

including genetic liability, aberrant serotonergic function, neuropsychological deficits and structural and functional brain abnormalities. However, few functional brain imaging studies have been conducted using tasks of clinically relevant functions such as impulse control and reinforcement processing. Here we report on a study investigating the neural basis of behavioural inhibition and reward sensitivity in ASPD using functional magnetic resonance imaging (fMRI).

Methods: 17 medication-free male individuals with DSM IV ASPD and 14 healthy controls were included. All subjects were screened for Axis I pathology and substance misuse. Scanner tasks included two block design tasks: one Go/No-Go task and one reward task. Scanning was carried out on a 1.5T Phillips system. Whole brain coverage was achieved using 40 axial slices with 3.5mm spacing a TR of 5 seconds. Data were analysed using SPM5 using random effects models.

Results: Results of the Go/No-Go task confirmed brain activation previously described in the processing of impulse inhibition, namely in the orbitofrontal and dorsolateral prefrontal cortex and the anterior cingulate, and these were enhanced in the PD group. The reward task was associated with BOLD response changes in the reward network in both groups. However, these BOLD responses were reduced in the ASPD group, particularly in prefrontal areas.

Conclusions: Our results further support the notion of prefrontal dysfunction in ASPD. However, contrary to previous studies suggesting “hypofrontality” in this disorder, we found task specific increased and decreased BOLD responses.

S09.04

Ethical implications of neurobiological research findings in offender patients

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Background: Over the last century, there has been considerable interest in whether developments in neuropsychiatry can explain and help prevent antisocial behaviour. These historical discussions will be reviewed to put the current debates in context.

Method: I will present arguments for and against the use of neuropsychiatric data by the state for the purposes (a) of excusing antisocial behaviour and (b) predicting antisocial behaviour.

Conclusions: I will suggest that neuropsychiatric research can contribute to the development of proper questions about responsibility and public safety, but cannot provide the answers.

S10. Symposium: QUALITY OF ASSURANCE OF FORENSIC PSYCHIATRIC EXPERT OPINION (Organised by the AEP Section on Personality Disorders)

S10.01

Standards of expert opinion concerning criminal responsibility in Germany

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Abstract not available at the time of printing.

S10.02

Statement on criminal prognosis and risk assessment in Switzerland

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In Switzerland, forensic psychiatric assessment is a legally defined prerequisite for a trial, if the judges are in doubt about the defendants mental healthiness. In every such case assessment of criminal responsibility and prognosis is mandatory. The Swiss law knows since long the preventive and temporally limitless detention of mentally ill offenders, if their mental state and therefore their dangerousness cannot be ameliorated by means of therapy. Actually around 130 mentally ill offenders are under preventive detention, with an additional 12 every year. In 1993 a Swiss prisoner, sentenced for two cases of sex murder and several cases of rape, killed during his unattended free weekend trip a young girl. As a consequence committees reviewed procedures for risk assessment and decisions about release in high risk offenders, finding important shortcomings. In 1996 commissions for the assessment of offenders dangerous to the public began their work and a catalogue for risk assessment was defined. These commissions do not take decisions, they only advise responsible authorities upon their request. Since the introduction of those commissions, no severe reoffences occurred in any of the cases reviewed. For risk assessment the commissions use an instrument called “Catalogue for risk assessment in offenders dangerous to the public” which was developed in Basel. This catalogue is rather a toolbox, not an instrument to measure dangerousness. With this method a systematic and standardized assessment between cases and over time is ensured.

S10.03

Quality standards of expertise concerning sexual offenders in Belgium

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In the aftermath of a highly mediatized sex offender case the Belgian authorities decided harsher legal rules for sex offenders and at the same time developed a comprehensive treatment pathway from prison to community. Forensic psychiatry needs tools for the measurement of outcome, quality and service evaluation.

Psychiatric Reports for legal purposes play a key role for the entry of sex offenders into the penal legal system and their orientation toward the treatment pathway, including their return to the community.

In order to improve the questionable quality of the Psychiatric Reports we are in the process of creating qualitative criteria for these Psychiatric Reports, a basic template for the report itself and an adapted training including an accreditation as ‘expert’.

The aim is to meet the quality standards of validity, reliability and comparability. Developing guidelines in this domain at a European level is desirable notwithstanding the diversities of penal laws.

S10.04

Expert testimony in the context of preventive detention according to section sign 66 of the German penal code

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Background: Matters of preventive detention are important for forensic psychiatry, but so far rarely discussed. Preventive detention can be accommodated, if a repeat offender shows a disposition for further significant delinquency. Court requires expert opinion to reveal information about the personal foundations of this disposition.

But currently a consensus about this topic and studies concerning the delinquents are still missing: An analysis of more than 100 expert testimonies should redress this deficiency.

Methods: Amongst others the data was collected with the PCL-R, HCR-20, SVR-20 and the Static 99.

Results: The data indicates that the inmates are part of a high risk population. Most are social desintegrated; some of them show noticeable personality problems or personality disorders. This indicates an overlap between preventive detention and the treatment possibilities of forensic psychiatric hospitals. This requires careful diagnostic and criminal prognostic proceedings, but in a large number of expert testimonies the diagnostic and criminal prognostic approach remained unclear. Psychiatrists don't use standardized prognostic tools, which leads to the loss of relevant information.

Conclusion: The use of especially prognostic instruments can enrich the information content of expert testimonies in the context of preventive detention. Thus they can serve as a tool to assure the quality of the expert opinion.

S11. Symposium: NEW CLINICAL DATA ON ADHD

S11.01

Information processing in ADHD - what can we learn from ERP studies?

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Attention-deficit/hyperactivity disorder (ADHD) is a clinically heterogeneous, highly heritable and genetically complex disorder. The pathways from genes to behaviour are still unknown. Endophenotypes or intermediate phenotypes that are more closely linked to the neurobiological substrate than the core symptoms of ADHD may help to disentangle these complex relationships between genes and behaviour and to clarify its etiology and pathophysiology. Heritability and stability (state independence) represent key components of any useful endophenotype. Various other criteria for the selection of useful endophenotypes have been proposed. A review of the current state of the research on potential endophenotypes for ADHD will be given.

S11.02

Effects of family environment on ADHD

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Background: Even though Attention Deficit Hyperactivity Disorder is estimated to be 70-90% heritable, full understanding of the etiology of this disorder must be framed under a bio-ecological developmental model that contemplates the gene/environment interaction as a matrix of risk/resilience factors. Family psychosocial variables, parenting stress and parental discipline have been identified as environmental risk factors related to the course of the disorder. However there is a lack of research exploring causality and interrelations between these variables and ADHD. This was the aim of the present study, to investigate the effect of family environment in the onset and course of ADHD.

Method: One hundred and fourteen families with children with ADHD participated in the study. Parents completed a Semi-Structured

Interview, the Parenting Stress Index Questionnaire (Abidin 1990) and The Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993) that measures parents' dysfunctional discipline practices.

Analysis and results: Structural equation analysis was fitted to the relation of family variables and ADHD. The analysis showed interrelationship among family psychosocial variables, parenting stress and discipline practices.

Conclusions: Although future research should make use of longitudinal design to untangle the issues of causal directions between these constructs and potential transactional processes, our findings evidence that interventions in ADHD should incorporate a parenting training component focused on behaviour management strategies and on effective dimensions of parenting.

S11.03

Objective versus subjective assessment of MPH response

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The main pharmacotherapy of Attention Deficit Hyperactivity Disorder (ADHD) is stimulants, especially methylphenidate (MPH). MPH efficacy is assessed by subjective measures. The Test of Variables of Attention (TOVA) is a known objective assessment measure. In order to assess the accuracy of patients' reports, we used Clinical Global Impression – Compared (CGI-C-C) before and after MPH challenge comparing to the objective TOVA alterations.

165 children and adolescents, who were referred to the ADHD unit and were diagnosed as ADHD were included. TOVA was done before and after MPH challenge (0.3 mg/Kg). All patients filled CGI-C-C blind to the TOVA results.

165 patients participated in the study, M:F ratio 67%:33% respectively. Average age was 11.09+3.43 yrs. ADHD mixed type: ADHD inattentive type, 50.6%:48.1% respectively. A significant inverse correlation was found between CGI-C-C and the Commission (C) score of TOVA ($r=-0.32$, $p<0.01$), but not for any of the other scores. Age had a significant role in the accuracy of estimation. A significant negative correlation between the age and the tendency to assess improvement was found ($r = -.210$, $p<0.01$). There were no differences by gender or diagnosis. A dependence was found between consistent normal results of ADHD score change and self assessment of improvement ($F = 4.22$, $p<0.05$).

A partial correlation was found between subjective and objective measures with regard to response to MPH, mostly for the behavioral aspects. The older the patient the more likely he/she is to estimate improvement, but the role of a placebo effect cannot be ruled out.

S12. Symposium: THE COMORBIDITY PROBLEM IN PERSONALITY DISORDERS (Organised by the AEP Section on Personality Disorders)

S12.01

The influence of comorbid personality disorders on the outcome of CBT treatment of anxiety disorders