identify various tacit shapes and, in some cases, describe and interpret the relationships between two or more shapes (e.g., in terms of relative size and position, for example). An assessment of participants’ performance on these tasks revealed the extent to which visually-impaired people can appreciate tacit diagram descriptions as representative of the 3D world.

The impact of health related behaviours on the relationship between stress and infectious illness
G REES & M THOMAS, University of Bristol

The present study examined the effects of health related behaviours on the relationship between stress and Upper Respiratory Tract Infections (URTI). A 10-week diary study was carried out by 38 participants, in which measures of stress, illness and health related behaviours were recorded prospectively (70 per cent) and at least one illness episode. Illness episodes were found to be significantly related to stress measures, namely negative life events. Participants reporting above the median number of negative life events for the previous 12 months, showed increased susceptibility to URTIs (above 90 per cent). A possible link between emerging death concepts and increased risk taking needs to be explored. Using semi structured interviews, this grounded theory study seeks to explore how death and emerging death concepts are conceptualised by adolescents with contrasting life experiences. Preliminary findings reveal that some adolescents do have existential concerns (‘Am I real?’) and death-related thoughts. Research seeks to answer questions such as: What do adolescents perceive to be risking their lives? and Is risk-taking related to a need to feel ‘real’. The need for a multi-dimensional alcohol desire questionnaire in alcohol motivation research
D SCHULZE & BT JONES, University of Glasgow

Studies which have used a uni-dimensional rating scale for craving have shown that conditioned responses can change a person’s motivation to drink. Craving questionnaires like the Alcohol Use Disorder Inventory (AUDIT) have shown no correlation with increased alcohol consumption. A new multi-dimensional questionnaire, the Desire for Alcohol Questionnaire (DAQ) (Clark et al., 1997) was administered to 37 social drinkers during a cue exposure experiment. Repeated Measures Analysis of variance shows significant differences (p<.01) for the change from baseline after cue exposure between soft and alcoholic drinks.
drinks for the first three DAQ factors but not for factor four, controllability. No interactions with gender, drinking history or order of cue presentation could be found. These results lend further support to the view that alcohol cues are capable of changing subjective feelings towards alcohol even on a social drinking level. However, they also stress the need for a validated multi-dimensional alcohol craving questionnaire.

Lie detection accuracy and the honest baseline: Does the truthful behaviour need to be relevant to a subsequent lie detection task? P SEAGER, R WISEMAN & C ROWE, University of Hertfordshire & Nene College One hundred and thirty-four participants were asked to make judgements about whether senders were lying or telling the truth about their favourite film and preferred way of relaxing. Participants were either first exposed to a short clip (3-5 minutes) of the sender talking truthfully about aspects of their life (relevant baseline), or a different sender carrying out the same task (irrelevant baseline) or no clip at all (control). It was hypothesised that participants viewing baseline information would be significantly more accurate lie detectors than those in the control condition. Results suggest that participants seeing both the relevant and irrelevant baseline information were significantly more accurate than those in the control condition. The conclusion to be drawn is the exposure to any example of truthfulness (not just sender-specific honest behaviour), before making lie and truth judgements, will significantly increase a person’s lie detection accuracy.

Perception of human attributes from schematic faces C SENIOR, Institute of Psychiatry This study reports findings that provide an indication that 'higher order' attributes such as gender and social dominance are perceived from a schematic face. In order to investigate a large subject population the first two experiments were carried out, in both the traditional manner, and on the Internet. Results obtained from both media were not significantly different so the data sets were combined. It was found that the lowered eyebrow position was a strong indicator of both social dominance and the emotion from these schematic faces with a mouth resulting in the face being viewed as less dominant and less male. Eye gaze direction was also investigated and findings are discussed in terms of dynamic inferences. In summary, evidence was found which supports the assumption that both social dominance and the male gender are predominantly attributed from facial configurations on the schematic face. Limitations of this study centre around the use of schematic face pairs and future work involving the presentation of single faces is discussed.

Masculine discourses relating to visiting doctors S SEYMOUR-SMITH, University of Derby Men do not appear to go to the doctors as much as women. This study adopted a discourse analysis methodology to examine the texts of three men in the form of a semi-structured interview. Five inter-related discourses were identified: men as genuine service users; hypochondria; nurturant women; ‘doing’ masculinity; and doctors. Texts were analysed and written protocols to fifteen cue words containing five categories. The examination of protocols indicates that the highest number of thoughts about personal, physical events and least number of specific autobiographical memories are retrieved when the process was interrupted after 2 sec. followed by 5 sec. and 30 sec. Subjects retrieved nothing for the highest number of trials when they were stopped after 2 sec. from ongoing retrieval process followed by 5 sec. and 30 sec. The second experiment was the replication of the first experiment where subjects retrieved memories to fifteen cue words containing three categories. Subjects’ verbal protocols were tape-recorded in this experiment which provided similar findings as revealed in the first experiment: The quicker is the interruption the lesser is the recalling specific memories and more general thoughts about persons, places, and events. The findings support the notion that retrieval of autobiographical memory is a lengthy process. The results are discussed in relation to an existing model of autobiographical memory.

Job Club: Psychological impact on the unemployed B SNEDDON, Luton University The study was conducted to determine whether stress and anxiety levels experienced by unemployed persons were significantly affected by Job Club attendance. A total of 66 subjects (n=66) were all unemployed for a minimum period of six months. They comprised 34 males and 32 females. Ages ranged from 18 to 54 with a mean age of 28. A written protocol design was used. They were given the Hassles scale and self-evaluation STAI-S and STAI-T questionnaires to complete. A manipulation of stress and anxiety. As was predicted a significant difference in the scores was obtained, resulting in a lowering of scores generated. The possibility that Job Club attendance had affected subjects’ anxiety levels and the stress experienced, through the restoring of self-worth and work-like behaviours, and the support and advice leading, and using the Job Club are discussed.

Atitudes towards delinquency and criminality in relation to age, sex and ethnicity: Attribution of delinquency to physical or psychosocial factors, belief in effectiveness of incarceration, rehabilitation or medical treatment and relationship to preferred social distance W SNOWDEN, Buckinghamshire College Using a vignette format, components of attitudes towards delinquency were assessed in 93 managers. The data suggest that, whilst attitude components are not generally significantly related, perceived severity of delinquency behaviour is positively related to physical and physiological causes, such as the condition of the brain and nervous system and negatively related to social acceptance and approval. Attribution and drug treatment for the condition of the brain and nervous system is positively related to anxiety about violent crime and to belief in the efficacy of medical treatment, but negatively related to belief in the effectiveness of rehabilitation and training. Pessimistic belief about recidivism is positively related to belief in the efficacy of medical treatment of offenders, but negatively related to belief in the efficacy of rehabilitation. Analysis of variance shows no effect of age of respondent or sex and ethnicity of ‘offender’ on perceived delinquency.

SHAMSI HAQUE & MA CONWAY, University of Bristol Two experiments investigated the interrupted retrieval process of autobiographical memory to cue words. Three different deadlines (i.e. 2 sec., 5 sec., and 30 sec.) were used to interrupt the ongoing retrieval process. In the first experiment, subjects retrieved memories and produced written protocols to fifteen cue words containing five categories. The examination of protocols indicates that the highest number of thoughts about personal, physical events and least number of specific autobiographical memories are retrieved when the process was interrupted after 2 sec. followed by 5 sec. and 30 sec. Subjects retrieved nothing for the highest number of trials when they were stopped after 2 sec. from ongoing retrieval process followed by 5 sec. and 30 sec. The second experiment was the replication of the first experiment where subjects retrieved memories to fifteen cue words containing three categories. Subjects’ verbal protocols were tape-recorded in this experiment which provided similar findings as revealed in the first experiment: The quicker is the interruption the lesser is the recalling specific memories and more general thoughts about persons, places, and events. The findings support the notion that retrieval of autobiographical memory is a lengthy process. The results are discussed in relation to an existing model of autobiographical memory.

The significance of external environmental factors on the psychological consequences of traumatic events B SOUTHERN, Nottingham Trent University This paper discusses the apparent disregard of external pre-trauma environmental factors in the theoretical psychological models of clinical post-traumatic emotional distress. It observes that such models are essentially constructed around predispositional and internalised cognitive dynamics that invariably neglects the effect of pre-traumatic external influences. Such methodological disregard for environmental pressures effectively divorces conventional models from essential experiential time sequences. It also advances the theory that, although varying in individual situations, such environmental factors contribute in some degree to all post-traumatic psychological reactions. Whilst acknowledging the limitations of this theory, however, certain limitations are identified in which pre-traumatic environmental influences are highly significant in relation to post-traumatic psychological sequelae. To illustrate this perspective, attention is specifically directed to the long-term psychological effects of World War II experiences on civilian women and the phenomenon of ‘secondary’ and ‘tertiary’ Post-Traumatic Stress Disorder.

The role of positive affect in reasoning and problem solving E SUTHERLAND, E LUCAS & C ELEFTHERIOU, University of Derby Recent studies addressing the influence of positive affect on various cognitive tasks have concluded that it suppresses performance on convergent, analytic tasks, by depleting working memory resources available to them (e.g. Oaksford et al., 1996). In the present study participants were distributed in one of three groups: a positive affect group and two neutral-affect control groups. Their scores on four tasks, considered to be analytic, a deontic and abstract version of the RAST and two dot problems, were compared in order to provide additional support for this claim and for the concept that the type of task and the memory component it relies on, determine the type of influence positive affect will exert. Results revealed impaired performance for positive affect subjects compared to control conditions. Findings are discussed in terms of existing theoretical frameworks.

The effect of induced mood on the visuo-spatial sketchpad EJ SUTHERLAND, E LUCAS & MK GARDNER, University of Derby/Oakford, Morris, Grainger & Williams (1996) have suggested that transitory mood states reduce reasoning performance by depleting working memory resources, and Johnson-Laird has claimed that ‘the ability to construct alternative mental models should correlate with spatial ability rather than verbal ability’ (1985, p.190). In light of these two assertions an experiment was conducted whereby the effect of induced mood on the visuo-spatial sketchpad was examined. Positive and negative mood states where induced in subjects using film, and visuo-spatial working memory was measured using a computerised version of the Corsi Blocks test (e.g. De Renzi & Nichelli, 1975). No significant difference was found between experimental groups and controls. Results are discussed in terms of the claims made by Oakford et al. (1996) and Johnson-Laird.

The developmental origins of social cognition in bullying J SUTTON, R MYRON-WILSON, PK SMITH & J SWETTENHAM, Goldsmiths College Previous research by the first author has highlighted the prevalence of bullying in schools and in their effect on their targets and, victims, and
there is also evidence of family influences on both bullying and theory of mind. The current study investigates whether there are differential links between social cognition and family background factors in these different groups. One hundred and eighty-eight 7-10-year-olds completed measures of family composition, cohesion and power, parental style, attachment relationships, and story understanding measures of social cognition. There were no significant effects of family composition, cohesion and power, or maternal attachment relationship on social cognition, or any interaction with bully status. However, perceived parental warmth was positively correlated with social cognition in the whole sample and, most interestingly, punitive parenting was negatively correlated with social cognition in bullies but positively correlated in victims. Results are discussed in terms of methodological problems and implications for anti-bullying interventions.

The implications of teachers as targets of bully-abuse by their pupils
A TERRY, Keele University
The possibility of teachers experiencing bullying abuse from their pupils has not figured significantly in research into this area, despite possible consequences with regard to levels of aggressive behaviour generally within schools. Research into this phenomenon was collated, and published in a special issue of the British Journal of Educational Psychology (June 1998, 'Teachers as targets of bullying by their pupils: A study to investigate incidence'). Having established an incidence of this behaviour, and by implication shown that bully-abuse is not confined to peer relationships, but can manifest as cross-peer abuse, the present research is expanding upon this study in a number of ways. The possibility that such abuse may present in a cyclic manner, as has been explored in other areas of abuse, leads to the conjecture that an abused teacher’s teaching style may be altered by this damaging interaction. This in itself may influence the future behaviour of pupils in their care. The new study will therefore involve a limited longitudinal project to examine the hypothesised change in teaching style expected from abused teachers.

The effects of the familiarity and arousal properties of ambient odours on context-dependent memory
J THIARA & LJ BALL, University of Derby
Three experiments are reported which examined how the familiarity and arousal properties of ambient odours deriving from pure essential oils (e.g., lemon, hyssop and rosemary) impact upon context-dependent memory within an implicit retrieval paradigm. The experiments indicated significant context-reinstatement effects with odour cues on a word-fragment-completion task and also clarified the way in which an odour’s familiarity status and arousal properties can influence retrieval. Both unfamiliar odours and stimulating odours were observed to have enhancing effects on implicit memory that occurred independent to any interactive effects. We conclude by addressing the key theoretical and practical implications of our findings in relation to contemporary research on human memory and odour cues, including recent work by Herz (e.g., 1997).

The effects of varying task judgement and spatial attention on the priming of negative affective words
J TIPPLES & D SHARMA, University of Kent
Two experiments examined the priming of negative words. In Experiment 1, the impact of a spatial interference on rhyme processing was examined in a modified priming paradigm. In contrast to the affect primacy hypothesis (Murphy & Zajonc, 1993), the location of the spatial precue had substantial effects on rhyme processing. However, negative words were the only word group to demonstrate significant priming on invalid trials. In Experiment 2, the spatial precue and all strategic elements of the paradigm were removed. Subjects were asked to perform both a non-semantic and semantic task. A new baseline was included. The effects of spatial attention were assessed by comparing the spatial location of the prime to the target. No evidence of a priming advantage for negative words was found. Indeed the use of the new baseline showed that some form of response bias was likely in earlier research using only an incongruent baseline.

The identity of chronic pain patients
V TROWELL, Lancaster University
This paper explores pain experience and management from the viewpoint of identity. It describes a longitudinal study following 40 chronic back pain patients as they are first referred to a pain clinic. The project has three stages: an interview with patients before the assessment consultation (stage 1); taped records of the consultant/patient interview (in the absence of the researcher) (stage 2); and a follow-up interview six months after the assessment (stage 3). Using qualitative analysis techniques, analysis from stage 1 will be presented. Relationships between identity and the body are discussed in regard to the impact of identity on pain perception; how age affects outlook on life and how chronic illness influences lifestyle. Examinations of the pain clinic prior consultation are also shown. Finally, I conclude with some comments about the implications of research in chronic illness for theories of identity.

Frequency and semantic relatedness in free recall
AF TURVEY & AM BRIDGES, Aston University,
In serially presented free recall tasks, pure lists of high frequency words are typically remembered better than pure low frequency lists. Delosh & McDaniel (1996) suggest that this is due to mental representations of high frequency words being easier to access, which leaves more resources free to encode list order information. Low frequency words, on the other hand, require more elaborate individual processing, leaving less capacity for the retention of order information. Hence low frequency words fail to act as cues for subsequent words in the list. However, it is argued that this hypothesis fails to acknowledge the role of semantic categorisation in dynamic cueing. The results of the present paper suggest that semantic factors are of equal or greater importance in strengthening inter-item recall cues.

How do we remember what we hear?
I WALKER & C HULME, University of York
What determines the amount of information that can be temporarily held in verbal short-term memory (VSTM)? The most widely accepted view is that the low capacity of VSTM reflects the limits of a specialised storage system based around rehearsal. An alternative view is that VSTM is not a separate cognitive mechanism but rather a by-product of the language system’s normal operation. This presentation describes some experiments that explore this idea and provide evidence to support the view that VSTM may be thought of as simply a (necessary) by-product of the language system’s operation.

How do children respond to bizarre questions?
A WATERMAN, M BLADES & C SPENCER, University of Sheffield
In the legal setting it is very important that children, when interviewed, do not attempt to answer questions to which they do not know the answer. Previous research found that children will try to answer bizarre questions. In this study 6-8-year-olds were asked both normal and bizarre questions, half requiring a yes/no answer (closed), half requiring an answer (open). Several weeks later the children were asked to judge the questions as sensible or silly. All children answered the normal questions appropriately. Many children tried to answer bizarre questions in the closed format, but only 10 per cent tried to answer open bizarre questions. Irrespective of whether children answered the bizarre questions, nearly all of them later judged these questions to be silly. Therefore, our results did not support previous studies that found children try to answer all bizarre questions. Also, children were able to judge the difference between sensible and sensible questions. The implications of these findings for interviewing children are discussed.

Exercise your mind: Can exercise increase multi-task performance?
MA WATHERELL & ME HYLAND, University of Plymouth
Current research regarding the effects of exercise on cognitive performance is mixed, with reports of increased, decreased and curvilinear effects on single task performance as a result of aerobic exercise. The contradictory nature of such research can be attributed to the use of samples with varying fitness levels, the intensity and duration of exercise, and the measure of performance used. The present study assessed the short term effects of four exercise intensities on a multi-task performance battery in participants of similar fitness levels. Results indicate post exercise increases of performance in conditions of greatest intensity (120 bpm: p=0.023, 60 bpm: p=0.005), suggesting that short duration aerobic exercise can increase immediate multi-task performance.
Developmental Psychology Section

Annual Conference, Lancaster University, 11–14 September 1998

Understanding minds in movement: Attribution of mental states to animated shapes
F NELLI, U RFRIT, F HAPPE, MRC Cognitive Development Unit, London

Computer-presented animations, based on Heider and Simmel (1944), were shown to normal 6- and 8-year-olds, with autism and children with moderate learning disabilities. Two triangles moved around the screen, interacting according to one of three conditions: Random, Goal-directed and complex intentional (’Theory of Mind’). Participants described each animation and responses were coded according to accuracy and language used: action, interaction, or mental state. Developmental progress was found across the non-clinical groups. Autistic participants were less accurate in responses to Theory of Mind animations than the verbal mental age-matched 8-year-olds and used more inappropriate mental state language than the learning disabled group. This task appears to be more sensitive than standard theory of mind tasks.

Children’s home culture and their school mathematics learning: Case studies of Bangladeshi children in a primary school
G DE ABREU & T CLINE, Department of Psychology, Luton University

This paper reports findings of an ongoing project on mathematics learning in multietnic primary schools in England to extend our elaboration of the use of the notion of social representations to understand children’s mathematics learning. Four-year-olds and school-children of Bangladeshi origin, containing information from interviews with the children, their parents and their teachers, will be presented. The fundamental question addressed is: How diverse emerges among children who apparently are exposed to similar social representation of mathematical knowledge at home and at school.

Working memory and spoken language processing in young children
A ADAMS, L BOURKE & C WILLIS, University of Manchester & Liverpool Hope University

Compared to a group of their peers with relatively poor phonological memory skills, young children classified as having relatively good phonological memory skills have been shown to command a greater productive vocabulary and to produce speech comprising relatively longer utterances using a wider repertoire of syntactic constructions. Such research demonstrates an association between phonological memory and language development which mirrors the verbal short-term memory deficits observed in children with developmental disorders of language. The present work further examines the nature of this language/developmental skill. Phonological memory in four-year-old children with non-pathological language development. The relationship between spoken language skills and performance on a range of tasks proposed to assess working memory function is compared at the level of the individual child. These tasks span two traditions within short-term memory research. Tasks derived from the Baddeley (1986) fractionated model of working memory include tests of visuo-spatial short-term memory (Corsiblocks and visual pattern span), phonological memory (nonword repetition, memory span for digits and words), and also recently developed measures of attentional selection and proactive interference (selective attention, search and retrieval from long-term memory, and dual task co-ordination). The relationship between language skills and complex memory span (an adaptation of the Daneman & Carpenter task) is used to assess working memory ability which emphasises both storage and processing functions. Correlational and hierarchical regression analyses outline the relative contributions of these tasks to variance in spoken language development. The implications of the results for models of language development and for cognitive models of working memory will be discussed.

Inhibition and executive control deficits in children with attentional problems
JW ADAMS & M SNOWLING, Department of Psychology, University of York

Twenty-one 8- to 11-year-old children identified by the Strengths and Difficulties Questionnaire (Goodman, 1997) as ‘hyperactive’ were compared with controls matched for gender, age, and non-verbal reasoning on a battery of cognitive tasks. Significant group differences were found on tasks of inhibition and executive function, but not short-term memory measures. These results are consistent with the notion that children with attention problems have difficulty in the inhibition of behavioural responses, and (ii) with data reported by the same authors (1992) working with children diagnosed as having an attention deficit hyperactive disorder (ADHD).

Children’s difficulties with ambiguity and referential opacity arise from problems with partial referential relations
IA APPERLY & EJ ROBINSON, School of Psychology, University of Birmingham

Four- and 5-year-olds played a communication game which probed their understanding of ambiguity in utterances, and of the discrepancy between intended meaning and utterance meaning. We identify a dissociation between these abilities which is at odds with accounts in the literature that explain failure to understand about ambiguity in terms of problems with the latter. Children also played two games which looked at a puppet character’s partial knowledge. Children made similar errors regarding opaque reports of mental content for both types of content constants on the ambiguity tasks. Handling of ambiguity was also correlated with handling of referential opacity. We argue that children’s problems with utterance ambiguity and opacity both arise out of a more basic difficulty with the mental representation of partial referential relations.

Self-efficacy training for empowering an anti-bullying campaign: A case study
G ARULMANI & S NAG-ARULMANI, Consultant Psychologists Group, 346/2, 1st A Main Road, 8th Block, Bangalore 560 095, India

This poster describes a four-year programme to reduce bullying among male students aged 12 to 17. A system called ‘odd jobs’ had evolved over the years, requiring juniors to ‘serve’ and be on duty one time in a day. Information was obtained on the grouping arrangements. Arrangements were identified as: (i) the notion that children with attentional difficulties need more support for these tasks, and (ii) the notion that children with attentional problems have difficulty in the inhibition of behavioural responses.

The developmental of partial occlusion to represent depth in young children’s drawings of one ball behind another: A longitudinal study
A ASHTON, M BLADES & M MARTLEW, Department of Psychology, University of Sheffield

Partial occlusion, as a pictorial cue to depth, is rarely used by children before seven years of age, instead separated contours are drawn. Gradual acquisition of this drawing ‘device’ (Freeman, 1980) enables more realistic depiction of ‘front/behind’ relationships. A longitudinal study to investigate the progression from separated drawings to the use of partial occlusion was undertaken. The children were aged from three to seven years. Each child completed four drawing tasks, the object arrays were two-dimensional (disc/disc) and three-dimensional (ball/ball) – differences in drawing response to these stimuli were examined. Drawings were collected at eight-week intervals over one school year and preliminary analyses are presented.

Infant temperament and behaviour during pediatric vaccinations:
A longitudinal study
G AXIA & S BONCHINI, Department of Developmental and Social Psychology, University of Padova, Italy

Are mothers’ evaluations of their infants’ temperament prediction of babies’ affective reactions to distress? In this study 40 infants (20 boys and 20 girls) were videorecorded at 3, 5 and 11 months during pediatric vaccinations. Their emotional behaviour was coded by Izard’s MAX. The mothers filled the Early Infancy Temperament Questionnaire when the babies were 5- and 11-month-olds. The duration of negative emotion observed for 90 seconds after innoculations was correlated with nine temperamental dimensions at each age level. The results showed infants’ duration of negative emotion was predicted by Distractability and Threshold at 5 months and by Approach and Mood at 11 months. Longitudinal stability was found for Approach, Mood and Distractability during the first year of life.

Patterns of pupil groups and working arrangements in primary school classrooms
E BAINES, Institute of Education, P BLATCHFORD, Institute of Education & P KUTNICK, Roehampton Institute

Data are reported from two large-scale surveys of primary school teachers which aim to examine the grouping arrangements of Reception, Year 2 and 5 classrooms with regard to practical and pedagogic grouping practices.

Primary teachers came from a sample of primary schools from a number of LEAs and reported on the grouping arrangements in their classrooms at one time in a day. Information was obtained on the characteristics of groupings, teacher presence, and the curriculum activities the groupings were set. Grouping arrangements for the three Year groups are highlighted and discussed in relation to recent debates regarding whole-class teaching methods as well as practical and pedagogic group practices.

The effects of bullying on self-esteem and depression among primary and secondary school-children
D BALLANTINE & S UNGAR, Department of Psychology, Glasgow Caledonian University

The present study examined the relationships between bullying and levels of self-esteem and depression in school children. It was expected that being a bully or being bullied would result in lowered psychological well-being.
Children’s difficulty understanding child’s linguistic background.

Awareness and reading was also dependent on the sensitivity to rhyme, syllables, rimes and vowels. Ability. Children (5-6 years) were given a reading test to determine how this awareness is related to reading. There was an equivalence in the comprehension of picture stories. In a series of two experiments, findings showed that children (of whole pictures) were shown, that the child and a puppet had to interpret. For the restricted view of the second picture, which was presented with 10 single framed asked to predict how the puppet would interpret it. Children as old as seven years of age failed to attribute to the puppet an interpretation that was inferred from the prior experience of the first picture and his/her resulting expectation. Moreover, children tended to mistakenly attribute to the puppet an interpretation corresponding to the real identity of the second picture.

Teachers’ attitudes and actions towards boy vs girl and girl vs boy bullying

S BIRKINSHAW & M ESLEA, Department of Psychology, University of Central Lancashire

Seventy-six primary school teachers completed a questionnaire to investigate perceptions of physical, verbal and indirect bullying between boys and girls; how distressing the experience might be; and what action would be the most appropriate. As predicted, teachers were more likely to perceive physical bullying as bullying, and physical bullying is perceived as more distressing for the victim. Boy vs girl acts were more likely to be perceived as bullying than the reverse. Boy vs boy physical bullying was perceived as more serious than boy vs girl physical bullying. The trend was reversed for indirect bullying. Teachers were more likely to punish indirect bullying. These results have implications when attempting to reduce bullying.

Humour and false-belief in ‘hard to manage’ children

R BOOTH & R CHARLTON, SGDP Research Centre, Institute of Psychiatry, London

The question of whether children presenting early behavioural disturbances differ from normal controls in their understanding of false-belief situations was examined in relation to their ability to appreciate humour in cartoons. Children were presented with picture books consisting of two types: five mental state cartoons, in which the humour depended upon a character’s mistaken belief; and five physical cartoons, involving non-cognitive misattribution.

Despite apparent differences in the two types of cartoon, both groups of children appreciated the humour, and were equally good at interpreting the scenes. However, the children were less able to interpret the mental-state cartoons, suggesting that the ability to appreciate the humour in these cartoons was related to the cognitive abilities of the children and not to their ability to appreciate false belief.

Children with primary pragmatic language impairments but without autism: Preliminary evidence

BARQUERO, EJ ROBINSON, & GV THOMAS, School of Psychology, University of Birmingham

We tested young children’s understanding of the interpretive nature of pictures. Series of two ambiguous pictures (formed by two similar pictures of whole stories) were shown, that the child and a puppet had to interpret. For the restricted view of the second picture, which was presented with 10 single framed asked to predict how the puppet would interpret it. Children as old as seven years of age failed to attribute to the puppet an interpretation that was inferred from the prior experience of the first picture and his/her resulting expectation. Moreover, children tended to mistakenly attribute to the puppet an interpretation corresponding to the real identity of the second picture.

Central executive functions: Playing a role in children’s arithmetic performance

R BULL, School of Psychology, University of St. Andrews

Few studies have considered the role of central executive functioning in children’s arithmetic performance. A study is reported showing a measure of central executive functioning to be related to the difference in arithmetic strategy used by children. This association between central executive skills and arithmetic performance is explored in the context of the relation between children’s arithmetic performance and their peers.

Inferential skills in children’s comprehension of picture stories

L BUTTERWORTH, Laboratory of Experimental Psychology, University of Oxford

It is now well documented that poor comprehenders experience difficulties with text processing (Yuill & Oakhill, 1991). This series of studies aims to explore whether poor comprehenders experience equivalent difficulties when understanding picture stories.

A preliminary study has revealed that poor comprehenders use a more informal reading strategy as skilled comprehenders to understand single pictures. The present study extends these findings by exploring the integration of information across different pictures in a coherent sequence. The results indicate that poor comprehenders display a wider range of reading strategies than skilled comprehenders, indicating that the skill is more specific to comprehension. This study explores readers’ ability to use both literal and inferential information when reading.
Visual field effects in infant response to facial patterns

D CATHEDRUM, Department of Psychology, University College, Worcester, K FREIBERG, V GREEN & C HOLT, Centre for Applied Studies in Early Childhood, Queensland University of Technology, Australia
To compare the preliminary processing of facial stimuli in the two halves of the visual field, 24 infants (mean age: 23 weeks 6 days) were familiarised to triads of facial patterns presented for either inverted or right visual field. The faces were all different in colour and facial expression and one of them was shown in an upright orientation while the others were inverted. Preliminary forced choice tests indicated that infants showed the displays in the left field had encoded the colour of the upright face but nothing else. In contrast, infants shown the displays in the right field seemed to have encoded only the facial expression of the inverted stimuli.

Emotional indicators in children’s human figure drawings

M CATTE & M COX, Department of Psychology, University of York
This research focused on the use of children’s drawings as a projective technique. The human figure drawings of a group of 44 emotionally-disturbed boys of primary school age, were compared with two groups of well-adjusted boys: one matched for chronological age and another for mental age. A comparison based on Koppitz’s (1968) original emotional indicators and another, based on a revised list of indicators developed from new UK normative data, showed that the emotionally-disturbed children included significantly more indicators in their drawings than their well-adjusted peers.

How reliable is children’s testimony? Cognitive and social factors that influence report accuracy

S CECI, Cornell University
Pre-school children have tremendous strengths when it comes to their memory. They can recall events accurately from the distant past, sometimes better than adults. Having said this, it has been widely documented that young children are especially susceptible to the effects of suggestive interviewing techniques such as leading questions, visually-guided imagery, and stereotyping. Compared to older children, younger children are more likely to incorporate suggestions into their memories, claiming that they actually experienced an event that they merely imagined or were asked to ponder. Until recently mechanisms responsible for young children’s greater suggestibility was unknown. I describe a series of studies designed to examine developmental trends in source amnesia, the tendency to accurately recall an event but forget its source. I describe the cognitive, biological, and socio-demographic factors that result in children’s source amnesia.

Theory of mind, executive functions and social behaviour in children with ADHD

T CHARMAN & F CARROLL, Behavioural Sciences Unit, Institute of Child Health Twenty-two boys with a diagnosis of ADHD were compared to 22 typically-developing boys of the same age. The former group showed deficits in planning, initiating and monitoring executive function and on an advanced theory of mind task. Parents completed rating forms on their child’s social and emotional adaptability. The former group scored lower than the latter group. No differences were found between the groups on the advanced theory of mind scale. Children’s over-riding emotional state influenced their performance on the theory of mind and executive function task for the typically-developing controls but not for the children with ADHD.

Enhancing pre-schoolers’ recall using guided cognitive interview procedures

T COCKERTON, K SIMS, O KONSTANTINOU, N KLASSEN, J ALDOUS, H OLDMAN & D WESTLEY, Psychology, School of Science, Middlesex University
This paper presents the results of a pilot study examining the effects of guided cognitive interview procedures on children’s memory. The main aim of this study was to assess whether interviewing procedures which encouraged children to mentally reinstate the event would reduce or eliminate a misinformation effect. Younger children viewed a staged social event and were then read post-event information narratives in the form of a story which was either (i) consistent, (ii) neutral, or (iii) inaccurate. All children were then randomly assigned to either standard or guided interview procedures to aid children’s recall of the staged event. The guided interview procedures were effective in assisting overall cued-recall of correct items regardless of narrative condition and when age was included as a factor. However, there is evidence under the guided cognitive interview condition. A 2x2 ANCOVA controlling for age differences identified a significant mis-information effect such that those presented with the incorrect narrative recalled more misleading alternative target responses than those presented with a consistent or neutral narrative: while there was no main effect of interview type of pre-schooler suggestibility, a significant interaction between interview type and narrative condition was found. Possible explanations for these findings are discussed.

The role of letter knowledge and phonological awareness in children's reading comprehension

V CONNELLY & F BARLOW-BROWN, Department of Psychology, University of Southampton
Congenitally blind children do not receive exposure to environmental print and do not generally learn written letters of the alphabet prior to schooling in braille. A cross sectional analysis revealed that blind children had no knowledge of written letters and no written words showed no phonological awareness. Blind children with knowledge of written letters showed much increased phonological awareness and blind children with knowledge of written letters and written words also scored more highly on phonological awareness. It is concluded that letter learning is a major contributor to the development of phonological awareness in blind children.

Social cognitive factors in deaf children’s ability to understand false belief

P COOPER, School of Cognitive and Computing Science, University of Sussex
Recent research suggests that deaf children do poorly on false belief tasks, but finding is challenged. Theory of mind research has recently investigated the deaf child’s ability to understand human activity by the attribution of desires. The present study examines the role the presentation of false belief in deaf children aged 4-12 and considers factors associated with variations in their false belief understanding. The study also provides a direct comparison between two conditions of false belief; 1) the standard puppet as protagonist version; 2) live scenario involving the active participation of the deaf child. Receptive verbal ability was found to be the best predictor of success on the false belief tasks, but the presentation of the task was also an important factor. Results are discussed with reference to previous contradictory findings and the relationship between theory of mind development and peer relationships.

Metarepresentation: Lessons from the psychology of art

A COSTALL, Department of Psychology, University of Portsmouth
The concept of metarepresentation has been central to the ‘theory of mind’ literature, specifically with reference to pretend play and ‘knowing other minds’. Developmental psychologists have taken little note of a vast body of research in the arts addressing a closely related issue: the perception of a representation (a picture, a sculpture, or a play) as a representation. The psychology of art, however, by stressing how representations can be distinguished from ‘reality’ affords a way of approaching the problems of pretend play and mind reading.

The role of verbal counting in pre-schoolers’ understanding of addition and subtraction

R COWAN, Child Development and Learning, Institute of Education & A DOWKER, Department of Experimental Psychology, University of Oxford
In a study of 152 children aged 3-5 years old we examined predictions of the effects of addition and subtraction on verbal counts. Success was strongly related to counting proficiency. In contrast to studies of nonverbal arithmetic, the children were frequently wrong in predicting how changes in quantity affect number. We discuss the results in terms of the discrepancy between verbal and nonverbal representations of number and the role that counting may play in helping children to connect these two forms.

Development of strategy in mental addition problems

C CROOK & S JAFRI, Department of Human Sciences, Loughborough University
Mental addition abilities among four groups of children spanning the junior school age range were studied using computerised methods. Children were tested on a classroom computer familiar to the participants. Our purpose was to clarify the computational development that underlies the emergence of longer sequences of single-digit addition problem. Addition bonds became increasingly available as number fact knowledge across this age range. Computation of two-digit additions were more difficult when tested as the unit portion of decades between 20 and 90. The existence of
preferentially known addition bonds (particularly same-digit pairs and pairs that sum to 10) suggest strategic re-orderings of problems involving longer sequences of additions. Such strategies were also coded. Significant differences which were not significant under chance. A design was outlined for computer-based activities that might precipitate the strategic mobilisation of number fact knowledge to mental addition.

War and peace in our play: How do ‘hard to manage’ pre-schoolers behave in collaborative situations?

AL CUTTING, H DEMETRIOU & A GODFREY, SGDP Research Centre, Institute of Psychiatry, London

Collaborative behaviour was examined in 40 ‘hard to manage’ year 1 primary school children, and 40 matched controls, in dyadic interactions with a ‘best friend’. Children were filmed interacting in three situations: (a) a free play sessions, (ii) a restricted play situation, and (iii) a goal-directed situation. Behaviour in these situations was rated on a number of dimensions, including degree of shared interaction (collaboration), affect (positive and negative), co-ordinated pretense, conflict, control, communication and amity. Individual differences were associated with differences in friendship quality, theory of mind skills and specific child characteristics. Differences between the three situations (free play, restricted play and goal directed) were also apparent.

Children’s event memory across and within operative stages

C DAVID, PRABITHA CHITSABSEAN. Department of Psychology, University of Manchester & R BYE, Department of Psychology, University of Liverpool

Jean Piaget argued that children should show improvements in memory as they pass through successive operational stages, but there is also some evidence that children may selectively forget events associated at an earlier, less mature stage. In these studies, the event memory of infant-school children was tested as they moved between Piaget’s pre-operational (non-conserving) and concrete operational (conserving) stages. It was discovered that children who stayed at the same operational stage had a better memory for a past event than did children who had moved on to a higher operational level. These findings are discussed in terms of their theoretical and practical implications.

Does illness enhance children’s understanding of the inside of the body and death?

P DELUCA, Department of Psychology, Lancaster University

This research explored the HIV positive children’s and healthy children’s concepts of death and the interior of the body. The aims are (a) to evaluate the impact of illness experience in the development of these concepts, (b) to investigate the development of knowledge about the biological processes that characterised both conditions. Twenty children, aged 4-10 years, were interviewed during a regular hospital visit. A matched sample of healthy children were interviewed at schools. The results showed that children who had experienced illness were more likely to have a concept of the inside of the body and death may be due to the effect of direct experience with illness and death.

The smarties task revisited: Preschoolers memory for beliefs and utterances

C DILLON & J MORTON, MRC Cognitive Development Unit, London

In the standard smarties experiment (Perner, Leekam & Saner, 1984), two-thirds of three-year-olds fail to report their false beliefs. It has been indicated that using ‘think’ or ‘say’ to question childrens false-beliefs makes no difference to performance (Wimmer & Hanil, 1991, Rigg & Robinson, 1995). While investigating a number of variations of the task we questioned subjects about what they had said on the grounds that this was pragmatically comfortable. It appeared that subjects performance levels rose significantly. In a direct replication of the original smarties task we compared ‘say’ and ‘think’ confirming that standard data but finding that there were all large differences between the two forms of questioning. Event- and activity-based prospective memory: An exploratory study on children with word-finding difficulties

J DOCKRELL, Division of Psychology, South Bank University

The smarties task revisited: Pre-

The aim of the present correlational study was to explore a relationship between the performance on two different prospective memory tasks which were embedded into a session of test battery administered to 31 children with word finding difficulties between the ages of 7 years, 2 months and 8 years, 10 months (mean age: 7 years, 11 months). Children performed on four conditions: (a) Adult and (b) Matched control; (c) Delayed and (b) Matched control. There was no correlation between children’s performance on event-based and activity-based prospective memory tasks. Moreover, performance on these tasks did not correlate with age, non-verbal intelligence (as measured by Raven’s Coloured Progressive Matrices) or short-term retrospective intelligence (as measured by non-word repetition task). In contrast, performance on non-word repetition task was positively correlated with age and non-verbal intelligence.

Two-year-olds’ implicit understanding of gaze

M DOHERTY & J GILDAY, Department of Psychology, University of Stirling

While there is considerable evidence that direct reminders and prospective memory aids benefit prospective remembering there are no published reports of the potential benefits of incidentally presented reminders (e.g. an event related to the prospective memory task). Two studies with young adults demonstrated the effectiveness of incidental reminders and indicate potential differences in the processing of reminders that are either categorically or associatively related to the prospective memory task. A comparable study with young children shows a similar pattern of responding to these difference types of reminders and indicates potential age differences in performance between 5- and 7-year olds on this task.

Linguistic competence and the development of social cognition and social competence

LM DREW & PK SMITH, Department of Psychology, Goldsmiths College, University of London

Eighty-six members of the Grandparents Federation in Britain returned questionnaires about changes in children following parental separation or divorce. In a one-

A longitudinal study of grandparents who have lost contact with their grandchildren: Mental health and coping

J DOCKRELL, Division of Psychology, South Bank University

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Symbolic play and language development: The differences between a pre-five clinical and a mainstream sample

A FORTE & P DAVENPORT, The Anna Freud Centre, London

This pilot study was designed to investigate the relationship between the onset of symbolic play and language in a clinical and mainstream sample of pre-five children. The clinical sample attended a nursery which offers psychotherapy for children experiencing problems. Based on a study carried out by Meins (1997), the children were videotaped when invited to play with some junk materials and toys. Play was both elicited and instructed. The children also were administered the BAS, the relevant language development section used for this study. The children’s reactions to the play situation, refusals, levels of play and relationship to language development are discussed.

False belief tasks: Why do children with autism get it wrong?

CM GRANT, Department of Human Communication Science, University of Sheffield, KJ RIGGS, Department of Psychology, London Guildhall University & J BOUCHER, Department of Human Communication Science, University of Sheffield

The finding that children with autism have difficulty passing false belief tasks has been interpreted as a poor indicator of the development of mental states in this population. This interpretation is evaluated in light of the conceptual analysis of these tasks by Petersen & Riggs, which has shown that such tasks also involve the ability to engage in subtractive reasoning. Studies of clinically normal children have shown that subtractive reasoning is related the ability to pass false belief tasks and subtractive reasoning tasks. The present study replicated these experiments employing participants with autism, moderate learning difficulties and mainstream children.

Exploring the cognitive phenotype of autism: Weak ‘central coherence’ in parents and siblings of children with autism

F HAPPE, J BRISKMAN & U FRITH, SGDP Research Centre, Institute of Psychiatry, London

The strong genetic component in autism has led to interest in the extended phenotype in first degree relatives. The present study explored this phenotype in terms of one cognitive theory of autism: Weak ‘central coherence’. The present study replicated the analyses of mothers and siblings of children with autism, dyslexia or normal development were given tests of ‘central coherence’, on which children with autism perform unusually well due to an integrative processing style that results in a whole versus part reasoning. The present study also related the quality of dyadic interactions at home, and moderately predictive of later attachment security.

Bullying and victim’s distress: Psychological bullying hurts most

D HAWKER, Department of Psychology, University of Keele

This research explores the association between bullying and emotional distress. One hundred and seventy-seven junior and secondary schoolchildren were interviewed, at baseline and at 10-month follow-up about their experiences of emotional distress, being bullied psychologically and physically, and their perceptions of the severity of different types of bullying. Victims tended to be more distressed, and particularly more depressed, than non-victims. Over time, victims were likely to become increasingly depressed, and distressed children increasingly likely to become victims. The experiences most strongly related to distress were psychological rather than physical, although children thought that physical bullying is more harmful than psychological bullying. Victoms seemed to be locked in a cycle, with psychological bullying making them more distressed, and distress making them more vulnerable to further
psychological bullying. These results are consistent with those of other researchers, and have a number of important implications.

Distress among victims of school bullying: A review and meta-analysis

DSJ Hawker & MJ Boultone
Rehabilitation Team Base, Springsfield University Hospital, London & Psychology Department, Keele University

This paper reviews some of the recent advances in the study of the correlates of peer victimisation (that is, the experience of being bullied at school). A meta-analysis shows that victimisation is related to poor academic and behavioural adjustment; while some effect sizes are stronger than others, the intercorrelations of different variables have rarely been corrected. Some important questions raised by the results of the meta-analysis are discussed in the remainder of the paper, in the context of the relevant research findings. It ends by presenting a speculative model of the maintenance of peer victimisation, as a way of integrating research findings.

Developing cognitive measures of the extended phenotype of autism


Given that autism is characterised by specific psychological deficits, cognitive testing represents a potential means of identifying milder phenotypic expression in relatives. A heterogeneous test battery has been developed specifically for use with children. An ongoing project involving advanced measures of theory of mind, executive function and central coherence. Piloting of the tests with high-functioning adults with autism and IQ-matched controls revealed a number of tasks to be effective in discriminating between groups, particularly the theory of mind measures. After further modification and validation, the test battery will be used in combination with standardised behavioural report measures to characterise the autism phenotype in genetic investigations.

The growth, school achievements and self-concept of very low birthweight infants during adolescence

G Hundmarsh & H Mohay, Centre of Applied Studies in Early Childhood, Queensland University of Technology, Australia

The current research project aims to examine the outcome of a cohort of very low birthweight infants (<1500 grams) during their adolescent years. 189 (94.5 per cent) very low birthweights born between July 1977 and December 1981, at the Mater Mothers’ Hospital, Brisbane, Australia, have survived free of severe disabilities. During their adolescent years information was sought on their current growth (both height and weight) states, school achievements and self-concept. Data was received from 124 (65.8 per cent) subjects. While recent trends show more of a catch-up and little variation from self-concept norms, many required additional assistance and support during their school years.

Complex spans and their relationship to children's reading and arithmetic attainment: Reframing the issue of Domainspecifity

GJ HITCH, Department of Psychology, Lancaster University, JN TWSE & U Hutton, Department of Psychology, Royal Holloway and Bedford New University, London

Working memory span tasks, assumed to measure the capacity for resource-sharing, are investigated in a longitudinal study into children’s memory, reading and arithmetic skills. Data provide evidence for the idea that the forgetting mechanism common to different working memory span tasks, but not evidence for resource-sharing. Path analysis of individual differences showed that while operation span and reading span shared a common link with arithmetic skills they had separate links with word reading. We conclude that domain-specificity is not a simple dichotomy and that working memory plays somewhat different roles in reading and arithmetic.

Nastiness in the face of failure: 'Hard to manage' pre-schoolers and the snap game

C Hughes, H Demetriou, H Vokes-Baxter & H West, SGDP Research Centre, Institute of Psychiatry, London

Problems of executive function in school-aged children with disruptive disorders have been well documented. Yet little is known about the nature of their early antecedents, reflecting the scarcity of tasks appropriate for testing preschoolers. The present study reports findings from a set of 40 hard-to-manage pre-schoolers that was presented to 40 hard-to-manage pre-schoolers and best-friends, as well as 40 matched controls plus best-friends. From video, each child was rated for: social interaction; positive and negative affect; arousal; and aggression. Compared with controls, the hard-to-manage group were predicted to show greater arousal and aggression, less positive affect and more negative affect.

Executive dysfunction in 'hard to manage' pre-schoolers: Longitudinal findings

C Hughes & S Richards, SGDP Research Centre, Institute of Psychiatry, London

Problems of executive function in school-aged children with disruptive disorders have been well documented. Yet little is known about the nature of their early antecedents, reflecting the scarcity of tasks appropriate for testing preschoolers. The present study reports findings from a set of 40 hard-to-manage pre-schoolers that was presented to 40 hard-to-manage pre-schoolers and best-friends, as well as 40 matched controls plus best-friends. From video, each child was rated for: social interaction; positive and negative affect; arousal; and aggression. Compared with controls, the hard-to-manage group were predicted to show greater arousal and aggression, less positive affect and more negative affect.

Towards a cognitive phenotype for autism: Siblings show strong span and weak executive function

C Hughes, MRC Child Psychiatry Unit, Institute of Psychiatry, London, M Plumet & M Lебoyard, Hospital Robert Debre, Paris 75019, France

The question of whether executive dysfunction should be included in the extended phenotype of autism was examined in two sibling studies, using three computerised executive tasks (ID/ED set-shifting; spatial working memory; Tower of London); a spatial span control task and two manually administered tasks (verbal fluency and list recall). Compared with siblings of children with developmental delay and children from unaffected families, autism-siblings showed superior spatial and verbal recall but were more likely to perform poorly on the set-shifting, planning and verbal fluency tasks. There were no group differences in working memory.

The influence of implicit and explicit knowledge on eye movements in early understanding of false belief

A Import, T Ruffman, & W Clements, Experimental Psychology, School of Biology, University of Leeds

Children develop explicit understanding of another’s beliefs (accessed via verbal response) by 4 years. However, Clements & Perner (1994) discovered that from 18 to 24 months to 36 years showed earlier understanding by looking to the correct location though giving an incorrect verbal response. The present studies examined whether early sensitivity to false belief is mediated by explicit (conscious) or implicit (unconscious) understanding, by examining the role of knowledge in their knowledge. The results suggested that children’s correct eye movements in false belief are not governed by conscious knowledge.

Bullying behaviour amongst prisoners: Young offenders and adults

JL Ireland, Psychology University, HMYOI Lancaster Farms, Lancaster, G Rush, Psychology Unit, HMP Garth, Leyland & PK Smith, Goldsmiths College, University of London

Two studies addressing bullying behaviour among inmate populations in prison. Study one compares the different styles of bullying behaviour found amongst both young offenders and adult offenders, focusing in particular on their practices and types of victimisation. The second study employs a longitudinal design to evaluate young inmates’ involvement in bullying over a period of imprisonment. The subjects recorded events and behaviours each week during their stay in a Young Offender Institution. Items included various types of aggressive behaviour and types of victimisation.

Findings from the two studies are discussed in the context of practices designed to limit and reduce bullying in the prison setting.

The construction of the curriculum

G Vinson, School of Education, Open University

Children's social representations of the curriculum depend both on their understanding of its curriculum type. As children gain experience of schooling they differentiate the curriculum more finely. Basic level categories undergo a qualitative transformation between the age intervals irrespective of curriculum structuration. Curriculum structuration becomes one feature by way older children re-construct the curriculum.

Evidence for a link between weak central coherence and theory of mind deficits in autism

C Jarrold, F Jimenez & D Butler, Department of Experimental Psychology, University of Bristol

This paper presents evidence to suggest that two psychological aspects of autism, a weak drive for central coherence and poor theory of mind, may be related. These abilities were assessed, using the Embedded Figures Test and appropriate theory of mind tasks, in two experiments. The first included a sample of 60 undergraduate students, while the second involved a group of 17 children with autism. In both cases a significant negative correlation was found between scores on Embedded Figures and theory of mind performance. These results suggest that these two domains may be causally linked in autism, and among individuals with the broader cognitive phenotype.

Peer interaction and the effect of task presentation on the acquisition of scientific reasoning

R Joiner, L Thompson, G Cohen, D Faulkner, J Gove, K Littleton, & D Miell, Social Dynamics in Development and Learning Research Group, Open University

A study was conducted, which examined the effects of task presentation (as an implicit physical) and type of pair (mixed ability versus same ability), on the acquisition of scientific

The British Psychological Society 1999 Proceedings 99
reasoning in nine-year-old children (n=80). There were four sessions: a pre-test; an interaction session (the children either worked with a computer or a physical version of a scientific reasoning task), a post-test and a delayed post-test. There was a significant interaction effect between task presentation (computer versus physical) and pair type (mixed ability versus same ability) in the interaction session and in terms of learning.

Size and placement of emotive topics in Croatian children’s drawings
RP JOLLEY, Division of Psychology, School of Science, Staffordshire University & A VULIC-PRORIDIC, Department of Psychology, Faculty of Arts and Sciences, University of Split, Croatia
Sixty Croatian children who had experienced direct or indirect war-related trauma saw a man, followed on a separate page by either (i) a Croatian soldier, (ii) an enemy soldier or (iii) a second drawing of a man. Half of the sample had lost their father due to the war. There were no significant effects of trauma group (with/without father) or topic of drawing on the drawings’ size or their placement relative to the children’s self-portrait drawing. The paper discusses the many mechanics of influence of emotion on drawing but argues that these are idiosyncratic and unpredictable.

Children’s spelling of grammatical inflections
N KEMP & P BRYANT, Department of Experimental Psychology, University of Oxford
The spelling of many English words depends on grammatically-determined rules rather than rules based on sound. This study examined 6- to 8-year-olds’ spellings of two grammatical spelling patterns (nouns and adjectives) and of word-endings conventionally spelt phonetically. As expected from previous research, children progressed from a phonetic to a morphological approach for spelling word endings, with improved grammatical awareness. When provided with morphologically meaningful word fragments as a spelling cue, children showed better rule-based spelling than when provided with no cue or a non-morphological fragment. This suggests their spelling was influenced by their understanding of grammatical rules.

Selective attentional biases for positive and negative faces in high and low anxious children
E KEOGH & M CAWTE, Department of Psychology, Goldsmiths College, University of London
It is well documented that anxious adults exhibit a selective attentional bias towards the location of threat-related material. However, it is unclear whether such biases exist in children. The current study therefore sought to determine whether high trait anxious children would exhibit an attentional bias towards the location of negative faces when compared to non-anxious controls. Positive faces were also included to determine whether such biases could be explained by a general emotionality bias. Children high in anxiety were found to direct attention away from the location of negative faces associated with both threat material and facial expressions. The current study provides evidence that anxious children display an attentional bias towards threat-related material that is not evident in non-anxious controls.

Children’s suggestibility according to event typicality, the semantic closeness of suggested to true information and length of test delay
R KRASCUM, Department of Psychology, University of Wales, Swansea
Children aged 4-5 years or 7-8 years heard a story about a birthday party while viewing pictures of story objects. Some objects were associated with typical events, others with atypical events. Children were questioned about the objects either three days, one week or two weeks later. Shortly prior to the interview, children heard a summary of the story in which information about the depicted objects was either neutral (control group) or misleading and dissimilar to the true events (close summary), or misleading and dissimilar (distant summary). Children were interviewed two days or one week later showed equally good memory for objects associated with typical and atypical events, whereas those interviewed two weeks later had better memory for objects associated with typical events. The three-day group made more shifts to the suggested information following a close than a distant summary. The findings are consistent with Stern’s (1977) view that close summaries facilitate memory for both typical and atypical events, whereas distant summaries focus memory on typical events only.

The developmental research in prospective memory: A review
L KVAVILASHVILI, Department of Psychology, University of Hertfordshire
Prospective memory is distinguished from retrospective memory (i.e. remembering information from the past) by the process of remembering to carry out intended actions at some point in the future like, for example, taking a medication, or picking up an object on a message. Although remembering future intentions is a common everyday memory task that even young children are expected to perform there is little research on the developmental aspects of prospective memory. The present paper describes the processes involved in prospective memory together with different types of tasks and experimental paradigms that have been developed to investigate them. The few developmental studies on prospective memory are reviewed and it is suggested that the developmental trajectory of prospective memory may be different from that of retrospective memory.

Categorical perception of birds’ song in infants and adults
C LANGE-KUETTNER & G AGNEW, Department of Psychology, University of Aberdeen
The present study investigated whether infants would categorise different types of bird’s song from a sequence of randomised stimuli. The two types were songs of garden birds having a more harmonious melody with ocean birds having a rough and creaky four. Four- and eight-month-old infants and adults took part in the study. It was shown that (a) infants reliably distinguished between the two types of songs, (b) adults paid more attention to sea birds’ song, while adults paid more attention to garden bird’s song, (c) infants showed a right side bias in auditory perception which disappeared with age.

Social relations, social influence and the development of knowledge
PJ LEMAN, Faculty of Social & Political Studies, University of Cambridge
The notion of socialisation in developmental psychology is one not often associated with the work of Piaget. Yet in spite of an undoubted emphasis on the mechanisms of epistemic construction, there are important sections of Piaget’s work (notably Piaget, 1932; 1977) where he elaborates a role for social processes in cognitive development. This paper explores the significance of Piaget’s distinction between relations of constraint and cooperation. It examines how the notion of authority influence provides a connection between the individual child’s development and the social-organisational structures within society which might influence the form of children’s cooperation. Discussion will focus on the need for developmental studies to consider children’s involvement in the construction of representations on a social level, and on the possibilities created by an exchange of ideas between developmental and social psychological perspectives.

Relational use of landmarks by 8.5-month-old infants
AR LEW, School of Psychology, University of Wales, Bangor, G BRENNER, Department of Psychology, Lancaster University & L LEFKOVITZ, Department of Biology, Carleton University, Ottawa, Canada
The ability to use the relations between visible landmarks to locate non-visible goals (allocentric spatial coding) underlies success on a variety of everyday spatial orientation problems. 6- 8.5- and 12-month-old infants were observed in a peekaboo paradigm where they had to turn to a target location from the starting position. There were two conditions, one in which landmarks were available, and a control condition where the landmarks were not. The study is a follow-up study of 8.5-month-olds, demonstrated a two-step developmental progression in which...
6-month-olds performed poorly in both conditions, 8.5-month-olds were significantly better with the landmark, and 12-month-olds could solve the task with or without the aid of landmarks. This demonstration of allocentric spatial coding in 8.5-month-old infants suggests that extensive crawling experience is not the case of this development, as had been suggested by previous studies. The result found that only infants at the end of the first year were able to use landmarks relationally.

Symbolic and functional play in blind children

V LEWIS, S NORRIGATE, Centre of Human Development and Learning, School of Education, Open University, G COLLINS, Department of Psychology, University of Waikato, and J F DOLDS, Centre of Human Development and Learning, School of Education, Open University

Vision confers to children’s understanding of how people relate to each other and the external world, understanding which may be crucial for engaging in pretence. The present study examined functional and symbolic play in 18 blind children aged between 21 and 86 months. Four children met diagnostic criteria for autism and engaged in little or no play. The remaining children produced less functional play than expected for their chronological age. Contrary to previous studies, the expected amount of symbolic play was strongly related to language ability. The hypothesis that blindness does not necessarily impair pretend play was supported.

Difficulties with exploratory play in children with autism

S LIBBY, Department of Psychology, University of Kent

Theorists have tended to highlight the role of social skills as precursors to the development of symbolic play. However, other cognitive skills may be necessary for the development of imaginative play. For example, studies have found that exploratory behaviour is correlated with symbolic play in typical development (Goritz, 1987). This study examines the possibility that deviance in exploratory behaviour may lead to the deficits in pretend play observed in individuals with autism. Children with autism, children with Down’s syndrome and children with typical development, matched for their verbal mental age, were video recorded engaging in free-play with conventional toys and junk objects. Differences in the type of exploratory play demonstrated are discussed. Implications for the play of children with symbolic play in typical development and deficits in autism are considered.

‘Sometimes you might have to bear a little pain but it will just go away’: Children with leukemia talk about their experiences

K LITTLETON, Department of Psychology, The Open University & U PRETLZIK, Department of Educational Studies, University of Oxford

The work reported here is based on an interview study of 18 five-year-old children with leukemia (aged 4–12 years). The semi-structured interviews, which were conducted in a hospital setting, were originally designed to allow children to describe their understanding of their illness. As we undertook our analyses, however, other compelling themes began to emerge. In this paper we focus on two of the topics. The first is the children’s descriptions of being patients and their participation in ‘medical’ discourse. In terms of their identities as patients, children described how they label themselves in hospital routines, rituals and hierarchies and their accounts of their own specific course of treatment. We also discuss how children’s reports of between-balancing the unpleasant experience of treatment, and indeed the long-term prognosis, with the need to appear optimistic and cheerful. The use of medical discourse throughout these accounts is also considered and the implications of the work discussed.

Looks can be deceiving: Investigating a perceptual bias in the development of inductive inference

JJ LOOSE & D MARESCHAL, Department of Psychology, University of Exeter

Two studies are reported investigating the predictions of connectionist model of children’s developing patterns of false belief. The first study asked to make inferences about naturally occurring objects (Loose & Mareschal, 1997). The model predicts that when perceptual similarity and category label conflict in an induction task, the response will depend on: (a) the perceptual variability of instances of the category, and (b) the perceptual prototypes to other represented prototypes. A study of the pattern of adult inferences when reasoning about a newly learned domain of natural objects. The study supports the view that some combination of the two predictions constitutes a bias on inferences. Further study manipulating prediction a in studying eight year olds’ inferences supports the model’s prediction and suggests a direction for future work.

Children’s understanding of pretence between 8 and 10 years of age

S LYTTLE & B RAMSAY, School of Behavioural Studies, Nene University College, Northampton

This study investigated the age at which children appreciate the symbolic component to pretence, an understanding which is not present up to eight years of age. One hundred and twenty-four 8 to 10-year-olds were asked whether a series of actions (a) ascribed false beliefs to others and (b) ascribed false beliefs to themselves. Older children judged the mind to be important to pretence, although planning to pretend was judged to require that more often than actually pretending. The findings suggest that by age 10, some children appreciate the role of the mind in both the planning and execution phases of pretence.

Pro-social children, bullies and victims: An investigation of empathy and social competence

S MACKINNON & D WARDEN, Centre for Research into Interactive Learning, Department of Psychology, University of Strathclyde

This study investigates the links between children’s engagement in prosocial and antisocial behaviours and measures of empathy and social competence. Nine- to 10-year-old children (N=138) participated in the first stage of testing to identify standardisers and modifiers of the Participant Role Scale (Salvimalli et al., 1996). Victim nominations and sociometric ratings were also collected. The study was corroborated by a second stage of testing (Joffe et al., 1999). Data is currently being analysed to see whether significant differences in the measures of empathy and social competence exist between these groups.

A cross-cultural study of the difficulty attributed to mathematics

M MACLEAN, Department of Psychology, Oxford Brookes University & J CORREA, Universidade do Rio de Janeiro

Studies on children’s conceptions of success and failure have mainly focused on changes in children’s conception of ability. It is not until early adolescence that children can fully differentiate ability from effort as a stable trait. A developmental model predicts that in comparison with older children, young children will attribute more importance to itself as a source of successful and also to attribute less weight to stable factors such as ability. School subjects differ both in their content and the instructional structure is organised for children. This is likely to affect children’s ideas about subject areas and consequences of academic success. This study presents data about middle school children’s ideas of academic success across different subjects of their school program, and in two countries, the UK and Brazil.

Mechanisms of development in the perception of object unity

D MARESCHAL, Department of Psychology, Birkbeck College, University of London & SP JOHNSTON, Department of Psychology, Texas A & M University, USA

To understand the world, it is necessary for infants to recognise instances of the same large object is partially occluded from ones in which two smaller separate objects are occluded. Johnson & Aslin (1996) have shown that infants rely on a number of different perceptual cues to in making this judgement. These cues include (a) motion, (b) overlapping, (c) deletion and (d) two sets of juncs between the occluder and the object, (c) motion between the two visible segments of an occluded object, and (e) co-linearity of the two visible segments of the occluded objects. We describe a connectionist model that learns to use these cues to discriminate between an event produced by a single occluded object and an event produced by two separate objects. This is the first mechanistic account of how the perception of object unity could be learnt.

A connectionist model of perceptual category learning in early infancy

D MARESCHAL, Birkbeck College, University of London

Using a preferential looking paradigm Quinn and Eimas (e.g. Quinn, 1993; Eimas, Quinn & Cowan, 1994) have shown an unexpected asymmetry in category learning in young infants. When 3- to 4-month-olds are shown different photographs of either cats or dogs, they will form perceptual categories of either group of pictures. However, there is an asymmetry in the exclusion of the categories formed: the CAT category excludes dogs but the DOG category does not exclude cats. We present a new connectionist model that is able to learn this asymmetry in a small number of learning trials. The model predicts an asymmetry in retroactive interference when learning both categories sequentially. A study with 3- to 4-month-olds reveals the predicted asymmetry thereby corroborating the model.

Children’s false belief understanding: Is it related to social background and schooling?

K MARIDAKI-KASSOTAKI, Harokopio University, Greece

A number of recent studies examining the influence of social factors on children’s development of mental state attributions have established that a child’s family size as well as his/her daily interactions with siblings, parents and adults play an important role in his/her false belief understanding. The present study was designed to investigate whether future social factors like parental socio-economic status and schooling are associated with children’s false belief performance. Thirty-four 4-6-year-old schoolchildren from high-middle class homes and 36 unschooled children of the same age from low socio-economic environments were tested for their ability to (a) ascribe false beliefs to others and their own selves, (b) distinguish between appearance and reality. The results indicate that along with high parental socio-economic status do not affect children’s false belief understanding. It was suggested that the way a child internalises the concepts of his/her own culture may play an important role in the acquisition of his/her false belief skills.

Reading performance and non-word repetition ability in Greek-speaking children: Are they related?

K MARIDAKI-KASSOTAKI, Harokopio University, Greece

This study was designed to assess whether there is a relationship between non-word repetition
ability and reading achievement in Greek-speaking children aged between 6 and 9 years. Sixty-one first-graders and 60 from each of the second, third and fourth grades were administered the Test of Non-Word repetition for Greek-speaking children (NRGreek) and a reading ability test. The results revealed strong links between reading performance and non-word repetition. These results show that non-word repetition is a good predictor of reading ability during early school years. The researchers' findings are consistent with previous research with older English and Greek-speaking children. Further it lends support for the use of the Test of Non-Word repetition for Greek-speaking children (NRGreek) as a measure of early reading skills for Greek populations.

The development of time estimation in children: A comparison with how time is represented in adulthood

T McCORMACK, E MAYLOR, G BROWN & R DARBY, Department of Psychology, University of Warwick

A temporal generalisation and a temporal bisection task were used to measure developmental change in children's time estimation. These tasks involve judging whether short time intervals are the same as or similar to standard time intervals, and are thought to be dependent on a biological timing system such as an internal clock. Children's performance on these tasks was compared to that of elderly adult subjects. Developmental decline in timing in old age seems to be due to increasing noise in initial perceptual encoding, whereas developmental improvements in children seem to be linked to increasingly accurate long-term memory for time intervals.

Dyslexia: What happens later in development? An investigation of executive function and the processing of words and pseudowords by adult developmental dyslexics using PET


Compensated adult developmental dyslexics were compared in a working memory task. Results demonstrated that the typical task, which required manipulation of short-term memory, yielded results in line with the phonological deficit hypothesis. Two PET studies investigated cerebral blood flow during (i) explicit (reading aloud) and (ii) implicit (incidental) reading of simple words and pseudowords. In both the dyslexics showed significantly less activation than controls in the left fusiform gyri (BA 37), and left frontal operculum. Dyslexics, even when highly compensated, appear to process written stimuli atypically. Furthermore, reduced activation in BA 37 indicates impairments in phonological retrieval that may be modality-independent.

The influence of narrative on the ability of children with autism to pass false belief and false photo tasks

E McGregor & M Bennett, University of Dundee

Intervention programmes to teach children with autism theory of mind are supported with narrative. However, the children have difficulty creating narrative and this may create a dependence on commentary from others. The study tested whether narrating false belief tasks is easier than unnarrated; if this effect spans the autistic spectrum; and whether a need for narration extends to other tasks. Thirty-nine participants watched two sets of video-recorded stories, one set false belief, the other false photo. Half were narrated. Results suggest that the effect of narration in the photo condition is that the children did not perform better than the children in the no-interruption condition. Surprisingly, no effects were found in the middle of the stacks so that the naming task required a switch in retrieval strategies. These results are consistent with results from working memory in Siegler's (1986) Distribution of Association model.

A study into the complexity of disputes among nursery school children

DM McWilliam, Centre for Research into Interactive Learning, Department of Psychology, University of Strathclyde

This research aims to show that young children are linguistically more competent than education guidelines suggest. Pre-schoolers from two nursery classes were observed during free play sessions and their conflicts were recorded. The strategies used by the children during their disputes were coded using pre-arranged categories which gave a general indication of language ability. Ungerer (1977) argues that the key word was further examined in relation to gender, class and play context. Results indicate that preschoolers are more used to less than the guidelines suggest and this varies significantly across class and play activity but not gender.

Social and cognitive influences on pre-schoolers’ understanding of predictativity

E Meins, Department of Psychology, University of Durham, C Fernyhough, Department of Psychology, University of Durham & R Wainwright, Psychology Division, Staffordshire University

Understanding of predictativity was assessed by showing 59 pre-schoolers a sequence of pictures, each with two corresponding descriptions, and asking them to state which descriptions were correct. Pictures were divided into two categories: (i) only one description correct; or (ii) both correct. Controlling for IQ, children who had been securely attached to their primary caregivers outperformed their insecurely attached peers on (ii). Performance on (i) was related to children’s IQ, with children of higher IQ discussing possible mechanisms by which the descriptions were related, such that which characters secure attachment, may facilitate the development of an understanding of predictativity.

When does an ostrich become a bird? The role of typicality in early word comprehension

K Meints, K Plunkett & P Harris, Department of Experimental Psychology, University of Oxford

Which objects and animals are children willing to accept as referents for words they know? To answer this question, young children’s early word comprehension was tested using the Preferential Looking task. Based on typicality ratings from adults, we presented children with pictures of exemplars of atypical objects and animals. We predicted that children first connect typical examples with the target word and broaden their categories as they get older to include less typical examples. The results indicate that when targets are named, 12-month-olds look longer at typical targets, 18-month-olds look longer at atypical targets, whereas 24-month-olds looked longer at both typical and atypical targets. Implications for the early development of word comprehension are discussed.

Effects of age and task interruption on event-based prospective memory

D Messer, L Kavalashvili & F Kyile, Department of Psychology, University of Hertfordshire

The aim of the present study was to investigate the effects of having to interrupt a task on prospective memory (PM). In Experiment 1, 4- and 5-year-old children were given pictures of animals and had to remember to do something whenever they saw a picture of an animal (the PM task). Half the children were given target pictures as the last picture in the stack, whereas the other half were given targets at typical. For the others the target pictures were placed in the middle of the stacks so that the naming had to be interrupted to complete the PM task (interruption condition). The findings indicate that PM performance was significantly better in the no-interruption condition. Surprisingly, no effects of age were detected. In order to replicate these findings, Experiment 2 was conducted on 3-, 5- and 7-year-old children using different PM task and task interruption conditions. The results are consistent. For those tasks involving the integration of children with autism should be integrated wherever possible. Many mainstream respondents believe children with autism should be integrated wherever possible. Many mainstream respondents believe children with autism should be integrated wherever possible. Many mainstream respondents believe children with autism should be integrated wherever possible.
Infants’ understanding of the solidity and continuity of human point-light displays

D MOORE, Department of Psychology, University of Strathclyde

Bertenthal (1991) has proposed that at around five months of age knowledge constraints operate so that infants begin to perceive human point-light displays as representing a ‘person’. But do infants have an understanding that what underlies these displays is a solid and continuous human, and not a collection of point-like entities? Data is presented from an exploration of 6- to 12-month-old infants’ sensitivity to events where computer-animated HPLDs act in a ‘Ghost-like’ way, walking through solid objects. The study explores whether sensitivity to these events develops and whether sensitivity is due to an understanding of the fundamental properties of a human form or due to unusual occlusion information.

The development of the concept of secrecy in young children

JN MORRIS & RN CAMPBELL, Department of Philosophy of Stirling University

This study sought to investigate developments between the ages of four and 10 years in children’s understanding of the motivations for, and the nature of, keeping secrets and their abilities to infer what lies behind being party to such a contract. These experiments aimed to take research in this field a step further, placing children in situations where they themselves were asked to keep a secret. The effects of age, secret type and the presence/absence of the secret imposer were investigated. Results suggest that both age and secret type, as well as the presence/absence of the secret imposer, influence not only the child’s willingness to tell a secret but also the feelings they associate with a particular secret contract.

The relationship between children’s humour and their developing theory of mind

S MORRISON & A TOLMIE, Department of Psychology, University of Strathclyde

This study investigated the relationship between children’s humour and their developing theory of mind, by examining the performance of 6-year-olds on a false belief task in a testing situation. The study is a re-analysis of a transcript provided by Michael Forrester who presented a paper at the 1997 BPS Conference. In it, a little girl reported an event to the experimenter which was contrary to the experimenter’s understanding. The analysis treated the situation as an example of our understanding of bullying and of punishment. The process of knowledge acquisition in astronomy is examined by interviewing 204 parents on physical and non-physical bullying by, and of, children. A community sample of 204 children, mothers and 47 of their fathers, were interviewed using a modified version of the Adult Attachment Interview. Themes of loss, avoidance of intimacy, rejection, anger/hostility emerged. ‘Thinking through offending behaviour’, ‘fathers disappointment in me’ and ‘sibling confusion over gender and sexuality’ discourses were also evident.

Bullying and parent-child relationships


Associations between parent and bullying behaviours, such as harsh physical punishment, and children’s behavioural problems are common. Less is known about the impact of other aspects of parents on physical and non-physical bullying by, and of, children. A community sample of 204 children, their mothers and 47 of their fathers, were interviewed about family and peer relationships, with particular emphasis on discipline and control. Teachers also rated children’s behaviour. Associations between different forms of mothers’ and fathers’ discipline and boys’ and girls’ bullying are compared, and the implications for our understanding of bullying and of punishment discussed.

Children’s knowledge of astronomy in multi-cultural East London

G NOBES, D MOORE, A MARTIN, B BUTTERWORTH, M SIEGAL, B CLIFFORD & B DRITSCHEL, Department of Psychology, University of East London

The process of knowledge acquisition in astronomy and geography was investigated using East London 4-8-year-olds (N=167) about the earth, sun, moon and day/night cycle. Their responses indicated a limited understanding of the earth’s sphericity, and there was little evidence of coherent mental models. These findings support those of Butterworth et al’s (1998) Australian study, but contrast Vosniadou's (1994) claim that young
Joint attention in blind infants

S NORGATE, V LEWIS, Centre for Human Development and Learning, School of Education, The Open University & G COLLIS, Department of Psychology, University of Warwick

In the absence of visually based strategies to achieve a shared focus on objects and events, blind infants and their sighted parents rely on various haptic, auditory and linguistic devices. To establish how such dyads achieve joint attention, three blind children (aged 20-30 months) participated with their parents in tasks designed to elicit shared attention. The dyads were able to monitor attention on each other but varied in the extent to which they were able to coordinate attention on each other and an object of mutual interest. Findings are discussed in relation to the role of vision in lexical development.

Behaviour of infants with Down’s Syndrome and their mothers in the ‘still-face’ paradigm

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In a longitudinal study of social and cognitive development, infants with Down’s Syndrome and a comparison group of typically-developing infants participated in a replication of Tronick’s ‘still-face’ paradigm. The change from a natural, contingent interchange between mother and infant to one in which the mother’s behaviour lacks contingency and emotional availability is marked by striking changes in the behaviour of typically developing infants. Infants with Down’s Syndrome, while still reacting to the change, show markedly different responses. We discuss the implications of these results for understanding how Down’s syndrome affects the development of mother-infant relations.

Does the realist bias in adult reasoning extend to evaluations of ambiguous utterances?

S PARSONS & P MITCHELL, Department of Psychology, University of Nottingham

Previous research has demonstrated a reality bias in the domains of false belief (Mitchell, Robinson, Lisacs & Nye, 1996) and appearance-reality reasoning (Taylor & Mitchell, 1997). We extended this line of investigation to include the domain of utterance evaluation. One hundred and seventy 16-17-year-olds were presented with story scenarios in which the participants, but not the listener protagonist, knew to be either objectively ambiguous or objectively true. The participants’ judgements were contaminated by their own knowledge of reality, we would expect them to judge that the listeners were more likely to form more information about an utterance in the ambiguous condition compared to the unambiguous condition. However, participants tended to respond in the opposite direction to the findings we would predict that the realism bias in adults does not extend to the domain of utterance evaluation.

Children have intuitive, ‘flat earth’ mental models. Possible sources of knowledge were explored by comparing white and Gujarati classmaters. Since, these are their ways of interpreting success and failure at school. As their ways of forming groups, understanding the interpersonal contexts in which they are supposed to learn.

Reseach concerning the competence and crediblity of child witnesses has focused on examining children’s capabilities to recall events accurately and reliably under various conditions. This paper examines the effects of levels of event participation and interview instruction on 5-6-year-old’s performance: (i) initially in an interview involving suggestive questions; and (ii) subsequently after a year delay in a second non-suggestive interview involving the use of multiple cues in the form of photgraphic props and auditory feedback. The findings suggest that both participation and interview instruction have considerable effects on child recall but also resistance to suggestibility. Following the year delay children’s reports were still influenced by their original participation and interview instruction. The use of photographic cues significantly facilitated children’s reports, but the use of auditory feedback had no significant effect on children’s recollection performance. Both pragmatic and theoretical implications of the findings are discussed in the context of interactional effects of involvement level and interview instruction and the use of cues and props to enhance recall particularly over long periods of delay. Emphasis is drawn to concern over the ecological validity of previous research.

Space, context and frames for development? A case study of 15-25-year-old students of a technical school in Switzerland

A PERRET-CLERMONT & J PERRET, Department of Psychology, Université de Neuchâtel

How do adolescents and young adults learn? The diversity of situations met by the young invites researchers to pay close attention to the affordances and demands of the specific contexts in which they are supposed to learn. This involves also understanding the interpersonal and communicative networks in which knowledge is supposed to be transmitted/acquired; and the goals of the different actors (students, teachers, school directors, professionals) in these settings. We have developed a detailed case study of the on-going practices in a technical college. This investigation was done by means of interviews, questionnaires and observations of the workshops. Students were questioned about the reasons for their vocational choices, their feelings of control over their learning and their implicit representations of the learning process, as well as their ways of interpreting success and failure at school.

The evidence illustrates the discrepancies that can exist between these three types of observations: the intentions proclaimed by the people in charge of the transmission of knowledge to the students in the interviews and questionnaires; and how they actually work and learn in the workshops. These findings are discussed, taking into account the students’ motivations in joining the school; their strategies to pass their examinations; ‘ideological desirability’; the division of roles in the school; the identity quest of these young people in a streamed educational and professional training system; and the behaviors that are induced by complex technological devices such as computer-assisted manufacturing systems.

Effect of task variation on pre-schoolers' apparent understanding of the representation of a model of an already familiar space

VL PERRY & RN CAMPBELL, Department of Psychology, University of Stirling

DeLoache’s (1987) experiment was modified to examine 3- and 4-year-olds understanding of the representational function of a model of the physical space. A scale model of a playroom was presented and the children observed the experimenter position or hide a toy dog. Children’s responses in the model playroom or the real playroom. The children were then required to position or retrieve another toy dog from the equivalent location in the other room. Children found retrieval easier than positioning, and completing the task in the model easier than completing the task in the real room.

Working memory and its relationship to children’s abilities in language, literacy and arithmetic

SJ PICKERING, SE GATHERCOLE, M HALL & S LLOYD, Department of Psychology, University of Bristol

A number of studies have attempted to relate children’s short-term memory to their academic abilities, although most have related children’s academic abilities in one domain to one particular aspect of memory. In the present study we administered a battery of working memory tests based on the Working Memory Model (Baddeley & Hitch, 1974) to see whether children show that while language attamony is strongly and specifically related to phonological working memory, arithmetic is related to visuo-spatial memory; however, literacy shows less specific relationships with the three components of working memory.

From interactivity to cognitive activity: The microgenesis of a learning conversation

C PIKE, Department of Applied Social Science, Canterbury Christchurch College, Canterbury & Department of Psychology, University of Kent, Canterbury

Sociocultural research into cognitive development has yet to adequately account for how conversational involvement leads to internalisation. This paper illustrates how Matiyana’s Microgenetic Conversation Analysis (MCA) to analyse the microgenesis of a single adult-child learning conversation. It is shown, firstly, that participants interactively create and recycle locally specific patterns of talk-interaction via an ongoing, collaborative exploration of the presuppositional basis of their own talk; and secondly, that on doing this, they develop a joint orientation to (i) sequential patternings of talk that are no longer tied to particular patterns of turn-taking, and (ii) the prosodic and rhythmicualy organisation of their talk-interaction. The implications of these findings for the Vygotskian theory of internalisation are discussed.

Tense optionality and children’s use of verb morphology: Testing the optional infinitive hypothesis

J PINE, Department of Psychology, University of Nottingham

Wexer’s (1994) Optional Infinitive Hypothesis predicts that children will produce tensed and untensed forms of the same verbs interchangeably in their speech. In his speech data from a study of 12 children’s early multi-word speech. The results show that although children do produce both forms in finite clauses, the verbs which they use in tensed
and untensed forms are from different populations which reflect the way in which these verbs are used in their mothers’ speech. These results suggest that tense is not truly optional in children’s early speech, but rather that children are picking up tense and untensed forms from different positions in the surface structure as a function of frequency with which these forms occur in the input.

The production of different syntactic structures by Catalan children

M PRAT-SALA, Department of Psychology, University of Plymouth

This paper examines the relationship between age and the production of different syntactic structures by Catalan children, ranging from 4.11 to 11.11 years. The results of a picture description experimental task show that the production of left-dislocated active clauses is a construction already consolidated at age 5. In contrast, the passive construction is still not fully acquired at age 11. Additionally, a comparison between these results and existing results from English children show that there is cross-linguistic differences in the age of production of passives clauses: while English children already produce passive clauses at age 5, Catalan children start producing passive at age 10.

The relationship between ‘natural’ and ‘experimental’ theory of mind in children with autism spectrum disorders

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R EISENMAJER, Latrobe University and Monash Medical Centre

Strong claims have been made for the centrality of delays and deficits in Theory of Mind, or mentalising about other minds, in autism spectrum disorders. While these can be demonstrated using experimental paradigms, their relationship to everyday life behaviours is less systematically explored. We compared experimental task performance with reported everyday behaviour routines. A lack of taking another person's point of view was not only found in taxonomically derived subgroups of high functioning autistic and Asperger Syndrome children. Cluster A (more classically autistic-like) children were poorer than Cluster B and C (Asperger-like, and ‘other’ PDD) children in both taxonomic and ‘experimental’ theory of mind tasks.

Helping individuals with Asperger Syndrome acquire interpersonal understanding: The Bubble Dialogue computer program

G RAJENDRAN & P MITCHELL, Department of Psychology, University of Nottingham

The aim of this study is to assess if a computer program, ‘Bubble Dialogue’, can be used to improve the interpersonal understanding of adults with Asperger Syndrome. The program allows researcher and participant to adopt the roles of on-screen characters. By inserting text into speech and using the mouse to move the head of their character, we progress through six theory of mind-based scenarios. The dialogue scripts will allow users to explore their assumptions with autism researchers. We will also be able to tell us to investigate how people with autism relate to the acquisition of full meaning is an essential element in understanding the acquisition process. The present research considers (a) children’s existing vocabulary, (b) the impact of different sources of information and (c) word’s frequency and semantic domain, on the longitudinal acquisition of the new terms. One hundred and fifty children (5-6-years-old) were randomly assigned to the intervention group (Bubble Dialogue, Repetition, Ostensive definition, Lexical contrasts, Definition). Each intervention group was introduced to four target words through controlled linguistic contexts over a period of three weeks. Immediately after each introduction, children’s word knowledge was investigated in seven lexical tasks. Examination of the children’s lexical representations took place over three consecutive periods. Group intervention, the existing vocabulary, and the nature of the word differentially influenced performance across tasks. Implications of these results for lexical acquisition processes are discussed.

Memory and attentional ability amongst survivors of childhood acute lymphoblastic leukaemia

J RODGERS, JA HARRICKS, Division of Psychology, University of Sunderland, PG BRITTON, Department of Psychiatry, South of England Regional Centre for Paediatric and Adult Oncology, Newcastle & J KERNANAHN, Department of Haematology, Royal Victoria Infirmary, Newcastle-upon-Tyne

Previous research has indicated that children who have received treatment for acute lymphoblastic leukaemia may experience deficits in memory and attention. The present study assessed memory and attentional ability amongst nineteen children in continuous remission from the disease and their sibling controls. The results of the investigation suggest that children who have experienced leukaemia have difficulty focussing and sustaining attention, planning, monitoring and regulating behaviour. The results were considered with reference to Levine’s (1980) model of neuropsychological functioning and it was suggested that the performance patterns witnessed in the leukaemic group are indicative of frontal lobe dysfunction.

Are individuals with autism and Asperger Syndroms susceptible to visual illusions?

D ROPAR & P MITCHELL, Department of Psychology, University of Nottingham

A recent finding that individuals with autism are not susceptible to illusions has been explained by Happé (1994). McGurk, who ‘coherence’ at lower levels of processing. We tried to replicate Happé’s findings by presenting illusions on a computer and asking participants to adjust certain parts to appear the same. The degree of error in adjustment would serve as an index of illusion strength. Contrary to Happé’s results, individuals with autism and Asperger syndrome did succumb to illusions to the same extent as individuals without autism. In a second experiment, participants made verbal judgements on whether lines or shapes were the same or a different size, as in Happé’s procedure. Again, individuals with autism were just as susceptible to illusions as those with normal vision. We suggest that lower level perceptual coherence is intact in autism.

Subject-auxiliary inversion errors and WH-question acquisition: ‘What children do know’

C ROWLAND, Department of Psychology, University of Nottingham

The present paper reports an analysis of subject-auxiliary inversion errors in one child’s early wh-question data. It is argued that two different rule-based accounts (DeVilliers, 1991; Valian, Lasser & Mandelbaum, 1992) cannot explain the patterning of the data. Thus, the data can be explained in terms of the child’s knowledge of particular lexically-specific wh-word-auxiliary combinations, and the pattern of inversion and un inversion predicted from the relative frequencies of these combinations in his mother’s speech. The results are consistent with the constraint calculated at a distinctive triggering mechanism that learns and reproduces limited-scope formulae heard in the input can explain much of the early wh-question speech and the predictions of the results for rule-based and constructivist theories of grammatical development are discussed.

The development of Stroop interference in young readers: A connectionist account

P RUDLING, Department of Psychology, University of Exeter

Cohen, Dunbar & McClelland (1990) produced a connectionist model that accounted for many of the Stroop Effect phenomena within adults. This research shows how the model can be extended to show the development of the interference in children as they learn to read. We train a network taking into account the amount of reading practice and attentional skills that would befit a young child to predict the development of the Stroop Effect. These predictions are then tested using a picture-naming Stroop study with two groups of eight-year-olds. The results support the model, suggesting that a connectionist account of Stroop interference that with practice becomes normal Stroop interference.

What linguistic abilities are required for success on a theory of mind task?

T RUFFMAN & L SLADE, Experimental Psychology, School of Biology, University of Sussex

Researchers attempting to establish a link between theory of mind (TOM) performance and some other variable (e.g. pretence) typically use the BPVS to measure language ability and ensure that the resultant scores are not confounded by language skills. Thirty-three-year-olds were given three language tests: the BPVS, the CELF-Preschool, and the information subtest of the WPPSI. Only the CELF and the information tests correlated with TOM performance. This finding throws into question studies attempting to establish a link between TOM performance and other variables. It is possible that older siblings facilitate language skills more generally and that the common link between (a) TOM ability and (b) pretence or counterfactual reasoning, is due to some common linguistic ability rather than reasoning or pretence per se.

English children’s knowledge and evaluations of Europe: The role of social representations

A RUTLAND, Department of Psychology, King’s College, University of Aberdeen

Variations in 329 6-16-year-old English children’s knowledge and evaluations of Europe associated with age, sex, social class, travel experience and parental attitudes were studied. The results suggest that the underlying influences on children’s socio-political knowledge and evaluations of Europe may be different. Knowledge of Europe was produced from the child’s existing knowledge of Europe whereas evaluations and representations of Europe were closely related to social class group. The paper will conclude with a call for an extension of the conversation between social psychology and developmental psychology (Moscovici, 1990), so researchers may appreciate both the role of social representations and an active child in psychological development.

Associate processes in early word learning

G SCHAFFER, Department of Psychology, University of Reading

Empirical evidence, obtained from both infants and simple associative devices, is presented. It is shown that 15-month-old infants can learn...
novel words rapidly, before a hypothesised spurt in vocabulary, and without shared attention. Such findings run contrary to predictions made by, e.g., Mervis & Bertrand (1983) and Baldwin (1987), for reasons that are not yet fully understood. Nevertheless, these findings demonstrate the work that innate capacities, or modules, facilitate and enable. Baldwin demonstrates that new-borns can learn auditory-visual associations after only a short exposure to the stimuli. The results and others (e.g. Baldwin & Markman, 1989) show that infant perceptual detection abilities, such as the recognition of simple associative devices (perceptrons) and do not require the postulation of innate representational abilities.

The effects of medication and supervision on inattention and impulsivity in ADHD children

R SHAW, Department of Psychology, University of Dundee

This study considers different approaches to the use of ADHD medication and supervision of ADHD children. It examines the effects of medication (Ritalin) and supervision (in which a supervisor regularly repeats instructions for the task and supervision whereby the child receives positive encouragement from the supervisor). To examine the effectiveness of these approaches, ADHD children were tested on the Conners’ Continuous Performance test whilst receiving medication and/or supervision. Results indicated that medication was significantly effective in improving performance on the CPT and was especially effective in helping children thought to be ‘at risk’ due to inattention. Supervision only significantly reduced errors thought to be resulting from impulsivity.

Do young children remember details of repeated events?

K SIMS, School of Social Science, Middlesex University

The following studies investigated whether young children have the capacity to recollect details of events that are repeated. Sims and Morton asked 58 3- and 4-year-olds what they had for breakfast. Sixty-five per cent answered correctly. However, children with little breakfast variability appeared to encode details about breakfast other than what they were eating. They even had problems remembering what they had eaten ten minutes after breakfast. However, in a recent study (Sims & Oldman) involving a repeated ‘colour and post’ game that involved various ‘low variability’ details which differed in terms of their significance to the event, young children were able to remember the details. However, whether children can recall those details which were of most significance to the game. Such a finding demonstrates that whilst young children may not encode some peripheral details, those details that are encoded are represented within a specific record.

Innate and learned perceptual abilities in the new-born infant

A SLATER, Department of Psychology, Washington Singer Laboratories, University of Exeter

The visual world of the new-born infant is highly organised, and the new-born infant is also an extremely active learner. These themes are illustrated with findings from two areas of research, face perception and intermodal learning. Evidence is presented to suggest that the human face is ‘special’ in that new-borns respond to them as faces, rather than merely collections of stimuli elements. Additional evidence is presented which demonstrates that new-borns can learn auditory-visual associations after only a short exposure to the stimuli. These lines of evidence suggest the innate capacities, or modules, facilitate and direct early learning in order to allow new-born infants to discover their environment and understand visual world.

Definitions of bullying: A comparative and cross-national study

PK SMITH, P BURTON, Department of Psychology, Goldsmiths College, London, A LIEFOOGHE, R OLAFFSON & H COWIE, Roehampton Institute, London

There are different possible words for ‘bullying’, both in English and other languages. Such words may vary in meaning across age, by gender, and by the term used in each specific language. It is important to know how similar or different such words are, for comparative research. A set of 25 stick figure cartoons were developed, showing different situations which might or might not be bullying. The boys and girls, aged 8 and 14, to assess their definition of different terms. Age and sex differences, and differences between the terms, are discussed.

Reasoning by recurrence in children’s arithmetic

L SMITH, Department of Educational Research, Lancaster University

This paper is based on a project whose principal aims are to study children’s reasoning by recurrence in simple arithmetic. The specific objectives are:

- to replicate Inhelder & Piaget’s (1963) study of reasoning by recurrence
- to include specific controls on children’s ability to count
- to focus on the development of modal knowledge in reasoning by recurrence.

Evidence will be collected and interpreted with special reference to children’s counting and inferential understanding during childhood and also in relation to a ‘possible worlds’ framework of inferential understanding. The implications of this interpretation for the assessment of school mathematics learning will be examined in the light of recent contributions to research in developmental psychology and education.

The theory of mind acquisition support system: Developmental pathways and evolutionary considerations

PK SMITH, Goldsmiths College, London

One near-unique aspect of the human species is theory of mind, or mindreading abilities. There is evidence that this has innate features, but it also appears to be facilitated by certain environmental experiences, such as secure attachment, or presence of older siblings. I explore the issue of whether there is a support system for its acquisition (as has previously been argued for language).

Since the theory of mind abilities evolved through hominid evolution, it may be relevant to consider the extent to which the circumstances of hominid evolution would explain their acquisition. Related to this is a consideration of the function(s) of theory of mind; I explore the hypothesis that a primary function has been in social exchange and the regulation of co-operation and cheating. This leads to a proposal concerning different strategies or pathways for forms of theory of mind development.

Football, fantasy and isolation: Playground activity of children with co-ordination disorders

M SMYTH, Department of Psychology, Lancaster University

Children who have difficulty with motor control may be excluded from organized games in which physical skill is important, and consequently from more general social activity. In this study the playground activity of each of 110 children aged between 6 and 10 years was observed for 5-10 minute periods. 55 children were assigned to a Developmental Co-ordination Disorder (DCD) group and 55 to a control group, and in the other case they were assigned to the Motor Assessment Battery for Children. Children in the DCD group spent more time with inanimate textures, such as cards, and played formal games (football) in large groups less often if they were boys, and informal games in large groups less often if they were girls. Younger children in the DCD group spent more of their active social play in fantasy (role playing) games. Play performance in the DCD group was very variable with some boys taking an active part in football, while others never played football and spent large amounts of time alone. The factors which contribute to the isolation and withdrawal of some children with impaired coordination remain to be explored.

Core knowledge and cognitive development

E SPELKE, MIT

Many of the cognitive systems found in humans are similar to those in other animals, but humans have unique capacities to develop elaborate systems of knowledge, to extend knowledge in new directions, and to generate knowledge for new and seemingly arbitrary purposes. What accounts for these abilities? Developmental studies provide one approach to this question. In studies of navigation and spatial memory, for example, young children orient themselves and locate objects in ways quite similar to those of adult rats, by forming representations that are task-specific and informationally encapsulated. In contrast, older children and adults orient themselves and locate objects more flexibly, by combining information from different sources. The ability to combine diverse sources of spatial information emerges with development, but this is related to the acquisition of a spatial language. Moreover, the introduction of a verbal interference task prevents adults from forming these combinations. It appears that adult humans themselves, and locate objects similarly to young children and rats. These findings suggest that human spatial cognition is built from core systems that we share with other animals, and that our flexibility stems in part from our ability to form novel combinations of information from these systems. The human language system, moreover, appears to provide one vehicle for such combinations. In this talk, I discuss some of the ways in which language might serve as a medium for combining spatial representations. I also suggest other domains in which unique human abilities may arise from such combinations, including knowledge of objects, number, and mind.

Flexibility in block balancing

F SPENSLEY, Department of Experimental Psychology, University of Oxford & R JOINER, School of Education, The Open University

An extended replication of Karmiloff-Smith’s (1984) block balancing task was carried out to evaluate her representational Redundancy model. The RR model predicts no awareness, random block placement, and equal balancing times for initially successful children (phase 1). Data from 4-5-year-old children (n=108), do not support this account, with balancing times varying with block type, and distance off-centre of the balance point. Results and case studies are interpreted in terms of Siegler’s (1985) rule-based model and Spensley’s (1995, 1997) Recursive Re-Representation theory which argues that flexibility is prerequisite, rather than a consequence of development.

Young children’s understanding of division

S SQUIRE & P BRYANT, Department of Experimental Psychology, University of Oxford

A series of studies has been carried out to investigate young children’s ability to solve mathematical division problems. Children (5-8 years) have been presented with the quantity to be shared (e.g. sweets) in two different types of grouping. In one case there are the same number of groups as there are the same number of sweets in each group as there are recipients. These groups are mathematically correct, yet results show that children who find most helpful depend strongly on the type of division problem (partitive or quotitive). The results are interpreted in terms of children’s mental models of different division situations.
Bullying in Belgian schools: An evaluation of an anti-bullying intervention

V STEVENS & P VAN OOST, Research Group Health and Behaviour, University of Ghent, Belgium

An anti-bullying intervention programme was evaluated for children with quantitative and qualitative data gathered before and nine months after implementation. The programme was based on a set of guidelines for change within schools as used by Olweus (1991) and Smith & Sharp (1994), i.e. a multi-level approach including the development of an anti-bullying policy, a curriculum based on social and moral reasoning, and pupils involved in bully/victim problems. A quasi-experimental pre-post control group design was used. The study compared elementary and secondary schools were involved in the study: two intervention conditions (condition one with external support and condition two without external support) and a no intervention control condition. The results are compared with Olweus (1991) and Smith & Sharp (1994). Attention is also given to the necessary adaptations to the Belgian situation and culture.

Recent studies on infants’ cognitive development: Can Vygotsky’s theory help?

E SUBBOTSKY, Psychology Department, Lancaster University

Recent studies on infants’ cognitive development have demonstrated striking perfection of infant’s perception. In fact it was shown that infants and even newborns have understanding of object constanty and other psychological skills which earlier were supposed to exist only in children of advanced ages. Along with the reconsideration of the traditional matuism-empiricism view, this data raised an important question about the differences which exist between the precocious capacities in infants and similar capacities in adults. In most accounts infants’ early cognitive skills are portrayed in the same terms as similar capacities in adults. As a result, the question about what is different in the infants’ and adults’ understanding of object permanence and other fundamental physical laws is rarely asked. Even if it is asked, the usual answer is that the difference is nothing but a scope of applicability of the cognitive skill. One of the major theoretical advances of Vygotsky’s approach to cognitive development was his distinction between lower mental functions (LMFs) and higher mental functions (HMFs). In making this distinction, Vygotsky applied Hehelian view of constitution to any developing function goes through three major stages. First, it exists ‘in itself’, then ‘for others’ and finally ‘for itself’.

Comparison of the study methods of ‘young’ and ‘middle-aged’ university students

P SUTHERLAND, Department of Education, University of Stirling

Quantitative data was gathered from 113 first-years who completed Section C of the revised version of Enthwistle and Tait’s (1994) Questionnaire on Approaches to Learning and Studying. On an analysis comparing the ‘young’, i.e. 17-25-year-old sub-group, with the ‘middle-aged’, i.e. 35-52 sub-group, the most noteworthy differences were in: essay writing – the ‘middle-aged’ students were more likely to realise that they had not read widely enough and motivation: the ‘middle-aged’ were more likely to be intrinsically interested. Qualitative data were obtained by interviewing a sample of these students, plus a sample of second year students in two specialities. The study was found to be the most difficult format by both; whilst the ‘middle-aged’ students also found the exam format difficult. Four were surface-level, whilst three had elements of both.

Bullying motivations and methods

J SUTTON, PK SMITH & J SWETTENHAM, Department of Psychology, Goldsmiths College, University of London

Teacher-perceptions of motivation to bully and type of bullying were assessed for 21 boys and 21 girls between the ages of 7-12 who teachers and peers agreed were involved in bullying more than average for their class and sex. Bullying behaviour was defined mainly through recording motivation in bullying (‘verbal bullying’) was most strongly linked to emotive or surface motivations, for which boys scored significantly higher than girls. Indirect bullying was correlated with social or enjoyment reasons, and victim behaviour was linked to bullying for defence. Despite problems with using teacher perceptions of verbs in both, methods of recording in bullying may need careful consideration if interventions are to succeed.

Planning problems in autism: Where is the locus of difficulty?

E SYKES & J RUSSELL, Department of Experimental Psychology, University of Cambridge

Adults and children with autism are invariably impaired on executive tasks requiring the ability to inhibit a prepotent response, while holding action-relevant information, in the form of an arbitrary rule, in working memory. Previously shown impairments on the Tower/Hanoi of London tasks among individuals with autism prompted examinations of the contributions of working memory ability to inhibit a prepotent response, to these impairments. The findings support the view that executive deficits are only apparent when the demands of inhibiting a prepotent response and holding an arbitrary rule in working memory are simultaneously present.

The developmental use of functional, descriptive and criterial elements to define a building with institutional functions

MA TALLANDINI, Dipartimento di Psicologia, University of Trieste, Italy & L TONEATTI, Dipartimento Psicologia dello Sviluppo e della Socializzazione, University of Padova, Italy

We investigated how the use of specific types of elements to identify a building by drawing undergo modifications with the age of the children (4-11-years-old) or the characteristics of the buildings themselves. Our sample was composed by children from. Children drew a house, a bank and a church. After each drawing, children were asked what in their drawings indicated the specificity of the building itself. Statistical analyses showed that there was a trend of descriptive and functional elements at 4-5 years to use of criterial elements from 8-9 to 10-11. The age of transition depended on the distinctiveness of the building.

Maternal warmth and criticism as a predictor of later child dysfunction and school adjustment and the influence of parental stress

L TAYLOR & L DAVIES, Institute of Psychiatry, London

The stability of maternal expressions of warmth and criticism, and their relation to children’s maladaptive behaviour and school adjustment, were examined within a longitudinal study of 40 families of 2-9 year old preschoolers and matched controls. Mothers were interviewed at three time-points between the ages of 50 months and 68 months.

The predicted association between parental stress and child dysfunction was examined using a standardised parental stress questionnaire (the PSQ) and interview and semi-structured assessment of disruptive behaviour (PACS). School adjustment was rated via interviews with both child and teacher. Group differences in maternal warmth, criticism, and stress were also considered at each timepoint.

The role of performance limitations in the acquisition of verb argument structure: Inmate grammatical structure or lexical learning?

A THEAKSTON, Department of Psychology, University of Manchester

The role of performance limitations in children’s early acquisition of verb argument structure was examined. Whilst simple categorisation of verbs into transitive, intransitive and mixed groups supported Valian’s (1991) claim that syntactically less complex inter-verbal relations were acquired early, detailed lexical analysis shows that for mixed verbs, often children do not produce the same verbs in both transitive and intransitive frame. This suggests that children are not actively selecting argument structure on the basis of syntactic complexity. Instead, the most important determiner of use appears to be distributional regularities in the input data.

Twin-singleton differences in language development: Gestational differences or something more?

K THORPE, Institute of Child Health, Royal Hospital for Sick Children, Bristol, M RUTTER, Institute of Psychiatry, Genetic and Developmental Psychiatry Research Centre, London, & R GREENWOOD, T GOODENOUGH & A SHERRITT, Institute of Child Health, Royal Hospital for Sick Children, Bristol

The current study asked what is the extent of differences in language development between twins and singletons over and above that attributable to gestational differences? It examined language attainment at 20 and 36 months in a cohort of 94 twin pairs and 96 singletons all with a sibling no more than 30 months older. Additionally at 36 months language attainment of twins from the same birth cohort who had been very pre-term were assessed. The outcomes were standard measures of language (MCDI, PLS3) and cognition (McCarthy Scales). An important feature of the study was the use of closely spaced single born children as the comparison group. In previous studies the comparison group includes many first borns who have social advantages which might inflate differences. The study also had detailed assessment of gestational age for the total sample. It presents results for the total sample and males and females separately.

Unveiling “secret language”: An examination of the prevalences and correlates of secret language codes in a sample of closely spaced single-born children

K THORPE, R GREENWOOD, Institute of Child Health, Royal Hospital for Sick Children, Bristol, M RUTTER, Institute of Psychiatry, Genetic and Developmental Psychiatry Research Centre, London, & A EVERS, Institute of Child Health, Royal Hospital for Sick Children, Bristol

The findings of poor long-term outcomes for twins reported to have ‘secret language’ codes in their pre-school years suggests that the phenomenon is not just interesting but an important marker for those at risk of language delay (Bishop & Bishop, 1998). However, the prevalence and nature of secret language among twins is far from established and the phenomenon has not been examined in single-born children. The current study examined the prevalence and developmental course of secret language in a sample of 94 twins and 96 closely-spaced singleton pairs at 20 and 36 months. The study examined whether those ‘secret language’ were distinguished from others by demographic characteristics, home environment and patterns of familial interaction with language and cognitive performance was assessed.
Definitions of bullying: Analysis of Japanese data
Y TODA, Tottori University, Tottori City, Japan & H ARAKI, Ritsumeikan University, Loyo, Japan
Using the materials (a series of 25 stick cartoon pictures) and a method designed by Sjögard et al. (1998) described in an associated poster in this workshop, we have collected Japanese data on children’s understanding of terms concerning bullying. Three Japanese words (ikawan, iyagarase and iijm) were given to 8-year-old children and five words to adults (iijm). Children were asked to express their definition of different terms. Differences between the terms were discussed using partial correlation coefficients and multi-dimensional scaling.

Group work and the integration of conceptual and procedural knowledge in primary science
A TOLMIE, C HOWE, V DUCHAK & C RATTRAY, Centre for Research into Interactive Learning, Department of Psychology, University of Strathclyde
The present study examined whether peer-based support for conceptual learning and expert support for procedural learning can be integrated, despite indications these are inherently conflicting. Children aged 9-12 years were pre-tested to ascertain their understanding of the factors affecting shadow formation, and it was decided that might be investigated. They then worked on group tasks which varied as to whether: children engaged in conceptual debate; the debate resulted in consensus; and, guidance was given on experimental procedure. Post-test performance revealed significantly greater, conceptual advance amongst children who had debated to consensus and received procedural guidance. However, no difference was observed between tasks in procedural advance. The results indicate conceptual and procedural support can be successfully integrated, but also that implicit structural cues may influence procedural learning.

Using criteria-based content analysis to identify true and false allegations of bullying
R TRIANDAFILOU, M McCULLOUGH & M ESLAE, Department of Psychology, University of Central Lancashire
This study evaluates the usefulness of Criteria-Based Content Analysis (CBCA) in assessing the credibility of children’s allegations of being bullied, compared with the professional judgements of a teacher and a social worker. Twenty participants (mean age 14.9 years) told stories about being bullied: ten were true and ten fabricated. Each was assessed on 19 criteria (e.g. logical structure, unusual details) scored as not present, present or strongly present. CBCA was shown to be significantly more accurate in differentiating between true and false stories (95 per cent accurate) than the teacher or the social worker who participated once. This rating system formalises the decision-making process involved in the assessment of credibility, which is usually based upon both CBCA scores and a subjective assessment. Results indicate that the system is useful and worthy of further investigation.

Inference neglect and ignorance denial
A ARROUXAKI & NH FREEMAN, Department of Psychology, University of Bristol
On inferential tasks research suggests that 4- to 5-year-olds underestimate others’ knowledge through inference. A recent research finds errors of overestimating own knowledge. These are part of a tendency to treat self and other minds differently. When children, each of whom had their own box, items on the table were shared out into the boxes and either both children, neither, or one of them, looked in their own box. Children were asked to assess their own and the other’s knowledge about what is in each other’s box. About a quarter of the children showed full competence in attributing the inference involved in knowing. Error pattern were not predictable from a test of understanding the term ‘know’. The results are discussed in relation to children’s framework concept of the mind.

Observational learning and tool use development
S WANT & PL HARRIS, Department of Experimental Psychology, University of Oxford
Research with non-human primates has described a huge variety of different ways in which one animal can be said to have learnt from another. However, reasons for the mechanisms of observational learning available to humans. Specifically, it is not at present known whether young children can flexibly switch between imitating the global strategy of a model’s behaviour and emulating the effects that the model’s behaviour produced. This issue has implications for understanding how humans learn to solve complex problems involving the use of tools and for the form of human and animal social groups.

The relationship between maternal attitude and children’s behaviour
M WATANABE & P DAVENPORT, The Anna Freud Centre, London
This pilot study was designed to examine how the perceived intent behind behaviour can influence the reactions of children, both in terms of the mother and her child. Twenty-eight disruptive and non-disruptive children between the ages of 6 and 8 years were administered the Child Attribution Measure while their mothers completed the Maternal Attribution Measure designed by MacKinnon-Lewis. Similarities and differences in attributions between the disruptive and non-disruptive dyads will be discussed with reference to attribution theory and mental models.

Will children try to answer questions even when they are nonsensical?
A WATERMAN, M BLADES & C SPENCER, Department of Psychology, University of Sheffield
A crucial issue in research on child witnesses is whether children can provide reliable answers when questioned. Previous research found that children try to answer nonsensical questions (e.g. Hughes & Grieve, 1980). In the present study 6-8-year-olds were asked both nonsensical and normal questions, but only one of the two sources was informative. Children both saw and were told something, which children both saw and were told something, but only one of the two sources was informative. Three 4-year-olds were significantly worse at reporting their sources in dual than in single source conditions. Despite their poor reporting of source in dual source conditions, children who saw the informative source: they were monitoring their sources on a behavioural level.

Improved means-end problem solving in 10-month-old infants fed a formula supplemented with long-chain polyunsaturated fatty acids
P WILLATTS, Department of Psychology, University of Dundee, JS FORSYTH, Department of Child Health, University of Dundee, MD DIMODUGNO, Department of Psychology, University of Dundee, S VARMA & M COLVIN, Department of Child Health, University of Dundee
Long-chain polyunsaturated fatty acids (LCPUFA) are important for normal brain development. Although present in human milk, LCPUFA have not recently been sufficiently present in infant formulae, and young infants may have limited ability to synthesise LCPUFA. To determine the clinical significance of this relative deficiency of LCPUFA, we undertook a randomised placebo-controlled trial of the relation of LCPUFA to infant cognitive behaviour. 44 term infants were randomised to a formula either supplemented or not supplemented with LCPUFA. Infants who received LCPUFA supplemented formula had significantly higher means-end problem solving scores at 10 months of age. These results suggest that term infants may benefit from LCPUFA supplementation, and the effects of LCPUFA supplementation persist beyond the period of supplementation.

Are children’s ‘visually realistic’ drawings really in perspective?
B WILLIAMS-YESSON & A COSTALL, Department of Psychology, University of Portsmouth
According to the early literature on child art, young children are ‘intellectual realists’; for example, they will typically include the handle of cup in their drawing even if the mug is turned upside down. If the handle is hidden from view. More recent research has demonstrated that children can be induced to produce visually realistic drawings, in the sense that the child does not include occluded features. But are such drawings really ‘in perspective’? Our findings indicate that although ‘visually realistic’ drawings tend to be more ‘intuitively realistic’ drawings projectively, they seldom even approximate linear perspective.
Taking a closer look at functional play in children with autism

E WILLIAMS & V REDDY, Department of Psychology, University of Portsmouth

Research evidence indicates that children with autism may experience problems with functional play, which is central to social functioning. The study presented undertook a refined analysis of such play with the aim of investigating the effects of this impoverishment. The free-play behaviour of children with autism using conventional toys was compared to that of developmentally-matched controls. The functional play of the autism group was less varied than that of the controls and, when the play was divided into two levels accordingly to complexity, was found to be significantly less elaborated. The implications of these findings are explored in relation to theoretical models of autism, the production of symbolic play and the role of other people in mediating the appropriate use of objects.

Imitation and functional play in children with Down’s Syndrome

I WRIGHT, School of Medicine, Division of Psychology and Behavioural Sciences, Leeds, V LEWIS, School of Education, Centre for Human Development and Learning, The Open University & G COLLIS, Psychology Department, Warwick University

This paper describes a study to investigate the role of imitation in the symbolic play of 18 children with Down’s Syndrome in comparison to a group of 18 typically developing children. In a spontaneous condition, both groups of children showed an adequate frequency of functional play. However, in a second condition, after the experimenter modelled a series of counterfunctional play acts, children with Down’s Syndrome more frequently reproduced the modelled act than typically developing children. These results are discussed with reference to the role of imitation and symbolic representations in the development of children with Down’s Syndrome.

Social cognition in attention deficit/ hyperactivity disorder

N YUILL, J LYON & C STRAUSS, Social Cognitive Development Group, University of Sussex

Children with AD/HD commonly have marked difficulties in social perception. This is often assumed to be fully explained by their generally disruptive behaviour. Limited evidence available suggests, though, that such children may also have specific social perception limitations that may hamper their peer interaction skills. This poster presents a preliminary report on social perception impairment in AD/HD. 20 AD/HD children completed a battery of social-cognitive tasks together with measures tapping executive function and information processing. Results reveal two subgroups of children, one with intact and one with impaired social-cognitive skills. The latter group showed specific impairments in social cognition in line with their social-cognitive deficits. We discuss the results in relation to current theories and representational function accounts of social cognition.

Psychobiology Section

Annual Scientific Meeting, Old Dungeon Ghyll Hotel, Langdale, Lake District, 16–18 September 1998

Differential effects of colloid cysts in the third ventricle that spare or compromise the fornix

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Twelve cases who had received surgery for the removal of a colloid cyst in the third ventricle were examined on the Weshmer Memory Scale-revised, the Warrington Recognition Memory Test, and the Doors and People Test. The best predictor of poor memory performance appeared to the bilateral interruption of the fornix, which occurred in three of the subjects. Their performance on the WMSr was comparable to that of published cases of anterograde amnesia. Although these three cases were poor on tests of learning and recall, there was evidence that recognition was relatively spared. The subjects were also tested on a set of recognition and concurrent discriminations that closely matched tests given to nonhuman primates. The results indicated that fornix damage is sufficient to induce anterograde amnesia.

The relationship between cognitive function and non-cognitive symptoms in dementia with lewy bodies

G AYRE,CDR Ltd, IG McKEITH, Institute for the Health of the Elderly, Newcastle General Hospital, K WESNES, CDR Ltd.

A SAHGAL, Institute for the Health of the Elderly, Newcastle General Hospital & M WALKER, Institute for the Health of the Elderly, Newcastle General Hospital

Alzheimer’s Disease and Dementia with Lewy Bodies are probably the two most common forms of dementia in the elderly. The differential diagnosis of these disorders relies to a large extent on the identification of non-cognitive symptoms in DLB which include visual hallucinations and fluctuations in cognitive impairment. The relationship between non-cognitive symptoms and profiles of cognitive impairment are described. Fluctuating cognitive impairment is notoriously difficult to quantify in DLB. A prospective cohort of AD (n=56), DLB (n=30) and controls (n=30) suggests variability in choice reaction time to correlate highly with the presence of fluctuations in attention and arousal. Indeed, this brief and well tolerated task may prove useful in the clinical identification of fluctuating cognitive impairment. In addition, the presence of persistent visual hallucinations in DLB is associated with particularly impaired attentional and visuo-spatial ability which may be related to the particularly depleted neocortical ACh seen in these cases.

Drugs and driving – a review

A DE BRUIN, E VUURMAN, C LAMERS, J R AMAEKERS, A VERMEEREN & W RIEDEL, Experimental Psychopharmacology Unit, Brain & Behaviour Institute, Maastricht University

Various psychoactive medicinal and non-medical drugs have been identified as risk factors for traffic accidents. A large body of epidemiological and experimental studies investigating the relation between drug use and indices of psychomotor impairment, real driving impairment and traffic accidents were reviewed. The use of psychoactive drugs in traffic and their impairment effects on driving performance and recently also the influence of psychoactive drugs in traffic and their impairment effects on driving performance. Most modern antidepressants, anxiolytics, hypnotics and antihistamines have been studied in both experimental and over the road driving tests. However, this is mainly true for the general population only. Little is reported about the influence of these drugs in high-risk groups. Epidemiological data show large differences across various countries in relative risk of having a traffic accident while under the influence of psychoactive drugs. As for non-medical drugs, abundant epidemiological and experimental data are available on the use of psychoactive drugs in traffic and their impairing effects on driving performance. Most modern antidepressants, anxiolytics, hypnotics and antihistamines have been studied in both experimental and over the road driving tests. However, this is mainly true for the general population only. Little is reported about the influence of these drugs in high-risk groups. Epidemiological data show large differences across various countries in relative risk of having a traffic accident while under the influence of psychoactive drugs. As for non-medical drugs, abundant epidemiological and experimental data are available on the use of psychoactive drugs in traffic and their impairing effects on driving performance. Most modern antidepressants, anxiolytics, hypnotics and antihistamines have been studied in both experimental and over the road driving tests. However, this is mainly true for the general population only. Little is reported about the influence of these drugs in high-risk groups. Epidemiological data show large differences across various countries in relative risk of having a traffic accident while under the influence of psychoactive drugs. As for non-medical drugs, abundant epidemiological and experimental data are available on the use of psychoactive drugs in traffic and their impairing effects on driving performance.

Serotonin 5-HT2C receptors: Target for a new generation of anti-obesity drugs

CT DOURISH, Cerebrus Ltd, Wokingham

The serotonergic system has been extensively implicated in the control of feeding behaviour. Thus, the appetite suppressant d-fenfluramine stimulates appetite by acting at the 5-HT2C receptor. 5-HT2C receptor agonists may be a novel treatment for obesity. Recently, mutant mice lacking functional 5-HT2C receptors have been generated which exhibit an obese phenotype that appears to be due to disordered satiety mechanisms. We have investigated the role of the 5-HT2C receptor in mediating d-fenfluramine-induced hypophagia by examining the effects of d-fenfluramine on food intake and postprandial feeding behaviour in mice lacking functional 5-HT2C receptors. d-Fenfluramine (3mg/kg i.p.) significantly depressed feeding in wild-type mice but produced only a marginal decrease in feeding in 5-HT2C knockout mice. After vehicle or 3 mg/kg d-fenfluramine, all animals exhibited a behavioural sequence consistent with the enhancement of satiety. However, mutant mice were less sensitive to the satiating effects of d-fenfluramine. These results suggest that d-fenfluramine enhances satiety in the mouse by a 5-HT2C receptor-dependent mechanism. Therefore, it is possible that a selective 5-HT2C receptor agonist may be a novel treatment for obesity.

The effect of hormonal replacement therapy on cognitive function in elderly women

EEF HOGERVORST, Laboratory of Experimental Psychology, University of Sussex, WIM RIEDEL & JELLE JOLLES, University of Maastricht

Although epidemiological studies indicate a possible prophylactic effect of hormonal replacement therapy (HRT) on the development of Alzheimer’s Disease, evidence is not convincing for prevention of age-related cognitive decline. Furthermore, double blind testing is often difficult to maintain in experimental studies. For instance, we found positive effects of HRT on subjective well being in an aware, healthy postmenopausal group. However, the opposite was found in a cross sectional study (n=325). Effects of HRT, as of most cognition enhancing drugs, are probably small. Furthermore, the data of both of our studies and the literature on this topic suggest that the effects of HRT are of a general nature rather than that they are specific and direct on memory functions.

Serotonergic circadian rhythmicity: Time of day of testing alters the behavioural profile of LY 297996 in the mouse elevated plus-maze

The British Psychological Society 1999 Proceedings
Oxygen administration significantly improved performance on sub-tasks from the Cognitive Drug Research computerised assessment system. This was achieved by administering oxygen or air (placebo) inspiration, during several cognitive tasks. The present study represents a preliminary investigation into the possibility of temporary reversal of cognitive deficits following oxygen administration. Scores on individuals with CFS. Sixteen confirmed CFS patients inspired either oxygen or air (placebo) following a randomised, balanced crossover design. Their performance on tests of Simple Reaction Time (SRT), Choice Reaction Time (CRT) and Word Recall was then measured. Oxygen inspiration resulted in significant improvements in both SRT and CRT performance, and a trend to improved Word Recall. These results are discussed in the context of possible therapeutic effects of oxygen, and their potential use in symptomatology relating to cholinergic dysfunction and decreased cerebral blood flow.

Cognitive demand and metabolic supply: The relationship between mental effort and physiological response
AB SCHOLEY, S SELA & MC MOSS, Human Cognitive Neuroscience Unit, Division of Psychology, University of Northumbria

We have previously presented a model whereby cognitive enhancement associated with elevated levels of blood oxygen results from increased availability of oxygen to the brain, and consequently to the working memory system. The model makes a number of specific and testable predictions which are the focus of this paper. Here, we relate brain and blood oxygen levels, and cognitive performance to varying levels of task difficulty, oxygen or air (control) inspiration, during several cognitive measures. In Experiment 1 oxygen breathing increased word recall (but not digit span) when hyperoxia (high blood oxygen) coincided with word presentation only. In Experiment 2 oxygen administration improved performance on a cognitively-demanding task (Serial Sevens) and increased the number of responses in a simple

The cognition enhancing effects of the novel nicotinic agonist GTS-21 in healthy volunteers
H TAKAGAWA, Y MIYAMOTO & T TAKEUCHI, Taiho Pharmaceutical Co. Ltd, Tokyo, Japan, K WESNES, CDR Ltd, Reading, W KRAMER & DE CLODY, Quintiles Inc., Arlington VA, USA

GTS-21 is a selective alpha 7 nicotinic agonist developed in collaboration between the University of Florida and Taiho Pharmaceutical Co. Ltd. GTS-21 has a novel pharmacological profile of inhibition of cell death in both in vitro and in vivo models, and improves performance of learning and memory in several animal models. In the present double blind, double dummy, cross over, placebo controlled study 16 healthy volunteers received multiple doses of GTS-21, the compound being administered for five days with a 10-day washout period between ascending dose sessions. The tested dose range was 25, 75 mg and 150 mg. A selection of tests from the Cognitive Drug Research computerised assessment system were performed pre-dose on days 1, 2 and 4, and at 1, 2 and 4 hrs after dose on days 2 and 4. GTS-21 produced a wide range of cognitive improvements, significant enhancements being seen on tests of attention, working memory and secondary memory. GTS-21 has a wider range of cognitive actions than nicotine and if these findings can be replicated in other clinical settings it could provide an effective new therapeutic candidate to treat conditions such as Alzheimer’s Disease and Dementia with Lewy Bodies.

Daily uplifts, hassles and cognitive failures: In cigarette smokers and non-smokers
AC PARROTT & F KAYE, Dept of Psychology, University of East London

Cigarette smokers (n=25), temporarily abstaining from smoking and oxygen administration improved performance on tasks of incidental learning and attention
AB SCHOLEY, K MICKLETHWAITE, D MITCHELL & MC MOSS, Human Cognitive Neuroscience Unit, Division of Psychology, University of Northumbria & K WESNES, CDR Ltd, Reading

Recent work in our laboratory has established that oxygen administration to healthy young adults results in improved cognitive performance. It is possible that this effect can be observed in Alzheimer’s patients, since this phenomenon involves elevation of central acetylcholine. Alternatively, oxygen may affect cognitive performance in the elderly. We have measured the T2 relaxation time (a metabolic tracer at sites of high cognitive demand. This study compared the effects, in young adult volunteers, of nicotine (administered to smokers in a cigarette) and oxygen on three pencil-and-paper tasks which are differentially sensitive to changes in cholinergic activity. Semantic priming was unaffected by smoking but was enhanced by oxygen administration. Both smoking and oxygen administration improved four measures of cognitive performance. Scores on the attention task were impaired by smoking but enhanced by oxygen administration. Our results clearly demonstrate differential effects of oxygen and nicotine on aspects of cognition. We conclude that oxygen’s enhancing effect on cognitive performance is not mediated exclusively via cholinergic mechanisms.
counting task. Unexpectedly, transient hyperoxia and heart rate increases were differentially affected by the two tasks. These data suggest that additional oxygen reserves can differentially target task-sensitive substrates as appropriate to performance demands. The mechanisms underlying this phenomenon are presently unknown.

**Effects of midazolam and nitrous oxide on cognition**

**JM THOMPSON, N NEAVE & M MOSS,**
**Dental Hospital, Newcastle upon Tyne,**
**NM GIRDLER & AB SCHOLEY, CDR Ltd,**
**Reading & KA WESNES, Human Cognitive Neuroscience Unit, Division of Psychology,**
**University of Northumbria**

The present study compared the cognitive profiles resulting from the administration of nitrous oxide (a general CNS depressant), and the benzodiazepine midazolam on the Cognitive Drug Research (CDR) computerised test battery. In a three-way randomised, repeated measures study, 18 participants received midazolam, nitrous oxide, or no drug and then performed this test battery under baseline and test conditions. In the midazolam condition, a dissociation between recall and recognition was revealed, with all participants showing significant impairments on recall, yet remaining unimpaired on the recognition tasks relative to baseline performance. These clear effects of midazolam-induced amnesia were independent of its sedative effects. In the nitrous oxide condition, a mild generalised impairment was seen on all measures. These findings lend support to recent proposals concerning dissociations between recall and recognition in anterograde amnesia.

**Episodic and semantic memory:**

**Effects of ethanol and temazepam**

**B TIPLADY,** Dept of Anaesthetics,
**C HARDING,** Dept of Psychology,
**C ORTNER,** Dept of Pharmacology,
**K PORTER,** Dept of Psychology,
**P WRIGHT,** Dept of Psychology,
**University of Edinburgh**

Previous studies have suggested that drugs such as benzodiazepines impair episodic memory but leave semantic memory unaffected. However, in these studies episodic memory involved information learnt while affected by drug, while semantic memory involved knowledge acquired before the experiment. To investigate this further, 12 male and six female volunteers, aged between 19-43 years were given two doses of ethanol (0.66 and 0.88 g/kg), two of temazepam (15 and 20 mg), and placebo in randomised order in a five period within-subjects study. Volunteers completed a battery of performance tests over the next two hours including the Buschke selective reminding task (episodic) and learning of fictitious facts (semantic). Both drugs impaired the acquisition of new semantic memory as well as new episodic memory. This suggests that it is new long-term memory formation that is impaired, and not the formation of a specific type of memory, such as episodic memory.

**The profile of effects on cognitive function of intravenous morphine in healthy volunteers**

**K WESNES,** CDR Ltd., Reading,
**B HÄGGLÖF,** Astra Human Pharmacology Unit & **JONZON B,** Astra Pain Control AB

In this study 12 young non-smoking healthy male volunteers took part in a placebo controlled, four-way crossover study of the effects of three doses of intravenous morphine (2.5 mg/70kg, 5 mg/70kg, and 10 mg/70kg, infused over 15 minutes) on a variety of tests from the Cognitive Drug Research computerised assessment system, self-ratings of mood and alertness, plus two traditional tests, CFF and DSST. The four sessions were separated by a minimum of one week, and on each study day, the various assessments were performed pre-dose, and at 0.5, 1.5, 3, 5 and 8 hours post-dosing. The 10 mg dose impaired performance on most of the computerised tasks used and self-rated alertness, though no effect was seen on the DSST. These impairments peaked at 0.5 and 1.5 hours, and were still present up to 5 hours post-dosing on some measures. These findings confirm and extend previous findings with this system with oral doses of morphine (Hanks GW, O’Neill WM, Simpson P, Wesnes K. (1995) European Journal of Clinical Pharmacology, 48, 455-460).

The British Psychological Society
1999 Proceedings

‘...having traversed the heavens, and am returned to earth...’

Transpersonal Journeys through the Gabilasic Imagery of the Splendor Solis M ANGELO (workshop – slide presentation)

This workshop displays, comments and reflects on the 22 symbolic paintings of the 16th century Splendor Solis series, giving time to muse on their cross-cultural perdurability, and to describe, and what this can add to our work with dreams, images, and guided fantasy. Such work is shaped by the choice and preferences of the therapist/trainer/educator. If we are ignorant of the deep patterns of myth and symbolism we may miss their resonance, or create simplistic and skewed fantasy scenarios. The Gabilasic Tree of Life sets out an extensive spatial architectural of the soul, spanning ‘the four worlds’: archetypal, creative, formative and expressive. Integrating many symbol systems, the Tree offers an important ‘imaginational education’, setting participant/client experiences against a backdrop which contextualises, differentiates and dignifies experience.

Transpersonal Psychology and the paranormal M DANIELS

I examine two main questions: (a) what is the relationship between paranormal experience and transpersonal experience? (b) what is the relationship between transpersonal psychology and parapsychology? I discuss historical and cross-cultural parallels and differences, and describe examples of experiences that may be viewed as both paranormal and transpersonal. I consider critically whether distinctions need to be made between the paranormal and the transpersonal, and suggest an approach that attempts to distinguish transpersonal and paranormal experience in terms of the transformative meaning and effect that these experiences have on the person or society. This will allow an understanding of the differences between parapsychology and transpersonal psychology in terms of the contrasting (but ultimately complementary) perspectives and research paradigms that these disciplines take on paranormal and transpersonal experience.

Experiencing Internal States L DIGNAM

A workshop designed to explore the hypnotic state, the participants will learn to induce a light hypnotic trance, and sub-modalities to change their internal imaging of events. The workshop will conclude with a brief review of the effects of this state and a comparison with the techniques of guided relaxation. The participants will be asked to complete a self-rating scale pre- and post-experience to measure any changes in internal state as a result of the workshop.

Sexuality, relationships and spiritual growth N DOCHERTY and M WALLEY

Our closest relationships provide us with a precious resource and opportunity to enhance our awareness and to further our spiritual growth. Intimacy challenges our identity and personal boundaries, as well as allowing us to open further to the transcendent. This can be intensified when relationships are sexual. In this workshop we aim to explore the relationship between sexuality, intimacy, awareness and spiritual growth. Major spiritual traditions have cultivated a range of attitudes towards sexuality and its role in spiritual and transpersonal development. (b) We want to provide participants with an opportunity to explore their own attitudes towards sexuality and intimacy in the context of spiritual growth and transpersonal experience.

Gender-based Differences and Religious Experience A EDWARDS

It is generally held in the psychology of religion that women typically score more highly on measures of religious involvement than men, whether behavioural measures or records of doctrinal beliefs are used as dependent measures. When the experiential element in religion is studied, however, the situation grows more complex. Here, the gender-based differences are less and, in some cases may not be as marked, and it has been pointed out that at least one type of religious experience – visions of the Virgin Mary – appears to be more common in men than in women.

The current paper looks at data obtained from a study that, initially, did not specifically set out to assess gender differences, but asked respondents to record their gender. In this study, respondents completed both the M-scale - a measure of magical thinking that has ever had a mystical experience - and various survey-type questions designed to assess whether people have ever had a religious experience. Somewhat surprisingly, a multivariate analysis of variance suggested that males actually scored more highly on the M-scale than females, but gender-based differences did not appear on the survey-type questions. Reasons for the unexpected finding concerning the M-scale are discussed, including sample bias concerning male respondents. It is suggested that the findings highlight the need to distinguish the terms ‘mystical experience’ and ‘religious experience’.

Inner transformation and outer behaviour D FONTANA

Transpersonal psychology explores, among other things, the changes in cognition, belief and affect subsequent upon mind development programmes such as meditation and upon anomalous experiences such as so-called mystical, revelatory and enigmatic experiences. The issue less frequently addressed is the influence of such apparent inner transformation upon outward behaviour. Deeply experienced existential selves lead to observable changes in the way they conduct themselves in relation to the outer world?

The evidence suggests that they do, although frequently the results are other than those we might expect. The behaviour of certain revered Eastern spiritual masters currently or recently living in the West, involving as it apparently does abuse of power and sexual and economic exploitation of students, has provided reasons for grave concern. Less damaging to others but perhaps equally puzzling is the behaviour of the crazy wisdom masters of Tibetan Buddhism, of the holy fools of Christianity, and of the God-intoxicated saints of the Sufi tradition. The desertion of family and friends, the bizarre lifestyles, the neglect or abuse of the body, and the childish and saintly of the Sufi tradition. The desertion of family and friends, the bizarre lifestyles, the neglect or abuse of the body, and the childish and saintly and transpersonal development. We want to contextualise, differentiates and dignifies ‘imaginal education’, setting participant/client experiences against a backdrop which contextualises, differentiates and dignifies experience.

Transpersonal Psychology Section

Meditation and the tranquil mind D FONTANA

Transquility is an essential transitional stage in the development of mature meditational practice, and one which brings manifest psychological and physical benefits in and of itself. The workshop will provide guidance - together with opportunities for practice - in the development of this stage, and offer explanation on how it links with other aspects of the meditative path.

The Scale of Responses: Emotions and mood in context H GUEST

The first part of this presentation of a recently published paper describes a map of emotional and other responses to situations, in the form of a scale, together with a number of mechanisms which have been observed in relation to movement from one item on the scale to another. The responses include those which can be described as internal, interoceptive.

The second half will discuss those aspects of the scale which have transpersonal significance, such as (a) the incompleteness of this map without the inclusion of the transpersonal, (b) the interaction of transcendence and ego-disintegration as opposite phenomena, and (c) meditational experiences in terms of the scale.

You, me and us: Counselling in the transpersonal mode K KINGSLAND

Deep communication with another often leads to a transpersonal state where the distinction between self and other disappears. Nevertheless, mere identification with the other may lead to collusion and loss of therapeutic effect. A systematic approach, however, can produce a reliable transpersonal state that has consistent value in professional counselling. The approach requires, of the counsellor, concurrent awareness of 1) counsellor’s self-view, 2) counsellor’s view of client, 3) counsellor’s experience of client’s self-view, 4) client’s view of counsellor, 5) awareness of historical context, 6) awareness of current state, 7) purpose and possibility of present counselling situation.

This paper presents the seven requirements in a systemic model and explores what they mean in practice. Ways of developing and confirming each of the requirements are presented together with an operational guide to the dangers and benefits of such an approach. Finally, the achievement of concurrent awareness and the emergence of the transpersonal state is addressed in terms of ‘deep connection’.

‘The dew that shines within’: Psychological analysis of the mystical experience of light B LANCASTER

Perhaps the most universal of all religious symbols is light. By comparison with darkness, light may represent insight, knowledge, expansiveness, healing, love, goodness etc. Moreover, as Elia shows, in Vedantic tradition the experience of light indicates contact with ultimate reality, with the Self. In this paper I focus on psychological approaches to the experience of light, as reported in spiritual and mystical contexts. The meditative practices frequently engender such experiences, either in the outer sense of changes in the quality of light perceived, or in the inner sense of a flow of light within the body. The Taoist Secret of the Golden Flower, for example, teaches the way of the circulation of light, and ecstatic kabbalah describes a stage prior to that of prophetic consciousness, in which light is experienced as filling the mind. Three levels of psychological explanation are posited, the relationship between each being more of one parallelism than of direct reductionism.
The psychotherapies and the transpersonal – seeking integration
W WAHL
Many approaches which fall under the broad heading of transpersonal psychotherapy (e.g. Jungian, psychosynthesis, etc.) employ techniques which are easily associated with transpersonal realms, such as dream work, meditation, mythology, visualisation etc. While respectful of the value of these approaches, this workshop will suggest that the techniques of mainstream therapeutics (e.g. behavioural, psychodynamic, cognitive, humanistic and existential) are entirely compatible with transpersonal visions. This workshop seeks to build on the highly integrative perspectives of writers such as Ken Wilber, Charles Tart, John Rowan, and Mark Edmund Wilson who believe that transpersonal perspectives do differ from various therapeutic theories when considering questions such as what is the self? and what is the ultimate explanation of human suffering? The presenter will discuss how traditional therapeutic approaches can be employed from a transpersonal perspective.
In short, this presentation proposes a greater integration between the deep understanding of the human condition offered by transpersonal perspectives and the powerful techniques derived from traditional therapies.

The Brahma-Viharas: Transpersonal perspectives on meditations upon loving-kindness, compassion, sympathetic joy, and equanimity
M WALLEY
The four qualities of loving-kindness (metta in Pali), compassion (karuna), sympathetic joy (mudita) and equanimity (upeksha), as cultivated in traditional Buddhist meditation practice, are ‘among the most powerful states of consciousness which we can experience’ (Salzberg, 1995). Extensive practice in the cultivation of these states can generate profound changes in feelings of well-being and view of self and others. Over centuries of practice and meticulous reflection and contemplation, there has developed an impressive corpus of human knowledge and experience which is available to both the enthusiastic practitioner and theoretical scholar. A fuller appreciation of the characteristics and nature of these boundless states, together with an understanding of the psychological methods and processes involved in their cultivation, has a valuable contribution to make to transpersonal psychology. This paper endeavours to develop this exploration and to emphasise the implications for the theoretical development of transpersonal psychology.

Reflection in action: Innovation and effectiveness in the workplace
M WEST
This paper describes the development of my research on reflection and the parallel search for understanding about the effective functioning of groups and teams at work. The inadequacy of static models of group effectiveness prompted my exploration of the concept of reflection on experience in meditation as applicable to understanding the dynamics of work groups. I describe how such an approach offers both researchers and work groups the possibility of improved understanding and development of functioning and effectiveness. Using research results and case studies I describe how such groups can be facilitated for development and innovation in the social contexts they inhabit.

Transpersonal communication between therapist and client in the therapeutic relationship
T WHITEHOUSE
This poster describes a proposal for a piece of qualitative research aimed at understanding therapists’ experience of client-therapist relationships which go beyond the ‘limited and limiting sense of separateness’ (Fontana, 1996) ostensibly prevailing in many therapeutic encounters.
The relationship of instrumental and expressive traits with computer-related well-being

N BOZIONELOS, Dept of Human Resource Management, University of Strathclyde

Computer anxiety – the degree of apprehension felt by individuals in relation to using computer technology – affects substantial proportions of the population. The relationship of instrumental and expressive traits with computer anxiety was investigated in a sample of 285 individuals who were students in two British universities. Scores on instrumentality made significant contributions in all regression models, namely those for computer anxiety, computer experience and computer interest. Scores on expressiveness made a significant contribution only in the model for computer anxiety. The interaction of instrumentality and expressiveness made a significant contribution only in the model for computer interest, for which model the emergent properties approach was supported. In general, the results are in line with the trend in the literature which suggests that it is the scores on instrumentality that consistently contribute to scores on criterion variables related to well-being.

Psychology and employability: A study with the long-term unemployed

H BRYNE, Dept of Psychology, University of Glasgow

A longitudinal study explores both the concept and changes in employability within a sample of long-term unemployed individuals attending a skills training programme. Objectives are to demonstrate how psychology as a science can make a significant contribution to such a fundamental social issue. Specifically, this research describes and assesses the impact of personal development training upon the long-term unemployed. The key role being such as motivation and confidence, the very factors which have deteriorated as a direct consequence of prolonged unemployment. Both quantitative and qualitative self-report measures of individual progress are utilised. Initial results strongly support an early and continuing improvement in self evaluation terms of participants’ return to the local labour market.

Can formatting influence information retrieval?

S CAMPBELL, Dept of Psychology, University of Glasgow

A series of experiments investigated whether manipulating the spatial layout of a text document could influence participants’ ability to locate discrete pieces of information within that text. In particular, a comparison was made between unformatted text and text that was formatted using bullets. The results indicate that the way in which formatting is used is vitally important. Used wrongly, bullets can seriously disrupt processing in both paper and VDU reading and searching tasks. However, this difference is only evident in a document that has already been read: the formatting manipulation seems to have no influence during a participant’s first encounter with a document. We conclude that different formats influence the way in which participants mentally represent a text, and that this in turn affects how they subsequently search that text for information.

Psychology as science, psychology as practice

C BROTHERTON, Dept of Applied Psychology, Heriot-Watt University, Edinburgh

This paper argues for a more unified profession of psychology. Psychology is rich, diverse and makes an important contribution to society as a whole. All of this is again threatened on several fronts. The paper explores the threats and indicates ways in which a more unified profession becomes possible. The threats include a lack of concern for the underlying science of application in the discipline and the lack of professional concern for public understanding of psychology. The success that is signalled is threatened on several fronts. The paper explores the threats and indicates ways in which a more unified profession becomes possible. The threats include a lack of concern for the underlying science of application in the discipline and the lack of professional concern for public understanding of psychology.

Ascribing human factors causes to accidents in the offshore oil industry

R GORDON, R FLIN, K MEARNS & M FLEMING, Psychology Dept, King’s College, University of Aberdeen

The aim of this study was to assess the reliability of offshore personnel ascribing human factors causes to accidents, to determine the limiting factors of coding accidents and to see whether attribution bias is evident in analyses of accident causation in the UK offshore oil industry. The study found that there is little consistency between coders, responses, and that further training in this field is necessary. A comparison of the oil company accident causation statistics with self-reported accident causation data indicated that such attribution bias may be a factor in the offshore oil industry. A need for human factors accident reporting form for non-experts is evident and examples are given.

Psychological characteristics of cardiac ‘syndrome-X’ patients

F GRUBB & P HERON, Dept of Psychology & Sociology, Napier University, Edinburgh

A significant number of patients with suspected coronary heart disease (CHD) are found to have no medical abnormalities at clinical examination and are labelled as suffering from ‘syndrome-X’. Attempts to determine the aetiology of this syndrome have been impeded by the use of unstandardised diagnostic criteria. Nonetheless, it has been generally assumed that syndrome-X patients are more psychologically disturbed than ‘true’ CHD patients. Taking a strict definition of the syndrome-X patient, this study contrasts syndrome-X patients (n=49) with CHD patients (n=31) on a commonly used measure of psychiatric morbidity, the GHQ28. No differences were found between those suffering a ‘psychiatric caseness’ or any of the GHQ subscales. Similarly negative findings were evident in self reported health locus of control, serum cholesterol and blood pressure readings. Findings are discussed in terms of the relationship between somatic disease and psychological disorder.

An evaluation of behavioural treatments for sleep disorders in people with intellectual disabilities: A multiple baseline study

M GUNNING, C ESPIE & H MCCARTNEY, Dept of Psychological Medicine, University of Glasgow

The efficacy of psychological approaches to the treatment of insomnia is well established in the general adult population, but only limited case study evidence in people with intellectual disability. We received 155 replies to a sleep pattern screening survey of whom 118 gave consent for inclusion. Twenty-seven clients were identified as suffering from significant sleep disturbance – 17 per cent prevalence of difficulty in falling asleep and 11 per cent of nocturnal waking. We then treated nine clients in three sets of three multiple baseline designs, using behavioural and chronobiological methodologies. Results indicated that all nine clients benefited from intervention, with...
seven having marked improvement. Inspection of the multiple baseline data demonstrated that change resulted from active intervention. This effect was replicated across the three designs. The study illustrates the value of single case designs in this population.

Applying psychology at the sharp edge: Psychology in the Scottish Prison Service

R HALL, Psychological Services, Scottish Prison Service

This paper outlines the challenges facing the application of psychological principles and practice in the business environment and operational setting of the Scottish Prison Service. The application of psychology to addressing offending behaviour has developed rapidly in the last decade. Significant research in risk assessment and programme development has stimulated much debate and a new recognition of the contribution which psychological models and methods can make to criminal justice. Psychology is at the forefront of new initiatives in the prisons to assess and manage risk and to develop and evaluate interventions designed to reduce offending behaviour. This work is complemented by the contribution of psychologists to healthcare, security and education. A psychological services team was established for the Scottish Prison Service in 1996 and now has some 25 staff, drawn from forensic, clinical, educational and occupational psychology. Their work is discussed with reference to the dilemma of balancing the need for professional standards with the demands of practical considerations and political priorities.

An application of signal detection theory to self-reports of alcohol use

SM HARPER & JB DAVIES, Dept of Psychology, University of Strathclyde

This paper presents a signal detection analysis of self-report data concerning drinking behaviour among a group of prisoner volunteers. The study was aimed to: (1) determine the sensitivity of the prisoners to alcohol use; (2) to explore the possible impact of the prison environment on drinking; and (3) to identify those prisoners who could benefit from psychological intervention. The findings indicate that the prisoners were not sensitive to the alcohol they were consuming and that their drinking patterns were similar to those reported by the general population. The results suggest that psychological intervention may be an effective method of reducing alcohol consumption among prison populations.

Patients’ memory for and use of psychological strategies one year after discharge from a sleep clinic

L HARVEY, C ESPIE & S INGLIS, Dept of Psychological Medicine, University of Glasgow

In a recently completed outcome trial of CBT for chronic insomnia, we demonstrated that treatment effects were durable at one year. It seemed relevant therefore to investigate which elements of the CBT programme patients continued to use after discharge. A case vignette of a patient with chronic insomnia is described. The patient had received CBT at a sleep clinic and was referred for follow-up by their general practitioner. The follow-up consisted of a telephone interview, a sleep diary, and a VAS questionnaire. The patient rated the CBT intervention as helpful and reported that they were still using the strategies taught in the clinic at one year follow-up. The study illustrates the importance of follow-up in order to maintain treatment gains.

The awkward age: Why are adolescents clumsy?

D HEFFERNAN, Dept of Psychology, University of Strathclyde

It is often observed that adolescents are relatively clumsy. This study investigates the control of movement in this age group and proposes that clumsy movements result when rapid growth necessitates visuo-motor recalibration. Boys at the rapid growth stage (ages 12 and 13) as well as older (ages 14 and 15) and younger (ages 10 and 11) performed a reaching test. They were asked to predict their maximum reach in a variety of tasks and these predictions were compared with their actual reaching ability. It was found that the rapid growth group had most difficulty in recalibrating their reach, suggesting that clumsiness during adolescence is associated with the perceptuo-motor recalibration required during the adolescent growth spurt.

Psychology as a science of design in engineering

POB HOLT & GT RUSSELL, Dept of Computer & Electrical Engineering, Heriot-Watt University

Psychology makes important contributions to a number of other cognitive areas and shows the potential for becoming a science of design in engineering. The work reported here provides a framework for the design and implementation of artificial vision systems based on cybernetic modelling which incorporates human information processing and systems engineering models. The main aims of this work are to embed into artificial vision systems the notions that: (1) humans are always present as users or operators; (2) the imaging systems are founded on natural human vision, perception and cognition; and (3) such integration will result in improved artificial vision systems. Examples of working systems are provided.

Food product development: A new challenge for psychologists

V HOUSTON, M HAMILTON, V CHEETHAM & Z CROMAR, School of Food & Consumer Studies, The Robert Gordon University

The role played by the sensory and psychological properties of food and their applications to product development in the food industry offer an exciting challenge to psychologists. Increasingly, consumers wish to derive benefits from food products that are not merely physiological. The psychological appeal of a food product is of fundamental importance to today’s consumer when purchasing foodstuffs. Excellence in food product development is dependent on recognising that consumers’ attitudes and perceptions about the whole product experience have to be taken into account. This paper considers ways in which psychologists can rise to this challenge and form strategic partnerships with the food industry to develop products which meet the psychological as well as the physical needs of the consumer.

Predictors of response to CBT for chronic insomnia

S INGLIS, C ESPIE, M TESSIER & L HARVEY, Dept of Psychological Medicine, University of Glasgow

A number of controlled studies and meta-analyses have demonstrated that CBT is an effective treatment for chronic insomnia. A large controlled trial of 139 treated patients in general practice and found treatment effects durable at one year. We hypothesized that factors which predict who does or does not respond to CBT, however, has received little research attention. This paper uses data from our study to investigate possible predictors of sleep improvement. Biographical, sleep, psychopathology, attributional and therapy-related variables are considered in a series of regression analyses. More than one or two predictors, but with very modest effects. Beliefs, attitudes and attributions about sleep emerged as relatively important predictors. A key finding is that there are few contraindications for CBT – i.e., age, gender, duration of insomnia and psychopathology did not discriminate outcome.

Developmental influences on the signs of operative dental pain in children

S LINDSAY, R TOOLE, Psychology Dept, Institute of Psychiatry, S JOHNSTONE & P SMITH, The Dental School, King’s College Hospital, London

The expectations and experience of pain play a significant part in the fear of routine dentistry which afflicts many adults. Evidence has shown that children are similarly affected, both protect adults and children against sudden pain in dentistry and so means of assessing the efficacy of local dental anaesthetics is necessary. In this study 78 children age 5-15 received an electrical dental pulp test which delivered brief, moderate discomfort to the unaffected tooth. They were asked to accept or reject each word from a published list of 58 words, developed for children to describe non-dental pain. Significantly more words were chosen to describe the discomfort of the real pulp test than of a simulated test delivering no discomfort. Other variables analysed were reading comprehension and psychological attributes which were made with facial expressions as an indicator of pain.

Scientist practitioner psychologists in a post-modern world

I LUNT, President of The British Psychological Society

This paper addresses the major challenge of being a professional psychologist, and maybe a scientist practitioner, in a post-modern world. The term ‘post-modern’ is used in a broad way to indicate a world where previous certainties no longer exist, where society is changing rapidly and where societarians are in danger of having lost direction and focus; where professionals no longer have the status they once did, and where professional organisations need to adapt to meet the changing needs of their members and the public. Four propositions are considered: (1) many countries base their professional psychology on what has been referred to as a scientist practitioner model, the so-called Boulder model; (2) we claim in our codes of ethics that our practice is based on sound evidence, that of science; (3) we live in a post-modern world; (4) we need to transform psychology both in our professional roles and organisations and in the way we work in order to meet the changing needs and demands of the post-modern world. Ways in which this challenge is being addressed in the UK and in the Society are considered.

The complexity of disputes amongst nursery school children

DM McWILLIAM & C HOWE, Dept of Psychology, University of Strathclyde

This research aims to show that young children are linguistically more adept than many education documents suggest. Preschoolers from two nurseries were observed during free play sessions and their conflictual and non-conflictual strategies used. The strategies used by the children during their disputes were coded using pre-prepared categories which gave a general indication of language skill or complexity of thought. Complexity was further examined in relation to gender, class and play context. Results indicate that preschoolers are linguistically more adept than many education guidelines suggest and this varies significantly across class and play activity but not gender.

The development of the Glasgow Symptom Checklist (GSC)

Z MAHMOOD, Consultant Clinical Psychologist

A symptom checklist consisting of 59 most commonly self-reported complaints by clinical psychology outpatients (n=354) were asked to report the severity of each
Both stereotyped behaviours and seizures are present in people with learning disabilities more frequently than in any other sub-population. The topography of partial seizures in particular is commonly associated with the topography of stereotyped behaviours and there can be confusion. An objective and diagnostic tool for epilepsy is the EEG. The presentation of apparent stereotypies was explored using this technology. Thirty-one adults with learning disabilities received routine EEG assessments in a hospital department with data analysed using spectral analysis. No EEG pattern characteristic of stereotypy was established, but in contrast, analysis indicated an increase in alpha, beta, theta and delta activity during epileptiform activity.

Development of the Standard Progressive Matrices Plus

J RAVEN, 30 Great King St, Edinburgh EH3 6DH

The international increase in Raven Progressive Matrices test scores documented by the author and others has resulted in a ceiling effect among adolescents and young adults. To overcome this, a revised form of the test—the SPm Plus—has been prepared. The version of the test that was carried out is described. The result is a test in which the early items match the old in logic and general appearance, but which contains more difficult items. The items difficulties (expressed in Rasch logits) increase more uniformly.

Trend and pattern methodology for human factors root causes in events

AJ ROSS, JB DAVIES, M WHITE, J BAXTER, L WRIGHT & J HARRIS, Strathclyde University

This research relates to an event coding document for observed root causes published in 1996 by a major UK industrial network. A stated purpose of the document is to ‘give details for the codification of events to enable ... identification of trends and patterns within accumulated event data’. The paper gives details of work undertaken to address problems of event coding within that industry. The method of study is a descriptive study. Predictive usefulness only when coding reliability is satisfactory and when the codes assigned are not affected by uncontrolled demand characteristics of the system itself. The study provides evidence that replicable patterns of data can emerge over time owing to demand characteristics of the system, even when inter-rater reliability of coding does not meet acceptable levels. Suggestions are made as to the best ways of improving the present coding scheme. It is suggested that the findings may be of interest to other high-consequence industries who use similar event-coding schemes.

The effect of alcohol cues on craving in social drinkers with a family history of alcoholism

D SCHULZE, Dept of Psychology, University of Glasgow

This study investigates if craving is enhanced in social drinkers after being exposed to alcohol cues in which a differentiated definition of craving is used. Further, the study explores if craving plays a role in the ‘dependence-susceptibility’ of participants with a family history of alcoholism. A Questionnaire for Alcohol (DAQ) was administered to 37 social drinkers during a cue exposure experiment. Repeated measures revealed significant differences for the first three DAQ factors but not for factor 4, controllability. For factor 2, strong intentions and desires, a significant interaction with family history. This lends further support to the view that alcohol cues are capable of changing subjective feelings towards alcohol and suggest that craving may be a factor in the enhanced susceptibility of participants with a positive family history of alcoholism. The results from this study could have implications for prevention or treatment of alcoholism in practice.

A controlled, comparative investigation of activity, fatigue and mood in people with chronic fatigue syndrome

K VERITY, C ESPIE & WA TODD, Dept of Psychological Medicine, University of Glasgow

Previous studies of activity, fatigue and mood in chronic fatigue syndrome (CFS) have used diverse methodologies, often implementing retrospective, subjective measures. These methods may not yield accurate representations of the experience of CFS. This study applies scientific method to the objective measurement field by using an objective measure of activity (wrist actigraphy) in conjunction with concurrent, hourly self-ratings of fatigue and mood states. Results indicate that the CFS subjects (n=10) are significantly different from healthy matched controls with regard to activity, fatigue and mood variables. Durnal patterns and interrelationships of the measured variables, were also different in the CFS group. These findings, and their implications for future research, are discussed.

The psychology of cancer screening

J WARDLE, Health Behaviour Unit, Dept of Epidemiology and Public Health, University College London

In search to reduce cancer deaths, screening for early pathological changes is one of the most promising means available at present. Maximising screening attendance is therefore one priority in behavioural cancer prevention. The second is in reducing any adverse impact of screening, since cancer remains a dreaded diagnosis and many people may be frightened by the process. This study investigates if patients viewed cancer screening as a situation in which they could be involved in making decisions about their health, or in which they would be subject to medical authority. The contribution of psychological research to understanding the uptake and impact of cancer screening is discussed in the framework of the Flexicope Trial which is a randomised controlled trial to assess the efficacy of once-only flexible sigmoidoscopy in reducing morbidity and mortality from bowel cancer in a national sample of 400,000 adults in the UK.

Intrusive thoughts and their relationship to actigraphic measurements

D WILLOW & C ESPIE, Dept of Psychological Medicine, University of Glasgow

Cognitive intrusions and pre-sleep hyperarousal have been hypothesised to be causal factors in insomnia. Although there is some evidence which indicates that insomniacs are highly aroused cognitively. This study investigates the content of intrusive pre-sleep cognitions, using ‘live’ tape-recordings of spontaneous thought, and evaluates their relationship with objectively monitored sleep, using the wrist actigraphy method over several nights. Twenty-one participants with sleep-onset disturbance were recruited through advertisements, and data were obtained for 63 participant nights. This study yields important results concerning the specific content and quantity of intrusive thoughts which may be associated with sleep-onset difficulty. In addition, cognitive based treatments for insomnia are discussed.

Predicting increased economic activity in farm women

J WILLOCK, Dept of Social Science and Management, Queen Margaret College & M O’MARA, Scottish Agricultural College, Edinburgh

A modified version of the Fishbein Model of Reasoned Action has been successfully applied to empirical survey data obtained from farm women to predict those women most motivated to achieve economic independence. The objective was to focus rural development agency assistance in a cost-effective manner towards a target population. A postal survey profiled the skills, experience and interests of respondents perceived as likely to succeed in identifying motivated women from 19 per cent using recorded intentions alone to 56 per cent when positioning was towards employment along with low constraints to employment were selected.
Mathematical, Statistical & Computing Section

Who was Bonferroni?
M DEWEY, Trent Institute for Health Services Research, Nottingham

Applied statisticians are familiar with the name of Bonferroni in the field of simultaneous statistical inference where it is given to a method relying on a set of inequalities named after him. Of all the eponymous figures in modern statistical practice he remains perhaps the least well known, certainly as far as Anglo Saxon audiences are concerned. In this talk I outline briefly his life and work, and give a personal account of my search for details about him.

Variations on an area theorem
RJ IRWIN, Dept of Psychology, The University of Auckland

A well-known psychophysical theorem states that the area under the yes-no ROC equals the proportion of correct decisions of an unbiased observer in a two-alternative forced-choice experiment. Two further area theorems, one for the same-different experiment and one for the reminder experiment, equate the area under the ROC for a sub-optimal decision strategy with the maximum proportion correct attainable from an optimal decision strategy. Like the theorems for the same-different and reminder experiments, the area theorem for the forced-choice experiment can be re-phrased in terms of decision strategies. In this re-statement, the area under the yes-no ROC represents that for a sub-optimal strategy with the maximum proportion correct attainable from an optimal decision strategy. Like the theorems for the same-different and reminder experiments, the area theorem for the forced-choice experiment equals the proportion correct of an observer who uses the information in both observation intervals.

On representing beliefs by probabilities or indeed by anything else
R MacDONALD, Dept of Psychology, University of Stirling

This paper explores the relationship between probabilities and beliefs. To begin with it is noted that probability models ignore several aspects of beliefs. Then probability models are shown to have the following limitations: – they imply the existence of a veridical model, apply only to classes of events that have been deemed to be equivalent and require more probabilities than are possible. Fisher’s idea of a complete probability model gets round these problems but is held to be incoherent because it implies absolute certainty. Expressions of belief are constructed to order, influenced by context and limited both by language and the magic number 7. From this it is concluded that beliefs do not admit a single veridical representation. Next it is argued that Bayesian reasoning consists only of modelling the elimination of known possibilities and cannot account for the creation and modification of probabilities in the light of new evidence. People form beliefs and estimate probabilities at least in part using Tversky type heuristics as is illustrated by a bias in the beliefs of Stirling students.

The camel, the eye and the needle:
Converting a statistics foundation course to multimedia
S MACRAE, Dept of Psychology, University of Birmingham

A one-semester foundation course took 30 months from starting writing to publication in book form. Why did converting the material to multimedia take 63 additional months and involve the efforts of five times as many people?

A jigsaw puzzle theory of memory
PT SMITH, Dept of Psychology, University of Reading

The central idea of this paper is that when an episodic memory is retrieved for the first time it is synthetic, emerging from the fragments of information in memory. This synthesis is achieved via simulated annealing. This leads to a general framework for memory retrieval phenomena, where the bulk of the literature can be handled by manipulations of a small number of parameters. Detailed modelling results are presented for tip-of-the-tongue states, failure to retrieve phonological information such as proper names, implicit memory phenomena, recovered and false memories, memory retrieval in depression and the elderly, and a possible non-monotonic relation between prompt specificity and retrieval performance.

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Tolerance and intolerance: Reactions to ingroup and outgroup deviants

A. B. 

The 1999 Annual Conference
The British Psychological Society Annual Conference, The Waterfront Hall and The Hilton
Hotel, Belfast, Northern Ireland, 8–11 April, 1999

We utilise discursive psychological principles to examine how accountability is managed in discussions on the talk show, Kilroy. The programme focused on families of perpetrators who had been formally convicted of rape or child sexual abuse. We examine the justificatory strategies used by the audience and studio guests who shift the blame for the incidents towards the victims of the crimes but also towards the women themselves. The women were implicated as accountable for the assaults through the reproduction of stereotypical, contradictory assumptions about normalise femininity. The women were told to love or hate each other's team roles and task demands. Some workers perceive themselves as changing and developing over time, while primordialists perceive themselves in static terms by comparison. These results are discussed in the light of the sociocultural backdrop of postcommunist Slovakia, where the current official ethnic ideology has a primordialist character.

Predicting everyday functioning from neuropsychological tests: A case study

B. A. 

V. B. 

The paper outlines the work of the Society in developing the generic Occupational Standards for Applied Psychology, and the subsequent design of four professional qualifications from them. During its four years, the project has raised a host of issues about the nature of professionalism, the role of knowledge and understanding in professional competence, and the way in which these vary in relation to the voluntariness of the risk activities is discussed. It is suggested that such a consideration has the potential to refine the development of effective risk communication strategies.

The development of generic occupational standards for applied psychology

D. A. 

D. A. 

This study tests McNeill's (1985) theory that the range of information in the iconic hand gestures accompanying speech can be understood to be the relative position and 'relative size' of objects, that the beneficial effect of gestural communication is significant across different cultures, including the potential for independent everyday functioning from neuropsychological tests, and the potential for independent everyday functioning from neuropsychological tests.
Receptivity to reconciliation projects in Northern Ireland
F BLOOMER, Central Community Relations Unit, Belfast
This paper reports research with the aim of assessing the impact upon participants of reconciliation projects in Northern Ireland. The key methodological feature of the research is the use of ISA in assessing this impact. Participants (n=366) from four projects currently operating throughout Northern Ireland completed Identity Instruments before and after participation, a total time-span of six months. A control group (n=341) of matched individuals completed similar identity instruments over the same period of time. Initial results show a clear demarcation between those who are receptive to reconciliation and those who are unresponsive/resistant. Amongst other encouraging findings, the ‘receptive’ group are shown to display increasingly favourable identities over time with the community groupings ‘protestant’ and ‘catholic’. These results provide a significant contribution to theoretical understanding in the area of conflict resolution and reconciliation work, as well as to Community Relations policy and practice in Northern Ireland.

Pharmacology of the McCollough Effect: Implications for modelling W BYTH, D MAHONAN, & DJ KING, The Queen’s University of Belfast
The strength of the McCollough Effect (ME), a long lasting colour after-effect, has been shown to be inversely related to cholinerigic agents, being significantly strengthened by scopolamine or blocked by physostigmine delivered before adapting to the ME stimuli. Two further studies are reported which show that similar drug effects occur with post-adaptation delivery of physostigmine and the adaptation oral scopolamine is linearly dose dependent between 0.6 and 1.8 mg. Analysis of the mean data shows that the decrease the ME is forced to the requirements of an error-correcting device explanation of the effect. That is, the best fit for the decay component is a linear function with the assumption that decay is triggered by the first test and continues to a hypothetical zero below the perceptible threshold. The significance of these findings for the computational modelling of the ME is considered.

Scientific and professional activity in occupational psychology
C BROThERTON, Heriot-Watt University
The paper discusses professional and learned bodies for not having debated what it means to be professional and learned at the end of the 20th century. The paper seeks to examine the standing of Occupational Psychology as we approach statutory registration. Further it seeks to locate Occupational Psychology within a broader debate about the nature of professional activity and the role of science. Next, the paper asks whether scientific and professional activity in occupational psychology can be brought in to greater harmony and come to have higher status through engagement in the Occupational Standards Exercises. Finally, the paper explores whether there might be lessons to be learned from other areas of our discipline as we face new challenges and opportunities.

Anxiety and stress in education professionals in relation to OFSTED
VH BRUNSDEN, MNO DAVIES & ME SHELVIN, Nottingham Trent University
In this study we examine the effects of an OFSTED inspection on an East Midlands primary school. OFSTED inspections have previously been criticised for engendering psychological disturbance such as professional uncertainty, anxiety and demoralisation. Further, teaching is recognised as a career that carries a high rate of anxiety continuing for many well after the inspection was over.

The strategic use of imprecise language
P BULL, University of York
Equivocation has been defined as the intentional use of imprecise language. According to current theory, people typically equivocate when placed in an avoidance-avoidance conflict where all the possible responses to a question have potentially negative consequences, but nevertheless a response is still expected. However, no underlying theoretical explanation is presented for what it is that people are seeking to avoid. Furthermore, equivocation is presented as an essentially negative phenomenon, a means of not giving replies to awkward questions. In this paper, it is argued that in the context of political interviews, it is ‘threats to face’ which create avoidance-avoidance conflicts. In addition, it is proposed that equivocation theory can be substantially elaborated by the application of greater consideration to the interactive consequences and strategic advantages of different forms of imprecise language.

Processing of emotional stimuli after traumatic brain injury
CG BURNS, MC OBONSAWIN, University of Strathclyde & LL KRAGT, Rehab Scotland
We conducted a pilot study to investigate the cognitive and physical losses of the personality and emotional functioning resulting from closed head injury (CHI). These changes resemble those occurring after focal injury to the frontal lobes. Blumer and Benson (1975) described two personality syndromes associated with frontal lobe injury: pseudodepression and pseudopsychopathy. To investigate the effects of the processing of emotional material, we recorded event-related potentials from individuals with and without CHI during a lexical decision task with neutral, positive, negative, near-neutral, and non-words. Similar tasks have been used previously to study individuals with developmental psychopathy. The most pronounced difference between the two groups was in the early component (P100). Individuals with CHI showed lower P100 amplitude to emotional (both positive and negative), but not neutral words. These results indicate that CHI selectively alters the early processing of emotional material.

Physical exercise and the life of the body
GUSBY & J KREMER, The Queen’s University of Belfast
The paper reports on a series of studies which have considered the role which physical...
exercise plays in the life of life prisoners, and the relationship between exercise and well-being within this population. Two studies are described comparing mood state and personality characteristics of those characterised as trainers and non-trainers in a long-term prison unit in Northern Ireland. While trainers were found to have consistently higher mood state profiles, personality differences between the two groups generally were conspicuous by their absence. Using a Q-method, data from these studies were then brought together with information derived from lengthy face-to-face interviews so as to highlight the often positive role which exercise is able to play in the life of the lifer.

The relationship between clinical tests for apraxia and kinematics of movement
J BUTLER, Oxford Brookes University Participants: Two groups of left hemisphere damaged people (17 identified as apraxic, 13 as non-apraxic) are compared to a normal control group (n=11). Procedure: Kinematic analysis of movement during a drinking task is completed using the left (ipsilateral) limb to exclude hemiparetic effects in the brain-damaged participants. Results: Temporal elements of motor output are found to be dissociated from clinical test scores used for diagnosis of the apraxic condition. A test for visual agnosia is, however, found to predict pre-task time. Normal kinematic profiles (velocity, acceleration, trajectory) are found in some apraxic patients. Conclusion: Success on a test of different compensatory strategies employed by people with apraxia might account for the dissociation between observed errors in action and movement kinematics. The high association between the agnosia test and temporal aspects of movement could be accounted for by intact vision-action routes.

Understanding offending behaviour through the accounts of men and women on probation
CF BYRNE & K TREW, The Queen's University of Belfast A wide range of factors have been found to influence offending. Despite increasing theoretical sophistication, however, we only have limited understanding of how these influences operate in the lives of offenders. This study aims to examine offenders' accounts to see how different influences are experienced and perceived by men and women involved in offending. Participants are nine men and nine women aged between 19 and 50. In-depth interviews dealt with participants' life histories and offences. Grounded theory analysis of these interviews reveals complications and diverse experiences of offending. Participants report a variety of pathways into offending and make different explanations and feelings about their offending (usually involving subtle combinations of different concepts that change over time). Gender differences are found in relation to motivations for offending and in shame and stigma from offending. Findings are discussed in relation to their implications for existing theories and understandings influences on offending can interact in offenders' lives.

Diversity and division: Psychology and society
E CAIRNS, University of Ulster A former Secretary General of the United Nations noted, the ending of the cold war did not lead to world peace, instead the world is now threatened by intergroup conflicts based on ethnic, cultural, social, and linguistic strifes. As the world struggles with this new threat, psychology it can be argued has a crucial role to play. Amongst the reasons for this belief is that psychological research is targeted at predicting new conflicts, managing existing conflicts and ending the cycles of revenge which appears to underlie many of these conflicts. This paper reviews the contribution made by psychologists in Northern Ireland over the last 30 years in this area as well as examining examples of best practice in relation to the South African conflict and that in the Middle East.

Psychological and motivational factors associated with physical activity
P CAMPBELL, D MACAULEY, E McCRUM & A EVANS, The Queen's University, Belfast Motivating factors for exercise and physical activity were recorded by participants (n=1020) in the Northern Ireland Health and Activity Survey (1994). Different factors may motivate people of different ages, but few studies have investigated this dimension of behaviour. In this study there was little difference in the perceived importance of exercise between younger and older adults but more younger adults (81% versus 61%) felt it important to have fun and that exercise can help them to do this (p<0.0001). ‘To feel in good shape physically’ was the strongest motivator across all age groups (23% versus 17%)(p<0.0001) older adults believed that exercise could help them achieve this (71% versus 89%). On a hierarchical scale, older adults rated ‘to feel independent’ higher than younger adults (fifth versus twelfth out of thirteen). These results have important implications for programmes designed to increase physical activity in different age groups.

Seeing speech: seeing speech in unexpected places
R CAMPBELL, University College London Speechreading (also called lipreading) is an interesting area of research. It is used by hearing people as well as by the deaf and hearing impaired. In this paper I demonstrate some of the ways in which people with normal hearing are susceptible to the use of some of the visual processing systems that might be needed to support this ability. I also show how these visual systems might be localised in specific networks in the brain, in deaf and in hearing people. The point of this is to try to understand where and in which areas the ‘reading of faces’ involves particular, modality-independent but domain specific systems. It also shows us how seen speech might be considered in understanding the cognitive processes used by deaf people to understand language, including sign languages.

Self-categorisation, coping and health among unemployed mid-career executives
T CASSIDY & S FEAGAN, Coventry University The role of categorisation as ‘unemployed’ in coping with unemployment was investigated in a sample of 148 mid-career unemployed male executives. Coping was considered in terms of psychological distress, locus of control, problem-solving style, and perceived social support. Individuals who self-categorised as ‘unemployed’ exhibited greater psychological distress. Self-categorisation effects on social support, locus of control and problem solving were mediated by previous experience of unemployment.

Hair colour and stereotyping of females as a function of sex and sex-type
T CASSIDY & G HARRIS, Coventry University A participant pool of 120 (60 males and 60 females) rated four stimulus photographs of a female model wearing either a brown, red, natural blonde or platinum blonde coloured wig on the dimensions of intelligence, shyness, aggressiveness, temperament and popularity. Ratings were obtained from the sex and sex-type of participants. The platinum blonde model was rated significantly less intelligent, the brown more shy, and the natural blonde model significantly more popular.

Sex by sex-type interactions were found on ratings of aggressiveness and temperament. The findings are discussed in the context of stereotypes and attribution theory.

Identity, cognitive style and health in a student population
T CASSIDY & A HOLLAND, Coventry University The relationship between students’ levels of self-categorisation or identity, their problem-solving style, perceived social support, psychological distress and self-reported illness was investigated in a sample of 269 students. A hierarchical regression equation modelling shows that problem-solving style, perceived social support, and strength of identity are the best predictors of both distress and illness, while sex, sex-type, age and year of study also account for small, but significant percentages of the variance.

Beliefs about harm and safety in spider phobics and non-phobics
K CAVANAGH & G DAVEY, University of Sussex Recent research has indicated that phobic responding is maintained by expectations and beliefs about aversive or traumatic outcomes associated with the phobic stimulus. The present research builds on this work and explores the beliefs about harm and safety generated by spider phobic and non-phobic individuals in relation to a range of phobic, fear relevant and fear irrelevant stimuli. Using a cue generation procedure spider phobics generated more reasons why spiders might be harmful and fewer why they might be safe than non-phobics. Conversely spider phobics were able to generate more reasons why kittens and rabbits might be safe and fewer reasons why they might be harmful than non-phobics. The implications of this differential accessibility effect in terms of future research into the cognitive biases which might underlie fears and phobias are discussed.

The effects of caffeine and practice on embedded figures task performance
P CAVENDISH & M MAGUIRE, University of Luton Caffeine, a central adrenergic stimulant, has previously been shown to impair performance on the Embedded Figures Task (EFT) when the task is performed and to facilitate it by practice in male participants. This study attempted to replicate these findings and extend them to females. Eighteen males and twenty-one females were tested on the EFT twice in one of the following sequences: caffeine-placebo; placebo-caffeine; and placebo-placebo. Males performed significantly better than females on first trial in the placebo conditions. There were no sex differences on trial 2 in any condition. Caffeine significantly impaired first trial performance for both sexes. In contrast to previous findings, second trial performance was significantly greater (p<0.05) when placebo was administered, and this improvement was significantly greater for females. This may reflect a genuine sex difference, with females showing a greater improvement from practice alone.

Representations of violent young women
S CHAPPELL, Open University, Milton Keynes This study draws on the findings of a recent Demos study (Wilkinson & Mulgan, 1995) which indicated that young women are more accepting of violence. Recent media accounts of young women who are violent appear to confirm these findings. The methodology used to investigate how people formulate their ideas about what violent women are like and the type of explanations offered to explain why certain women ‘turn to violence’. The Q study yielded five factors describing violent women. Four of the descriptions...
were based on young women that participants had known personally. Just one was based on a fictive character – this was the only portrayal that had the stereotypical characteristics of the typical media representation. This paper describes all five different descriptions of violent young women and the disjunction between the media stereotype and portrayals of ‘ordinary’ violent young women.

Working memory impairment in clinical depression
G CHRISTOPHER, J MACDONALD, University of Portsmouth
This paper investigated the relationship between clinical depression and working memory. It tests the view that short-term memory impairment only occurs during the performance of demanding tasks requiring central executive involvement (Chase & Baker, 1993). Previous research has shown that impairment in a depressed sample is restricted to tasks requiring conscious attentional control. Tasks requiring automatic processing appear to be unaffected. However, in addition to central executive impairment, this study produced strong evidence of impairment in both the phonological loop and visuo-spatial sketch pad. A dual-task paradigm was utilised to manipulate the degree of central executive involvement within a number of working memory tasks, including word length, visual recognition and verbal reasoning. Three groups were used: a clinically depressed group, a group of anxiety patients, and a non-clinical non-depressed group. Results are discussed in the light of previous research, the relevance of allocational model of attention, and clinical symptoms.

Eating disorders, calorie restriction and body composition among adolescent dancers and hockey players
IM COCKERILL & CL JARVIS, University of Birmingham
Research on eating disorders among athletes has focused principally upon young adults, whereas there has been limited research on adolescent athletes. Three areas associated with eating behaviours were studied in 20 female dancers (FD) and 20 female hockey players (FH), and 18 male hockey players (MH). Nutritional intake was determined from a four-day food diary, body composition from skinfold measures, and Eating Disorders Inventory scores. Higher body mass and lower body fat were associated with disordered eating. The results indicate that, in general, each group of participants, including athletes, is at risk for developing an eating disorder.

Do my parents care about me?
M CONACHY & K TREW, The Queen’s University of Belfast
To this end, we employed the Parental Attachment Questionnaire (PAQW; Kenny, 1987) which is a 55-item self-report measure adapting the conceptualisation of attachment from Bowlby (1980), Biehl, Waters & Wall (1978) and Bowlby (1969, 1973, 1980, 1988). It was designed to appraise adolescents and young adults’ sense of security of attachment. Results indicate that adolescents exhibit similar patterns of attachment, however, the young offender population did not score as high on the scales as did the non-offender population. Furthermore, results revealed that, for young offenders, lack of attachment and antisocial behaviour appear to be intricately linked.

A new approach to exploratory factor analysis
C COOPER, The Queen’s University, Belfast
The literature shows that the two most problematical issues in exploratory factor analysis are the identification of the optimal number of factors to be extracted, and the development of algorithms to rotate these factors towards simple structure. We suggest a new approach that overcomes both of these difficulties by avoiding any text for the number of factors, or a rotation algorithm. When the number of variables is modest (less than 14), it is shown that it is computationally feasible to generate and test the fit of each of every possible simple-structure model that could be used to fit the data, using standard techniques of confirmatory factor analysis. Standard goodness-of-fit tests may then be used to determine which model best fits the data. We present the results of applying this technique to a number of standard data-sets, and indicate how the technique is being developed to accommodate larger numbers of variables.

What can be learnt from factor analysing the Everyday Memory Questionnaire?
IM CORNISH, University of Ulster at Coleraine
The study of memory in real-life situations is characterised by a fragmentation into many discrete topics, leading to claims that studying everyday memory phenomena can never elucidate general, underlying principles. However, inventories of everyday memory experiences may help identify just these principles. In the past, their use has been hampered by methodological problems and unclear or contradictory factor structures. The present study administers the Sanders/Cooper Everyday Memory Questionnaire, for which little factor information has been published, to 277 undergraduate students, and subjected the data to a simple exploratory factor analysis. Five factors emerged: events and plans, ongoing tasks, conversation, spatial memory, routine activities. Although these partly reflect the nature of test items, they also suggest that the everyday memory processes or structures rather than simply describe similarities among test items.

In what role … social influence and mathematical models
JC COULTAS, University of Sussex
Does a theoretical model of cultural evolution make more accurate predictions about social influence than models from psychology? This question is addressed using data from an experiment where 476 participants in a series of clinical psychology experiments are required to sign and date a consent form, and then another form at the end of the experiment on which there are other signatures and dates. The most common time gap is numerically (90%). On the second form (which has space for 10 signatures and dates) the proportion of dates dated signed numerically (14+56) or analogically (14th May 1996). Both the proportion and group size are manipulated. For each subject the proportion of dates written analogically, the number of signatures on each form (prox. size), and whether the subjects change the way that they write the date are recorded. The utility of mathematical models is discussed.

Working memory and individual difference in intellectual ability
C COOPER, The Queen’s University, Belfast
This study explored the self-perceptions of two groups of students, aged 11-16, with moderate learning difficulties (MLDs). One group attended MLD secondary schools (n=59) and those in the other group attended mainstream secondary schools in which they received special educational support (n=57). A comparison of a mainstream secondary school students without MLDs was also assessed (n=72). The students self-perceptions on ten domains were measured, both academic and non-academic. It was found that school placement had a significant effect on the self-concept of MLD students. Most interestingly, MLD students attending mainstream schools were found to have significantly lower self-perceptions of their General Intellectual Ability compared to students attending MLD schools and students without MLDs. The implications of the findings are discussed in terms of the current integration policies for children with moderate learning difficulties.

School placement and self-concept in students with moderate learning difficulties
J CRABTREE & C MEREDITH, Buckinghamshire Chilterns University College
Three studies are reported that explored the effects of, and processes underlying, crossed categorisation under different antecedent contextual conditions. Study 1 investigated whether active vs passive categorisation could result in different patterns across crossed category subgroups. Results suggest a dissociation between subgroups and the categorisation processes or structures rather than simply describe similarities among test items.

The moderating effect of context on differential evaluation of crossed category groups: Towards an intervention strategy
R CRISP & M HEWSTONE, University of Cardiff
Three studies are reported that explored the effects of, and processes underlying, crossed categorisation under different antecedent contextual conditions. Study 1 investigated whether active vs passive categorisation could result in different patterns across crossed category subgroups. Results suggest a dissociation between subgroups and the categorisation processes or structures rather than simply describe similarities among test items.

Jewish gay men’s experiences of balancing cultural, religious and sexual identity
A COYLE & D RALAFIN, University of Surrey
Holding Jewish and gay identity components simultaneously could be hypothesised to result in identity conflict between these two components due to ideological incompatibility. This paper reports findings from a study of 21 Jewish gay men who were interviewed about their group context relationships of Jewish and gay identity, the ways in which these identity components and the implications of holding a potentially conflicting identity. Data were interpreted using phenomenological analysis, informed by identity process theory. Most participants reported experiences of conflict, which were said to have impacted upon their psychological well-being and relationships with others within Jewish and gay communities. This conflict was reportedly managed through intrapsychic, interpersonal and intergroup strategies. The analysis indicates that the interaction between Jewish and gay identity components is ongoing, non-linear and mediated by factors arising from the familial, cultural and religious contexts within which participants had been socialised and in many cases still functioned.
How to use a condom: Narratives, sexualities and moralities in safer sex health promotional literature

M CROSSLEY, Edge-Hill University College, Ormskirk

This paper presents a detailed narrative analysis of safer sex promotional literature produced for men who have sex with men (MWSWM) within two organisations: the Health Education Authority (HEA) and Terrence Higgins Trust (THT). Extending and improving initial theories of motor learning. The study involves thirty-two subjects, sixteen experienced surgeons (>50 laparoscopic procedures) and sixteen laparoscopic novices randomly assigned to perform a laparoscopic cutting task under normal, y-axis inverted, and x-y axis inverted laparoscopic conditions. Results indicate that experienced surgeons performed better than the control group under normal laparoscopic conditions (Fx=1, p<0.003). However, the laparoscopic novices performed significantly better than surgeons under the x-y axis inverted imaging condition. Inverting the laparoscopic image therefore, has a significantly detrimental effect on surgical performance (F1, 28 = 24.625, p<0.001) due to the disruption of proprioceptive autonome. The study confirms the importance of motor adaptation in the development of laparoscopic ability with theoretical support from closed loop theories of motor learning.

Experienced laparoscopic surgeons are automated to the ‘fulcrum effect’

IR CROTHERS, AG GALLACHER, M McCULURE & J MCGUIGAN, The Queen’s University of Belfast

The experiment illustrates the effect of y-axis image inversion in both experienced, and novice subjects’ performance of a laparoscopic task. The study involves thirty-two subjects, sixteen experienced surgeons (>50 laparoscopic procedures) and sixteen laparoscopic novices randomly assigned to perform a laparoscopic cutting task under normal, y-axis inverted and x-y axis inverted laparoscopic conditions. Results indicate that experienced surgeons performed better than the control group under normal laparoscopic conditions (Fx=1, p<0.003). However, the laparoscopic novices performed significantly better than surgeons under the x-y axis inverted imaging condition. Inverting the laparoscopic image therefore, has a significantly detrimental effect on surgical performance (F1, 28 = 24.625, p<0.001) due to the disruption of proprioceptive autonome. The study confirms the importance of motor adaptation in the development of laparoscopic ability with theoretical support from closed loop theories of motor learning.

Extending and improving initial professional training in educational psychology from 2001

P CURRAN, University of East London

In October 1997 a working party of the heads of local Education Psychology Services and course tutors to plan the development and implementation of 3 year training began. This poster outlines some of the issues raised and the proposals for an extended three year initial training course in applied professional educational psychology for the millennium in line with new BPS accreditation criteria.

Social perceptions of gender identity in sporting activities

S CUTTS & T FARRINGTON, University of Portsmouth

Sporting and physical activities have long been considered a male domain despite increasing female participation. Traditional beliefs suggest that athletic pursuits are the domain of ‘masculinised’ women and such attitudes have adversely affected opportunities for women in the sporting arena. Many sports are described as inappropriate for women, however, the few activities deemed appropriate often carry a derogatory label for male participants. This research, seeks to identify which sports are regarded as masculine, feminine and gender neutral in today’s society, hypothesised as more accommodating/accepting to female athletes.

A survey was designed to assess the ‘social perceptions of gender identity of athletes and issued to 184 Sports Science undergraduates. The results were similar to traditional opinions in that sports requiring physical contact, strength and aggression (ice hockey and weightlifting) were viewed as masculine for both male and females, and that sports associated with aesthetic appeal (figure skating and artistic gymnastics) were perceived as being feminine for both male and female participants.

Reading print, writing prose: The impact of children’s reading experience on their writing skills

AP DALY & C McGUINNESS, The Queen’s University of Belfast

This paper outlines the impact of children’s reading experience (or print exposure), as measured by the Book Title Recognition Test (BTRT), on compositional writing ability. Two versions of the BTRT were administered to 314 children (aged 8-11 years) from four Belfast schools. Children’s mean scores were calculated and the highest scoring 10%, i.e. those children who read a lot, and the lowest scoring 10%, i.e. those children who read very little, of each year-group were selected. A standardised test of written expression was individually administered to this subgroup of 60 children. T-tests indicate that there is a significant difference in writing ability (t=8.07, df = 1, p<0.001) between the high print exposure group and the low print exposure group. This significant difference is maintained even when the subgroups are matched for age and gender. Results therefore imply that the amount of reading children do has a considerable impact on their compositional writing ability.

Misinterpretation of bodily sensations and the maintenance of specific phobias

G DAVEY, University of Sussex

This paper presents a conceptual framework for understanding the aetiology and maintenance of specific phobias, and in particular it discusses how certain types of situational phobia (e.g. height phobia, claustrophobia, flying phobia, and water phobia) are associated with the misinterpretation of bodily sensations. It is argued that this misinterpretation of bodily sensations provides the route through which situational specific phobias are acquired and maintained, and goes some way to explaining why there is a high level of comorbidity between these phobias and panic disorder.

Variability of exercise intensity perception after brain injury

H DAWES, O SCOTT, University of East London, N ROACH, Manchester Metropolitan University & D WADE, Rivermead Rehabilitation Centre, Oxford

Although moderate intensity exercise (50-60% of heart rate maximum, HRM) has been found to bestow a positive effect following brain injury (BI), maintenance of intensity sufficient to induce a training effect has proved to be problematic. Measuring exercise intensity is necessary in order to assess individual status and develop appropriate exercise prescription. This study records five exercise intensity measures whilst ten BI and ten control participants perform an exercise intensity test condition. The BI group terminate the cycle ergometer test at lower percentages of HRM and perceived exertion levels. In addition, these measures and greater enjoyment than the control group during the test and at the point of exercise cessation. Low motivation, a known consequence of BI may intrude upon maintenance of the exercise; this should be taken into consideration when prescribing exercise.

A phenomenological approach to the assessment of quality of life among older people

M DEMPSTER & M DONNELLY, The Queen’s University of Belfast

This paper describes and discusses a study which investigates the feasibility of using a phenomenological approach to measure the quality of life (QoL) of older people. Participants were asked to identify areas of their lives which were important to them, rate their level of functioning in each of these areas, and to indicate the importance of each area. Most participants (86%) were able to complete the first two of these tasks; however, 39% (87% of participants over 75 years of age) were unable to quantify the relative importance of each area of life. Generally, the phenomenological approach to measuring QoL in older people is feasible when used with older people, especially when assessing people over 75 years of age.

Cognitive biases and the experience of anxiety

N DEREKSHAN, University of Sussex

Within the context of the new theory of trait anxiety (Eysenck, 1997) it is assumed that high trait anxious individuals show cognitive biases for internal stimuli under potentially stressful situations and highlight the importance of these biases in understanding, in part, the systematic discrepancies between the physiological, behavioural, and cognitive response systems in anxiety.

The permanence of the neurobehavioural effect of maternal diabetes on the newborn?

N DOHERTY & P HEPHER, The Queen’s University of Belfast

Maternal diabetes causes acknowledged physical insult to the offspring of such pregnancies. It is also thought as a result of the aberrant prenatal milieu that the infant of the diabetic mother may experience CNS dysfunction leading to educational and social problems. This paper examines the cognitive performance of infants of diabetic and non-diabetic mothers to determine if early indications of CNS dysfunction can be identified. The habituation abilities of foetuses at 36-38 weeks (n=39) and infants at term (n=37) and at 20 weeks (n=33) were examined. Results indicate that the infants of diabetic mothers perform more poorly than infants of non-diabetic mothers. The results suggest that early identification of CNS problems may be possible in these infants and this may enable appropriate treatment to be undertaken soon after birth.

Factors affecting dissociative experience among Northern Irish students: The impact of trauma and affect

M DORAHY, University of New England, Australia. CA LEWIS & R MILLAR, University of Ulster

In assessing the psychological impact and consequences of the ‘Troubles’ in Northern Ireland, researchers have identified ‘denial’ and ‘dissociation’ as coping strategies used in dealing with and reducing threatening stimuli. While these defence mechanisms provide an adequate means for day-to-day coping in stressful situations, the relative active processes once information has been integrated into conscious awareness. Dissociation is a defence mechanism not reliant on active processes. Rather it operates as an involuntary process.
The premenstrual syndrome in regular exercisers: A case study approach

K DUDGEON & J KREMER, The Queen’s University of Belfast

The CPD programme, organised at QUB on an annual basis, has chiefly addressed the first responsibility. The proposed QUB doctorate will be a radical change for its tutors and participants more than 90% of the educational psychologists had been squeezed out.

Unfortunately, the external or internal nature of the redefining duality task and of long-term consequence to the retiring individual. The results have implications for retirement policy, theory and further research. The premenstrual syndrome approach

"Psychological reflex" to extremely aversive stimuli to reduce the integration of emotional-laden material with conscious experience. Once an individual uses dissociation to cope with trauma they begin to rely on dissociative functioning as a way of dealing with less stressful stimuli. This is believed to be a necessary but not sufficient condition for the development of trauma-related disorders including PTSD and the dissociative disorders. Dissociation has yet to be examined in a number of settings as an outcome of childhood trauma, as well as affective by-products of trauma, such as guilt and anger, suggest that dissociation is a dominant coping strategy employed to combat the effects of the ‘Troubles’.

The limits of recategorisation: Differentiation and a dual identity

The Common In-group Identity Model proposes that strategies that facilitate recategorisation of out-group members within a common, superordinate identity will reduce bias by redirecting the forces of in-group favoritism to improve attitudes toward these individuals. The present research, however, indicates that recategorisation strategies that threaten group identities will not reduce bias and may increase bias. Nevertheless, the development of a common in-group identity does not require people to forsake their separate group identities entirely. Moreover, increasing the salience of a dual identity, in which both the superordinate identity and separate group identities are salient, can increase the generalisability of the benefits of contact for attitudes toward the out-group in general.

Retirement as an identity transition

J DOYLE, University of Ulster

The research explores the process of identity transition during retirement. ISA (Identity Structure Analysis) is used for this purpose. The investigation incorporates a cross-sectional design which examines the extent of perceived identity development over time. In total, 117 individuals participated in the study: employed males (n=30) and females (n=15); and retired males (n=41) and females. The identity structures of employed and retired males and females were analysed using the IKE (Identity Exploration) computer software, in order to determine the possible extent of perceived identity development and evidence during the pre-and post-retirement period. According to the respondents’ perceived identity transition, findings suggest the perception of identity is perceived as a transitional process of psychosocial adjustment, rather than as a discrete event. Furthermore, the internal or external nature of the redefining duality task and of long-term consequence to the retiring individual. The results have implications for retirement policy, theory and further research.
Northern Irish attitudes to war and peace before and after the paramilitary ceasefires

FERGUSON, Liverpool Hope University College & F MCLERNON, University of Ulster

This study compares the attitudes of young people in Northern Ireland to conflict and conflict resolution, before and after the 1994 ceasefire agreement. Content analysis of the responses of 117 adolescents aged 14-15 years indicated differences in their attitudes to war and peace and in their strategies to attain peace. Concepts of war as static and unchanging showed a significant difference after the ceasefire. Perceptions of peace as 'active' showed a marked swing after the ceasefire. Before the ceasefire, adolescents were reluctant to provide strategies to attain peace, but after the ceasefire, strategies were suggested with more confidence. Results also indicated that adolescents prefer an alternative to violence in the resolution of conflict. There was also an increased ambivalence about the status of Northern Ireland in terms of whether it was at war or at peace post ceasefire, indicating that many young people had not fully accepted the reality of the peace process.

Doing more than one thing at a time: Phobias might be acquired and maintained

HAGGARD, P HAGGARD, M.C.S.P.

C FORDHAM, J COCK, J COCKBURN & M.C.S.P.

P FORDHAM, John Cock, J Cockburn & P Haggard

Doing more than one thing at a time: Phobias might be acquired and maintained.

Recent work has indicated that repetitive and uncontrollable ruminations about the possible outcomes of phobic encounters is a common feature of anxiety disorders. In addition, laboratory studies have shown that anxiety towards a phobic stimulus can be enhanced by rehearsal of the possible outcomes of encountering that stimulus. However, there is little known about the importance of the content of these cognitions. This study compares three types of cognitive rehearsal thinking about the phobia stimulus itself, thinking about the outcomes associated with interacting with the phobic stimulus, and thinking about a neutral stimulus. The results demonstrate that cognitive rehearsal of the outcomes of a phobia-related encounter significantly enhances anxiety compared to rehearsal of the stimulus itself or a different neutral stimulus. This finding was true of both phobias. These findings suggest that the rehearsal of interactions with a potentially threatening stimulus act to enhance fear. This result is discussed with respect to how phobias might be acquired and maintained.

The role of cognitive rehearsal in the maintenance of phobias

A FIELD, Royal Holloway

Recent work has indicated that repetitive and uncontrollable ruminations about the possible outcomes of phobic encounters is a common feature of anxiety disorders. In addition, laboratory studies have shown that anxiety towards a phobic stimulus can be enhanced by rehearsal of the possible outcomes of encountering that stimulus. However, there is little known about the importance of the content of these cognitions. This study compares three types of cognitive rehearsal thinking about the phobia stimulus itself, thinking about the outcomes associated with interacting with the phobic stimulus, and thinking about a neutral stimulus. The results demonstrate that cognitive rehearsal of the outcomes of a phobia-related encounter significantly enhances anxiety compared to rehearsal of the stimulus itself or a different neutral stimulus. This finding was true of both phobias. These findings suggest that the rehearsal of interactions with a potentially threatening stimulus act to enhance fear. This result is discussed with respect to how phobias might be acquired and maintained.

Clinical psychology and health care

P FRANKISH, Northern Tees General Hospital

The Occupational Standards Project allowed for a detailed exploration of Applied Psychology and highlighted particularly the type of activities that are common across the fields. This paper deals specifically with the Health care aspects of applied psychology. Clinical Psychology has been in existence a long time, a fact which probably reflects on the psychoanalytic and mental health foundation of the Society and the overall development of the profession. As the NHS and Health care system has become more complex a wider range of areas of activity has developed. Clinical Psychology seems to have a very broad base but is in danger of becoming limited to Mental Health, with Health and Counselling taking on a role in physical illness and life transition work.

Predictors of outcome in CBT for psychosis

D FREEMAN, Institute of Psychiatry, London & A SOULET, UMDS, St Thomas' Hospital, London & D FOWLER, University of East Anglia

There is growing evidence of the effectiveness of cognitive-behaviour therapy (CBT) for psychosis. This paper presents a comprehensive investigation of factors which predict therapy outcome, from data collected in the London-East Anglia Randomised Control Trial of CBT for Psychosis. Such investigation is potentially useful for its theoretical and therapeutic relevance. Changes were assessed on the BPRS, and the relationship between potential predictors and outcome was investigated using analysis of variance and covariance. A number of baseline variables are identified as predictors of good outcome specifically for participants who received CBT. Of particular interest, about 50% of participants who made substantial delusional idiosyncrasy flexible thinking and a reduction in delusional thinking. Further, there are indications that individuals with cognitive flexibility may require additional ‘booster’ therapy sessions.

Alcohol and young people in an island community

A GAGGS, Castel Hospital, Guernsey & J CAMERON, University of New York

Guernsey has a population of just under 60,000, of whom approximately 5000 are young adults in the age range 18-25. Since the advent of the ‘offshore finance industry’ the Island has become relatively affluent and unemployment at well below 1% and many people earning up to a third more than they would in an equivalent job in the UK. One consequence of this relative affluence is the perceived ‘alcohol problem’. Because the Island
R GILLIBRAND, University of Portsmouth

The Problem Portrait Technique or PPT can be used during an interview situation to ascertain the relative degree of influence peers, family members and organisations have, for example, on the interpretation of a person’s behaviour or illness and the suitability and effectiveness of particular treatment programmes. Hailed as an important development setting the scene, however, strong parallels to be drawn between the PPT and the well established technique of Scribe processes in Visuo-Spatial Working Memory. This paper sets out to investigate both techniques and considers the relationship existing between them.

Distance judgments and the development of new categorical spatial relations

F GINCHEREAU & O KOENIG, Lyon 2 University, France

The purpose of this study is to better understand a practice effect observed in coordinate spatial relations judgment tasks requiring that subjects estimate the relative distance between two stimuli. The practice effect manifests itself by the gradual disappearance of a right hemisphere (RH) advantage during divided visual field experiments. It has been attributed to the development of new categorical representations performed by the left hemisphere (LH). With a new version of the co-ordinate judgment task with a larger range of stimulus positions, the present study reproduces the LH advantage and with practice, a LH advantage is even observed. The comparison of subjects’ performances between the coordinate task and a distance judgment task reproduces the Task X Hemisphere interaction used to argue for the existence of two spatial relations encoding subsystems. The practice effect observed is discussed in relation to the importance of different factors which may play a determinant role in the development of new categorical representations.

Avoiding obsolescence: The importance of informal learning activities for keeping up-to-date

R GLENNON, Saville & Holdsworth (UK) Ltd, NP SHEEHY & AT HALLMARK, The Queen’s University of Belfast

Becoming familiar with new developments in one’s professional field is a necessary part of continuous competent performance in the workplace. Recent work in the area of knowledge updating suggests a distinction between formalised learning activities and the more informal ‘on-the-job’ learning experiences. The present study examined the importance of the less quantifiable informal learning activities in terms of their utility in providing professionals with current and relevant knowledge and skills. Focus groups were carried out with professionally qualified engineers (n=40). This assessed the effectiveness of informal learning activity such as ‘interpersonal exchange’ and ‘on-the-job problem solving’ in helping the individual remain up-to-date. Results emphasise the perceived costs and benefits of informal learning activities for keeping abreast of developments in their occupational field. Results are interpreted in light of current theory on knowledge obsolescence. The use of focus groups in this type of organisational research is discussed.

Physical activity as pharmacotherapy for depression? What we know

R GRAHAM, R BELL & J KREMER, The Queen’s University of Belfast

The manifold benefits of an active lifestyle are well established, including those of a psychological perspective. Research attention has largely focused on the ameliorative influence of exercise on depression and anxiety. This review paper, cognisant of the relevance of social and cognitive perspectives, summarises the manner in which exercise is thought to influence mental health via mechanisms operative at a biological level. The effects of chronic activity on serotonin, noradrenaline and the hypothalamic-pituitary-adrenal axis are explored and related to existing theories on the neurobiological aetiology of depression. More specifically, the apparent parallelism shared by the putative actions of antidepressants and neurophysiological adaption to exercise are outlined. In conclusion, the conditioning provided by regular exercise appears to extend to the neuroendocrine system, perhaps constituting a novel, safe, cost-effective adjunct to traditional pharmacotherapy, worthy of continued research.

Appraisal anxiety and school inspection

C GRAY & J GARDNER, The Queen’s University of Belfast

This paper reports findings from a study which aimed to explore the relationship between school inspection and primary school children. Inspection causes anxiety among teachers (e.g. NUT, 1994; Thomas, 1996). In contrast to the considerable amount of research undertaken to examine teaching as a stressful occupation, much less is known about the effects of school inspection on teachers and teacher effectiveness. The study employed qualitative and quantitative methods to explore the views of primary and secondary school principals. This involved a postal survey (n=130) of schools supported by five in-depth interviews with selected school principals. The results suggest that most school principals in Northern Ireland consider the inspection programme to be professional and supportive. However, there was concern about the extent of anxiety induced by the process and the amount of time necessary to prepare for the inspection.

Spelling automaticity and second language acquisition among students of French

C GRAY, G MULHERN & N NEIL, The Queen’s University of Belfast

This study examined the relationship between automaticity for the spelling of commonly misspelled French words and key elements of second language learning. A co-ordinate spatial rotation task reproduces the LX Hemisphere interaction used to argue for the existence of two spatial relations encoding subsystems. The practice effect observed is discussed in relation to the importance of different factors which may play a determinant role in the development of new categorical representations.

The Hayling test in schizophrenia: Relationship to clinic outcome

K GREENWOOD, T SIGMUNDSSON & R MORRIS, Institute of Psychiatry, London

Schizophrenic people with psychomotor poverty or disorganisation syndromes have executive impairments and abnormal response monitoring. The nature of impairments and their relation to outcome is unclear. Thirty-one participants with psychomotor poverty, 29 schizophrenia, and 26 controls are investigated. Participants complete sentences with words which make sense or are meaningless. Response suppression loading is manipulated; half the sentences have high and half low probabilities of a particular response (HPR and LPR). Schizophrenic participants make more errors than controls; only disorganised participants make more errors in HPR, suggesting this group have response suppression difficulties. Both groups show response suppression difficulties. On response monitoring. Therefore, people with schizophrenia show strategy impairments but only disorganised participants show response suppression problems. The impact of impairments on outcome is discussed.

Pregnancy and employment: Biology and career

H GROSS, Loughborough University & H PATTISON, Birmingham University

Atitude to pregnancy is often studied by women with experience of working alongside pregnant women (Pattison, Gross & Cast, 1997). The effect of these attitudes within the workplace may also affect the way that women are perceived and their perceptions of working during such a time. There is some evidence to suggest that women, who remain at work during pregnancy, are perceived differently; for example, they report being excluded from decision making or inappropriate physical contact from work colleagues (Nippert-Eng, 1996). Treatment may also include being passed over for promotion. This paper reports findings from a study of women working during pregnancy to discuss the impact of workplace women feel about their work and their treatment at work, and how the response of fellow workers and the organisation contribute to these feelings. In addition, the paper explores how women feel their pregnancy may affect their plans for working beyond any maternity leave.

Investigating rhythms in behaviour of coma patients

SJ GULL, Peterborough, Cambridgeshire

A problem common to all measures of behaviour during coma is that at times high levels of stimulation fail to provoke a response, while at other times low levels of stimulation appear to excite a response from the patient. In considering, however, that there might actually be some order in these apparent random variations in coma patients’ behavioural responses to external stimuli, this paper proposes a study which investigates potential internal rhythms that may play an important part in organising coma patients’ behaviour. By carrying out assessments over a complete 24 hour sampling period, the results series of behaviour scores over time would help to provide a structure of time intervals between testing sessions, which are tailored to the patients’ internal rhythms, and which are then administered during times which are scheduled to the working patterns of medical staff.

What develops in visuo-spatial working memory development?

C HAMILTON, T HEFFERNAN, University of Northumbria & R COATES, University of Teeside

Conventional measures and modified procedures developed to reduce fatigue are used in clinical practice. These measures are employed to assess Visual Cache and Inner Scribe processes in Visuo-Spatial Working Memory (Logie, 1995). Three age groups, 6-7 years, 8-9 years and young adults, are used in order to identify developmental trends. In addition, secondary task interference with a verbal fluency task that taps generative executive processes is also employed. The results suggest that in the conventional Cache and Scribe measures and the modified Cache and Inner Scribe measures, primary task interference significantly impairs performance. These measures which presumably make demands upon executive processes, also reveal developmental changes. The fourth task, the modified Scribe measure, appears to make less demand upon generically control processes and the compelementary within executive processes at adult level. The implications of these findings for the understanding of developmental processes in Visuo-Spatial Working Memory are discussed.

The importance of visuo-spatial working memory processes in mental rotation task performance

C HAMILTON, University of Northumbria

This paper considers the importance of Visuo-
Spatial Working Memory (Logie, 1995) in the explanation of individual differences, particularly sex differences, in visuo-spatial task performance. The results indicate that there are sex differences in the performance of two visuo-spatial working memory measures, a conventional Inner Scribe measure which is assumed to draw upon visual memory and a modified version of an Inner Scribe measure which focuses more upon fine spatial processes. Both of these measures predict manual rotation task performance. In addition, developmental data suggest distinct developmental trends by female and male participants in the performance of these Scribe measures. The results demonstrate the interesting considerations of the role of VSWM executive resources and spatial processes which could contribute to variability in mental rotation task performance.

Towards a shared resource for experimental materials: The virtual psychology laboratory

N HAMMOND, R PLANT, University of York, A HOWES, Cardiff University & R OEHLMANN, Essex University

This paper describes a project, The Virtual Psychology Laboratory (VP-Lab) to assist in archiving and accessing materials and data from psychology experiments. The inclusion of digital archiving of data important for scientific purposes, but, since an increasing number of psychology studies rely on use of a virtual psychology laboratory, is potentially useful for replication of experiments and for a range of educational uses. The project addresses the issues of archiving of not only data but also stimuli and computer-based procedures for experiment control. We outline the nature of the VP-Lab archive and discuss issues in the acquisition and organisation of materials and how to embed an archive such as VP-Lab into the psychology community in such a way as to benefit both research and educational practice in psychology.

Medical decision making: Assessing risk and making decisions

C HARRIES, Department of Psychology, University College London, J S.L.T. EVANS & J DENNIS, Department of Psychology, University of Plymouth

This study used a two-pronged approach to establish the role of patient information in assessing risk and in the decision to prescribe lipid lowering drugs. We used hypothetical cases to model the influence of patient information on GPs’ risk judgements and a role of computer-based procedures for experiment control. We outline the nature of the VP-Lab archive and discuss issues in the acquisition and organisation of materials and how to embed an archive such as VP-Lab into the psychology community in such a way as to benefit both research and educational practice in psychology.

The effects of context and social interaction on mood and subjective intoxication after alcohol

C HAYNES & K CLEMENTS, University of Durham

This study examines the effects of social context and social interaction on mood and subjective intoxication after the consumption of alcohol. Sixty participants were a subset of those who were judged to be at higher risk. The factors influencing judgements of risks were different from those used in the decision to prescribe lipid lowering drugs. In some cases the GP used the information in one way to assess risk, and in another to come to a prescription decision. In comparison of intuitive risk judgements with those of a typical risk assessment tool, GPs placed more emphasis on smoking behaviour and mood than the tool did. In addition GPs were able to take into account factors such as family history of coronary heart disease and evidence of atherosclerosis, factors not included in the tool’s calculation.

Falling over their own two feet: What happens to movement co-ordination during adolescence?

D HEFFERNAN & JA THOMSON, University of Strathclyde

Rapidly growing adolescents are clumsy relative to both older and younger children: is this linked to the fact that so much growth is experienced so quickly? The present study examines 55 males at the rapid growth stage (age 12 and 13). Proximal joint performance and subjective experience following alcohol consumption varies as a function of both the social context and the presence of other people where alcohol is consumed. These responses must also be taken into account in studies that assess the effects of alcohol across different contexts.

Enrichment is not just enrichment

P HEPNER, The Queen’s University of Belfast

Concern over the welfare of animals has lead to attempts to improve their well-being often by enriching their environment. This study evaluates whether any enrichment provides global benefits to the animal or whether the benefits are specific to the type of enrichment received. Juvenile rats (25-58 days) were provided with either object enrichment (novel objects in their environment), social enrichment (increased social contact), and object enrichment in social growth groups, based on height change over the previous six months and co-ordination is examined using a reaching test. Participants’ predictions about their maximum in reach using poles of different length to position targets is compared with their actual reach. It is hypothesised that the closest match between predicted and actual reach will be seen in the low growth group. The results support the hypothesis, showing that the high growth group over-estimate their reach and lose balance more frequently than the low growth group. It is suggested that rapid growth is implicated in adolescent clumsiness.

Perceived group variability among male and female academics: Some effects of gender proportions on group life

M HIBBONONE, L CONWAY, R CRISP, University of Cardiff, A CONTARELLO, A VOCCI & G MARLETTA, University of Padua

This paper applies Kanter’s (1977) work on group variability to academic groups and examines perceived group variability, which has found an ‘outgroup homogeneity effect’ that can be reversed when the ingroup is a numerical minority. Brown and Smith (1989) reported that male and female academics both rated the female minority more homogeneous than the male majority. Their samples were, however, small and there was no information on the proportions of gender groups. Our first study, in Britain, investigated academics’ perceived group variability across university departments, which varied in their proportion of female staff; the design was 2 (gender) x 2 (type of department: male-skewed vs female-skewed) between-subjects. We showed that perceived group variability was moderated by type of department: the outgroup homogeneity effect was strongest for males in male-skewed departments, and the ingroup homogeneity effect was strongest for females in female-skewed departments. Our second, in Italy using a 2 (gender) x 4 (type of department: male-skewed vs male-skewed vs female-skewed vs balanced female-skewed) between-subjects design. We again showed that gender influenced the type of outgroup perceived group variability was moderated by the social context. Results are discussed in terms of the impact of gender, group size and status on stereotyping and intergroup relations.

Explanation of group members’ response to a threatened social identity: A longitudinal study

S HINKLE, Miami University, EA HARRICK & M DETZ-ULHLY, University of Cardiff

The governing body of a major American university decided to change the nickname associated with its sports teams since the 1930s. This constituted a significant threat to the identities of the teams’ supporters. A longitudinal study was conducted collecting data shortly after the governing body’s decision and, again, following implementation of a new nickname. Responses to the threat to identity were assessed in terms of social competition, social creativity, social mobility, and other constructs from the group and intergroup processes literature. Differences in these responses over time were examined in terms of supporters’ initial levels of involvement with the team and in terms of differences between supporters. Implications of the findings for Social Identity Theory and other theoretical traditions are discussed.

The prevalence of cognitive impairments and dementia in Parkinson’s Disease

P HOBSON & J MEARA, Glan Clwyd Hospital, Rhyl

Aims: This study aims to determine the cognitive functioning of Parkinson’s disease (PD) patients, in a prospective-cohort study of patients, drawn from an existing large community-based PD register employing the CAMCOG neuropsychological assessment which is the cognitive section of the Cambridge Examination for Mental Disorders (CAMDEX). Results: The initial baseline assessments have been completed with 126 subjects and the longitudinal follow re-assessments are underway. At baseline 44% of the cohort met DSM-IV criteria for dementia, which is higher than most previous prevalence figures for dementia in PD. Poorer performance was related to gender, social class, and age. Conclusions: At baseline, PD patients, were significantly older, had greater depressive symptomatology and had greater intellectual deficits compared to the presence of dementia. Conclusions: It is proposed to reassess subjects at a 24-month interval from baseline and the following interactions with cognitive function will be investigated: education, homogeneity effect, socio-demographic and disease specific variables.

Explaining socio-economic differentials in psychological health: Evidence from the British cohort study

S HOPE, S MATTHEWS, C POWER & S STANSFELD, Institute of Child Health, London

An association between psychological distress and social position has been demonstrated in many studies, with higher levels of distress and financial hardship varying systematically by socio-economic class. Evidence from the 1958 birth cohort suggests that the following interactions with cognitive function will be investigated: education, gender, homogeneity effect, socio-economic and disease specific variables.
Of concern: Very low birthweight toddlers’ achievement or behaviour?

EH O’HAOY, S LYTTLLE & DC WILSON, The Queen’s University of Belfast

In view of the limited information concerning very low birthweight (VLBW) children’s social, and ascribed to their academic behaviour, the present study compares the behaviours of 26 VLBW infants (mean birthweight = 972 grams; mean gestational age = 28 weeks) with those of 26 normal birthweight (NBW) infants of similar background, during Bayley mental testing at 18 months (corrected age). Each child’s testing vigour is required for positive and negative affect, sociability to the examiner, and activity level during 60 second intervals. Time on and off five specific Raye tasks is also measured via the loggger. The VLBW children have significantly lower positive affect, sociability and attention duration scores, and show higher activity level and more attention shifts. Significant correlations are found between affect scores and both gestational age and degree of acidaic at birth. How these VLBW NBW infant differences may impact on the quality of the interpersonal milieu provided for VLBW infants’ development is discussed.

When Jamie hurt his head: An investigation of the cognitive sequelae of Acquired Brain Injury (ABI)

A HUGHES, The Queen’s University of Belfast

Many young people who have sustained a head injury present with cognitive impairments affecting the attention and executive functioning systems. Cognitive deficits resulting from childhood brain injury are often associated with learning social and behavioural problems. These deficits are often subtle and difficult to ascertain using general intelligence tests. This research explores the nature of attention and executive deficits in a group of young people with acquired brain injury (ABI) using tests that reflect the fractional nature of these cognitive systems. The role of attentional inattention in investigating whether deficits are global and effect systems as a whole or localised to specific domains. Evidence from psychometric measures is presented which indicate that the attention and executive functioning systems are selectively impaired in children with ABI supporting modular models of cognitive function. Implications of cognitive deficits in attention and executive functioning in everyday life and on educational attainment are considered.

Social identity, in-group bias and domain specific self-esteem

JA HUNTER, University of Otago

This investigation extended research assessing the link between domain specific self-esteem and in-group bias. Experiment one revealed that children (mixed ethnicity) manifest an increase in that domain of self-esteem judged to be more important to the in-group following the display of a bias. A second experiment was conducted in order to rule out an alternative explanation for these findings. Thus, when cognitive (mathematics) and social (friendship) domains were manipulated as the item domain of self-esteem, the increased self-esteem was no longer evident. Children with low self-esteem less relevant to the in-group were unaffected in experimental conditions. Across both of these experiments, it is clear that children’s self-esteem and domain specific self-esteeem are affected by in-group identity.

Effects of gender and persistence of bullying on victims’ perceptions of control

S HUNTER & J BOYLE, University of Strathclyde

Studies have reported gender differences in the use of coping strategies by both adults and children in a range of situations. However, the possibility that the use of such strategies may change as a function of whether bullying is short-lived or long-term and more persistent has not as yet been addressed. This was investigated by studying 182 victims of bullying in the primary 5-6 age-range from four schools in the Glasgow city area. Results revealed significant interactions between gender and perceptions of control, and between persistence of bullying and perceptions of control. The results from this study demonstrate the importance of both gender and persistence of episodes in understanding perceptions of control. The implications for further research and for professional working with the victims of bullying in schools are discussed.

Dysfunctional attitudes, depression and anxiety: A quaternary model

P IRWINING, University of Ulster at Coleraine, S JOSEPH, University of Essex & B BUNTING, University of Ulster at Jordanstown

Despite more than a decade and a half of research, the higher order factor structure of the Dysfunctional Attitude Scale (DAS) and its relationships to depression and anxiety remain unclear. Alternative models were compared with a Quaternary model, in which the DAS factors identified by Beck et al. (1991) loaded on a single global DAS factor, depression and anxiety loaded on a second higher order factor (Negative Affectivity (NA)), and global dysfunctional attitudes were caused by two specific models were tested on a sample of 182 students who completed the DAS, the Beck Depression Inventory (BDI) and the Spielberger State Anxiety Scale (STAI-Y). Both absolute (IFI = .98), and relative (CAIC = 151.6) fit statistics supported the Quaternary model. The correlation between the global DAS factor and NA was only .41, but this was severely attenuated by range restriction. This raises the possibility that Dysfunctional Attitudes constitute a much larger construct and that the nature of psychopathologies than previously suspected.

New analysis of random number generation task

F ITAGAKI, Asia University

In this study 205 university students attempted to produce random series of 201 responses using the numbers 1 to 10 as fast as possible. A new analysis method expresses individual subjects’ response biases as the points in the three dimensional space constructed by three axes (Ts-axis), knowledge of random concept (K-axis) and tendency to produce responses that have been produced previously earlier in the sequence (Tf-axis). Both values of Ts and Tf shows significant correlation with completion time, which transformed by natural logarithm (.70 and -.56). On the other hand, values of K shows little correlation with completion time. The result of multiple regression analysis shows that 60% of the completion time is explained by Ts and Tf values.

Schizophrenia: Diagnosis, development and drugs

SD IVERSEN, University of Oxford

Schizophrenia is a disorder of perception, thought and emotion characterised by auditory hallucinations and delusions. These positive symptoms respond well to drugs which block the chemical messenger, dopamine. The long-term sufferer of these symptoms also suffer a range of negative symptoms. These symptoms are not helped by existing drugs. There is, therefore, a real need for new drugs with fewer side effects which will target both the positive and negative symptoms. It is now believed that schizophrenia may be the result of early brain damage which may progress to more pronounced degeneration of the brain.

The comparative neuropsychology of dementia: From animal model to human therapy

S IVERSON, University of Oxford

Dementia of the Alzheimer type is characterised by profound behavioural disorganisation and cognitive decline. Despite much research into the cholinergic pathways is a correlate of the disease and research in animals and man has focused on cholinergic replacement therapy as a treatment for the cognitive symptoms. Range of tests in rodents and primates which measure different aspects of memory, including the ability to respond to events, places and habits have been used to evaluate drugs, some of which are now being used in man. The cognitive decline seen in other neuropsychiatric diseases also involves memory functions, although the lesions in these diseases differs radically from those seen in AD. These conditions include Parkinson’s disease and Huntington’s disease. To have an amnesia and frontal lobe damage. In all of them patterns of disruption to forebrain memory systems and their intrinsic neurochemical components are documented. Models of these disorders using lesions or pharmacological manipulations are equally valuable for evaluating drugs with potential cognitive enhancing properties.

Identification and assessment of special educational needs: Exploring links between emotional difficulties and vulnerable identities in primary school children

J JONES, Educational Psychologist, Bury 

ISA is used to explore primary school children’s understanding of themselves and others. Idiographic analyses are considered of 20 children from the same school who were considered to have experienced emotional difficulty and a comparison group of ten children matched for sex, year group. Negative and positive affect, sociability to the examiner, and activity level on a Quaternary model, in which the DAS factors identified by Beck et al. (1991) loaded on a single global DAS factor, depression and anxiety loaded on a second higher order factor (Negative Affectivity (NA)), and global dysfunctional attitudes were caused by two specific models were tested on a sample of 182 students who completed the DAS, the Beck Depression Inventory (BDI) and the Spielberger State Anxiety Scale (STAI-Y). Both absolute (IFI = .98), and relative (CAIC = 151.6) fit statistics supported the Quaternary model. The correlation between the global DAS factor and NA was only .41, but this was severely attenuated by range restriction. This raises the possibility that Dysfunctional Attitudes constitute a much larger construct and that the nature of psychopathologies than previously suspected.

Faster automation to the ‘Fulcrum Effect’ with randomly alternating imaging viewing conditions

JA JORDAN & AG GALLAGHER, The Queen’s University of Belfast

The aim of this study is to investigate a training programme for laparoscopic surgeons to help them automate to the ‘fulcrum effect’ in laparoscopic surgery. Sixteen males and sixteen females, aged 18-34 years, were randomly assigned to one of four cognitive training conditions. These were full binocular, y-axis inverted, normal laparoscopic and randomly alternating (y-axis inverted and normal laparoscopic) imaging conditions. The subjects were requested to perform simple laparoscopic cutting tasks for 10 trials, each lasting two minutes. All 32 subjects completed two ten minute test trials under normal laparoscopic imaging conditions. The results showed that in the test trial, subjects who were trained under the randomly alternating (y-axis inverted and normal laparoscopic) imaging conditions did significantly better than the other groups.

Lung cancer and cigarette use: Cognitive factors, protection motivation, and current/past behaviour
Power and prejudice: Contextual and individual factors interacting in racial bias

M KEMMELMEIER, University of Michigan & J CAMERON, New York University

According to Social Dominance Theory, beliefs about society as hierarchically structured fuel prejudice against disadvantaged groups, e.g. racial minorities. We theorise that beliefs about the hierarchical power and social relations constitute interrelated systems in memory, and, hence, the activation of power beliefs will activate prejudices toward minorities. In our experiments, individuals high and low in Social Dominance Orientation (SDO) are subtly primed with dominance words or neutral primes. Subsequently, participants are asked to evaluate an essay that is presented either as authored by an African American or by a European American. When receiving neutral primes, there are no differences between high and low SDO nor between the African American or European American authors. However, when primed with dominance primes, SDO participants evaluate the African American authored essay more harshly than the European American authored essay, whereas low SDO individuals show a bias in the opposite direction. Our findings support the notion that beliefs about power are causally implicated in prejudice toward minorities.

Glucose administration, cognitive performance and heart rate: Effects of differing mental effort

D KENNEDY & A SCHOLEY, University of Northumbria

Glucose administration improves cognitive performance on tests of declarative verbal memory and non-nomnemonic tasks requiring high ‘mental effort’. At the same time, cognitively-demanding tasks cause increased heart rate, which may serve to deliver more glucose to the brain. This placebo-controlled, double-blind study examined the effects of glucose administration, cognitive performance and heart rate on tasks differing in mental effort. Participants rated Serial Sevens (7s) as the most mentally demanding, followed by a Verbal Fluency (VF) task, then Serial Threes (3s). Glucose consumption significantly improved performance on 7s and VF, but not 3s. Both 7s and 3s significantly increased heart rates. Participants in the glucose condition had higher heart rates during the 7s task (an effect which was opposite to our predictions). We conclude that supplemental glucose preferentially targets tasks requiring high mental effort, and (through unknown mechanisms) mobilises physiological reserves as part of a natural response to such tasks.

Pupils’ perceptions of discipline and behaviour support units

R KILPATRICK, The Queen’s University of Belfast

The findings for this paper are drawn from research which examined behaviour management in six case study schools and a range of projects which supported pupils with behavioural and/or emotional problems in Northern Ireland. A series of focus groups which explored young people’s perceptions of discipline in schools were conducted with pupils aged 12-13 and 15-16 in the six case study schools. Additionally, pupils attending support units were also interviewed. A range of views was identified with pupils consistently arguing that they should have much greater input into discipline policies in schools than currently is the case.

Comparison of two communities dealing with the cyclone risk in Madagascar

S KIPLAGAT, GM BREKKEWELL, University of Surrey & C JIGGER-ROSS, Environment Agency

The study explored the content of the social representation of the cyclone risk in two communities in Madagascar and the relationship between the social representation of the risk and place identity. A qualitative methodological approach using semi-structured interviews was employed. In both communities, three common organizing principles of the cyclone risk were identified. These were: blame attributed for the cyclone occurrence, responsibility for dealing with the cyclone risk and the catastrophic potential of the cyclone risk. The respondents in the two communities, however, differed significantly in the way they organized principles. There was also an inter-relationship between the social representation of the cyclone risk and place identity. The results highlight the need to contextualise cyclone risk perception and management.

Gender and equal opportunities in the private sector

J KREMER, The Queen’s University of Belfast

The paper describes a multi-faceted evaluation project designed to consider the response of private sector organizations in Northern Ireland to gender and equality issues. A representative sample of 82 small, medium and large companies was selected, based in the industrial sector. Analyses of existing policies and procedures, interviews with equal opportunities staff, chief executives and trade union officials, together with focus group work, reveal that the majority of these companies revealed a low level of awareness of gender issues, and most especially among small and medium-sized organisations. Legislative compliance is rare and the number of companies which had voluntarily embraced equal opportunities as a cultural value was small. The findings are contrasted with an earlier evaluation of public sector organisations in the province.

Combating workplace harassment: A tripartite approach

J KREMER & R STEELE, The Queen’s University of Belfast

Recent surveys have demonstrated the range of procedures which organisations now have in place for dealing with harassment and in particular sexual harassment, alongside the difficulties which are encountered when trying to resolve such cases formally. Drawing on experience of working with a wide range of public, private and voluntary sector organisations in the development of policies and procedures, the paper outlines a tripartite intervention model which is based on the equality legislation and formal internal procedures but which hinges on opportunities for informal advice, consultation and mediation. A number of case studies are used to illustrate the efficacy of these informal procedures and to discuss the interplay between the approaches, employment legislation relating to equality of opportunity and organisational development.

Equal opportunities training: Featuring psychology

J KREMER & R STEELE, The Queen’s University of Belfast

Drawing extensively on training programmes used as part of an undergraduate psychology curriculum and in wider contexts of employment, this paper outlines the roles that psychologists and other professionals can play in the development of equality awareness and equal opportunities curricula. Traditionally, psychology and other social science courses in the domain of the legal profession, psychological constructs such as prejudice, discrimination, stereotyping and social-cognitive processes are increasingly seen as a central part of equal opportunities training. The arguments for and against either integrated or bolt-on courses in the psychology curriculum are presented alongside the interplay between psychological and legal constructs are considered.

Fear of crime in Northern Ireland: An evaluation of crime models

P LAMOUR, University of Ulster

The first British Crime Survey (1982) findings suggested that fear of crime was irrational. Subsequent publications supported this theory, substantiated by statistics showing low probabilities of victimisation and high levels of fear of crime. Research, therefore, tended to address fear of crime separately from the issue of crime victimisation. More recent research, specifically data from the 1994 British Crime Survey, has suggested that fear of crime continues to be measured alongside crime incidence as it is not a distinct phenomenon. This paper reviews the current research regarding the validity of measuring the concept of crime, identifies the structural properties associated with the expression of fear of crime, using the Northern Ireland Crime Survey (1994), and will show how fear of crime as a concept can be measured using structural equation models.

Bi-lingual communication in Tunisia: Perceptions, attitudes and behaviour

S LAWSON & I SACHDEV, Birkbeck College, London

Bi-lingual communication has been the focus of some socio-linguistic research in Tunisia. However, little research has focused on social psychological aspects such as attitudes, self-reports and identities associated with bi-lingual communication. This research reports the findings of a research programme, comprising several studies employing different methodologies. These varied from the keeping of language diaries by students, to surveys, personal interviews, perception surveys, and attitudes, to observing actual bi-lingual behaviour in a field experimental study of casual interactions with a large number of individuals in the streets. Overall, the findings from these studies suggest that bi-lingual communication varies primarily as a function of social identity processes.

Assessing the symbolic distance effect: The role of mental imagery and systematic arithmetic processing in the mental clocks task

N LE BOUTILLIER, D WESTLEY & M COULSON, Middlesex University

Forty-six undergraduates participated in a study of the roles of imagery and arithmetic processing in two variants of a task known to induce a symbolic distance effect. Twenty-three of the participants carried out a imagery-based digit-time only version of the mental clocks task at three distance levels. The other twenty-three participants performed an equivalent arithmetic task transposed from the digit-time only task. It was hypothesised that participants confirming the use of imagery in the digit-time only task the reaction times did not conform to previous research findings based upon imagery use. However, the arithmetic processing task did show a partial symbolic distance effect. Results are discussed in the context of the incremental problem solving heuristics that employ both analogue and propositional components.
Testing the independent routes model for sex and expression decisions to faces
T LE GAL & V BRUCE, University of Stirling

Face recognition models suggest independent processing for functionally different types of information, such as social information, sex and facial speech. Interference between sex and expression information is tested both using a rating study and Garner’s selective attention procedure. Results are consistent with independent sex and expression decisions. When participants are asked to assess the masculinity of male and female angry and surprised faces they find surprised faces more feminine than angry ones. However, in a speeded response situation in the laboratory where the sex decision dominates the expression decision (Exp. 1) and of more equivalent difficulty (Exp. 2), it is possible for participants to attend selectively to either dimension without interference from the other. Qualified support is offered for independent processing routes.

The resolution of objections to the wider use of applied behavioural analysis in applied psychology
JC LEWIS, University of Ulster

Applied behavioural analysis can provide an effective approach to the whole field of applied psychology if the core skills of psychologists are considered. Furthermore, it potentially offers a high quality of provision, being firmly wedded to specification of objectives and measurement of outcomes – a track record of success in those areas where applications have been developed. However, it is currently ‘ghettoised’ to certain areas of application. The present paper reviews the obstacles to its wider use – which arise in undergraduate education curricula, dissemination of behavioural principles and techniques to professional groups, and organisational cultures – and suggests solutions. In dealing with consumers outside of psychology, we should be more open to those approaches which have been found to be effective, and applied behavioural analysis is prominent among these.

A self-categorisation theory perspective on bystander intervention
M LEVINE, G BRAZIER & C CASSIDY, Lancaster University

The present study identifies a number of limitations inherent in the traditional bystander intervention paradigm (Latane & Darley, 1970). Of particular concern is the paradigm’s failure to consider the social context of intervention beyond the physical context of the original paradigm. An approach based on self-categorisation theory (Turner et al., 1987), this study examines how categorical relations among the key interactants in an emergency situation can affect the likelihood of intervention. Subjects are presented with a video-clip depicting a violent attack and then asked to indicate whether or not they would intervene to help. In the first experiment the category membership of fellow bystanders is manipulated while in the second experiment the category membership of the bystander and victim is manipulated. Results indicate that in both experiments likelihood of intervention is influenced by category membership. The theoretical and practical implications of these findings are discussed.

The impact of peace on memories of the troubles
CA LEWIS & E CAIRNS, University of Ulster

This paper reports here uses interviews, from a quota sample of residents of two towns in Northern Ireland, to examine the salience of the IRA conflict and the identity of paramilitary leaders. The interviews were carried out both while the cease-fire was in operation for over a year (1995) and on two further occasions in 1996 when the cease-fire was temporarily suspended and some three months later when there was an explosion in one of the towns. A four survey was carried out in 1997. The results are discussed in relation to the role of social representations and social identity in constructing the past in the context of ethnic conflict.

Gender bias in the Eysenck Personality Questionnaire
CA LEWIS, University of Ulster at Magee College & S FORREST, Nottingham Trent University

This present aim was to examine gender bias in the Eysenck Personality Questionnaire Revised – Abbreviated using Structural Equation Modelling. Previous work by Francis (1993) with various forms of the Personality Questionnaire found significant gender effects on the Neuroticism sub-scale. The present study extends this work through the use of Structural Equation Modelling procedures to examine the dimensionality of the Eysenck Personality Questionnaire Revised – Abbreviated in terms of the underlying latent factors and also provides information regarding gender bias at both a latent factor and individual item level. The results are discussed and the implications of the findings in terms of the benefits of using Structural Equation Modelling instead of more traditional methods of analysing scale bias.

The British and East European Psychology Group: A review of the past, present and future
CA LEWIS, University of Ulster at Magee College, H GRAY, University of Nottingham, & R RAWLES, University College London

The Queen’s University of Belfast

During the Cold War, psychology developed in markedly different ways in Eastern and Western regions, but since the revolutions of 1989 there has been increasing contact between members of The British Psychological Society and psychologists living in the former Soviet countries. The British and East European Psychology Group was formed in 1990 as a practical support group from The British Psychological Society. This review aims to highlight the past activities and continuing development of the British and East European Psychology Group. It includes a report on the background to the Group’s formation, a summary of the work, and an overview of the major developments that have taken place since its foundation. The review also contains information about the officers of the Group, members, scientific meetings, conference reports, e-mail list server and the Group’s Newsletter. Date. Finally, future initiatives are outlined, including the development of a WWW site and future international meetings.

Expert and novice differences in the viewing of graphs
M LINDEN, N SHEEHY & J WYLIE, The Queen’s University of Belfast

This study examined differences in the viewing of graphical information for experts and novices. It was predicted that the visual search patterns of these groups would differ due to their level of expertise. The testing involved recording the eye movements (using the SMI iview camera), and verbal reports of participants whilst viewing three increasingly complex graphs (bar, line and box plot). After testing, targets were further required to sketch the graphs as a measure of recall. The analysis of eye movements showed that the fixation patterns of the novices were more random in nature. Mann Whitney tests showed two significant differences on the line graph (U=000, P=0.05) and the box plot (U=000, P=0.05). The eye fixation data offered tentative support for expert-novice differences, the qualitative data showed a more detailed and structured approach, highlighting the need for a combined qualitative and quantitative approach to this kind of research.

The effect of smoking and alcohol on the startle reaction in the human foetus
J LITTLE & P HEPPER, The Queen’s University of Belfast

Maternal smoking and alcohol consumption damages the central nervous system of the developing foetus. This study examined the startle reaction of foetuses of mothers who smoked and/or drank during pregnancy at 25 weeks of gestational age. After birth the individual’s startle reaction provides evidence of neurological dysfunction and is an indicator of brain stem functioning. Applied in utero it may provide an indication of the neural affects of maternal smoking and/or drinking. Foetuses were divided into four groups: those exposed to alcohol and cigarettes (n=40); to alcohol only (n=19); exposed to cigarettes (n=20); and foetuses of abstaining mothers (n=50). Foetuses exposed to alcohol and/or cigarettes exhibited an abnormal startle reaction, often immature in nature. Greater variability was seen in foetuses exposed to alcohol and smoking. The presence of an abnormal startle reaction suggests an effect on the functioning of the brain stem.

An effect of the viewing distance on colour appearance
AD LOGVINENKO & SJ HUTCHINSON, The Queen’s University of Belfast

Visual theories generally assume that chromatic and spatial characteristics of the external world are processed separately. Yet, a new colour illusion has been found recently that suggests that spatial characteristics of the external world therefore complete separate processing does not seem to occur. The illusion is produced when grey diamond-shapes on alternate yellow-green and pink surroundings appear yellow and blue respectively, depending on the surroundings and distance. Colour matching tests for two observers show that the saturation and sometimes change with varying angular size of the pattern and luminance of the diamonds. This illusion suggests...
a chromatic-spatial interaction. Since illusionary colours tend to lie around the tritanopic axis, it is suggested that the illusion occurs because of poor spatial resolution of the cones with peak sensitivity to short-wavelength light (S-cones). When the S-cone contrast between the diamond areas and the surroundings is zero, the S-cone excitation of the diamonds is equal to that of the strip, thus changing the perceived chromaticity of the diamonds.

The question of valid practice in educational psychology
I LUNT, Institute of Education, London
This paper examines the notion of valid practice in relation to professional psychology. This is examined through the example of educational psychologists, who argue for closer and more explicit links between theory and practice, and between researchers and practitioners, and for an awareness of the limitations of some interventions.

Business success, self concept and family support: Exploring some inter-relations
A MCKEOWN, University of Ulster
The paper explores family influences on the self-concepts and value systems of a group of 187 aspiring and existing owners of small businesses. While there are many ways in which family, and business interact and interact, the paper concentrates on two areas in particular: parental influences on the small business owners’ self-concept and value system; and family support and the extent to which it is deemed essential for business success. The study illustrates how, for some business owners, family support is essential for success, while for others, it is definitely not a requisite. Identification patterns of the latter group (who ‘would pursue their business idea without family support’) reveal dissociation from parental role models and stronger identifications with their own peer group and business role models. There are also generational differences between aspiring and existing small business owners. The paper concludes with recommendations for counsellors and small business advisors.

Cognitive mechanisms underlying perseveration in the Wisconsin Card Sorting Test (WCST)
K MANOUSKAKI & M OBONSAIN, University of Strathclyde
The Wisconsin Card Sorting Test as well as two variations differing in terms of number of correct trials per sorting category (15 versus 5) are administered to 20 individuals with closed head injury and an equal number of healthy participants. The aim of the study is to investigate the effect on perseveration of increasing or decreasing the number of correct trials reinforced (CCT) per category. The study reveals that for both the brain injured and the healthy population, perseveration is significantly lower on the WCST15, which requires the most CCT per sorting category. The results suggest that perseveration is not due to an inability to inhibit well learned responses, as is often suggested. Similarly, they contradict the prevalent idea that forming a strong ‘response set’ would increase perseveration. In fact, the results indicate that perseveration on the WCST is facilitated by a stronger response set, and perseveration decreases.

Applying the theory of planned behaviour to the employment decisions of first time mothers
G MARKS & D HOUSTON, University of Kent at Canterbury
This research examines women’s work and childcare plans following the birth of a first child. It is a part of an ESRC-funded longitudinal study that applies the Theory of Planned Behaviour to the employment decisions of 383 women. Results highlighted at the publication of this cost-benefit analysis as its theoretical basis, theory testing as a specific research method for testing the Theory of Planned Behaviour to include other variables, which previous research has suggested might be relevant. This research gives insight into the relative importance of moral norms, personal identity and beliefs about affective outcomes to this particular behavioural intention.

Dynamic analyses of incomplete longitudinal data using latent difference score structural equation models
JJ McCARDOLE & F HAMAGAMI, University of Virginia
This paper demonstrates how some well-known methods for the analysis of dynamical systems with incomplete data can be accomplished using currently available techniques in structural equation modelling (SEM). A structural equation model based on latent difference scores (LDS) is used to consider a variety of alternative longitudinal models including: (a) proportional change, (b) constant change, (c) dual change, and (d) several bivariate extensions. These LDS models clarify the formal relationships among several popular models, including auto-regressive change and cross-lagged regression models, structured latent growth and longitudinal factor analysis models, and other forms of dynamic systems models. These likelihood-based techniques also permit a direct reconstruction of dynamic patterns for a variety of incomplete patterns of data.

A longitudinal study of children’s hopes, aspirations, and fears for the future
J McCALPION, The Queen’s University of Belfast
The concept of possible selves was introduced over a decade ago and has become widely studied in adolescents and adults, however, research on children’s possible selves is relatively scarce. This longitudinal study explored young children’s hopes, aspirations, and fears for the future as well as their comprehensive understanding of the future over a one-year period. One hundred and nineteen children between the ages of 5 and 9 years were individually interviewed. Age, gender, and self-esteem differences were predicted. Results show that with age, children become more future-oriented. Boys show a more refined outlook for their future compared with girls. Children with higher self-esteem report more hopes for the future, but they did not differ from their lower-scoring peers in the number of fears reported. The child’s understanding of future is important and this study is a foundation of empirical research in an area that has remained relatively unexplored.

Priming in olfactory memory
G MCATAMNEY, T DUSOIR, University of Ulster, J ANNETT, Glasgow Caledonian University
There is a large body of data on explicit and implicit memory for verbal material, but only recently have there been systematic studies of memory for odours. Apart from Schab & Crowder (1995), these have concentrated on explicit testing, and Schab & Crowder’s attempts to demonstrate priming effects using equilocal results where unequivocal results would have been expected with visual or verbal stimuli. The four experiments reported here investigated the effect of prior exposure to an odour memory for them. Both explicit and implicit measures were used, and a condition was included in which verbal/semantic processing was suppressed. The response measures included accuracy, confidence and latency of both recognition and identification.

Overall, correct and recognition confidence were higher for those odours which had been presented previously, and recognition latency was lower. This is interpreted as evidence for a priming effect of prior exposure to an odour and as partial support for Schab & Crowder (1995).

Personality and bi-polar disorder F McCANDLESS, University of Birmingham
Bi-polar Disorder is currently diagnosed in 1% of the population with a lifetime prevalence of 1%. In contrast to the other major psychiatric illnesses, it seems to have been neglected within the psychological literature. In many of the studies that have attempted to investigate the relationship between personality and Bi-polar Disorder, methodological limitations are apparent which make interpretation of the results dubious. Limitations include small numbers of subjects and a failure to control adequately for the potential effect of the manic mood state to influence scores on self-report scales of personality. This paper reviews what is known about personality and Bi-polar Disorder, argues that there is a definite place for further study of personality factors associated with Bi-polar Disorder and suggests ways to overcome limitations of earlier studies. Future investigations should add to understanding of the aetiology of Bi-polar Disorder and clarify how personality factors influence onset, outcome and treatment compliance in Bi-polar Disorder.

Neurobehavioural functioning in the spina bifida foetus
G McCARTNEY & P HEPPER, The Queen’s University of Belfast
Spina Bifida Cystica is associated postnatally with severe neurological deficits including lower limb paralysis, some of which may be the result of in-utero damage. Lower neural functioning in the spina bifida foetus is estimated through the longitudinal and comparative assessment of the dynamic patterning of leg movements in 20 normal and 10 spina bifida foetuses using ultrasound. Foetuses are observed for 1 hour at 3-weekly intervals from 24-36 weeks and the frequency, co-ordination and patterning of leg movements assessed. Observations of leg movements in the spina bifida foetus reveals a pattern of decrease with advancing gestation dissimilar to that found for normal foetuses and a breakdown of dynamically complex behavioural patterns which may be linked to the site and type of spinal lesion. The study demonstrates that observation of leg movements could provide a means of assessing neural functioning and deterioration in the spina bifida foetus.

Community-based multi-disciplinary intervention for anxiety-related referrals to a community mental health team
J MCLAUGHLIN, M GALLAGHER & N CASSIDY, Homefirst Trust, Antrim, Northern Ireland
Due to the demand for Community Mental Health Team (CMHT) services and especially for clinical psychologists, group work is often offered as a substitute, though homogeneity, attendance, and motivation can be poor. A psychologist and an OT at a CMHT devised a typical eight-week Anxiety Management Group programme and screening interview but located at a leisure centre. Participants complete a self-report questionnaire post-treatment, and we collect information on self-esteem, worrying thoughts and effects on life. Pre- and post-group assessments cover anxiety, self-esteem, worrying thoughts and effects on life. Participants complete a self-report questionnaire post-treatment, and we collect information on GP attendances, and on anxiolytic medication prescribed before and after treatment. For the first four groups (n=25) overall mean scores change in the expected direction, discharges from the CMHT caseload are up and only one person was discharged against medical advice. Further information, based on the GP’s response, will be presented. This paper does not describe a ‘gold standard’ Anxiety Management Group intervention but rather one which should be widely replicable.

The British Psychological Society 1999 Proceedings
A MIMIC model examination of factors used in intrinsic and extrinsic motivation to quit smoking
MT MCLEAN, JC MELNAY, The Queen's University of Belfast & BP BUNTING, University of Ulster

The aim of this study was to test the hypothesis that those who are successfully quitting smoking are more intrinsically motivated while unsuccessful cessation could be attributed to extrinsic motivation. Of the 550 volunteer subjects who completed a questionnaire, 349 were smokers and 203 were ex-smokers. The Reasons For Quitting Scale used to measure these constructs showed satisfactory internal reliability. Ex-smokers were significantly more likely than smokers to endorse the intrinsic motivation dimensions of health- and weight-related reasons as a reason for quitting. No differences were found between smokers and ex-smokers for extrinsic motivation. Demographic and smoking related measures were also able to explain ways in which subjects differed in relation to these constructs.

Is antenatal umbilical artery Doppler ultrasound a useful tool to predict intelligence?
B McCONNELL, P HEPPER & J DORRAN, The Queen's University of Belfast

This paper looks at the long-term, predictive value of umbilical artery Doppler ultrasound to assess the well-being of developing foetuses. The immediate predictive value of antenatal Doppler ultrasonography for the newborn is described, but there is agreement that abnormal Dopplers are predictive of poor foetal outcomes. The long-term predictive value of Doppler has not been studied. This research examines the performance of a group of children who had abnormal umbilical waveforms at 28 weeks gestation. Evaluations of neurological and physical development in 200 children aged 11-12 were undertaken. Preliminary results indicated that children with abnormal Doppler scores are significantly lower in IQ than scores than children with normal Doppler scores. Doppler ultrasonography may well be a long-term predictive tool of intelligence.

Quality of life: The psychological challenge
H McGEE, Royal College of Surgeons in Ireland

Research endeavours on quality of life have been increasing in the past decade. The contribution of psychology to these endeavours has largely been of a psychometric nature. In contrast with the remarkable level of activity in development and assessment, theoretical development regarding quality of life has been meagre. There have been attempts to conceptualise generalised culture-specific aspects of quality of life. These and other principles underlying current conceptualisations of quality of life are outlined. The challenge for psychology is to promote understanding of the development of concepts of quality of life in a social context; the influence of culture on people's responses and satisfaction; and the relationship of quality of life to other psychological concepts. Proposals for greater involvement of psychologists in conceptual development are specified. Is a routine neurological assessment of the foetus possible?
M McGEEHAN & P HEPPER, The Queen's University of Belfast

This study explores the possibility of creating a fetal neurological exam which could be incorporated into the routine obstetric care of pregnant women. The study hypothesis is that fetal behaviour at 18-20 weeks gestational age can predict later CNS health and foetal well-being. Two groups of women are participating in this research, a low-risk group and a high-risk group. Foetuses are scanned for one hour at 18-20 weeks, 28-29 weeks and at term in the second trimester of gestation. The frequency and duration of six fetal behavioural analyses are undertaken using the Brazelton Neonatal Assessment Scale. Data indicate that the long-term performance at 18-20 weeks is associated with poorer obstetric outcome and lower scores on the Brazelton. These results suggest it may be possible to undertake a neurological assessment of the foetus.

The benefits of a new vocational rehabilitation service for people with mental ill health
S McGILLOWAY, M DONNELLY, The Queen's University of Belfast

The ACCEPT initiative – implemented in 12 European countries – provides Assessment Counselling and Coaching in Employment Placement and Training for people with mental health problems. This study focuses on 63 people who participated in structured ACCEPT training courses over 12 months. Trainees were assessed before (T1) and after training (T2) using the Lancashire Quality of Life Profile and GHQ. T2 scores examine changes in psychosocial functioning, perceived quality of life and mental health. The results indicate statistically significant improvements (p<0.05) at T2 in satisfaction with unemployment, self-esteem and purpose in life, social relationships and overall well-being. A significant reduction (p<0.05) in negative self-esteem was coupled with an increase in overall self-esteem scores at T2 is also reported. Mean GHQ scores decreased significantly after training (p<0.001). Trainees’ own views are positive. These findings highlight, among other things, the importance of measuring, and attaching subsequent significance to, the ‘therapeutic outcome’ of mainstream research and practice in this area.

Can people with schizophrenia communicate emotion? A speech analysis
S McGILLOWAY, S COOPER, E DOUGLAS-COWIE & R COWIE, The Queen’s University of Belfast

This paper describes (a) the application of speech analysis techniques to identify – in a group of volunteers – differences in the way in which ‘schizophrenic’ and non-schizophrenic speech can communicate emotion. The sample (n=112) comprises 40 mentally healthy controls and 72 in- and out-patients with schizophrenia. All groups are matched for age, gender, and for the four passages conveying anger, fear, happiness and sadness. An emotionally neutral passage is included as a comparator. The speech analysis was undertaken using a system called ASSESS. The results (one-way ANOVAs) show that a set of key ‘emotional markers’ differentiate the emotional and neutral passages in both the patient and control groups. The patients attempt to express emotion in ways similar to the controls – particularly when using ‘calm’ and ‘happy’ speech – although they are generally less able to do so. The differential expression of emotion in speech may help mental health professionals understand the symptoms and behavioural responses of their schizophrenic patients as well as providing objective information on negative symptoms and behaviours.

Implementing gender-related change in organisations
M McGINLEY & A HALLMARK, The Queen’s University of Belfast

Recent years have seen the extension of policies and procedures designed to promote greater equality between men and women at work. However, the extent to which fundamental gender imbalances have been addressed in organisations is debatable. This paper aims to encourage discussion and debate in this area. The paper presents evidence of a lack of real progress in achieving equality between the sexes and explores reasons for this. It draws on change management theory, empirical data on diversity and gender-specific literature in an attempt to explore how meaningful gender-related changes might be implemented in the workplace. The paper is presented in a facilitative manner and is of interest to practitioners and academics who are interested in acknowledging and addressing persistent inequalities between the sexes at work.

Self and observer awareness of emotions after brain injury
J McGrATH, Rivermead Rehabilitation Centre, Oxford

Two studies are reported whose aims are to use discrepancies between observer and participant ratings of emotional distress and disability as a means of investigating the presence of post-injury self-report bias. The studies focus on 67 of these participants. The findings indicate that the participants report more emotion and more emotional distress than is observed by therapists. However, some participants deny the disabling effects of their emotional observations to therapists. Such denial is associated with focal damage to the right hemisphere in the present sample, consistent with findings in previous studies.

Evaluation of personality models as predictors of undergraduate achievement
D McLROY, University of Ulster

The effectiveness of pre-university achievement indices as predictors of post-entrance performance has been questioned in recent years. This has prompted researchers to search for relevant personality measures to develop more predictive power. The present study employed measures from Trait Theory, Behavioural approaches, Social Cognitive Theory and a Test Anxiety construct to facilitate prediction of examination performance. Personality measures were examined independently and in conjunction with previous post-entrance performance. Participants were psychology students (n=117) from the University of Ulster. Results demonstrate that previous examination performance is the strongest predictor of subsequent performance. Test anxiety is the strongest predictor from the personality measures, and locus of control appears to be redundant alongside self-efficacy, but academic conscientiousness is a significant predictor of performance. An approach that combines initial post-entrance performance with key personality measures emerges as the best model for explaining examination variance.

Assessing fear of crime in older people
KJ MCKEE & C MILNER, University of Sheffield

The research literature on fear of crime in older people indicates areas of consensus in results, but also the widespread use of questionable methods. The present study investigates the potential of a new method for assessing fear of crime. Sixty community-resident older people were given a questionnaire-based interview. The questionnaire contained items on media engagement, crime prevalence, and fear of crime. This latter variable was assessed through the use of a new technique which provides a quantification of worrysome thoughts. Results indicate that participants over-estimate the occurrence of crime. The mean number of catastrophising steps the participants’ articulate is 4.53 (SD=2.87) for property crime, and 2.07 (SD=1.71) for personal crime. The catastrophising measures are not associated with affect nor perceptions of general safety, but there are questions concerning the technique’s reliability and the outcome measures’
validity. The findings and potential utility of the catastrophising technique in this important area are discussed.

Activities Programme: Self-efficacy and motivation among unemployed and marginalised youth
NM MCPOLIN, The Queen's University of Belfast
This study aims to determine the effects of an innovative youth activities programme on career development, self-efficacy and achievement motivation, among unemployed youth. The design for the study is between subjects cohort, with two groups, each derived from an area of chronically high unemployment. The samples comprise ex-participants of a Youth Activities Programme and people who are in the pre-participant phase (one of the novel aspects of the programme). Sixty-three young people (30 ex-participants and 33 pre-participants) completed the Career Decision-Making Self-Efficacy (CDMSE scale), an Achievement Motivation scale and undertook semi-structured interviews. Seventeen located issues surrounding these research techniques are discussed.

Suicide: Problems and progress
M McRORIE & AG GALLAGHER, The Queen's University of Belfast
Suicide poses one of the major challenges facing health care services today, showing increased tendency in many developed countries. There is much information on the characteristics of those who make attempts, yet the pre-emption of completed suicide by traditional prediction methods is limited. This paper aims to address the problems encountered in suicide research, stressing the need for a prospective multi-torial approach which addresses major diverse factors in an integrated manner. Each death is preceded by a set of circumstances which are both common and unique, and therefore best understood as a complex interaction between diverse factors, some precipitating risk and others acting preventively and protective. Suicide may reduce the risk of suicide are discussed. However these factors are under-researched; future directions needing to be taken are those circumstances in which the presence of considerable risk act preventively without altering the risk factors themselves.

The susceptibility of developing eating disorders in female elite and recreational distance runners
MM MEADE & D SCULLY, University of Ulster at Jordanstown
The purpose of this study was to investigate the susceptibility of developing eating disorders among female distance runners at varying levels of training and proficiency (Elite (n=57) and Recreational (n=78)) as compared to their non-athletic female counterparts. In an active real world. In an attempt to develop a more diverse sample, which better reflects the diversity of the population at large, respondents may be sampled from different subgroups, taken from the population. This introduces additional problems when the data analysis is undertaken. Combining the sub-groups may obscure the existence of potentially important moderator variables, analysing the groups separately will result in less accurate parameter estimates, and larger standard errors. This paper demonstrates how the use of a multiple groups structural equation modelling approach allows the researcher to get the best of both worlds – combining groups and using the larger sample size to calculate parameter estimates where possible, and comparing parameter estimates between groups where statistical differences exist between the groups. Additionally, the influence of potential confounding variables can be removed. The technique of using SEM as a ‘gadget’ to be kept in the psychologist’s toolbox.

American employee attitudes in the 1990s: Changing attitudes for changing times
R MILLER & J CANGEMI, Western Kentucky University
In the 1990s North American workers experienced a changing workplace with many facilities flattening and de-centralising their organisations. Salaried ranks were thinned and job scope expanded for all employees. The present study examined the reactions of 9,495 employees from 45 manufacturing facilities between 1982 and 1998 to these changes with the use of objective survey data and additional structured interview data from 25 organisational leaders from Fortune 500 companies. Results indicated that vertical communication breakdown; poor extraction and usage of ideas; and inconsistent enforcement of policies and procedures, leading to charges of favouritism and unfairness was common to all facilities and all demographic groups. Fear of job loss and dissatisfaction with wages had increased. Additionally, reward systems had changed with compensation bundles including medical and retirement now evaluated more highly. Non-traditional rewards of training as a customer-vendor liaison programmes were highly rated.

Attaining equality in the new millennium: Changing the person, changing the workplace, changing society
G MOANE, University College Dublin
Bronfenbrenner (1979) provides a theoretical framework in which to consider the relationship between individual and social factors. This paper highlights power differentials or inequalities across environments identified by Bronfenbrenner, as well as associated psychological and interpersonal patterns and processes. These systems can prove barriers to the attainment of full potential in the workplace (Jacobs, 1995; Kremer, 1998; Wilson, 1999) as a reflection of power inequalities in society generally, as well as in the more specific context of the workplace. Attainment of equality, then, involves tackling inequality in all its forms, generally, and also addressing the psychological and interpersonal patterns which have developed as a result of inequalities. More specifically, creating more positions for women at higher levels of the hierarchy, or creating horizontal organisational structures may help address the psychological and attitudinal barriers which women face. The paper concludes with suggestions for practices at both personal and interpersonal levels which will aid in attaining equality.

Age of acquisition or cumulative frequency? Which predicts naming speed?
CM MORRISON, Cardiff University
Age of acquisition (AoA) has been shown to be a better predictor of naming speed than word frequency (Morrison & Ellis, 1995). One explanation is that the number of times a word has occurred over the lifetime – is the operative factor. In two experiments, young and old participants were trained on words which are early- and late-acquired and matched for frequency, or high- and low-frequency and matched for AoA. AoA has a highly significant impact on word and picture naming latency for participants of all ages; there is no effect of frequency. Importantly, there is no interaction between AoA and group. We conclude that AoA plays just as crucial a role in lexical retrieval for old as for young people, and that AoA effects observed in young participants are genuinely a consequence of word learning age and are not attributable to cumulative frequency.

Career choice in new nursing students: Gendered constraints as psychological barriers
O MULDOON, J REILLY & B BLACKWOOD
The Queen’s University of Belfast
This study explores psychosocial influences on the career aspirations of nurse students commencing their nurse education. A group of student nurses, undertaking a three year diploma in nursing, completed a questionnaire which was distributed early in their first year of a common foundation nursing programme. Participants indicated aspirations for their nursing career, as well as their gender role orientation, the perceived gendered nature of each career option, their occupational and academic self-efficacy and expectations of their level of job satisfaction in their future career. Descriptive results obtained document the relative popularity of each specialism within nursing and students’ perceptions of the gendered nature of each of the various nurse specialisms. Analysis of this data indicated that gender role orientation and students’ subjective perceptions of the gendered nature of each nurse specialism interacted to predict career aspirations. Occupational and academic efficacy and perceptions of job satisfaction did not appear to be a major factor in determining students’ choices during this stage of nurse education. The results are discussed in terms of the psychological barriers that exist for both men and women as they make their career decisions. The implications of the findings for nurse recruitment and turnover are also discussed in light of the current shortage of nursing personnel across the UK.

Using electronic mail in qualitative psychological research
CD MURRAY, Manchester University & J SIXSMITH, Manchester Metropolitan University
Electronic mail (e-mail) is fast becoming a ubiquitous form of global communication. An increasing number of people frequently use e-mail as a personal means of communication, as well as contributing to electronic discussion groups. This paper outlines the opportunities that such developments in computer-mediated communication provide for researchers, as well as the practical problems and issues surrounding these research techniques are elucidated and discussed.

The British Psychological Society
1999 Proceedings
Comparative personality assessment: Measurement of individual differences in chimpanzees (Pan troglodytes)

Eals & Silverman (1994) argued that sex differences in spatial ability originated in human evolution as a consequence of the division of labour. They have reported that females performed better than males in the recall of objects, and object locations in a spatial array, is superior to that of males. An alternative explanation has been provided by Grovér et al., (1997) based on the ‘selectivity hypothesis’. This argues that cognitive sex differences reflect underlying information-processing biases. There are several methodological flaws in both studies that render their interpretations problematic. In a series of experiments we attempted to systematically control several psychophysical and methodological features involved in object and positional recall. Performance in such tasks is strongly influenced by the gender of the subject, the size and shape of object items, and by the distance an object moves in the array. When such factors are controlled, observed sex differences disappear.

The role of attentional processing in long-term priming and frequency attenuation effects

B NEVERS, Universite Lumiere, Lyon 2 & R VERSACE, CNRS, Lyon, France

In the present study, we aim to demonstrate that attention is strongly implicated in long-term memory storage and to precise its contribution. Three experiments using a lexical decision tasks were conducted investigating differences in long-term priming and frequency attenuation effects. Prime is presented for 50 or 700 ms, and an independent decision about between a prime and target to limit the time during which the prime is processed. The ISI is 800, 1500, or 3000 ms. The results show that a minimum of attentional processing of the prime is required for the occurrence of long-term repetition priming and frequency attenuation effects. This dependence between the repetition effect and long-term repetition priming is interpreted as reflecting the role of attention in the integration of prime constituents.

Measurement of disexecutive syndrome in young people with schizophrenia: A case study approach

E NEWTON & T WYKES, Institute of Psychiatry, London

Adolescents with schizophrenia show similar executive functioning problems to adult patients with schizophrenia when measured using traditional tests which have little relevance to everyday functioning. This paper reports a case study investigating the performance of the prime is required for the occurrence of long-term repetition priming and frequency attenuation effects. This dependence between the repetition effect and long-term repetition priming is interpreted as reflecting the role of attention in the integration of prime constituents.

Equal opportunity: Everyone’s business

Z NADIRSHAW, Riverside Mental Health Trust

Psychologists are in positions of power and privilege. We are called upon to explain or interpret the behaviour of people to others. In the public institutions, in assessments for educational work selection, opinion surveys and in clinical practice, psychologists are often in a position to be influential both with the public at large and with key decision makers in government and other institutions. It is becoming clear to trainers and students of psychology that psychology is overwhelmingly rooted and practised in western culture and western industrialised societies. There is a serious mismatch between what is available in western psychology and what is needed in psychology by multi-cultural, multi-class communities in Britain.

Difference, diversity and equality

Z NADIRSHAW, Riverside Mental Health Trust

This paper acts as a ‘wake up’ call to the profession by offering a framework of practice and training of students of psychology to address the needs of our ‘hidden’ from mainstream psychological thinking and service provision. With the present government emphasising/affording a more socially inclusive society there is a responsibility in academic institutions, that tutors/trainers prepare students and practitioners to work from that perspective. There is an emphasis on an awareness of ’difference’, diversity, gender, sexual preference, power in the psychological knowledge base is emphasised, as an important step in the development of an environment of diversity teaching. A framework which identifies the necessary competencies in the areas of teaching, research supervision is offered – with specific reference to race and culture issues.

Female advantage in object recall?: Some methodological considerations

N NEAVE, C HAMILTON & P GALLAGHER, University of Northumbria

The effect of encoding instructions on a new test of face recognition

A NICHOLAS, N HUNKIN & A MAYES, Royal Hallamshire Hospital, Sheffield

The effect of encoding instructions on memory for faces is investigated on a new test of face recognition which addresses criticisms levelled at standard face recognition tests. In Experiment 1 subjects are asked: Group 1 receives holistic encoding instructions, whilst Group 2 process the faces featurally. Feature encoding instructions are found to impair ability to distinguish between targets and recoloured foils. However there is no significant difference between featural and holistic encoding instructions in ability to distinguish between target and recoloured faces. These foils comprise faces whose component features have all been viewed at study, but in two different faces. In Experiment 2, amnesics subjects’ ability to correctly reject reordered foil faces is investigated. Performance levels are correlated with diagnosed areas of neural damage. The implications of these findings are discussed within a framework of inter- and intra-item associations, and suggestions made for further research.

Part-task training of attention management in complex tasks

K O’BRIEN, B LAWRENCE & D O’HARE, University of Otago, New Zealand

Modern systems, industries, and thus occupations are becoming more and more attentionally demanding for their operators. Identifying individual differences in attention management ability is, therefore, of interest to industries and occupations that require high performance in complex attentionally demanding tasks. The present study sought to firstly, identify high and low attention ability individuals, and secondly, assess whether attention training strategies improve the performance of low ability individuals in a complex task. The WOMBAT test (Roscoe, 1993) was used to identify high and low performers, and was found to be predictive of performance in the training task. The results of the training management strategies was found to significantly improve the performance of low attention ability individuals, as opposed to the part-task procedure, where high attention ability individuals did well regardless of the training condition. The results suggest that attention management procedures may benefit low ability performers in complex tasks.

Errors less learning and the cognitive rehabilitation of memory impaired schizophrenic patients

R O’CARROLL, University of Stirling

Work on the classification of schizophrenia has suggested that memory training is facilitated by adopting an ‘errorless learning’ approach, where subjects do not experience failure during learning. This is based on the theory that the preserved implicit memory of amnesic patients results in implicitly remembered incorrect responses interfering with target items, in the absence of a functioning explicit memory system to allow differentiation. We compared three groups of subjects, memory-impaired schizophrenic patients, memory unimpaired schizophrenic patients and healthy controls. An errorless learning approach confirmed the significance of memory impaired schizophrenic group, bringing their performance up to the level of both control groups. In contrast, adopting a traditional trial and error, or errorful approach, significantly impaired performance in the memory-impaired schizophrenic group only. We conclude that errorless learning approaches may be worthy of further evaluation in the cognitive rehabilitation of memory-impaired schizophrenic patients.

Evaluation of the quality of measurement instruments using true score and traditional MTMM models

C O’LOUGHLIN, University of Ulster at Jordanstown

All measurement instruments are contaminated with error. Identifying the sources of this error has become an important area of psychometrical research. Structural models are a popular method of estimating the quality of measurement instruments given that the variance and covariance matrices within these models can be interpreted as estimates of reliability and validity. In this paper a MTMM and a traditional MTMM model can be used to incorporate a higher-order factor is applied to data that examines attitudes toward individuals with AIDS in different scenarios (n=545). Both models have a simple structural form and contain different conditions, providing the same goodness of fit indices (X2=3.91, df=12, p=0.98, RMSEA=0).
differences occur in the interpretation of the results. It is shown that the true score reliability of the observed measures can be calculated from the results of the more parsimonious MTMM model with higher-order factor, thus avoiding the estimation problems inherent in the TSMTMM models.

The evolution of an initial training doctorate at The Queen’s University of Belfast: focusing on strengths

B O’NEILL, The Queen’s University of Belfast

The MSc in Developmental and Educational Psychology at Queen’s has several unique features - 1) an emphasis on developmental and educational psychology, which provides a theoretical and research foundation for EP practice to be built on; 2) an emphasis on the continuance of contact that is maintained with potential trainee EPs during their initial teacher training and teaching experience. How these and other positive features will be retained and developed in a three-year training course will be a challenge for the course designers. This poster argues that psychology should be the core element of experience and training, from undergraduate through to professional doctorate qualifications, discusses some of the issues that arise from that argument.

Assessing challenging behaviour of persons with severe mental disabilities

MF O’REILLY, University College Dublin

There has been a proliferation of research in recent years which has outlined assessment procedures to be used in the identification of the operant function of challenging behaviour for persons with severe mental disabilities. These procedures can be divided into two categories – functional assessment and functional analysis techniques. Functional analysis protocols provide other critical information regarding controlling variables. Functional analysis techniques involve the systematic manipulation of hypothesised variables to help researchers verify the existence of causal relationships. This paper reviews the use of these assessment procedures with people with severe mental disabilities who exhibit challenging behaviours.

Psychology and racism

K OWusu-BEMPAH, University of Leicester & D HOWLITT, Loughborough University

Psychologists sometimes approach their work with black clients in a cultural vacuum, which misguides their activities. Such misguided activities often have undesirable consequences, or at least result in a non-developing phase in which they can be black people. For example, significant theory and research is accruing to suggest that it is wrong to believe that black children experience more or greater developmental problems than white children. Nonetheless, this belief persists and is commonly taught. Consequently, interventions used to help these children are encouraged by a sort of collective folk-memory of now rather elderly and inadequate research which is still taught. Our own on-going research suggests that the general belief in black children’s identity-problems is erroneous. Agendum for a more positive psychological and training, from undergraduate through to professional doctorate qualifications, discusses some of the issues that arise from that argument.

Facilitatory emotional priming is observed only for the categorisation task, whatever the learning condition. Moreover, responses latencies are slower when words are presented in the learning phase than when they are presented alone. Results are interpreted in terms of a dual emotional coding: An inhibitory and preexist purely emotional, and a facilitatory emotional-coding.

One is better than nothing: Stereotype change after exposure to one group member

S PAULIN & M HEWSTONE, Cardiff University

Within stereotype change literature researchers highlight doubts over the efficacy of contact with a single group member. Our investigation sheds new light on this issue and lends support to different but compatible models of stereotype change. Study 1 demonstrates that participants revised their representation of accountants and of a specific accountant, after receiving information about behaviours and attitudes of a target group member. Stereotypicity and measures of group variability, but not on measures of group central tendency. Reduced stereotypicity towards a specific accountant is found only after reading about a moderately deviant target. Study 2 and 3 expand on Study 1. In Study 2 an interaction between target’s degree of deviance and amount of information given by the accountant is found on group variability. Again no change is found on group central tendency. Study 3 also manipulated participants’s valence and the intergroup distinction of the contac setting.

Dreams of Princess Diana: A test of the continuity hypothesis

JS PARKER, M HASLAM & C ALFORD, University of Sussex & Loughborough University

This study takes a sociological issue on British society and compares dreams of Diana; the Princess of Wales (n=51), with US female norms (n=500), and UK females’ dreams (n=51). The dreams are analysed using Hall & Van de Castle’s method of content analysis for dream reports. The analysis includes content categories such as friendliness, aggressiveness, social interactions, activities, and emotions; a recently developed spiritual scoring system, and thematic analysis. UK females dreams act as a control for cultural differences between US and UK dreamers. Findings support the continuity hypothesis – that dream content reflects waking attitudes towards the deceased, which are referenced to spiritual symbols, and the patterns of social interactions differs from normative US and UK definitions. The nature of the differences, their extent and in reference to the continuity hypothesis and dream norms.

Identity adjustment in newly expatriated pupils in international schools in the Netherlands

R PEARCE, University of Bath

International schools have an expatriate community with wide cultural diversity and a high degree of transience. ISA is used in this pilot study to explore the identity adjustment of two cohorts of pupils during their first year in the country. Input variables, including previous experience of expatriation and family cultural patterns, are investigated through interviews which, in turn, inform the design of individualised identity Instruments. At three intervals during the year pupils completed the instruments, and parents were subsequently interviewed. Icholidographic profiles of identity structure and development presented for three pupil groups. Results on identity adjustment, particularly in terms of the type, magnitude and dispersal of conflicts in identification and efforts towards their resolution.

Dementia: Back to the future from ancient phyto-therapies to modern pharmaceulicals

E PERRY, MRC Neurochemical Pathology Unit, Newcastle

New advances in the treatment of Alzheimer’s Disease (AD), in Western medicine, are based on recent understanding of the neurobiology of AD and development of relevant drug treatments. For example, anticholinesterases such as donepezil (Avert), increase the activity of the cholinergic system in the brain, which is involved in the loss of cognitive function. This is a synthetic chemical, based on the structure of physostigmine, which was not traditionally used to enhance memory. In contrast several plants used in European medicine in the 16th-18th centuries were valued for their ability to improve memory. These include sage and valerian. Analysis of EU Commission and other plant based treatments have demonstrated cholinergic activities, including inhibition of acetylcholinesterase, in vitro. Sage contains anti-inflammatory compounds, as well as anti-oxidant activities, which are also relevant in the treatment of dementia. It is suggested that new developments in dementia therapy may emerge by combining ethnobotanical with neuroscientific approaches.

Theory of mind and children with Attention Deficit/Hyperactivity Disorder

P PETROVSKY, University of Western Sydney, Macarthur

This paper reviews and integrates research into (i) executive functioning, specifically the role of inhibitory control and attentional regulation, and (ii) social understanding in children with Attention/ Hyperactivity Disorder with a view to understanding theory of mind development in this clinical group. It is proposed that children with a diagnosis of AD/ HD (including hyperactivity/impulsivity) experience a delay in their development of a theory of mind. To some extent executive functioning and social understanding deficits in this group parallel those found in individuals with autism. Autistic individuals have deficits in attention, socialising skills and theory of mind development. Children with AD/HD also experience socialising deficits and abnormal attentional development, as well as deficits of inhibitory control. To date, however, there has been no systematic investigation into their understanding of the mind. This paper proposes a theoretical framework based on the above within which such an inquiry is conducted.

Motivation and personality in Parkinson’s Disease


Clinicians working in Parkinson’s disease (PD) have often reported a distinctive personality profile of PD patients. They are described as being introverted, morose and anxious. This ‘Parkinsonian personality’ has been confirmed using psychometric assessments. Recent interest has entered on the relationship between PD and the Tridimensional Personality Questionnaire (TPQ). ‘Novelty seeking’ has been shown to be related to dopamine function in genetic and brain imaging studies and PD patients (who have reduced dopamine levels) score particularly low on this trait. However, PD is also associated with increased levels of anxiety, and it is possible that assessments of novelty seeking and anxiety are measuring a common phenomenon. The TPQ and anxiety scale were assessed in 60 patients with PD. No relationship between novelty seeking and apathy was found. However, apathy was related to a different trait, ‘perseverance’.

Head injury: The dose-response relationship

GE POWELL, London

Because of their behaviour and the work they do, young men are more than twice as likely to suffer a head injury as young women. They are also more likely to have suffered a previous head injury. Estimating premorbid ability can be difficult because premorbid capacity and IQ on the Wechsler Adult Intelligence Scale and IQ are affected by severity of head injury, contrary to popular belief. It is, therefore, likely that the...
effects of severe head injury upon intellect have been seriously underestimated in the past by underestimating premorbid IQ. An analysis of 802 adult head injury cases assessed on a broad range of neuropsychological tests, suggests that people can recover well if the length of post traumatic amnesia is less than a day. Deficits begin to appear when post traumatic amnesia is greater than a day, and there is a very real risk of serious long-term deficits when the PTA is more than a week.

Does head injury protect people from PTSD?

GE POWELL, London & LJ CHORLTON, University of Surrey

Yes, but only a bit, and mainly if the head injury is severe. Eight hundred and two head injury cases and a similar number of control cases were selected for a study to determine the Impact of Event Scale (IES) and a range of tests of emotional status such as the Beck Depression and Anxiety Inventories. Seventy of head injury as defined by PTA is strongly related to scores on the IES, mainly on those items reflecting specific memories of the accident (e.g. dreams and spontaneous pictures). That is to say, the milder head injury cases have more severe symptoms of PTSD. Indeed 39% of the mild head injury cases are just as symptomatic on the IES as 101 trauma cases who meet the full DSM-IV criteria for PTSD. 12% of the very severe head injury cases are also symptomatic. This bias is specific to PTSD; severity of head injury does not strongly protect individuals from any other sort of distress.

Profile of the suspected malingerer

GE POWELL, London

Suspected malingerers are relatively rare, only 4.1% of 882 head injury cases, and only 12.3% of 213 cases of pain and trauma. Malingerers is not related to sex and there is no particular personality type. People suspected of malingerer the effects of head injury often have some psychiatric history. They typically have had only a very mild or mild head injury, yet score badly on all tests and claim inability to work. Those suspected of malingerer the effects of pain and trauma also commonly claim that they cannot work at all. Malingerers in both groups tend to emphasise their objective deficits (e.g. test performance, physical difficulties) rather than claim any psychological disorder. The reality of malingerer is that they may be using a legal claim for financial reward; features such as the avoidance of work are also relevant.

Predicting return to work after head injury

GE POWELL, London

Return to work in a sample of 882 head injury medico-legal cases is examined, of whom 59.6% and 24.5% are in the moderate and severe category. At four years post injury, only 35.7% are in any sort of work (only 28.6% full-time), and a further 7.6% are trying to study or retrain. Return to work is worse in those with any psychiatric history, and in those with weakest educational achievement. The nature of the injuries is important; return to work is six times worse if the head injury is very severe, if there is any motor weakness or need for walking aids, if speech is slurred or language altered in other significant signs of mental lobe involvement. Return to work is associated with lower levels of depression and anxiety and with better adjustment.

Depression, anxiety and neuropsychological test performance

GE POWELL, London

The relationship is examined between personality, depression, anxiety, adjustment and cognitive-behavioural factors, and performance on neuropsychological tests in 802 medico-legal cases of head injury, 43.8% in the very severe category. Cognitive mental state variables and neuropsychological test variables are statistically very significant; these two types of variable have up to 10% of variance in common. The hypothesis that neuropsychological test variables are extraverted, not neurotic, not especially anxious or depressed, feel they have some internal control over their own recovery, have better self-esteem, and have a sense of self-efficacy. Scores on these personality and mental state variables affect test performance, most of all to about a half a standard deviation, which is sufficient to account for mild deficits on tests. Psychologists who do not take mental state into account, are, therefore, liable to over-diagnose mild deficits as organic.

Post-traumatic stress disorder in a student population

DG PURVES & P ERWIN, Nene University College, Northampton

This study examines the incidence of Post Traumatic Stress Disorder (PTSD) in a British student population. Seven hundred respondents completed a questionnaire which collected basic personal information, asking if the respondent had experienced a traumatic event, and completed a copy of a modified version of the Watson, Juba, Manifold, Kucala, & Anderson (1991) PTSD-I diagnostic scale. As with previous American studies, PTSD was found to be common even in the non-clinical population. Although males reported experiencing more traumatising events than females (p<.01), females reported a higher incidence of PTSD (p controlling whether the reported head injury has been exaggerated in a medico-legal case. return to work is associated with better adjustment. People suspected of malingering the effects of pain and trauma also commonly claim that they cannot work at all. Malingerers in both groups tend to emphasise their objective deficits (e.g. test performance, physical difficulties) rather than claim any psychological disorder. The reality of malingerer is that they may be using a legal claim for financial reward; features such as the avoidance of work are also relevant.

The grammar of autobiography: A developmental account

J QUIGLEY, Trinity College, Dublin

This is a developmental study of the use of English modal auxiliaries in autobiographical narratives. The modal auxiliaries (can, could, will, would, may, must, ought) are a set of grammatical functors that express a range of related concepts such as ability, permission, possibility, desire, intention and obligation. It forms part of a wider exploration of the role played by language and grammar in the construction of self and identity. The study involves the use of a copy of the Watson, Juba, Manifold, Kucala, & Anderson (1991) PTSD-I diagnostic scale. As with previous American studies, PTSD was found to be common even in the non-clinical population. Although males reported experiencing more traumatising events than females (p<.01), females reported a higher incidence of PTSD (p<.05). This finding was explained in terms of the different types of trauma that males and females are likely to experience.

Changing role of the educational psychologist – its impact on training

H RAFFERTY, The Queen’s University of Belfast

Following the Green Paper ‘Excellence for all Children: meeting special educational needs’ the DfEE has asked us to consider the role and training of educational psychologists. The recommendations of this committee will set the agenda for the future training of educational psychologists within the United Kingdom. The issues, which drive this agenda are already clear and include the following: (a) emphasis on preventive work; (b) interagency focus; (c) family work and parent training; (d) development of a specialist structure; (e) individual casework; (f) systems work; (g) coordination and consultancy work; (h) ‘high risk’ children and (i) research and development.

Stress and social support in learning disabled adults

A REA, The Queen’s University of Belfast

The study was designed to identify daily stressors and to investigate sources of social support in learning disabled adults. Eighteen individuals working in a day centre and eighteen individuals working in supported employment and a group of eighteen individuals from the general population was selected. The Harrow Inventory (Bramston, Fogarty & Cummins, 1997) and the social support aspect of the HARQ ageing questionnaire (Moss & Hogg, 1989). A qualitative interview about aspects of social support was also carried out with the learning disabled groups. Results revealed that there were no significant differences between stress levels in these two groups nor the general sample. In terms of social support, most individuals utilised staff to a large extent. Those in supported employment tended to utilise their support worker/job coach for support. Support from the workshop group tended to utilise other service users.

Orthographic repetition blindness in a case of transient dyslexia

RG REILLY, University College Dublin

This paper presents a case of time- and space-induced transient dyslexic episode experienced by a radio presenter while reading a script live on air. An analysis of the recording of the episode in conjunction with the script being read leads to a number of interesting observations. There is, for example, a distinct temporal pattern of breakdown from what can be characterised as orthographic errors through to semantic confusions. Many of the orthographic errors can be explained as a form of repetition blindness. Furthermore, the pattern of lexical error lends support to a two-stage model of lexicalisation. Implications for models of reading are discussed.

Depth perception in indirect viewing: Minimally-invasive surgery

AH REINHARDT-RUTLAND, University of Ulster

In minimally-invasive surgery (MIS), operations are performed indirectly via a camera conveying the site of operation to a TV monitor. Depth perception of the site is restricted. The present paper seeks to review depth perception research. Depth perception in MIS relies mainly on pictorial information, perhaps with enhancement of occlusion by motion, although motion information such as motion parallax is probably unimportant. Pictorial information’s effectiveness is diminished because binocular and monocular information cannot convey the flatness of the monitor screen, and by scaling difficulties: only ordinal depth is conveyed. Furthermore, pictorial information can mislead. Stereoscopic viewing systems – introducing binocular disparity – are being developed but suffer because binocular disparity conflicts with convergence and monocular information. Another approach to improving depth perception may reside in surgeons lacking binocular function; because of the redundancy in depth information such individuals learn to compensate for their lack of binocular function.

Looming as a negative reinforcer to explain behavioural adaptation in seat-belt use

AH REINHARDT-RUTLAND, University of Ulster

Seat-belt use reduces road casualties in the year or so after it comes, but the reduction is not maintained over several years, perhaps because of behavioural adaptation, driving less carefully and faster. In this paper, Fuller’s learning model of driving behaviour is applied to seat-belt use. Seating stress can be explained as a form of reinforcement – e.g. early arrival at destination – and negative reinforcement, especially collision. However, for non-belted drivers negative reinforcement can even be positive, because of looming. During the sudden braking associated with near-misses, such drivers are thrown towards the car’s interior fittings, such as the steering wheel and windscreen surrounds, which leads to rapid visual expansion because of their closeness. Looming refers to the fear responses elicited by rapid visual expansion because of their closeness. Looming is a negative reinforcer to explain behavioural adaptation in seat-belt use.

Depth perception in indirect viewing: Minimally-invasive surgery

AH REINHARDT-RUTLAND, University of Ulster

In minimally-invasive surgery (MIS), operations are performed indirectly via a camera conveying the site of operation to a TV monitor. Depth perception of the site is restricted. The present paper seeks to review depth perception research. Depth perception in MIS relies mainly on pictorial information, perhaps with enhancement of occlusion by motion, although motion information such as motion parallax is probably unimportant. Pictorial information’s effectiveness is diminished because binocular and monocular information cannot convey the flatness of the monitor screen, and by scaling difficulties: only ordinal depth is conveyed. Furthermore, pictorial information can mislead. Stereoscopic viewing systems – introducing binocular disparity – are being developed but suffer because binocular disparity conflicts with convergence and monocular information. Another approach to improving depth perception may reside in surgeons lacking binocular function; because of the redundancy in depth information such individuals learn to compensate for their lack of binocular function.

Looming as a negative reinforcer to explain behavioural adaptation in seat-belt use

AH REINHARDT-RUTLAND, University of Ulster

Seating stress can be explained as a form of reinforcement – e.g. early arrival at destination – and negative reinforcement, especially collision. However, for non-belted drivers negative reinforcement can even be positive, because of looming. During the sudden braking associated with near-misses, such drivers are thrown towards the car’s interior fittings, such as the steering wheel and windscreen surrounds, which leads to rapid visual expansion because of their closeness. Looming refers to the fear responses elicited by rapid visual expansion because of their closeness. Looming is a negative reinforcer to explain behavioural adaptation in seat-belt use.

Predicting mental health across the lifecourse in the 1946 British birth cohort study

The British Psychological Society

1999 Proceedings

135
Laparoscopic surgery is difficult to learn, as it requires counter-intuitive hand-eye motor skills, speech problems, and delayed developmental milestones. These findings in the context of different models of vulnerability, are reviewed in detail.

Subgroups and individuals: Their effect on perceived variability

Previous studies (e.g. Park, Ryan & Judd, 1992) acknowledge that thinking of subgroups increases perceived variability. A series of three studies instruct participants to generate subgroups or individuals, which are required to be typical or atypical of a selected group. A preliminary study finds that stereotypicity, mediated by typicality, is lowest when participants are generating typical individuals. Range is found to be the greatest when participants are generating atypical subgroups.

A second study has an additional ‘presented’ condition, where participants are provided with controlled information about science students. Results of the previous study are replicated for stereotypicity, but in the presented condition all effects of stereotypicity are eliminated. A third study investigates the effects of distraction on perceived variability. Non-distracted participants perceive greater variability when generating individuals than after generating subgroups. This effect is eliminated in the distracted conditions. Implications of the results for stereotype change are discussed.

Maintaining power: Constructions of femininity versus feminists

In the past decade research has identified a trend in which feminist values are given support while feminists themselves are constructed negatively. This incorporation of feminist values into the mainstream media is a case of simultaneous rejection of those associated with the movement itself and can be understood through analysing related discourses of nationalism at the cultural level. The paper argues that underlying power structures can remain despite apparent social change. While significant changes in gender relations have occurred, I argue that the ideologies that stem from feminism, as identified in interviews with 46 professional Scottish men, is such a strategy, in that it functions to minimise the impact of gender politics on the contemporary society; the historical role men have played in women’s oppression; and the related privileges men receive. Finally, it allows them to claim feminist values for themselves, enabling them to define these values, marginalising any continued feminist voice and thus further initiatives for social change.

An examination of the effect of extended practice on the Minimally Invasive Surgical Trainer Virtual Reality (MISTVR)

Laparoscopic surgery is difficult to learn, requiring counter-intuitive hand-eye motor coordination. Laparoscopy has created an obstacle to the traditional ‘hands-on’ training of conventional surgery. Due to the presentation of the operative site by means of a monitor image the trainee surgeon can no longer easily mimic the movements of the experienced surgeon. There is a need for a package which objectively assesses performance of the trainee laparoscopic surgeons. The aim of the study was to examine the effect of MISTVR — a virtual reality trainer on the performance of a simple subcutaneous task. Twelve novice laparoscopicists carried out all six of the MISTVR tasks ten times over a two-week period. When these tasks were performed on the MISTVR tasks ten times over a two-week period. When these tasks were performed a simple two minute cutting task. Their performance was compared to a control group who received no prior training. The results showed that those participants with prior training on the MISTVR made significantly more correct incisions than the control group.

Are colour categories universal? New evidence from a stone-age culture

D ROBERTSON, J DAVIDOFF, Goldsmiths College, London & I DAVIES, University of Surrey

Rosch-Heider’s colour research with a stone-age Melanesian people (the Dan of Irian Jaya) provided the empirical basis for a paradigm shift in the study of cross-cultural perception and cognition. In this study Rosch-Heider found that having only two-colour terms, Dani colour memory was much like that of English speakers. As a consequence, she developed the view that colour memory was shaped by language (the linguistic relativity hypothesis) was replaced by belief in cognitive universals determined by innate biological mechanisms (the nativist view). Our study investigated the cross-cultural perception of colour amongst the Dani. We replicated previous studies of colour categorisation (perception vs within-category discrimination) found evidence supporting linguistic relativity rather than colour universals.

Examining test performance of dyslexic children on a variety of phonological measures

L ROBINSON, J WILLIAMS, M EASTON, S FERNANDO, K RICHARDS, University of the West of England & J STEVENSON, University of Southampton

As part of a study examining the genetic susceptibility of reading disability, data from 110 children with a reading age two-and-a-half years below their chronological age have been collected. The children were tested using measures of phonological awareness, phonological decoding, phonological coding in working memory, rapid automatised naming and orthographic processing. The relationships between test performance on these measures has been examined using a principal component factor analysis. Preliminary analyses revealed an oblique four-factor solution with all the reading measures correlating significantly except non-word repetition loading highly onto the same factor. These results are not consistent with previous research. However, the mean age of the sample (13 years) is older than participants used in previous studies. Further analyses will re-examine the relationships between the performance on the measures in the younger half of the sample compared to performance in the older half.

Developments in professional doctorates in educational psychology

M ROBINSON, East London

This poster displayed the unique characteristics of the professional doctorate at UEL and highlights the modular structure of the course. The assessment process associated with the dissertation is demonstrated, and employment based relevant research examples are outlined.

Cognitive performance amongst recreational users of ‘Ecstasy’

J RODGERS & D SANDERS, Sunderland Business School

Research has indicated that ‘Ecstasy’ may cause memory impairment. Much of this research has not involved dubbing use frequently associated with Ecstasy. This is particularly significant when considering cannabis. Substantial research implicates cannabis as a source of cognitive dysfunction, particularly memory impairment. Given that cannabis is an additional drug of choice for many ecstasy users it is essential that the deleterious effects of these two drugs are identified. This investigation studied cognitive performance of a sample of cannabis users, regular Ecstasy users (n=15), regular cannabis users (n=15) and a drug-free control group (n=15). The findings of this study suggest that cannabis and Ecstasy may effect memory ability, although long-term sequelae may differ depending upon the type, frequency and dosage of drugs consumed. The findings also indicated no benefit from the pharmacological action of MDMA and THC and their respective actions as neurotransmitters and neuromodulators in the human brain.

Home education: A critical evaluation

P ROTHERMEL, Saddleworth, Lancashire

This research explored the aims and practices of home educators in the UK. A mixed methodology was employed. To collate basic information, home education questionnaires were distributed to a broad section of the home education community. Using completed questionnaires, participants for further stages of the research were randomly selected. Subsequent procedures involved interviews with 100 families, literacy appraisal of children in three age groups, and completion of the ‘Performance Indicators in Primary Schools’ measure to three age groups, and use of the ‘Children’s Assertiveness Scale’, the ‘Rutter Scale’ and ‘Goodman, Strengths and Difficulties Scale’. The research was undertaken to generate wider knowledge of the community and provide implications, if any, for education generally. Results suggest that the children demonstrated high levels of ability and good social skills. The wider implication is that children may benefit from greater parental participation in their learning process and a more flexible curriculum. Children also appear to gain from involvement in designing their own educational programme, and from the self-motivation that such responsibility brings.

Childhood behavioural problems and adult psychiatric risk

A SACKER, University College London

This paper is based on data from the 1958 National Child Development Study. Childhood behavioural problems were assessed by parents and teachers at ages 7, 11 and 16 years using the Rutter scales and the Bristol Social Adjustment Guide. Confirmatory factor analysis using LISREL8 was used to confirm the Rutter factor solutions. Conduct, Emotional and Attention problems from these ratings scales. Adult psychological problems were assessed using the Adult Health Questionnaire at ages 23 and 33. The continuity of the childhood forms of behaviour problems into adult psychosocial functioning has been explored in detail using latent variable models. Here, the relationship between behavioural problems at school and Malaise scores at age 33 are discussed. A developmental trend from age 7-16 years in the specificity of the form of behavioural problems for later psychological well-being was observed in both boys and girls. The implications for identifying children at risk for later psychopathology are highlighted.

Self, identity and developmental perspectives in young women with anorexia

W SAUNDERSON, University of Ulster, Coleraine & M O’KANE, S & E Belfast H & SS Trust

A central core of anorexia nervosa is believed to be the struggle for control and a sense of identity. Frequently suggested is that anorexia reflects the struggle for control and a sense of identity. A central core of anorexia nervosa is believed to be the struggle for control and a sense of identity. A central core of anorexia nervosa is believed to be the struggle for control and a sense of identity. A central core of anorexia nervosa is believed to be the struggle for control and a sense of identity. A central core of anorexia nervosa is believed to be the struggle for control and a sense of identity.
self-identity in a young Irish woman presenting with anorexia nervosa. Idiographic results from the empirical investigation are reported to include how ‘Annel’ construes her identity in various situated contexts, demonstrating features of her identity since childhood; core evaluative dimensions of her identity; how her global identity variants augur for her further and sustained recovery, and how she will achieve this from her current forclosed and self-critical identity state.

City, self and identity at the Millennium: The town planners and architects of Belfast

W SAUNDERS, University of Ulster, Coleraine

Ten years ago, the Belfast Urban Area Plan 2001 was published. This was largely the result of a prolonged Victorian-style planning exercise, and the city, but uses ‘tomorrow’s’ urban producers, i.e. trainee architects and planners who will be the urban aspirations, values, and identifications of ‘tomorrow’s’ architects and town planners, who aspire to have absorbed the fresh new, and heightened expectations for a post-conflict, revised and revitalised Belfast – even if the age-old problem of the invisibility of gender in the urban arena appears persistent.

Cognitive deficits in Chronic Fatigue Syndrome are reversed by oxygen administration

A SCHOLEY, P MCCUE, I MACKAY, M MOSS, University of Northumbria & K WESNES, CDR Ltd, Reading

Chronic Fatigue Syndrome (CFS) is a debilitating disorder of unclear aetiology. This paper presents a preliminary investigation into the nature of cognitive impairment in CFS, and the possibility of their reversal through oxygen administration. In the first study, 20 confirmed CFS patients were tested using the Stanford Drug Research (CDR) computerised assessment battery. On most tests the impairment in CFS was comparable to that seen in mild to moderate Alzheimer’s disease. In the second study, 16 individuals with CFS inspired either oxygen or air. Placebo- and CFS oxygen-exposed tests were compared with the CDR battery. Following oxygen inspiration, participants showed significantly improved simple and choice reaction times and a trend towards improved verbal learning. Mood scores were unaffected. These results highlight the severity of CFS and are discussed in the context of possible therapeutic implications for oxygen and current models of CFS symptomatology relating to cholinergic dysfunction and decreased cerebral blood flow.

Oxygen administration improves performance on a computer game

A SCHOLEY M. MOSS & A SPENCER, University of Northumbria

We have previously reported that oxygen administration can improve performance on a number of cognitive tasks, particularly under conditions of high mental effort. It was predicted that tasks requiring simultaneous ‘multi-tasking’ of variables would be particularly susceptible to enhancement through oxygen administration. Tetris is a computer game which simultaneously tests mental rotation, reaction time, and sustained attention programmes execution. Furthermore, the game is designed such that these elements become progressively more difficult with both increasing and sustained levels. In this double-blind placebo-controlled, balanced crossover study we examined the effects of oxygen administration on Tetris performance. Heart rates were assessed. Heart rates were monitored throughout. Participants in the oxygen condition had better scores, and heart rates also increased, particularly at higher game levels. These results support a model whereby cognitive performance is ‘fuel limited’ under conditions of high mental effort and can be augmented by increasing reserves of physiological substrates.

Childhood environment and variations in adult mental health

I SCHOON & SM MONTGOMERY, City University, London

The relationship between childhood environment and variations in adult mental health are investigated by comparing two age cohorts born in 1958 and 1970. Childhood environment is measured using a unidimensional scale, and is based on self-reported data and the Malaise Inventory. Among the 1970 cohort members the prevalence of depression has nearly doubled by comparison with the 1958 cohort when they were aged 23 (in 1981) and also when they were 33 (in 1991). There is evidence that the experience of negative life events before the age of seven years enhances a persistent adult depression, and that a substantial part of differences in mental health can be attributed to differences in childhood environment.

The desire for alcohol after exposure to soft and alcohol cues in social drinkers

D SCHULZE & BT JONES, University of Glasgow

The reported study investigates if craving is enhanced in social drinkers after being exposed to alcohol cues when using the four different craving dimensions of the Desire for Alcohol Questionnaire (DAQ) instead of a unidimensional craving scale. Forty four subjects were randomly assigned to either alcohol or soft drink group, and filled in the DAQ after alcohol exposure. Analysis of Variance reveals that DAQ factors for expectations of negative reinforcement and feelings of controllability are not influenced by the exposure to alcohol cues. Alcohol cues increase craving responses on DAQ Factor 2 Strong Intentions and Desires. Responses on Factor 1 Mild Intentions and Positive Reinforcement tend to be higher after alcohol exposure but the result fails to reach significance. The second aim of the present study is to find better explanations and interpretations on the meaning of those four different DAQ factors. The question of ‘trait or state’ desirability for alcohol is discussed.

Adolescents in adult psychiatric wards: Time for change?

D SCOTT, S MCGILLOWAY & M DONNELLY, The Queen’s University of Belfast

Growing concern about the prevalence of psychiatric disorder among adolescents – estimated at 20% – fuels the continuing debate about the appropriateness of admitting young teenagers to adult psychiatric wards. This study uses routine data to describe (a) the sociodemographic and diagnostic profile of all under 18’s admitted during 1988-1995 (n=443) to adult psychiatric inpatient units in Northern Ireland (Ni); (b) trends in admissions during the period; and (c) a sub-degree of data at one hospital (n=43) to identify factors associated with admission. The results show an increasing trend over time in admissions and re-admission to adult psychiatric wards. There is strong demand for alternative forms of care. Most teenagers have a primary diagnosis of emotional/conduct disorder (15%), stress (14%) and neurotic disorder (12%). Factors associated with admission include sex, religious denomination, self-harm, substance misuse and violent behaviour as well as placement in health and social services care. The findings have important implications for the future development of adolescent mental health services self-reported gain elsewhere.

An investigation of the cognitive-behavioural model of obsessive compulsive disorder

R SHAFRAN, London

Obsessive-compulsive disorder (OCD) is characterised by obsessions and compulsions. Obsessions are unwanted recurrent and persistent intrusive thoughts, impulses, or images that cause marked anxiety and distress. The compulsive behaviour is repetitive, rigid and purposeful. Research in OCD has been revitalised in the last 15 years, partly due to a new cognitive behavioural account the disorder (Salkovskis, 1985). The cognitive-behavioural hypothesis is that people with OCD appraise normal intrusions as an indication that they may be responsible for harm or contamination and devise rituals to prevent or neutralise the first of which manipulated perceived responsibility for harm in 40 people with OCD. The second study examined the concept of ‘thought action fusion’. Both studies provided support for the cognitive-behavioural account of OCD and the presentation ends with an update on current work in this area.

Foetal breathing movements: A useful paradox

EA SHANNON & P HEPPE, The Queen’s University of Belfast

This study examines ‘breathing’ in normal foetuses and those with congenital diaphragmatic hernia. Our aim is to predict delivery using a paradox with diaphragmatic hernia. Breathing is paradoxical in the foetus as there is no air in the womb. However, in normal foetuses breathing is seen from 10 weeks of gestation. Breathing occurs about 30% of time at the end of the second trimester. Breathing rate decreases in the second trimester but decreases in the third. Over 24 hours breathing decreases during the day, being lowest between 7-12pm and increases again between 4-7am. Breathing movements of four patients with congenital diaphragmatic hernia were also studied at 36-38 weeks gestational age for 60 minutes. Of these, three died during the neonatal period and one baby survived after surgical repair. Only the foetus who survived displayed a normal pattern of foetal breathing movements. Breathing movements, despite being somewhat paradoxical, may provide information on foetal health.

Using repertory grid technique to improve communication on incineration

N SHEEHY, J WYLIE & J HARVEY, The Queen’s University of Belfast

The effectiveness of communication on environmental issues can be improved by profiling audiences, beliefs, ideas and values that motivate behaviour and by using this information to tailor the message to the audience. This study investigated the repertory grid technique for profiling individuals and for making suggestions regarding the communication of issues surrounding incineration. Attitudes towards the construction and use of an incinerator in a British city were investigated. 61 participants indicated the importance of 31 environmental issues for making suggestions regarding the communication of issues surrounding incineration. The Chi-square, GFI, and RMSEA in specification and factor loadings on the constructs of emotions are power are central to an appraisal of the environmental impact of the incineration proposal while cost and benefit were secondary. Implications for the communication of environmental issues are discussed.

Effects of sample size, model specification and factor loadings on the Chi-square, GFI, and RMSEA in confirmatory factor analysis

M SHEVLIN, University of Ulster, S FORREST, Nottingham Trent University & M DUNN, Derbyshire Business School

The X2, goodness-of-fit index (GFI), and the root mean square error of approximation (RMSEA) are both used in confirmatory factor analysis.
and general structural equation modelling, to assess the fit of a model. This Monte Carlo study examined the performance of these fit indices under conditions of varying sample size, model specification and magnitude of factor loadings. It was found that these three factors influenced the fit indices independently and jointly in terms of interaction. It was concluded that an omnibus cut-off value for each of the indices is not appropriate. It is suggested that the choice of an appropriate cut-off value depends on the reliability of the items and the sample size.

The relationship between prototypicity and self-esteem in an inter-group context

J SIGGER, Middlesex University

Two experimental studies are reported which indicate that a member's position in an in-group, as defined by their perceived relative prototypicity, mediates their level of collective self-esteem but not their personal self-esteem. Highly prototypical in-group members, following subsequent threats to identity, show greater in-group bias and elevation of self-esteem than less prototypical group members. The findings suggest that the generally low correlations found between self-esteem and in-group bias in the literature are due to the effects of prototypicality not being taken into account. The relationship between self-categorisation and self-esteem along with implications for the self-esteem-identity hypothesis in Social Identity Theory are considered.

Music: Where cognition and emotion meet

J COBODA, Keele University

Music as a phenomenon is amenable to study as a form of expertise, in which individual differences may be substantially explained in terms of different levels of access to means of mentally structuring and representing the domain. This has been studied both developmentally and using adults with unusually high skill levels. Explaining musical expertise also requires an understanding of why people are motivated to engage with it. Music engages the emotions particularly powerfully in ways which are valued as ‘therapeutic’ or even ‘transcendent’, and we now understand more about the psychological mechanisms underlying these aspects. In this paper, we began with the question: ‘If music is both valued and learned, do we require an account of the generally low level of musical accomplishment in the population? It is suggested that believing oneself to be ‘not musical’ is due to the normality of musicality for most people in Western society. This belief is sustained by the complex set of social practices through which music and music expertise are formulated within the bounds of an overarching concept.

Cognitive interference and the conditions that promote it

J SMALLWOOD & M O'BONSAINI, Strathclyde University

Cognitive Interference (CI) is a phenomenon observed in situations where the subject is required to switch from one task to another, with the time taken to switch being a measure of the interference. One of the main results of these studies is that people do not switch suddenly, but rather make a gradual transition between the two tasks. This gradual transition is known as the 'interference period'. The interference period is the time that elapses between the end of the first task and the beginning of the second task. The length of the interference period is a measure of the interference. The interference period is typically measured in milliseconds. The interference period is affected by a variety of factors, including the similarity of the two tasks, the difficulty of the tasks, and the duration of the tasks. The interference period is typically longer for similar tasks than for dissimilar tasks. The interference period is also longer for difficult tasks than for easy tasks. One of the main conclusions of these studies is that interference is not a simple function of the difficulty of the tasks, but rather a function of the similarity of the tasks. The interference period is typically longer for similar tasks than for dissimilar tasks. The interference period is also longer for difficult tasks than for easy tasks. The interference period is typically shorter for similar tasks than for dissimilar tasks. The interference period is also shorter for easy tasks than for difficult tasks.

Improving pig welfare by improving their environment

I SNEDDON. The Queen's University of Belfast & V BEATTIE, Agricultural Research Institute of Northern Ireland

The intensive housing used to rear pigs in many modern farms causes a range of harmful environmental problems. Recent research indicates that provision of environmental enrichment in the form of a substrate which the pigs can root in, can substantially ameliorate these problems. This paper examines the preferences of 312 young pigs when offered a choice between different types of substrate. Contrary to popular belief, these tests indicate that pigs choose to spend much time in a range of substrates rather than the widely-used straw. In a second study using 180 young pigs, a cost-effective system for delivering enrichment is evaluated and found to reduce harmful behaviours and injuries.

The effect of environmental enrichment on learning in pigs

I SNEDDON, L DUNNE. The Queen's University of Belfast & V BEATTIE, Agricultural Research Institute of Northern Ireland

It has long been accepted from work on laboratory rodents that enriching an animal's environment can have important effects on its physiology and behaviour. Recent concern over farm animal welfare has focused attention on environmental enrichment and its effect on the physical and psychological problems associated with intensive housing. In an attempt to make a connection between these two literatures, this study explored the effects of environmental enrichment on aspects of learning in pigs in an agricultural context. 84 pigs reared in either enriched or barren environments showed significant differences in performance on two learning tasks. Enriched pigs showed a higher response rate on an operant task and a shorter time taken to reach a food reward in a maze task. These results offer support for earlier work and indicate that even in an agricultural context, environmental quality has a more profound influence on animal cognition than previously thought.

Emotional risk communication and safety precautions in the workplace

E SOANE, London Business School & N CHMIEL, University of Sheffield

This paper is concerned about the impact of risk messages at work. Staff in a safety-critical industry are allocated to stages depending on whether they are aware of the risks to themselves associated with workplace hazards, whether they hold intentions to act safely, or whether they report that they do act safely towards hazards. The questions raised then are; Do workers at different stages have different emotional reactions to hazards; and, is the emotional versus rational risk communication different at different stages? The findings show that there are differing emotional reactions associated with the stage that individuals are at, but that the impact of an emotional over a rational risk message is the same regardless of stage. The results are discussed in relation to the idea that risk communication should take account of the receiver's frame of reference.

Ignoring others causes a subsequent breakdown of self-control

K SOMMER, Baruch College & N CIAROCCO, Case Western Reserve University

The present study tests the hypothesis that ignoring others reduces one's subsequent capacity for self-control. The participants were asked to complete a task while another person ignored the participant's attempts to engage them, or the participant ignored another person who ignored the confederate for three minutes. Participants were asked after each condition whether or not they could control their desire to eat. It was found that participants who ignored the confederate continued to eat when the target was likeable, however, Introductory psychology students were randomly assigned to receive either the confederate or to receive an evolution from another participant (confederate) in the study. They were then asked either to ignore the confederate or to ignore the confederate for three minutes. Persistence on a difficult anagram task comprised the main dependent variable. Manipulation checks confirmed that negatively evaluated participants were rated significantly less than positively evaluated participants. However, analyses on the dependent variable revealed only a main effect for ostracism condition: Participants who ignored the confederate persisted for a significantly shorter period of time than those who were free of the ostracism condition. These findings suggest that there are important psychological costs to ignoring others.

The long-term psycho-physiological effects of WWII experiences on British civilian women

R SOUTHERN & N HUNT, Nottingham Trent University

This presentation questions the efficacy of established measures for post-traumatic assessment in relation to the long-term effects of the World War II experiences of British civilian women. Specificially it challenges the male gender-bias and ethnocentricity of the DSM-IV classification of PTSD and draws attention to the influence of the stressor criterion. Furthermore, it contests the configuration of the diagnostic psychological criteria which do not accommodate the concept of sub-clinical PTSD reactions and negates evidence of post-traumatic psycho-physiological sequelae. The responses of 93 self-selecting British female World War II civilians to a questionnaire addressing sub-clinical post-traumatic reactions. Together with these psychological sequelae there is evidence of contemporary and long-term stress-related somatic conditions. The consensus was reached that the present post-traumatic appraisal measures do not provide for the consequences of British female civilian World War II experiences which require a far more holistic assessment regime.

Features influencing the recognition of quadratic equations by able adolescents

DE SPROULE & GB GREER, The Queen's University of Belfast

A 132-item test of classification of equations as either linear, quadratic or neither linear nor quadratic, designed by the authors, is administered to 302 participants drawn from local grammar schools. There are four cohorts from year 11 upwards and two ability groups within each cohort. The probability of a correct response to quadratic items as a function of seventeen quadratic equation format variables is subjected to stepwise regression analysis. A developmental profile emerges which can be linked to the teaching context. Results are consistent with the existence of a prototype for quadratic equations which may reflect the subjects’ deeper understanding of the concept.

Discourse and gender identity: Constructions of self and continuity of identity-construal

K STAPLETON, University of Ulster, Coleraine

The emergent of discursive psychology (DP) has introduced the idea of Social Constructionism into the psychological domain, with a number of implications for traditional notions of identity. From a DP perspective, identity is linguistically (re)constructed from moment to moment, within situated contexts. It is thus inherently variable and contingent. In the present paper, I adopt a discursive approach to the processes of gender construction undertaken by women and men. However, through integration of identity Structure Analysis (ISA), I present a crucial critique of the notion that identity is constructed afresh within each discursive episode. I demonstrate that certain of the respondent’s discursive constructions hold the concept of a prototype for quadratic equations which may reflect the subjects’ deeper understanding of the concept.

Stop rules for catastrophe worrying
Relational frame theory and human sexual categorisation

MB STAUNTON & JC LESLIE, University of Ulster

Relational frame theory treats stimulus equivalence as only one example of the learning of arbitrarily applicable relationships. The first series of experiments attempted to replicate an earlier finding that, following training to establish the relational functions of ‘same’, ‘opposite’ and ‘different’ in arbitrary stimuli, ‘penis’ was categorised as ‘penis’, ‘vagina’ as ‘vaginal’ and ‘animal’ as ‘inappropriate’ and as ‘opposite to submit’, while with ‘vagina’ these categorisations were reversed. Furthermore, these categorisations were flexible and, previously meaningless, stimuli following matching-to-sample training. In the present study, some participants have produced the predicted performance across all the various tasks. Others have failed to do so, probably because they did not have the expected verbal categories prior to the experiment. In the second series of experiments, sexually explicit terms were found to have a reliable effect on stimulus equivalence class formation. Overall, findings suggest that some aspects of sexual categorisation are highly consistent within a community, while others show some variability.

The transition to peace and young people’s perceptions of locations

MR TRINGER, I CORNHILL & S DENVER, University of Ulster

Students’ preferences for locations within Northern Ireland following two-and-a-half years of peace were compared with those collected eleven years earlier during a prolonged period of intergroup conflict. 138 Northern Irish students rated 60 locations across the Province for perceived attractiveness, denominational composition, and residential preference. Changes in the pattern of correlations across time suggest that a relatively short period of peace has had a marked effect on students’ locational perceptions. For Protestants, the relationship between perceived violence and other judgements has weakened, whereas for Catholics it has virtually disappeared. This implies that for Catholic participants attitudes to places within the Province have shifted towards a ‘peace-time’ pattern and that variables other than those studied here may be playing a much greater role. Observations suggest that rapid changes in locational perceptions can occur in post-conflict societies and that group differences may be expected in their rate of change.

Cognitive style and impulsivity in a sample of boys who meet the criteria for ADHD

J STUART, University of Wales College of Cardiff

The Cognitive Styles Analysis (CSA) was given to 68 Year 8 boys (12-13 year olds) who met the criteria for Attention Deficit Hyperactivity Disorder (ADHD) according to the Connors Teacher Rating Scale - Revised (CTRS) and to a comparison (control) group who did not meet those criteria. The CSA assesses an individual’s position along two fundamental cognitive style dimensions: wholist-analytic (WA) and verbal imagery (VI) by presenting subtests consisting of text (VI) and complex geometric shapes (WA) that were distributed in the distribution of style groups along the Wholist-Analytic and Verbal-Imagery dimensions. However, on the WA Speed Index the ADHD group responded more quickly than controls to the stimuli presented than their controls and made a greater number of errors. Both these differences occurred within the subgroups with WA shapes but not with those using text. This pattern of responding is discussed in the context of research into impulsiveness amongst children with ADHD.

The French paradox: Heart disease in France and Northern Ireland

DH SYKES, AE EVANS & E MCRRY, The Queen’s University of Belfast

The classical risk factors for ischaemic heart disease (IHD) are elevated levels of blood pressure and serum cholesterol, and smoking. France, despite having a similar risk profile to other countries, nonetheless has significantly lower levels of premature mortality from IHD. More recently, several psychosocial risk factors for IHD mortality have been identified, namely hostility, depression, and (lack of) social support. These three risk factors were assessed in France and Northern Ireland, the latter country having four times the rate of the former in terms of IHD mortality. In a sample of 10,605 men, hostility was found to be higher and social support lower in the French population, there being no difference in regard to depression. These findings add to the French paradox. The results can only be partly explained by the more proactive drug treatment of hypercholesterolaemia. Other possible explanations for the difference in mortality between France and Northern Ireland may reduce depression but increase hostility.

Strategies for risk reduction: An evaluation of two school-based interventions

D THRUSH, E BIFE-SCHAW & GM BREAKWELL, University of Surrey

Smoking puts young people at considerable risk of short and longer term damage to health, particularly as mortality rates are closely related to age of onset. Numerous strategies for reducing uptake and prevalence have met with varying degrees of success. This paper reports findings from a large-scale study (n=4,970) comparing two school-based interventions targeted at schoolchildren between 9 and 13: a school with a Theatre in Health Education (THE) programme. The strategies focused on psychological concepts included self-efficacy specific to peer pressure, being concerned and evaluative representations of smoking and young smokers. A quasi-experimental longitudinal cohort-sequential design was used to test for five key collection points over two-and-a-half years. Findings confirm the curriculum-based programme was the more effective at this early stage in smoking career. Implications for policy and future intervention work are discussed.

Stimulus equivalence and behaviour therapy

KJ TIERNEY, University of Ulster & M BRACKEN, University of Paisley

There have been some deficiencies in traditional behaviour analysts explanations of clinical problems and other complex behaviours. These may stem from an inability of behaviourists to specify plausible sets of historical antecedents that can accommodate the nature, distribution and complexity of such behaviour. More recently we have, in response, adopted a more cognitive orientation. In this paper we show how the growing literature on stimulus equivalence can help to address some of these difficulties by enabling us to specify the sorts of historical antecedents that can address some of the above problems in a number of functional explanations. This growing literature extends the plausibility of such explanations and provides insights into other problems of interest to behaviour therapists. In particular we review recent evidence from the stimulus equivalence literature that is of relevance to the study and treatment of anxiety, the development of clinical tests and the treatment of learning difficulties.

Socially effective conversation for people without speech

J TODMAN, University of Dundee

Communication aids using synthesised speech are available for non-speaking people and are aimed at helping the user generate speech output as rapidly as possible during conversations. Greater increased conversational rate has been achieved with ‘TALK’, an aid based on the pre-storage of phrases for output during subsequent conversations. This rate enhancement, which is found even in the absence of any limitation of conversational topic range, has been accomplished by modelling pragmatic aspects of natural conversation. Increases in conversational rate achieved in this way are associated with high enjoyment and social competence ratings. Furthermore, the increases in rate are not achieved at the expense of quality of conversational content. Evidence supporting the social effectiveness of conversation using the TALK aid is summarised and the conversational potential of text pre-storage systems is discussed.

Community based treatment for sex offenders: A follow-up study

O TRAVERS, North Western Health & A MORKIARTY, The Queen’s University of Belfast

Sixteen men who had completed a community based sex offenders treatment programme were followed up, interviewed in relation to their current lifestyles and behaviours and evaluated in terms of the risk currently posed to children. Only one has re-offended sexually. The majority of the nine extra-familial offenders are actively avoiding contact with their own shame and embarrassment mitigates against the formation of meaningful relationships. Of the seven incest offenders, the majority have been re-integrated into their families where their sexual and intimate needs are being appropriately met. These findings are in keeping with previous research indicating that incest offenders are less likely to re-offend than extra-familial offenders. The results are discussed in terms of the child protection effects of the programme.

Suicidal ideation and reasons for living in elderly and younger adults with depression

E TRAYNOR & K DAVIDSON, Stobhill Hospital, Glasgow

This study examines the relationships between hopelessness, suicidal ideation and reasons for living amongst a sample of depressed elderly in comparison with younger depressed adults. Eighteen adults over 65 years, and 20 aged between 25 and 55 years were recruited. The nine extra-familial offenders are actively avoiding contact with their own shame and embarrassment mitigates against the formation of meaningful relationships. Of the seven incest offenders, the majority have been re-integrated into their families where their sexual and intimate needs are being appropriately met. These findings are in keeping with previous research indicating that incest offenders are less likely to re-offend than extra-familial offenders. The results are discussed in terms of the child protection effects of the programme.

Social identity and the concept of prejudice

J TURNER, Australian National University

Catastrophic worrying involves the process by which worriers perceive progressively worse and worse outcomes to a specific worry topic, and this is usually the result of them positing automatic questions of the ‘what if?...’ kind. When asked to catastrophise a worry, pathological worriers iterate more catastrophising steps than non-worriers. However, with catastrophic thoughts immediately iterated as ‘what is ‘good’ about a topic, pathological worriers also emit more steps than non-worriers. This paradoxical finding is that this perseverative iterative style that worries possess is linked to negative mood. When involved in a process of catastrophising (worrying), worriers appear to use their negative emotional state as an indicator that the problem is not resolved, and so perseveres further with such tasks than do non-worriers.
This paper discusses the implications of social identity and self-categorisation theories for the concept of prejudice. Inter-group relations research has been dominated by a 'prejudice' metatheory since the 1920s. The implicit orthodoxy is that pervasive national cultures influence the fact of nature. Others view it as situationally enduring strongly affect-laden unquestioning national and ethnic identity. Some hold to strongly primordial sentiments of national and ethnic identity. People differ in the way that they conceptualise about national and ethnic identity. The acquisition of atypical language forms

**The acquisition of atypical language forms**

S VON TETZCHNER, University of Oslo

Some children do not learn to speak in the typical manner, and need a non-speech mode as a supplement to, or a substitute for, spoken language, because they totally lack the ability to speak or their speech is so unintelligible that it has little functional value in communication. In the last 25 years, the speech and language difficulties of children who are diagnosed with autistic spectrum disorders have been studied, and in the form of manual, graphic and tangible signs have proved important in supporting language and communication. However, hearing intellectually impaired and autistic children. Therefore, why such forms may be acquired when traditional speech therapy fails is rarely discussed. The acquisition of atypical or alternative language forms may be regarded as an emerging process where the underlying conditions and environmental influences that interact in some respects are different from those in the typical acquisition of spoken language. The present talk discusses which factors may be decisive for the differences in acquisition of alternative language and the use of symbolic communication by non-speech means.

**Differential cognitive impairment in dementia: Use of MMSE and a neuropsychological test**

SE VOSS, J ELCOCK & R BULLOCK, Victoria Hospital, Swindon

The current study addressed the use of the Mini-Mental State Examination (MMSE) as an initial screening test for dementia. 224 patients suffering from dementia were matched controlled groups completed the MMSE along with a battery of neuropsychological tests; including tests of naming, recall, recognition, frontal lobe function and information processing. The patients were divided into five groups according to their score on the MMSE (8-13; 14-17; 18-20; 21-25; 26-30). A discriminant function analysis was carried out on the scores from the neuropsychological test battery for the five patient groups and the control group. These groups were also compared on neuropsychological test results, in order to determine whether they differed from one another on specific cognitive tasks. In the discussion attention is paid to the way that MMSE scores are used in practice, and the limitations of the MMSE as a clinical tool.

**A memory clinic in a Department of Old-age Psychiatry: Its role in assessment and its clinical outcomes**

SE VOSS, J ELCOCK & R BULLOCK, Victoria Hospital, Swindon

This study aimed to: (i) examine the age and sex distribution of patients referred to a memory clinic; (ii) examine the diagnostic details of these patients and determine the percentage of dementia patients successfully recruited onto drugs trials; (iii) provide a secure bank for the five patient groups and the control group; (iv) provide an environment for research within the memory clinic. The details of 405 patient referrals to a memory clinic in a Department of Old-Age Psychiatry between March 1994 and November 1997 were analysed. The majority of people seen in the memory clinic were aged between 76 and 80 years. Over 80% of the cases recruited were suffering from dementia. Of those diagnosed with dementia, one-third were successfully recruited onto anti-dementia drug trials. The findings offer support for estimated prevalence figures for specific types of dementia and in addition it is demonstrated that the memory clinic has a role in academic research.

**An investigation of the utility of the Hopkins Verbal Learning Test as a method of distinguishing between dementing and non-dementing older adults: Sensitivity and specificity for a UK population**

SE VOSS, J ELCOCK & R BULLOCK, Victoria Hospital, Swindon

The Hopkins Verbal Learning Test (HVLT: Brandt, 1991) was designed in an attempt to offer a brief, new clinical memory test, that could be used to carry out repeat assessments of the same patient over different time periods. Krebs (1994) has suggested that the HVLT can be used as an alternative to the Mini-Mental State Examination, when employing cut-offs developed in the USA by Brandt (1991). The advantage of the HVLT over MMSE, is that the HVLT is a screening test, which aid re-testing. The current investigation is concerned with examining the use of the HVLT with older adults from a UK population. Data was collected from 207 patients, and the data from patients collected as they took part in a memory clinic. We sought to confirm whether the current cut-off scores were applicable with our (larger) sample.

**Primordial and situational sentiments about national and ethnic identity**

P WEINREICH, University of Ulster

People differ in the way that they conceptualise national and ethnic identity. Some hold to strongly primordial sentiments about such identity as an enduring strongly affect-laden unquestioning fact of nature. Others view it as situationally opportunistic and variable, and dependent on historical and political machinations. This paper defines terms and provides an explanation of the general prevalence of primordial sentiments. Using the ISA conceptual framework, the paper provides empirical examples of the characteristics of primordial and situational thinking for political allegiances in Northern Ireland, and demonstrates that pervasive national cultures are extent the extent of primordial national sentiments.

**The influence of environmental change on the behaviour of rescue sheltered dogs**

D WELLS & P HEPPER, The Queen’s University of Belfast

Thousands of sheltered dogs are overlooked for purchase every year because their behaviour is considered undesirable. Potential buyers prefer dogs which stand quietly at the front of their cage. This study examines the behaviour of 120 sheltered dogs in response to environmental change to determine whether it encourages more acceptable dog behaviour. The dogs’ behaviour was recorded in response to environmental change to determine whether it encourages more acceptable dog behaviour. The dogs’ behaviour was recorded in response to increased human contact, or the addition of a bed or toy to the front of the cage. Findings indicate that human stimulation has a positive effect on dog behaviour, encouraging animals to stand quietly at the front of their enclosures. Placing a bed at the front of the cage also has a positive effect, enticing dogs to this position. The addition of a toy does not influence dog behaviour. Findings indicate that human stimulation may promote publicly acceptable dog behaviour and improve a dog’s chances of being purchased.

**Old and new treatments for new and old dementias**


The first two generations of compounds for the first phase of dementia treatment have now been thoroughly evaluated in dozens of worldwide clinical trials. The first phase of dementia treatment involves the symptomatic reduction of the cognitive deficits in Alzheimer’s disease (AD), the largest single dementia. Several anticholinesterases, including tacrine are now registered in Europe and North America, the general benefit emerging being a six-month postponement of institutionalisation. The second generation of compounds has been muscarinic agonists, many of which despite early promise have now been shelved due to lack of efficacy. The purpose of this talk is to identify the next phases of dementia treatment, including the treatment of other symptoms of AD; the acute treatment of the disease process; and the treatment of other major types of dementia. The second purpose is to discuss the next generations of compounds for the various subsequent phases of dementia treatment.

Discursive psychology: 10 years on
M WETHERELL, Open University, Milton Keynes

This paper examines discursive psychology as an example of British approaches to language use. Discursive psychology is defined broadly to include work influenced by the study of rhetoric, conversation, sociolinguistics, ethnography and post-structuralism. The characteristic approach to psychological phenomena taken by this body of work is that language and thinking are placed on context and construction and on the emergent and relational nature of social action. Differences between the approaches which make up discursive psychology are also outlined including views of context and what counts as evidence. It is argued that the future for discourse work within social psychology lies in developing new analytic concepts which work across local and global contexts and several concepts of this kind are specified.

A clearer road ahead: Investigating visual search and attentional control in children’s pedestrian behaviour
KM WHELAN, JA THOMSON, AK TOLMIE, HC FOOT & BD MCLAREN, Strathclyde University

It is well established that many young children are involved in road accidents as a result of their failure to detect the vehicle that struck them. The current study aimed to determine the possibility that such accidents may be attributable to young children’s immature visual search strategies and ineffective attentional control, rather than motivational or attitudinal factors. Children (aged 5, 7, 9 & 11) and adults are asked to recall features from both animated computer simulations and actual traffic scenarios in either a ‘road-crossing focused’ or ‘open-recall’ condition. The scenarios vary in terms of informational complexity, exposure time and level of distraction. Results show that older children are more attuned to traffic-relevant features than younger children when the task is given a road-crossing focus. However, younger children are not disproportionately disadvantaged by increasing levels of complexity or distraction. This suggests that younger children’s poor performance may reflect an overload on working memory as well as relatively immature response strategies (i.e. to keep on searching for items). Working memory capacity is a potential mediator of these findings. Older children, on the other hand, appear to be less sensitive to these impairments and to have reached a more mature level of performance. These findings are consistent with previous findings in children aged 5 to 7 years.

Young people and politics in Northern Ireland: Who will take charge in the future?
J WHYTE, Trinity College Dublin & V ROSS, The Queen’s University of Belfast

The Department of Political Behaviour within the School of Political Studies at the University of Ulster has undertaken a series of research projects to investigate the political and policy preferences of young people in Northern Ireland. In this paper, we examine the political attitudes and voting intentions of young people aged 17-21, with a particular focus on the role of political efficacy. The study involved a national survey of 17-year-olds (n=173) in relation to political activities. The study also investigated the influence of political efficacy on young people’s political knowledge and on their feelings of political efficacy. Results showed that political efficacy was positively correlated with young people’s feelings of political efficacy. Those who felt efficacious were more likely to be politically engaged and to have a higher sense of national identity. The findings suggest that political efficacy is an important factor in shaping young people’s political behaviour and attitudes.

Diversity in musical performance
A WILLIAMON & E VALENTINE, Royal Holloway, University of London

This paper investigates sources of diversity and variability in musical performance. The practice of 23 musicians at four discrete levels of ability was examined by their preparation, execution, and performance. The analyses focused on the size of the musical unit on which pianists worked (referred to as the ‘working unit’) and were compared across the learning process for pianists at each level of ability. The analyses revealed that working units increased in size across the learning process for pianists at all levels of ability. Moreover, the data revealed that the standard deviation of the size of the working unit increased across the learning process. These findings are consistent with the idea that performers produce more variability and perform better as they gain more experience. The implications of these findings for understanding and facilitating recovery of function are discussed.

Predictions of small and large lottery wins over different time spans: unrealistic optimism or misconstruing comparisons with others?
S WOLFSON, University of Northumbria

A 3x3 mixed factorial design experiment was used to examine the optimism of 117 lottery players. Volunteers at a supermarket lottery counter were asked to compare themselves with people who bet the same amount on the lottery on the likelihood of winning a £10 to £1,000,000 prize. Participants either used a one-week, three-month or five-year time span with which to make their judgements. Age (younger participants were more likely to happen to me–More likely to happen to me) was used to rate the likelihood of 13 life events, within which were embedded winning a £10 to £1,000,000 lottery prize. Longer time spans and lower wins were associated with higher likelihood ratings. A significant interaction revealed that longer time spans were associated with higher likelihood ratings for £10 and £1,000,000 but not at all related to £1,000,000. The results are interpreted in the context of an unrealistic optimism framework and suggest that people may have difficulty comparing themselves with others for outcomes of varying probability.

Cognitive remediation – Could it work? Results of a randomised control trial
T WYKES, C REEDER, J CORNER, C WILLIAMS & B EVERITT, Institute of Psychiatry, London

This study describes a randomised trial of intensive cognitive remediation which involves individual daily sessions of one hour for three months. It targets executive function deficits which are known to be problematic in people with schizophrenia. Procedural and errorless learning, targeted reinforcement and massed practice were the basis of the intervention. The programme
was compared to intensive occupational therapy to control for the non-specific effect of treatment. There was a differential effect in favour of cognitive remediation therapy for tests in the cognitive flexibility and the memory subgroups. Improvement in cognitive flexibility tasks and memory tasks was related to improvements in social functioning. Cognitive remediation also differentially improved self esteem. This study supports the view that cognitive remediation can reduce cognitive deficits and that this reduction can affect social outcome at least in the short term.

An examination of psychological health related behaviour: Coping, mood regulation and problem solving
A ZARA, Brighton
These studies investigate the model of psychological health that integrates research from cognitive perspectives on coping, affect regulation and problem solving ability. The research proposes that if individuals are put into an active, problem-focused frame of mind (via a Velten-type Induction Procedure) that may regulate their negative affective states (sadness, depression, anxiety), and may devalue the threatening meaning of stressors when they are confronted by personal problems or enter stressful situations, this in turn may facilitate successful solutions to stressful life problems. The findings of this research have potential implications for the helping professions as a means of reducing emotional stress and facilitating problem-oriented thinking in everyday tasks. It may be possible to teach adaptive coping strategies which serve as successful problem-solving mechanisms for reducing emotional stress by alleviating the effect of negative moods.
Division of Clinical Psychology

The Waterfront Hall and The Hilton Hotel, Belfast, Northern Ireland, 8–11 April, 1999

Parasuicidal behaviour within a forensic-psychiatric population  K ALLAN, E CAMPBELL, University of Glasgow & J McGINLEY, The State Hospital, Carstairs

Objectives: The primary aim of the present paper was to identify background, motivational and psychological factors associated with parasuicidal behaviour in a forensic-psychiatric population (a special hospital). It was hypothesised that the parasuicide group (PG) would be differentiated from a matched (duration of stay) comparison group (CG) on a number of background variables. It was also hypothesised that the PG would differ on intervention and treatment success. This further investigation was directed at examining the motivations of those who engage in such behaviour.

Method: In order to investigate background factors, the case files of the PG (n=36; at least one parasuicidal act within the previous two years) and the CG (n=36) were reviewed using a standard protocol. In the case of motivations, semi-structured interviews were conducted and those in PG whose consent for interview was obtained was (n=18). To examine problem solving abilities the same number (n=18) in both groups were administered the Means End Problem Solving Process.

Results: The PG group were significantly more likely to have been sexually abused and to have a longer psychiatric history than the CG. Motivations behind parasuicide were categorised into intra- and interpersonal reasons and post hoc analysis indicated that suicidal intent was associated with intra-personal reasons. There were many differences between the groups on the interpersonal problem solving measure.

Conclusions: The results indicate that background and motivational factors were discussed in terms of implications for assessment and treatment. The results regarding problem solving were discussed in terms of the methodological limitations of the study and recommendations were made for future research.

Employee Assistant Programmes provide opportunities for clinical psychologists in organisations A ARTHUR, City University, London

The Employee Assistance Programme (EAP) is a service increasingly being provided by UK employers, both public and private, to enable their organisation’s distressed employees and dependants to gain free and confidential access to qualified mental health practitioners. These services are often described as workplace-based counselling, but in reality they amount to an alternative psychological consultation, assessment, referral and treatment service that clinical psychologists are increasingly involved in providing. Because employee distress is often the result of an interaction between organisational and individual difficulties, organisational interventions also need to be considered as legitimate interventions. This paper describes EAPs and their development, how they operate, the important issues of confidentiality and the conflicts of interest they can present to clinicians.

Personality and epistemological traits involved in theoretical model choice among British clinical psychologists and psychotherapists. A ARTHUR, City University, London

This study investigates the role personality and epistemological traits play in theoretical model choice among British clinical psychologists and psychotherapists. 247 participants from the two discrete psychoanalytic-orientations completed standardized personality and epistemological trait inventories. The results reveal significant differences on these measures between the two orientation groups. This suggests that specific personality and cognitive-epistemological traits are important to a model associated with a clinical psychologist’s and psychotherapist’s theoretical model choice. An examination of the similarities and differences between these two groups identifies fundamental differences in several areas of personality and cognitive-epistemological style between cognitive-behavioural and psychoanalytic-orientated practitioners. This has implications for training, practitioner satisfaction and understanding why there is little communication between these two major orientations.

Achieving accessibility with quality: Questionnaire measurement of condition-specific individualised quality of life C BRADLEY, Royal Holloway, University of London

The ADDQoL (Audit of Diabetes Dependent Quality of Life (QoL)) was the first of a series of questionnaire measures of condition-specific individualised quality of life (QoL) measures that was influenced by patient-centred paradigms underlying the SEIQoL interview method. The questionnaire specifies life domains (e.g. mobility), and respondents rate personally applicable domains for importance and impact of diabetes. ADDQoL’s psychometric properties have been investigated in several studies. The ADDQoL has been modified and extended to produce the RDOQL for people on renal replacement therapy and the HDQoL for adults with growth hormone deficiency. Preliminary results indicate that the instrument modifies well to suit other chronic conditions, is more sensitive to change and responsive to differences than generic QoL measures while, like the SEIQoL, taking account of important individual differences in perceptions of QoL.

Unconscious intention or meaning to challenge? K BUNNING, City University, London

A service response that assigns meaning to the challenging behaviour of people with learning disabilities is, by necessity, implicating the individuals’ communication skills. Decisions regarding communication-based interventions are usually made on the basis of how the intended effect of the individual’s behaviour is construed. Is it to avoid an undesirable event? Is it to secure the attention of a significant other? In short, a careful analysis is taken, focusing on the message conveyed and the appropriateness of its communicative form. There are particular problems when a person’s communication is non-conventional – that is, they do not use a formal linguistic code but communicate through body language, gestures, eye gaze and facial expression. Further more, they are unlikely to be able to contradict an interpretation and say ‘No, that’s not what I meant.’ The roles of influence and intention, emphasised in a social constructivist model of communication development, are relevant in situations of communication where it might be useful to discuss, from a communication perspective, some of the theoretical and practical issues in relation to service responses to challenging behaviour.

Competency and quality of life in Alzheimer’s Disease R COEN, St. James’s Hospital Dublin

Impaired judgement and lack of awareness of cognitive deficits (anosognosia) are common features of Alzheimer’s Disease. This raises practical and ethical issues across a range of situations, as recourse to proxy decision makers is a frequent reality. This presentation overviews research in the following domains: (i) the role of neurobehavioural deficits in the assessment of competency; (ii) caregivers as proxies in dementia. (iii) the evaluation by proxies of patient quality of life, (iv) informed consent to treatment/involvement in research, (v) living wills/enduring power of attorney. Data from Mersey Institute for Research on Ageing programme of research at this centre, on caregiver quality of life and on patient capacity to make an in-depth evaluation from diagnosis onward, is presented to illustrate current research frameworks in this area.

Evidence of memory biases for positive alcohol expectancies in problem drinkers D CURRAN, Northern HSS Board, Northern Ireland

Recent research has produced evidence suggestive of an information-processing bias towards pathology-congruent stimuli in problem drinkers. The present study attempted to extend these findings through the use of a word pair association paradigm which focused on positive and negative expectations associated with alcohol use. Alcohol consumers representative of the full drinking spectrum were included (i.e. from ‘light’ social drinkers through to ‘problem’ drinkers). Problem drinkers were found to rate alcohol word pairs, and in particular negative alcohol word pairs, higher than non-problem drinkers. In contrast, problem drinkers displayed memory biases for positive alcohol word pairs in both explicit and implicit memory tests. The implications of these results for treatment approaches are discussed.

Information processing biases in a panic population L DOHERTY, Enfield Community Care, Middlesex

Williams et al.’s model of anxiety and cognition proposes that anxious individuals will show an implicit, but no explicit, memory bias for threat-related information. The findings in the panic disorder population are inconclusive with regard to this prediction. The current study aims to systematically investigate the possible existence and nature of information processing biases in this population through their examination at progressively deepening levels of processing. A modified Stroop test is used to examine selective attention, together with the test of implicit and explicit use of information to indicate a relative attention bias and on tests of cue recall or recognition. The specific overall pattern of response to panic-related information is interpreted in terms of Williams et al.’s model and factors particular to the present study are discussed.

Reflections on the move: The view from the other side T DUNNE, Organisational Consultant, London

This presentation consists of the personal reflections of one psychologist who made the move from clinical to organisational psychology, addressing firstly what I have brought with me from my clinical work into my consultancy experience and secondly, some thoughts on what clinicians could usefully learn from organisational psychology. From my clinical background I find that the in-depth knowledge of individual psychology and adult development which my clinical experience gave me to be extremely useful for understanding people in organisations and their reactions to interpersonal situations. Cognitive Styles of processing information, bereavement models and PTSD have also helped me understand particular situations in the workplace. As regards what clinicians could usefully learn from organisational psychology, I address such concepts as Culture and how it affects people and influences behaviour; Cognitive Styles of processing information, bereavement models and PTSD have also helped me understand particular situations in the workplace. As regards what clinicians could usefully learn from organisational psychology, I address such concepts as Culture and how it affects people and influences behaviour;
in both workplace and in the wider society; the dynamics of consulting to groups and teams; and, finally, the construction and management of meaning in the workplace.

**Reported and observed disruptive behaviours in children of depressed mothers**
M EDWARDS, Clywdyan Community Health Trust, J HUTCHINGS & B NAPIER, University of Wales, Bangor

This paper presents data from a pilot study of 10 women referred to AMH teams for treatment of depression, and who, at initial screening, also presented with disruptive behaviour problems in their children (aged two to seven years). Whilst the association between maternal depression and disruptive behaviours in children is well documented, relatively little is reported in the literature on how interventions for maternal depression may affect reported and observed disruptive behaviours in children of those mothers. Using standardised measures, in conjunction with an observation measure of mother and child behaviours and interactions, the effect of a CBT intervention for maternal depression and its effect on child behaviours is tentatively explored. Using a case-study method, overall results indicate a reduction in the rate of disruptive behaviours in their children following the CBT intervention. However, the observational measure failed to detect any significant differences in mother and child behaviours or interactions.

**Is the grass really greener?**
A clinician’s view of organisational interventions
M GALLAGHER, Homefirst Community NHS Trust, Northern Ireland

Prior to training as a clinical psychologist, the presenter had some exposure to industrial sociology, industrial relations, manpower planning and review of major expenditure programmes. Part-time studies in health and social care management have prompted me again to reflect on concepts such as ‘leadership’, ‘motivation’ and ‘performance’. A minority of clinical psychologists may have a direct interest in these concepts, but all of us will be affected by the introduction of different cultural values, organisational restructuring, etc. in the ‘Modern and Dependable’ NHS. This paper attempts to pose some questions relevant to the other presentations in the symposium. To what extent should clinical psychologists become consciously involved in organisational change? Are we too optimistic in identifying parallels between clinical and organisational psychology? Why have clinical psychologists been far more interested in the problems of ‘reality’ (e.g. occupational stress) than the problems of those out of work, where hardly any research has been done by clinical psychologists?

**Behavioural assessment of communication in adults with profound learning difficulties: Measuring accurately?**
S HARDIE, University of Abertay, Dundee & C WILLIAMS Dundee Healthcare NHS Trust

This paper presents data from a case study of a profoundly learning disabled adult (female, 38 years of age). The ability to plan and review of major expenditure, etc. in the public sector has prompted me again to reflect on concepts such as ‘leadership’, ‘motivation’ and ‘performance’. A minority of clinical psychologists may have a direct interest in these concepts, but all of us will be affected by the introduction of different cultural values, organisational restructuring, etc. in the ‘Modern and Dependable’ NHS. This paper attempts to pose some questions relevant to the other presentations in the symposium. To what extent should clinical psychologists become consciously involved in organisational change? Are we too optimistic in identifying parallels between clinical and organisational psychology? Why have clinical psychologists been far more interested in the problems of ‘reality’ (e.g. occupational stress) than the problems of those out of work, where hardly any research has been done by clinical psychologists?

**Assessing premorbid ability in neurological and functional conditions: A critical review**
E KESSE, Sandwell Psychology Services, P BROKS, University of Sheffield, T POWELL, Moor Green Rehabilitation & R WARBURG, North Manchester General Hospital

This paper critically reviews current premorbid ability tests that are often used in both clinical neuropsychological practice and research. First, we discuss procedural and design-based measures, demographic predictors and the National Adult Reading Test (NART) and provide evidence to suggest that these procedures are affected by some clinical conditions. Secondly, we consider two recent tests: the Cambridge Contextual Reading Test (CCRT) and the Spot the Word Test (STW) which are said to provide premorbid ability. A systematic review of the literature indicates that the STW is good in estimating premorbid ability in mild dementia but not at other stages of the disease. The CCRT seems to provide higher premorbid estimates than the NART. NART, however, is not a sensitive indicator of a better estimate of premorbid ability. We argue that unless rigorous independent studies are available, the use of STW and the CCRT in clinical and research settings needs to be critically considered and, if initially validated, cannot be recommended. The clinical and theoretical implications of this review are discussed.

**An examination of prefrontal cortex lesion, performance on dysexecutive tests and the NART**
E KESSE, Sandwell Psychology Services, P BROKS, University of Sheffield, T POWELL, Moor Green Rehabilitation & R WARBURG, North Manchester General Hospital

This study investigated whether damage to the prefrontal cortex with iatrogenic HCV and significantly poorer QoL significantly more negative among those with iatrogenic infection. QoL outcomes were similar across groups but significantly poorer than for healthy adults. A plausible explanation for these results is the significantly more psychological morbidity among patients with iatrogenic HCV and significantly poorer QoL among both patient groups compared with healthy adults. Analysed these results, we examined in the study will help elucidate reasons for observed differences.

**A comparison of the NART, CCRT and the Spot-the-Word Test in head-injured patients**
E KESSE, Sandwell Psychology Services, P BROKS, University of Sheffield, T POWELL, Moor Green Rehabilitation & R WARBURG, North Manchester General Hospital

This study assessed the robustness of the NART, CCRT and the Spot-the-Word Test (STW) in estimating premorbid ability in mild, moderate and severe diffuse closed head injury. Also, we determined whether any one of these tests appears most robust at these levels of injury and we examined the extent of impairment on other neuropsychological measures. The methodology employed was primarily a 3 (text type) x 3 (level of injury) mixed-model repeated ANOVA design whereby each patient was compared on the NART, CCRT and the STW. The results indicated that the NART and the STW are equally robust in estimating premorbid ability in head-injured patients and also across different levels of injury. The NART was performed at significantly lower level from their respective comparison groups on the WAIS-R IQ subscales, the verbal memory test, the STW but not on the FAST. Only the STW was significantly higher anxiety and depression scores on the HADS than their controls. The theoretical and clinical implications of these findings are discussed.

**Quality of life associated with Hepatitis C contamination through iatrogenic versus lifestyle routes**
A HICKEY, C O’BOYLE, M SMITH, Royal College of Surgeons in Ireland, R BYRNE, Trinity College Dublin & F MURRAY, Beaumont Hospital Dublin

This study assessed implications for quality of life (QoL) of iatrogenic infection with Hepatitis C virus (HCV) from contaminated anti-D immunoglobulin compared with another route of infection (injecting drug use (IDU)). 117 consecutive attenders (71 anti-D, 46 IDU) interviewed by a hospital-based Panel. We argue that the methodology used within behavioural studies needs to be systematically developed, if behavioural observations are going to provide clinicians with reliable data.

**The effects of four therapy procedures on responsiveness and communication in people with profound intellectual disabilities**
W LINDSAY, Dundee Healthcare NHS Trust & University of Abertay, Dundee & E BLACK, Dundee Healthcare NHS Trust

There have been a number of therapeutic procedures recently employed with people who have profound intellectual disabilities to help them increase their range of life experiences. While these treatments have increased in popularity and use, there is very little evidence to indicate the effects of the treatments. This paper looks at the effects of snookelink, relaxation, massage/arnomatherapy and active therapy (a bouncy castle). A previous study has found that snookelink and relaxation therapy had positive effects on concentration, while the other two therapies had no effect or negative effects. Each of the subjects involved in this study were young men and women with intellectual disabilities. The study involved 12 subjects, 15 sessions and in the final session of each condition. Ratings of subjects’ enjoyment and the extent to which positive and negative communication occurred during the session were made by independent raters blind to the conditions.
the study. Analysis of variance conducted on the matrix of scores found no significant increase in negative communication during the hand massage condition and a significant decrease in negative communication following the active therapy condition. The results will be discussed in terms of individual responses to each therapeutic approach.

The return of the ‘unconscious’ in psychology: Examples from addiction research
C McKUSKER, C ARMSTRONG & K-S LEUNG, The Queen’s University, Belfast
Using examples from addiction research, this paper argues that the construct of the ‘unconscious’, as a motivating force of human behaviour, is re-emerging in empirical psychological research. It considers how traditional behavioural and cognitive models, despite their clinical utility, have fallen short on explaining critical features of addictive behaviours such as ‘loss of control’ and the desynchronisation often seen in these disorders between behavioural intentions (to quit) and ongoing behaviours. Examples of the ways in which processes and constructs outside of conscious awareness may be involved in these disorders. Examples of findings from the authors’ ongoing empirical work will be presented. The possibility of acknowledging a role for ‘unconscious’ cognitive processes for cognitive-behavioural therapy are considered.

An analysis of longitudinal case studies of persons who have learning disabilities and challenging behaviours
F MORRISON, University of Abertay, Dundee & F MacLEOD, University of Abertay, Dundee
The interpretation of the behaviour of persons who have moderate of severe learning disabilities is clearly problematic. To identify and illustrate a number of the different frameworks of interpretation we present observations of a person with a moderate learning disability over a three-year period in contrasting environments. A general theme in literature on challenging behaviour has been to suggest that it correlates strongly with communicative difficulties. The general findings that we report are difficult to account for within such a model. In our analysis of challenging behaviour observed over this period we identify increases in this category of behaviour despite concurrent improvements in life quality and other adaptive skills. A finding in normalisation literature is that persons who have a lack of communicative ability as a component broader classes of social skills is a poor predictor of adjustment to less restrictive environments. Individuals with poor communicative skills enhance the prospect of adaptation rather than restrict it. We present the findings of our case study contextualised socially located variables. In doing so we adapt a model proposed by Markova which places the interpretations of communicative strategies in the communicative contexts that they occur and within which meaning is ascribed.

Evaluating methods for estimating pre-morbid intellectual ability in closed head injury
R O’CARROLL, Stirling University & K AYATT, St John’s Hospital, Livingston & Lothian
The present study examines the utility of three measures of pre-morbid intellectual functioning in closed head injury, the National Adult Reading Test (NART), the Cambridge Contextual Reading Test (CCRT) and the Spot the Word Test (STW). In the first experiment, a group of 25 closed head-injured subjects was compared with healthy controls and 20 orthopaedic trauma controls. In the second experiment, the strength of correlation between the pre-morbid measures and current intelligence was examined in 114 healthy adults. No significant differences emerged between the groups on any of the pre-morbid measures. In a third experiment, the National Adult Reading Test and the CCRT accounted for approximately 50% of the variance in current verbal intelligence. However, in contrast, the STW only accounted for 29% of the variability in verbal intelligence. This is supportive evidence for the use of the CCRT and NART in estimating pre-morbid intellectual functioning in patients who have sustained closed head injuries, but suggest caution when employing the STW.

Applying psychology within organisations: Is there a role for the clinician?
P O’DONOGHUE, Central Remedial Clinic, Dublin
This paper outlines the experiences of a clinical psychologist invited to facilitate management staff in coping effectively with the demands of widespread change. The change agent needed a large financial organisation. A broad range of problem areas became obvious as work proceeded with management staff, as well as a range of ethical issues. In this particular case, the organisation had little experience with psychology and, in particular, with clinical psychology and therefore was unclear as to the role of the psychologist within the organisation. This led to tensions, and resolution presented a particular challenge. The primary model utilised in the current situation is a cognitive-behavioural. A structures framework was developed and presented to management staff which emphasised the utility of the components of a cognitive-behavioural approach which also drew attention to physical and emotional factors. The primary purpose of the current paper is to promote discussion directed towards the perspectives of industrial and organisational psychologists and clinical psychologists, and to elaborate on the role that might be played by the latter group within organisations.

Apathy in Parkinson’s Disease: Clinical and cognitive factors
G PLUCK, Institute of Neurology & R BROWN, Institute of Psychiatry
Apathy is a common complaint in individuals with Parkinson’s disease which shows a reduced interest in normal daily activities, socialising and hobbies or interests. It is a relatively common symptom in a range of psychiatric and neurological conditions and can pose a significant barrier to treatment. However, it is only recently that attempts have been made to directly study apathy. In the current study patients with Parkinson’s Disease were evaluated with a scale to measure apathy as well as assessments of clinical condition, depression, anxiety, anhedonia and a range of cognitive skills. It was found that apathy occurs relatively independent of depression and is more closely associated with anhedonia than apathy assessments. The only tasks required effective skills were affected. Implications for the differential diagnosis of apathy and possible causes are discussed.

What constitutes quality of life following Intensive Care experience?
J RATTRAY, University of Dundee, M JOHNSTON, University of St Andrews & J WILDSMITH, University of Dundee
Aims of study: (a) to compare perceived quality of life (QoL) before and after intensive care, and (b) to identify factors determining QoL in survivors of intensive care. Methods: Patients completing the SEIQoL-DW during interviews 6-12 months after discharge from the Intensive Care Unit (ICU). Cues identified as determinants of QoL were categorised by 9 raters. Subjects: Non-elective admissions from an ICU in a Scottish teaching hospital; an ICU stay > 24 hours; 18 years of age or older; resident within a 25 mile radius. Results: 34 patients participated. 28 completed the SEIQoL-DW. 11 reported an improved QoL; 14 a worse one and 9 reported no change. 23 categories emerged from the large number of cues. Health was not the main determinant of QoL, coming only fourth in order of frequency of listing. Factors not previously reported. This finding suggests that the current emphasis on health status in QoL assessment may be misplaced and that QoL enhancement may be achieved without improving health status.

The Adolescent Separation Anxiety Interview: A new measure
M RICHARD, Goldsmiths College, University of London, P FEAR, University College London & P SMITH, Goldsmiths College, University of London
Although no theoretical model exists, researchers have suggested possible links between early parental-child relationships and later separation anxiety in adolescence. In the course of research looking at this issue using attachment theory as a framework, the Adolescent Separation Anxiety Interview (ASAI) has been developed. The ASAI was designed for use with adolescents from 11 to 19 years of age, and details of the interview are presented here. The ASAI, like the Adult Attachment Interview, examines several memory systems, but specifically concentrates on the comparison of semantic and episodic memory and possible distortions within each system. The interviews are coded using discourse analysis and a clear attachment category assigned, using Crittenden’s extended coding scheme for clinical populations. Early findings with clinical patients presented here indicate that the interview may prove to be a useful early clinical assessment tool. As the interview focuses the individual on their relationships with parents and other caregivers, it can also be used to discourse on the possible patterns of early trauma in parent/child relations. This insight may aid clinicians in determining the most appropriate treatment for their patients, especially as certain attachment styles may lend themselves to specific therapeutic interventions. Future research is planned to determine the reliability and validity of the interview. This will be assessed by identifying clear differences in attachment strategy between distinct clinical groups and non-clinical controls.

Bridging the gap: Common themes in clinical and occupational psychology services
D RUSH, Saville & Holdsworth Ireland Ltd
This paper argues that there is a substantial cross-over, and a common conceptual field in the way that (a) clinical psychologists apply treatment paradigms and (b) occupational psychologists implement organisational interventions. There are a number of core common skill-sets, namely: aetiology based mental maps; a structured investigation paradigm; counselling and coaching skills; data collection methods; applied field research skills. Psychologists in both fields have moved towards a scientist- practitioner paradigm and understanding of the interface in management and supervisory issues, i.e. supervision of clinical and applied practitioner skills, while management focuses on resourcing and service development.

How anxiety treatments work?
P SALKOVSKIS, University of Oxford
The last three decades have seen the development of progressively more sophisticated treatments for anxiety disorders, recently culminating in evidence that specific phobias can be consistently ‘cured’ in a single session. Effective treatment of other problems such as panic and severe agoraphobia require longer treatment, but three- to eight-session treatments for these problems are now available and will be described here. The emphasis here is to illustrate the way in which treatment strategies have evolved, moving from ‘counter-conditioning’ techniques to exposure therapies that utilise cognitive strategies. Evidence that belief change can account for the effectiveness of exposure treatments will be presented. It is suggested that this is because scientific theory and therapy in anxiety requires two types of framework. Firstly, an approach which allows the investigation of current health-related theories of the origins and maintenance of anxiety disorders, without resorting to medical/lesion models. Second, there is an urgent need for an integrative approach to the role of psychological...
factors and mechanisms (including both specific and ‘non-specific’ factors) in the treatment of anxiety problems. Such specific frameworks are outlined and their implications discussed.

Putting the qualities into quality of life
S SKEVINGTON, University of Bath
Morbidity and mortality are favoured health service outcome measures but more recently attention has turned to the measurement of quality of life and the debate about who is best able to assess it. In this paper, definitions of quality of life are examined together with the notion about what it means to have a good quality of life. While many subjective quality of life indicators are available, how far have they identified and assessed the most valued qualities in life and what might these qualities be? Several valid methods of assessing these important qualities are outlined. A new method used in the development of the WHOQOL-100 is presented as an example of how this issue has been addressed within a cross-cultural context.

Attentional biases for fear-relevant information in Childhood Anxiety Disorder
T TEGGART, The Queen’s University Belfast
The aim of the current study is to add to the nascent body of work that is establishing the significance of attention to fear-relevant information in the environment among populations of anxious children. Nineteen children performed a modified Stroop colour-naming task in three conditions which involved idiosyncratically selected positively and negatively valenced fear-relevant and neutral Stroop stimuli. Ten of the children (mean age, 11 yrs, 11 mths) were, at the time of testing, attending an outpatient child and adolescent psychiatry service due to difficulties with anxiety. The other nine children (mean age, 10 yrs, 9 mths) were non-anxious controls. Factorial analysis revealed no significant differences in mean Stroop response times across the three conditions, as predicted, for the control group (F(2,34)=2.43, P=0.05). A significant effect for conditions was found (F[2,34]=7.021, P=0.003), as predicted, for the anxiety group. These findings and the implications for future research are discussed.

Challenging communication: Exploring the role of communication and the speech and language therapist for adults with learning disabilities who challenge services
S THURMAN, Nottingham Community NHS Trust
The growing interest in the relationship between challenging behaviour and communication has resulted in a re-examination of the complex and diverse nature of this relationship and a recognition of the speech and language therapist as a key member of the multidisciplinary team working with service users who challenge services. A training package developed by two speech and language therapists (Challenging Communication) is described. A simple model of communication is central to this package and its elements are explored in some detail. The use of this package, alongside a communication profile and other approaches such as visual communication and life story work is outlined. The place that communication plays in a wider understanding of challenge is examined and its scope and limitations considered. Finally, the value of a shared framework and model of communication for all staff is discussed and implications for the wider service considered.

Consideration of the communicative functions of challenging behaviour by care staff
B WALKER, Dundee Healthcare NHS Trust & E BLACK, Dundee Healthcare NHS Trust
This study aimed to examine factors influencing care staff’s communicative function to challenging behaviour communication was relatively infrequently mentioned. Stereotypical behaviour was not considered to be controllable. Clients with the more severe learning disabilities were more likely to have the communicative hypothesis ascribed, and staff developing a communication plan were more likely to mention communication than hospital staff. Care staff’s recommended interventions also followed a similar trend with respect to the above factors. Staff training would seem to highlight the relevance of the communicative hypothesis and communication-based treatments to challenging behaviour, particularly so in areas where the communicative hypothesis is not widely considered.

Pilot study of personalised computer-based psychological treatment for anxiety in primary care: Results to six-month follow-up
J WHITE, Glasgow Community and Mental Health Services NHS Trust, R JONES, E MCGARRY & B COWAN, University of Glasgow
Given the waiting list problems often encountered in primary care psychology services, there is a need to provide GPs with readily accessible, easily understood and personally relevant treatments for common disorders that do not require extensive contact with a highly qualified therapist. This pilot study developed a three-session interactive multi-media touch screen CD-ROM treatment. The approach is based on well-validated cognitive behavioural self-help anxiety package – Stresspac – written by JW. Patients meeting DSM-IV criteria, as assessed by the Anxiety Disorder Interview Schedule (ADIS-IV), were recruited from a Health Centre in a socially deprived area in the West of Scotland. A 'one plus two' format was used – one information and self-assessment session followed by two treatment sessions. Six treatment options were available: Controlling your... (1) thoughts, (2) actions, (3) body, (4) panic attacks, (5) sleep problems and (6) future. Personalisation was achieved by computer-patient interview and on-screen completion on the Beck Anxiety and Depression (II) Inventories. Results, to six month follow-up, on over 30 chronic, highly comorbid anxiety disorder patients will be presented and the discussion will look at how to further develop this approach along with early results from the ongoing RCT.

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Freud, language and unconscious love

M BILLIG (Invited Speaker), Loughborough
This talk attempts to develop some of the ideas of disjunctive psychology by applying them to some of Freud’s key concepts, particularly the notion of repression. It is argued that thinking is modelled on argument and dialogue. Conversation provides the necessary devices for repressing uncomfortable thoughts. More than this, it is suggested that repression is necessary for conversation, for language is not only expressive but is repressive. Thus, discursive psychology can be developed by taking seriously Freudian notions. These ideas are discussed in relation to the idea of unconscious expression of socially unconscious love, which lies at the root of some of Freud’s famous case histories. It is suggested that unconscious love is not a mysterious notion, once emotions such as love are seen as being discursively constituted. New light can be thrown upon Freud’s classic case histories, and indeed on his own relations with his wife Martha by examining unconscious and conscious love in terms of their discursive properties.

The work of material culture: The Moorrees figure board

G BUNN, Science Museum, BPS Centenary Fellow
A few years ago, Wendy Hollway presented to the Section a study of psychology at Rowntree’s Cocoa Works. The present paper complements and extends her findings. Rowntree and Co Ltd was a generous supporter of psychology during the first two decades of the 20th century. It hired the first industrial psychologist in Britain, V Moorrees, in 1922. The Psychological Department, established the same year, undertook time and motion studies and performed vocational selection. The company also funded research on a consultancy basis from the National Institute of Industrial Psychology. Although Moorrees complained that his apparatus was crude and ‘home-made’, his Figure Board was successfully used in vocational selection until at least the late 1930s. This paper argues that the success of the Figure Board, compared to other forms of apparatus, was based not upon its empirical properties.

Individuals: Uniqueness or integration

M CHEUNG CHUNG, University of Sheffield
The aim of this paper is to examine the essence of individuals by exploring the notions of uniqueness and integration. Given the assumption that we are ‘unique individuals’, implying one of a kind, I wish to point out some problems in looking at individuals in such a fashion. Firstly, let us pursue the argument by saying that we are in essence composed of ontological dimensions, disparate parts or different modes of being each other in a way which should, more appropriately, be described as integrated individuals rather than unique individuals. However, the replacement of the term ‘uniqueness’ with the term ‘integration’ does not mean that we no longer have our own ‘points of view’. The latter, however, should be seen in the light of integration.

Early twentieth century research on memory in Britain

A COLLINS, Lancaster
In his seminal book Remembering (1932), Bartlett used the technique of serial reproduction and he speculated that perhaps ‘the time has gone by for writing a book on Memory’ because of its connotations of faculties and the unfashionable nature of faculty accounts. Albeit a passing remark, Bartlett raises the fundamental issue of how memory has been maintained as a category of investigation and explanation in psychology.

Between experimental and cultural psychology: Bartlett’s ‘experimental psychology’

A COSTALL, Portsmouth
Wundt’s distinction between experimental and Völkerpsychologie involved considerations of both method and content. According to Wundt, the domain of experimental psychology was restricted to the realm of sensory processes and simple motor reactions. The higher mental functions by their very nature could not be subject to direct experimental study. Instead they could only be approached as distinctively ‘cultural’ phenomena through non-experimental methods. In the 1920s and 1930s, Bartlett wrote several extensive critiques of the traditional model of experimental psychology and its ‘awe of the stimulus.’ Yet, in contrast to Wundt, he argued that the ‘higher mental functions’—whose very biological function is indeed to free the organism from immediate stimulus control—could nevertheless be subject to experimental study. Yet Bartlett’s attitude to— and conduct of— his own experiments on repeated reproduction of texts was complicated. First of all, as he himself acknowledged, the specific design of these studies hardly captured the normal conditions of ‘social remembering’; the participants were not allowed to converse, and the recipient of the information was not free to check details with the ‘transmitter’. Secondly, Bartlett, reinvented the ‘invention’ of the method of serial reproduction (attributing this idea to a suggestion from Norbert Wiener), and thereby distanced this technique from its origins in British anthropology and archaeology. Finally, and most importantly, Bartlett’s experimental study of the higher mental processes could not, in principle, properly address the cultural foundations of human mind. Many of Bartlett’s contemporaries had in fact disagreed with Wundt about the possibility of an experimental psychology of the higher mental functions, and yet retained a categorical distinction between an experimental and a cultural psychology.

Boundaries and inscriptions: The early years of clinical psychology at the Maudsley

M DERKSEN, Groningen
British psychology played a crucial role in the post-war development of clinical psychology. The Department of Psychology at the Institute of Psychiatry in London, at the Maudsley Hospital, was particularly influential on the course of clinical psychology in Great Britain as well as abroad. Under H J Eysenck, the Maudsley laboratory was developed that was staunchly scientific, proudly independent of, yet complementary to, psychiatry, and strongly opposed to psychoanalysis. Clinical psychology was to be an outcrop of science, a psychological laboratory in the psychiatric clinic. I first describe how the boundary between laboratory and clinical psychology and psychiatry, were shaped in Eysenck’s programmatic papers. Then, using the concept of inscription, I explore how the clinical psychology and psychiatry was negotiated in the daily practice of work in the clinic, how it was affirmed, reshaped and crossed by the marks that clinical psychologists produced.

Measuring confidence: An historical survey

D DUNCAN, Social Audit Services
In 1958 the author delivered a paper to the British Association for the Advancement of Science, meeting in Bristol, entitled ‘Confidence as an integrating concept’. This paper reviewed the history of the idea that time economists and politicians recognised confidence as an important psychological concept, but never defined it. Psychologists accustomed to mentioning it at all, seeing it as characterised by a lack of objectivity, the madness of the crowd. Has this position changed in the past 40 years? Nowadays who measures confidence? How do they do it? A research programme for psychologists is proposed.

Embedding critical history across the curriculum

J ELCOCK & D JONES, Cheltenham & Gloucester College of Higher Education
The authors are current and past field chair (course leader) in Psychology and as such have had a major influence on how the curriculum is shaped within a degree. An attempt has been made to embed a critical and reflexive approach to the history of the discipline across modules within the field. Two major problems have been encountered in taking this approach. The first is that the majority of textbooks written from a critical, reflexive orientation are more suitable for advanced rather than introductory students. The second is that standard introductory textbooks treat history in an unsophisticated way. This paper has two aims, one is to sketch the process of change within this degree course. For the second, using student evaluations of modules, an attempt is made to investigate the success or otherwise of the process of embedding critical history across the curriculum.

The contextual stance

G FOXALL KEELE
The contention that cognitive psychology and radical behaviourism yield equivalent accounts of decision making and problem solving is examined by contrasting a framework of cognitive interpretation, Dennett’s intentional stance, with a contextual interpretation. The contextual stance is derived from contextualism. The insistence of radical behaviourists that private events such as thoughts and feelings belong in science of human behaviour is indeed expected. The contextual stance is intended to provide a credible interpretation of complex human behaviour. Dennett’s interpretation of intentional systems is an example of an experimental work. A radical behaviourist requires; a corresponding interpretive position can be based initially on a radical behaviourist view of human behaviour and its determinants. This ‘contextual stance’ is ontologically and methodologically distinct from the intentional stance over the range of explanations for which scientific psychology, cognitive or behaviourist, is responsible.

Alexander Luria and psychoanalysis in the 1920s

M HAMES, UCL, London
Alexander Luria became a leading member of the flourishing psychoanalytic movement in Russia in 1922. He saw Freudian theory as a way out of the well-known ‘crisis in psychology’. He cooperated with the work of Pavlov & Bekhterev he viewed it as the materialist foundation which would enable him to investigate the mental and physiological interrelationships of the mind and brain. He saw psychoanalysis he saw it as a promising component of a Marxist approach to psychology. In 1927 Luria resigned as Secretary of the Russian Psychoanalytic Society and withdrew from practical and theoretical activity in psychoanalysis. In 1932 he added it to the list of approaches that made up the crisis in psychology. This paper traces these developments using previously untranslated works by Luria.
also suggests how elements in Luria’s work of the late 1920s can be seen as replacements for the psychoanalytic approach, and hence as specific criticisms of it.

History as critical psychology

D JONES & J ELCOCK, Cheltenham & Gloucester College of Higher Education

The authors teach a level three undergraduate module in critical psychology, engaging theoretical and philosophical issues in a reflexive and integrative way. Central to this approach is a critical consideration of the history of psychology, highlighting the ways in which psychology has in the past been shaped by ideas from other disciplines; by the carrying over of elements from psychoanalysis; and by the social context within which psychology is embedded.

This consideration establishes a framework for critically evaluating current theoretical positions, wherein we show how the same forces act upon the development of theories in modern day psychology. This paper describes and justifies this historical approach to teaching critical psychology.

The baby cried. The mommy picked it up: Harvey Sacks and psychology

S LOVIE, Liverpool & CHOP

The paper celebrates the two-volume Lectures on Conversation (1992) by Harvey Sacks who died tragically nearly 25 years ago: it will also explore something of their significance for psychology, and the difficulties and possibilities that new conversations contained in the volumes pose for the discipline.

Probability as the guide to life

W MAYS, Manchester Metropolitan University

Most discussions of probability have been of a technical nature and have led to the belief that it has not much to do with the practical business of life. This presentation has been made by analytic philosophers and others, to relate the abstract notion of probability to our everyday use of the notion in situations that have not always been cogent. Another approach to this problem has been made by psychologists. Their interest mainly arose from a two-fold source: (a) a study of decision making and (b) a study of the development of the concept of chance in the child. In this paper I will examine critically some of these studies. I will also report on a study I carried out, using questionnaires, in order to discover what the ordinary adult has in mind by such notions as chance and uncertainty. The results showed, among other things, that the abstract notion of probability have percolated down, so as to affect his/her judgments on these matters, often irrationally.

Making up mind: Mental philosophy, psychology and the negotiations behind setting up a new journal

F NEARY, Lancaster

This paper explores the boundary relations between mental philosophy and psychology through an investigation of the negotiations that took place in the mid-1870s, over the formation of the Mind. In particular it looks at the correspondence between the journal’s first editor, George Croom Robertson, and his mentor Alexander Bain in this important period for the development of British Psychology. From as early as 1866 Croom Robertson saw a peculiar psychology and the negotiations around establishing a journal that have not always been cogent. Another approach to this problem has been made by psychologists. Their interest mainly arose from a two-fold source: (a) a study of decision making and (b) a study of the development of the concept of chance in the child. In this paper I will examine critically some of these studies. I will also report on a study I carried out, using questionnaires, in order to discover what the ordinary adult has in mind by such notions as chance and uncertainty. The results showed, among other things, that the abstract notion of probability have percolated down, so as to affect his/her judgments on these matters, often irrationally.

Children’s labelling: Deep conceptual structures or perceptual biases?

H OGG, Royal Holloway, London

This paper reviews two contrasting approaches to these questions – one approach suggests that the notion of knowledge or conceptual structures be retained, the other that the notion of conceptual structures be abandoned. For example, on the one hand there is the view that children’s labels are manifestations of deep structural features such as beliefs that certain ontological domains (natural kinds) possess ‘non-observable’ properties (blood, brains) or essences. On the other hand, there is the view that children’s labels simply reflects a bias to attend to perceptual properties via dumb attentional mechanisms or a sensitivity to covariation. This view eschews talk of conceptual structures in favour of context-sensitive categories. It is suggested that the empirical evidence fails to distinguish between the two approaches. Could a philosophical argument come to the rescue?

Frederic Bartlett, reconstructive remembering and the recovered memory controversy

J OST, Portsmouth

Bartlett’s seminal work on remembering is often incorrectly invoked to support the view that memory is inherently reconstructive and therefore a subjective matter. This paper re-reading of Bartlett’s classic text reveals a more subtle message: that of remembering as an essentially social activity dependent upon the relationship between the audience and context. Accuracy is paramount, whilst in others it is quite incidental. Furthermore, Bartlett’s theory of so-called ‘reconstruction’ implied that ‘all’ material would be subject to initial transformation, but also that such transformation would eventually render the material resistant to further change. The common misinterpretation of Bartlett’s theory has important contemporary consequences. This paper concludes by illustrating how the misinterpretation of Bartlett’s theory has contributed to the false recovered memory debate.

Behaviourism as a standpoint in linguistics

UT PLACE, University of Wales Bangor

The thesis of this paper is that behaviourism is the only adequate scientific foundation for the disciplines of psychology, linguistics and linguistic philosophy. Behaviourism in psychology is presented as a convergence of six principles: (1) behaviour as the subject matter of psychology, (2) the objectivity principle, (3) the rejection of mentalistic explanations of the term contingency, (5) the distinction between discriminative stimuli and establishing conditions, and (6) learning. The attempt to apply these principles in linguistics and linguistic philosophy is seen as resting on ten principles: (1) language as communication in the service of technology, (2) language and thought, (3) the sentence as the functional unit of linguistic communication, (4) novel sentence-construction, (5) novel sentences and the representation of unfamiliar contingencies, (6) sentence-construction and the win-shift/fail-stay contingency, (7) the picture theory of the meaning of sentences, (8) the associative character of word and phrase meaning, (9) lexical words, syntactic words and Bickerton’s ‘proto-language’, (10) mutations and the facilitation of language learning.

HJ Eysenck and the paradox of the Russian connection

RE RAWLES, University College London

HJ Eysenck (1916-1997) constructed a scientific theory of personality. Initially, he based this theory upon a factor analysis of psychological tests. This study provides insights into the aspirations for the content and form of the new quarterly periodical, and gives a picture of the state of the relations between psychology and poetry as a means to investigate the nature of the mind. In addition I place these negotiations within the context of debates taking place in the Mind, and I illustrate how many of the early contributors to Mind were drawn.

The British Psychological Society 1999 Proceedings

Putting Britain on the couch: Popularising psychoanalysis in Britain 1918-1934

G RICHARDS (Invited Speaker), Centre for the History of Psychology, Staffs

This paper examines the ways in which psychoanalysis and its psychoanalytic ideas spread through British culture during the inter-war period. Contrary to occasional assertions, psychoanalysis enjoyed an enormous popular impact during this period. This paper identifies a hierarchy of publications, from the technical works issued by the Hogarth Press via more popularly pitched works and coverage in general works on the ‘New Psychology’ to exchanges in The Times correspondence columns. These served to ensure that there was an account of psychoanalysis for every major market ‘niche’. This episode is interesting for several reasons: (a) as a case study in how a particular psychoanalytic idea functioned as a psychological usage; (b) as requiring an explanation in terms of how post-Great War psychological conditions in Britain created a fertile climate for Freudian doctrines; (c) as drawing attention to a now largely forgotten episode which in some respects adumbrates current popularisations of psychotherapeutic techniques and counselling. Certain connections with the ‘Psychoanalysis and Religion’ theme, discussed in a previous presentation, are also drawn.

Psychology and public opinion: An historical study

M ROISER, Thames Valley

Since the beginnings of social democracy political theorists and social scientists have tried to understand public opinion, while politicians have both claimed to represent it and sought to manipulate it. Among social scientists, psychologists have played an important role, though their contribution is relatively recent and rather contradictory. In the eighteenth century Rousseau formulated the idea of ‘the general will’, and the effect of ‘opinion’ was important during the French Revolution. Edmund Burke regarded public opinion as a ‘vaporous and dark spirit’ like a ‘weather vane’. Jeremy Bentham talked of the ‘greatest good for the greatest number’ while JS Mill criticised the ‘tyranny of the majority’. In the late nineteenth century the Russian sociologist Le Bon criticised public opinion as a crowd phenomenon, emotional and primitive, but the sociologist Gabriele Tarde disagreed with him. McDougall later offered a more benign view in his book The Group Mind. But Floyd Allport attacked the notion of group mind as mystical and unscientific. He argued that public opinion was simply the sum of individual opinions. Psychologist George Gallup used modern statistical techniques to measure public opinion and established the opinion poll industry with the successful prediction of the 1936 US presidential election. Together with Allport he established the concept of a ‘social force which we call public opinion’. But opinion polls have come under criticism for predictive inaccuracy and theoretical weakness. Recently Moscovici has developed the concept of social representations which may prove to be a means of understanding public opinion in a more qualitative manner.

History of the society for the furthe...
with German and Dutch colleagues also working within the critical tradition. The Society was founded in 1940 on the ideas of Leonard Nelson (1882-1927), a Göttingen scholar who had earlier founded a philosophical academy on Kantian principles. The Society emphasises empirical and psychological aspects of rational philosophy and is deeply concerned with issues of ethics arising in everyday practice in the modern world. We are as interested in the ethical problems of ordinary people in ordinary situations as much as we are in professional ethics. Of increasing concern to us is the application of Socratic Dialogue in industry by applied philosophers and the growth of the philosophical counselling movement.

Psychology and literature: Dostoevsky between Freud and Darwin
P STENNER, Bath
This paper begins to explore some of the convoluted historical relationships between psychology and literature. Certain key literary ‘giants’, such as Eliot, Proust, Dostoevsky & Hardy can be seen as having undertaken eminently psychological tasks in their writing, although for obvious reasons they do not feature in the history of psychology’s canon. The paper concentrates specifically upon Dostoevsky’s Notes from the Underground and argues that it represents an artistic ‘digestion’ of contemporary political and scientific trends (such as utilitarianism and evolutionary theory) which results in the excretion of a characteristically psychological mode of thought and practice.

Freud and psychoanalysis
N WETHERICK, Edinburgh
Freud is today remembered as the originator of psychoanalysis, a system of psychological therapy now in eclipse on grounds of cost and relative ineffectiveness, That is not how he hoped to be remembered. He thought of himself as a scientist concerned with human behavioural phylogeny and ontogeny. If human beings are simply the most highly evolved and successful animal species it needs to be explained:
1. How the conflict was resolved between the need for human males to co-operate (which is the source of their strength) and their animal desire to compete for possession of females.
2. How, granted bipedalism (meaning that the nose and the external genitalia are no longer on a level), the species found an alternative to the olfactory cues employed by lower species to ensure successful sexual congress in a sufficient number of individuals.
3. How the species found a use for libidinal energy.
Welsh Branch Student Conference

The relationship between social status, group activities and self-reported pro- and anti-social behaviour
S BAHADUR, University of Wales Institute, Cardiff

The present study examined the relationship between the sociometric status, group activities and pro and anti social behaviour of Year 11 pupils (15 to 16 years old) from a large inner-city high school. A facilitator was developed that established the social structure of two classes using sociometric relationship questions, the activities carried out whilst with a group of friends and self-reported pro- and anti-social behaviour. An analysis of the sociograms showed that approximately two-thirds of the sample had a perceivable relational incisibility. Quantitative analysis showed no relationship between the pro and anti social scores. Implications and methodological problems of these results are discussed.

Stress and Occupational Therapy
B BUSHHELL, All Wales Part-Time Occupational Therapy Programme

The study was undertaken to consider occupational therapists (LASSCOTs) perceived current stressors in their workplace. Critical incident diaries were used to record incidents in social services adult disability teams. Identified stressors were placed within the concepts defined by The Model of Human Occupation (Kielhofner, 1995). Stress was considered in a transactional model as an imbalance between required and available resources (Levi, 1987). Comparison was made between the results and workplace stressors identified by Cooper (1990). Diary sheets over a four-week period captured 38 individually perceived critical incidents and did not reduce to below moderate in almost half on reflection.

The use of the cognitive interview with 7- to 11-year-old children
S CASE University of Wales Swansea

A modified version of the cognitive interview (Gieselmann & Papilia, 1988) was found to significantly improve the recall of Year 3 (7- to 8-year-old) and Year 6 (10 to 11-year-old) children (both p<0.001), thus supporting the findings of Saywitz et al (1992) and McCauley & Fisher (1995), whilst also significantly increasing endorsement in both groups (both = p<0.001) when compared with a standard interview construct (see also Memon, 1996). The detrimental effect of the cognitive interview on the accuracy of Year 3 children (i.e. relative errors) suggests that conclusions as to its efficacy for younger children should be made cautiously. However, the technique did not effect the accuracy of older children's recall, implying that the increase in errors is a worthwhile trade-off (Memon & Stevenage, 1996).

T’ai Chi as an option within the elderly day hospital
R DODD, All Wales Part-Time Occupational Therapy Programme, Gwent Community Health (NHS) Trust

This study aimed to assess the effects of participation in T'ai Chi option with older subjects within a Day Hospital. An experienced T’ai Chi practitioner conducted the sessions, which involved a sequence of forms incorporating muscular activity with an internally directed focus. A quasi-experimental pre-test and post-test design was used to determine if subjects perceived physiological and psychological benefits from the intervention. A qualitative enquiry, a structured interview, was used to elicit views. The subject group were that of 20 subjects, aged 65 plus, with conditions such as anxiety, depression and other affective disorders, participating in T’ai Chi sessions for at least eight weeks of one hour per week. The subjects expressed their enjoyment and the responses were indicative of the perception of positive affective and cognitive changes, of well-being, raised self-worth and improved physical function. T’ai Chi appears to be a low cost and simple alternative, providing encouraging results to improve or maintain function in older adults.

The effectiveness of anxiety management groups as a treatment for anxiety in people with mild learning disabilities
D FILMER, All Wales Part-Time Occupational Therapy Programme

Anxiety Management (AM) groups have been shown to be an effective treatment for anxiety in the general population, but are not widely available to people with learning disabilities. This study examined the effectiveness of a six-week AM group for six participants with mild learning disabilities within the community (CASS). The CASS scale was used pre-group, post-group and three months post-group to assess severity of anxiety. Perceptions of the impact of anxiety was measured using the Effect on Life Inventory, where participants recorded incidents of anxiety symptoms. Post-group participants were interviewed to elicit their perceptions of the programme's effectiveness. Post-group, participants exhibited either a decline or stability in CASS scores and frequency of incidents of anxiety recorded. Two maintained this three months post-group. Participants also perceived many benefits from the programme.

Children’s own perceptions of early learning
J HOWARD, Cardiff University

Constraints imposed by seeking to raise entry levels before Key Stage One of the National Curriculum have led to a conflict about age appropriate provision for early childhood. On the one hand the DfEE advocate formalisation of approaches to numeracy and literacy in preparation for Key Stage One. On the other hand a long tradition exists, supported by psychological theory, of the need for preparation for readiness, not for the curriculum itself. Readiness is best achieved by embedding activities within the context of playful. This paper explores children’s own perceptions of early years’ activities using the Activity Apperception Story Procedure. This provide descriptions of 26 classroom scenarios. Analysis focuses on their accounts of play, work and learning. The tension over expectations in early years education is reflected in the children’s responses.

Two-and-a-half minutes of ‘This-and-that’ ...
R JONES, University of Wales Institute, Cardiff

...in which five people have a cup of coffee, one gets bumped into, another tells a story, two don’t bother listening and one doesn’t understand ... just a small observation, but the naturally occurring casual conversation, except that this has been recorded and transcribed. Using Conversation Analysis, we’ll see something of ‘how it is that persons go about producing what they do produce’ (Sacks, 1992). In it, ‘I’m god talking about that’ constitutes an adequate preface to a story.

An investigation of the effects of social group participation on elderly patients in a day hospital
S JONES, All Wales Part-Time Occupational Therapy Programme

This study investigates whether positive psychological benefits are gained by clients in a day hospital for those receiving routine treatment and participation in facilitated discussion groups. An opportunity sample was used involving two groups, participants aged 55 years and over. Two groups were constituted, a facilitated group and a non-facilitated comparison group. The facilitated group received routine treatment and group discussion once a week over a four-week period. The non-facilitated comparison group received only routine treatment over a four-week period. The Philadelphia Geriatric Center Morale Scale (Angus et al, 1992) was used pre and post-intervention, and focus groups post-intervention on Scores on the PGSCP indicate a mean increase in global life satisfaction within the facilitated group, an increase that was higher than in the other group. Participants within the facilitated focus group appeared to have a stronger sense of value and mean that the research of Welsh language in adolescents has been informed by theories about intergroup relations, but tends to neglect the importance of ‘history’ explaining negativity in terms of maturation and group identity. Since legislation in 1988, 1993 and the referendum of 1998, the Welsh language has been given much higher status than occurs with minority languages in other countries. Accounts of the importance of Welsh were obtained from adolescents with deliberate manipulation of the experimenter effect. Changes in attitudes can be shown to be influenced by location, noticias, and salience of the investigator’s ethnicity as well as individual maturation. Areas where intergroup theory needs modification are outlined.

Intergroup theory and adolescent attitudes to Welsh
A MATSUYAMA, Cardiff University, School of Education

Research on attitudes to the Welsh language in adolescents has been informed by theories about intergroup relations, but tends to neglect the importance of ‘history’ explaining negativity in terms of maturation and group identity. Since legislation in 1988, 1993 and the referendum of 1998, the Welsh language has been given much higher status than occurs with minority languages in other countries. Accounts of the importance of Welsh were obtained from adolescents with deliberate manipulation of the experimenter effect. Changes in attitudes can be shown to be influenced by location, noticias, and salience of the investigator’s ethnicity as well as individual maturation. Areas where intergroup theory needs modification are outlined.

Occupational stress and perceived control among Primary School teachers
D NICHOLSON, University of Wales Institute, Cardiff

Stress and perceived control play a fundamental role in life from both positive and negative perspectives and much attention has focused on work-related stress among the public sector employees. It has been claimed on a stress scale that the level of stress they experienced. Seventeen teachers participated in the study and completed a questionnaire. Elements of control were measured in the workplace and at home. Elements of stress was measured using the Occupational Stress Indicator measured (Nicol & Williams, 1988). The findings illustrated no significant relationship between work, home and stress.
Facial attractiveness and age identification in mate selection: An evolutionary perspective

L PARSONS, University of Glamorgan

Despite a wealth of cross-cultural investigations into the ratings of human facial attractiveness, research on facial attractiveness and its connections with the history of sexual selection in humans has only been superficially addressed. In this study, the role of facial attractiveness and preference in mate selection are investigated, within the broader context of the origins of human mating systems (Fisher, 1930; Trivers, 1972; Simmons, 1990). Speculation on the relationship between facial attractiveness, age and suitability as a partner, are discussed in the light of research identifying the role of appearances in the classification of reproductive value in socio-economic status. Research presented in this paper further documents those mate characteristics that are least desirable to males and females, identifying sex differences in their value. A between subjects design highlighted a significant sex difference in the perception of male/ female important characteristics. The male preference for facial attractiveness was also supported.

A pilot study: Comparing the effect of group and individual occupational therapy treatment on the motor proficiency of children with motor learning difficulties

M SPEAR, All Wales Part-Time Occupational Therapy Programme

Seventy children aged 9-11 years with Developmental Motor Co-ordination Disorder received eight hourly sessions of occupational therapy on facial attractiveness and the Movement ABC Scale (Henderson & Sugden, 1993) was identified on an orthographic or phonological basis? A between subjects repeated measures design was employed. Eight sentences containing six facial expressions, in a free vision judgment task. Results revealed a significant left hemiface perceptual bias for emotion, which varied according to the emotional valence of the task. Support for the role of the right hemisphere in the perception of emotional expression was obtained. Both handedness and emotional valence were of consequence to the frequency of perceptual bias elicited, with left-handers exhibiting less hemiface bias asymmetry.

Talking about Language – the acquisition of reading language in determining effective learning, understanding and communication within and between a globe of individuals

V TURNER, University of Wales, Swansea

The study investigated the effect of exercise on the mood of people with mental health problems, its value in occupational therapy, and its role in the maintenance of mental health. The study was conducted at a psychiatric rehabilitation day centre. The sample comprised 19 clients who regularly participated in a range of sports. They completed 31 self-rating questionnaires on positive and negative mood before and after single sessions of exercise. Pre- and post-exercise scores were compared. Semi-structured interviews were conducted with eight participants to investigate the perceived psychological effects of regular exercise. A comparison group of 16 clients completed questionnaires before and after sedentary group activities. Exercise appeared to improve both positive and negative aspects of mood. Sedentary activities enhanced positive mood, but had less effect on negative mood. Interviews revealed that respondents considered exercise advantageous to their mood, motivation to engage in other activities, and mental health.

Co-operative learning and Welsh medium science teaching

E THOMAS, School of Education, Cardiff University

The way in which materials are developed for teaching science through the medium of Welsh involves a complex co-operation between agencies such as the Curriculum Authority, LEAs and practising teachers. The Curriculum Authority has commissioned improved materials for teaching in Welsh medium primary schools. The majority of pupils in anglicised areas who receive Welsh medium education speak English at home. Hence, in science teaching, to ensure usability of scientific terminology, something more than teacher talk and individual written work is important. Vygotkian perspectives suggest that co-operative learning schemes can provide contexts where terminology is used in the ‘zone of proximal development’. Evaluating a co-operative learning scheme devised for Welsh medium science teaching suggests that retention of terminology is considerably improved compared to traditional classroom methods.
The Standing Conference Committee is pleased to invite submissions in the form of symposia, individual papers, posters, workshops and round tables for inclusion in the Conference programme. All submissions must reach the Conference Office at Leicester by Monday 11 October 1999.

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