

# EXPERIMENTAL PSYCHOPATHOLOGY

Maastricht Institute for Research



***Onderzoeksinstituut* EPP**

## REPORT OF THE INTERNATIONAL REVIEW COMMITTEE 1999 - 2004

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## Summary

An International Review Committee (IRC), appointed by the Board of Maastricht University, visited the local research institute Experimental PsychoPathology (EPP) in March 2004 to evaluate EPP's scientific quality and future prospects. Based on the Self Evaluation Report 1999 – 2004 of the institute, and meetings with research leaders, junior researchers and PhD-students, the IRC rated the past performance as outstanding. Future plans are evaluated as intriguing, highly innovative and promising, with only a very few remarks on needed improvements. The IRC, although, has some concerns about the intra-university support of the institute. The IRC rates the institute as 'excellent', which means in terms of the 'Standard Evaluation Protocol 2003 – 2009 For Public Research Organisations': "Work that is at the forefront internationally, and which most likely will have an important and substantial impact in the field. Institute is considered an international leader. (SEP, 2003)". In figures, the ratings of EPP on the five-point scale are:

- Quality (international recognition and innovative potential): 5
- Productivity (scientific output): 5
- Relevance (scientific and socio-economic impact): 5
- Vitality and Feasibility (flexibility, management and leadership): 5

## 1. Introduction

Mental health is crucial to the overall well-being of individuals, societies and countries (WHO World Health Report 2001: „Mental Health: New Understanding, New Hope“). In 1990, unipolar depression ranked fourth among the leading causes of disability and mortality worldwide as measured by DALY ("disability adjusted life years"). According to the WHO, depression will rise to the second rank by 2020, surpassed only by ischemic heart disease. In developed countries, 7 out of 10 leading causes of disability and mortality are mental disorders in people aged 15 to 44. In Switzerland, for instance, disability due to mental disorders has increased twice as much as disability due to somatic illness (144% vs. 76%) over the past decade with a national average in disability cases of 4.9%. In addition, the costs arising from stress-related conditions amounts to 2.3% of the Swiss GNP, according to the State Secretariat of Economic Affairs. The proportion of the GNP absorbed by health care in Switzerland is the second highest in the world, surpassed only by the USA. Considering the enormous costs at stake, it is clear that mental health is a major challenge to society. The economic impact furthermore involves the pharmaceutical industry as well as health insurers and the economy at large (cost of labour). Finally, the individual impact in terms of suffering and disability can hardly be overestimated. In this situation, a thorough understanding of the etiological processes in mental health and adjustment is urgently needed. In spite of considerable progress, however, etiological knowledge is limited because so far most research typically has been cross-sectional, correlational, retrospective and non-representative.

The Dutch research institute Experimental PsychoPathology (EPP) of Maastricht University aims to unravel underlying mechanisms of the aetiology, maintenance and treatment of select psychopathological conditions. The quality of its research has to be evaluated according to the 'Standard Evaluation Protocol 2003 – 2009 For Public Research Organisations' as published by the Union of Cooperating Dutch Universities (VSNU), the Royal Dutch Academy of Sciences (KNAW) and the Netherlands Organisation for Scientific Research (NWO) in January 2003. Based on a Self Evaluation Report produced by the institute itself, an International Review Committee (IRC) was installed by the Board of the university in order to evaluate the Quality, the Productivity, the Relevance, and the Vitality and Feasibility of the institute's research. The Board of Maastricht University installed on March 28<sup>th</sup>, 2004 an independent IRC with regards to EPP, consisting of:

- Professor J. Margraf, Universität Basel (chair),
- Professor R. McNally, Harvard University,
- Professor S. Morley, Leeds University.

The IRC visited Maastricht University from March 28<sup>th</sup> to March 31<sup>st</sup>, 2004 and evaluated both the Maastricht institute EPP and the Dutch national graduate school EPP. Ms. drs M. van Thienen acted as secretary to the IRC, assisted by drs R.J. Hoekstra.

The research of EPP is divided into six 'sections', units of research on a select group of disorders; these sections are:

- Emotional Disorders (Anxiety Disorders and Depressive Disorders);
- Somatoform Disorders and Sexual Disorders;
- Eating Disorders and Addictions;
- Personality Disorders
- Developmental Disorders
- Psychopathology and Law.

EPP's self evaluation report took into consideration the complete institute and analysed the separate sections only briefly. The IRC spoke with all section leaders, and it became clear that many researchers participate in projects of more than one section, leading to a considerable overlap if the sections should be evaluated separately. For that reason, the IRC has chosen to report on the institute as a whole and not on the separate sections. When necessary, comments on separate sections have been made.

## **2. Leadership, Strategy and Policy**

The experimental method is the principal strategic approach to understanding complex problems, like those of psychopathology. The institute EPP has successfully adopted this strategy as a general framework for its research and individual researchers adhere to this strategy.

EPP is characterised by a liberal leadership style in which the research agenda is developed bottom-up. This style has led to a creative and supportive atmosphere, which in turn has led to a very high productivity overall. Also, this management style facilitates continuous development of high quality research, resulting in international recognition of EPP as one of the leading groups in this field.

The scope of EPP's research has developed from the original topics 'anxiety' and 'pain' to a broader spectrum of 'emotional disorders' and 'somatoform disorders', to 'eating disorders', 'addiction', 'personality disorders' and most recently 'psychopathology and law'. Also, starting from studying adult problems only, the specific characteristics of psychopathology in children and adolescents, and to a lesser extend in the elderly, have become targets of EPP's activities. Most of these initiatives have proved to be successful.

Many senior researchers cooperate in projects of other seniors. This cooperation of researchers, often belonging to different sections, is unusual and offers an advantage to the institute; the combinations are formed on grounds of the expertise of the researchers. This (incidental or structural) cooperation enables models generated for one disorder to be tested for other disorders and a common set of explanations developed.

The leadership, strategy and policy of the institute EPP can be rated as highly successful because it has lead to original and creative fundamental and applied research by encouraging the expression of synergistic activities among gifted researchers.

### **3. Resources, Funding Policies and Facilities**

Both senior and junior researchers of the institute EPP have been very successful in acquiring external funds. Nearly all external funding stems from the highly competitive 'second source'. Part of the success in grant application can be explained for by the investment in extra support staff, resulting in more time and energy for researchers to apply for grants. However, the primary reason for the EPP's success is the quality of the applicants and their research programmes. The fact that three female researchers of EPP obtained an ASPASIA grant in the total of six obtained by Maastricht University, endorses EPP's position in the Dutch research field. The volume of money per project is not as high as those in e.g. biomedical or chemical research, but is adequate for the type of studies EPP executes and reflects the lower laboratory running costs generally found in psychology.

Two of EPP's principal investigators have succeeded in obtaining grants for multi-centre clinical psychotherapy trials from subsidisers that normally only support medical research: Developmental Medicine ("Ontwikkelingsgeneeskunde") and Efficiency Research ("Doelmatigheids-onderzoek"). This also provides evidence of the very high quality of EPP's research.

Laboratory and computer facilities are adequate, partly due to recent investments. The volume of technical support staff creates a situation in which PhD-students and senior staff do not need to program their own experiments. The clinical facilities and support staff, especially in the Community Mental Health Centre (RIAGG) Maastricht, are quite outstanding and provide a unique environment, which is the mainstay of EPP's success. They provide EPP's researchers with a stable clinical infrastructure where long-term studies can be executed. Most therapists have been involved in clinical research projects for many years; they are highly skilled in all aspects of both regular clinical work and research driven treatments. In this way, EPP has created an excellent track record in a continuum from basic to applied clinical research.

### **4. Academic Reputation, Quality and Quantity of Publications**

In the domain of experimental psychopathology the institute EPP is renowned worldwide. Nearly all senior and junior researchers are regarded as excellent in their field. Whereas in the 1980s the Netherlands not well known except for professor Emmelkamp in Groningen, from the 1990s until today the Maastricht University group has achieved international recognition in psychopathology. This holds true for all its sections. EPP's academic reputation is also reflected by the co-editorship of professors Arntz and Van den Hout of the 'Journal of Behavior Therapy and Experimental Psychiatry' and by the fact that the institute acted as a host to the 32<sup>nd</sup> congress of the European Association for Cognitive and Behaviour Therapy in Maastricht in September 2002, in which professor Van den Hout was the scientific president.

The strength of the institute is the application of the powerful experimental methodology to a growing number of problems in psychopathology (the sections). Whereas in most universities only one two problems can be studied, EPP's critical mass, quite uniquely, enables the institute to research a diverse range of problems. This diversity has developed because of the widespread cooperation

between its researchers, sharing their experience and knowledge, as reflected in the high number of co-authored publications.

EPP plays a significant international role in the extension of knowledge in psychopathology, where theoretical explanations of disorders are gradually replaced by empirical justification of theoretical models. The application of the experimental approach to psychological problems, as EPP dominantly does, is fully accountable for that. The shared vision of EPP's researchers on how to unravel the mysteries of psychopathology enables them to be productive in a wide range of problems. Given the number of papers and PhD thesis published, and the fact that most articles appear in the highest quality of peer reviewed journals in this field and in numerous (inter)national handbooks, the quality of EPP's work is rated as excellent.

The number of PhD-students has shown a steady increase in the last five years; this is the result of EPP's success in applying for grants. Their training is evaluated as good: their individual training, and the courses organised by Maastricht University and those organised by the national graduate school EPP are of a high standard and the PhD-students rate them positively. All PhD theses are written in English and consist of at least four (published or submitted) experimental studies. Within 5 years 75% of the PhD students finish their thesis, which is commendable considering that more than 50 % of the PhD students have a five-year (or longer) appointment. PhD students are encouraged to attend international conferences and, when appropriate, go to foreign research groups to enhance their skills. To conclude, the PhD-student training of EPP is evaluated as very good to excellent.

## **5. Societal relevance**

As has been stated before, psychological problems have an increasing impact in the general population, and the prospects for the future are even worse. Therefore, much effort has to be put in unravelling the mechanisms underlying the development, duration, treatment, and prevention of these psychopathologic disorders. Basic experimental research, as EPP is performing, produces information about these mechanisms, and clinical research is developed in order to test the models for their effectiveness and efficacy. In turn, the clinical work in which EPP's researchers are involved provides them with information that would stay hidden if they only conducted their experiments in subclinical student populations; also their clinical activities lead to new research questions and topics based on observations made in the clinic.

Researchers of the institute EPP are accountable for a series of improvements in clinical care. An impressive example is professor Arntz' current multi-centre trial on Borderline Personality Disorder, a disorder associated with very high emotional, societal and financial costs. Based on laboratory experiments Arntz' group validated and extended a theory based cognitive-behavioural treatment, and this therapy is now being compared to a psychodynamic treatment. Arntz has written a treatment manual for the cognitive-behavioural therapy and has provided many training workshops for clinicians in recent years. The same pattern has occurred in pain research in dr. Vlaeyen' group: based on a series of laboratory experiments, a new and effective approach to chronic benign pain disorders has

been developed, tested and disseminated to the clinical field.

Epidemiologic research shows that emotional disorders (like anxiety and depressive disorders) and addictions are predominant in the general population. At present most resources are directed at end state rehabilitation rather than early detection and preventive treatment. EPP's research has substantially helped to improve the quality, effectiveness and efficacy of the treatment of these disorders. EPP has relatively recently turned attention to developmental psychopathology to further enhance the societal impact of its research: high quality trials in children like the Bögels group have started recently, are unusual in this field. In total, the number of clinical trials EPP has performed make it a world leader.

In addition, the work of the recently established section "Psychopathology and Law" is expected to have an impact at a different level. As a consequence of their laboratory experiments they have participated in law courts as expert witness. This way, they have developed a unique interface between Mental Health Sciences and jurisprudence.

One area where EPP should consider development is the generation of a structured approach to dissemination of acquired knowledge. Although many individual activities have been reported, this should be enhanced in the coming years, for instance by a more collaborate and perhaps even commercial approach to the publication of treatment manuals and the training of mental health professionals. The institute needs to give more attention to this issue.

## **6. Strengths and Weaknesses, Future Plans**

The institute EPP has successfully fostered the career development of researchers who now play leading roles in the field of experimental psychopathology. Moreover, several seniors have left Maastricht University in recent years for appointments as full professor at other Dutch universities. EPP has thus become the leading Dutch institute in this area and has set a national 'school'. However, the recent departure of senior staff makes it essential to recruit new researchers of a high calibre to replace them. The institute should consider recruiting from outside of the Netherlands; EPP's current international reputation should enhance its chances of success.

The current (pre)clinical infrastructure is a unique resource and needs to be protected and nurtured. This framework enables excellent research to flourish. Also the training facilities for PhD-students are of a high standard. The output figures are excellent and the PhD-students express their satisfaction in this. The establishment of an 'AIO-coach' to provide the PhD-students with a neutral senior staff member with whom to discuss their training progress, is an example of good practice that might be considered elsewhere.

In the case of EPP, three faculty boards are structurally involved in the development of the institute. Also, the boards of Maastricht University, the University Hospital Maastricht, the Community Mental Health Centre (RIAGG) Maastricht, and the iRV (Institute of Rehabilitation Research) have a structural influence on the planning of the institute. This creates a risk that factional interests might undermine the interest of Maastricht University in sustaining a genuinely world class facility. The



benefits and costs of this organisational structure should be reviewed.

As noted earlier in this report, EPP has been highly successful because of its liberal governance which enables promising research ideas to emerge from its staff. The range of problem areas has emerged and increased in the last 10 to 15 years in a way that has capitalised on the natural synergy present in a group of gifted individuals. High quality, internationally recognised research in this field does not depend on large groups of staff or require financial resources to the magnitude that appear to be relevant in physical or biological sciences. The IRC therefore cautions against the application of criteria developed for other fields to be applied to EPP. The EPP institute at Maastricht University is a vibrant, proactive organisation of genuine world class standing and its independence should be assured and protected.

Despite its obvious strengths, EPP should consider ways in which it might further strengthen its internal structure. The Maastricht University organisational structure means that individual's primary identification is to their department and faculty. This may be greater than the individual's identification with EPP. At a time when there are significant organisational pressures on departments, it is essential that the senior members of EPP meet regularly to develop ways of maintaining the integrity of the institute and to resolve possible conflicts that may arise through possible incompatible demands generated at faculty or department level. For example, reflection meetings with senior staff could be organised, e.g. three days a year. The appointment of a 'staff facilitator' who organises these meetings instead of the scientific director might help.

The new sections 'Developmental Psychopathology' and 'Psychopathology and Law' are judged as promising and have already made an impact. With these, EPP acts a trend setter in the field of experimental psychopathology research, developing new hot topics instead of following the current trends. The IRC has, however, some concern about the development of a new research theme on 'Depressive Disorders' within the section 'Emotional Disorders': it may be difficult to create high quality research programme in this area because of the current strength of international competition in this field. The junior researchers involved in this area are advised to make use of the experience and the existing contacts of other EPP researchers and to apply the experimental methodology as much as possible in order to profit from EPP's knowledge and reputation.

## **7. Summarised assessment and Rating of the Main Criteria**

Past performance of the institute EPP is rated as the highest possible in the field. EPP's researchers are among the world's best and play as a group a leading role in present and future research. The mission of EPP needs no adaptation since the chosen formulation is open for future developments in this research field. The future research plans and projects of the sections are intriguing, highly innovative and promising, and exhibit coherence. Management of the institute is adequate and needs only slight adjustments, as stated before.

The International Review Committee on the institute EPP rates the main criteria, as mentioned in the Standard Evaluation Protocol, as follows:

- Quality (international recognition and innovative potential): 5
- Productivity (scientific output): 5
- Relevance (scientific and socio-economic impact): 5
- Vitality and Feasibility (flexibility, management and leadership): 5

Thus, the International Review Committee 2004 on the Maastricht research institute Experimental PsychoPathology unequivocally comes to the conclusion that these scores reflect the international position of EPP and meets the SEP-criterion (SEP, 2003): "Work that is at the forefront internationally, and which most likely will have an important and substantial impact in the field. Institute is considered an international leader."

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