**Mark Griffiths: The biopsychosocial approach to addiction**

For many people the concept of addiction involves taking of drugs. Therefore it is perhaps unsurprising that most official definitions concentrate on drug ingestion. Despite such definitions, there is now a growing movement that views a number of behaviours as potentially addictive including many behaviours which do not involve the ingestion of a drug such as gambling, sex, exercise, videogame playing and Internet use. This paper argues that all addictions consist of a number of distinct common components (salience, mood modification, tolerance, withdrawal, conflict and relapse) and that there are many other types of commonality on a psychological, biological, sociological, and cultural level. The paper argues that addictions are a part of a biopsychosocial process and evidence is growing that excessive behaviours of all types do seem to have many commonalities. This may reflect a common etiology of addictive behaviour and suggests that addiction may be a syndrome. It is argued that an eclectic approach to the studying of addictive behaviour appears to be the most pragmatic way forward in the field.

**Mark Griffiths & Serge Chevalier: Addiction in adolescence: Why don’t adolescent addicts turn up for treatment?**

It has been well established that prevalence rates of addiction are reportedly higher among youth than adults. It is also widely reported that very few adolescent addicts turn up for treatment. This paper outlines some of the possible reasons as to why this is the case. These are that (i) adolescents don’t seek treatment in general, (ii) treating other underlying problems may help adolescent addiction problems, (iii) attending treatment programs may be stigmatizing for adolescents, (iv) adolescents may have committed suicide before getting treatment, (v) addicts may be lying or distorting the truth when they fill out survey questionnaires, (vi) adolescents may not understand what they are asked in questionnaires, (vii) screening instruments for adolescent addicts may be being used incorrectly, (viii) adolescent addiction may be socially constructed to be non-problematic and (ix) adolescent excesses may change too quickly to warrant treatment.

**Paul Cumming: Dopamine and Addiction: The Medium is the Message**

A large variety of addictive substances and behaviors have been linked to changes in brain dopamine, neurons which are connected to pathways intimately involved in motivation and reward. Indeed, it has been claimed that all addictions, including nicotine, amphetamine, cocaine, alcohol, and perhaps gambling converge on dopamine mechanisms in parts of the brain subserving reward or reinforcement. However, physiological studies suggest that this simple model may confuse the message (mediated by dopamine) that a reward has taken place, with the reward itself. Dopamine may in fact subserve the education of the brain to anticipate strategies for obtaining rewards in the future, but some drugs may hi-jack this normal motivational and adaptive process and become an end in themselves. Many addictive drugs produce short term changes in receptors for dopamine and other neurotransmitters. While these temporary changes may account for the unpleasant aspects of the acute phase of withdrawal, other factors must underlie craving and the risk of relapse in drug addiction. It is coming to be understood that these long term changes are mediated by intracellular proteins under the control of dopamine receptors, which ultimately serve to alter gene expression, thus inducing long-lasting changes in neuronal activity. While many biochemical studies of addiction have been carried out in experimental animals, the advent of positron emission tomography (PET) has made
possible the investigation of dopamine systems in living humans. Short term and chronic
text changes in human dopamine have been noted in PET studies of nicotine, cocaine, alcohol
and amphetamine addicts. It is hoped that a more complete biochemical understanding of
the nature of addiction will ultimately lead to improved treatments.

Susanne Lunn & Stig Poulsen: Eating disorders in a perspective of addictive disorders
Eating disorders have been understood from many perspectives and have been catego-
rized as particular variants of several psychiatric disorders. In this article eating disorders
will be discussed from the perspective of addictive disorders. A large number of studies
have documented a co-morbidity between substance abuse and eating disorders. Further-
more, several studies point to similarities on a biological as well as psychological level
between the two diagnostic categories. Three main models will be presented: 1) A model
focusing on anxiety and depression as pre-disposing factors for both substance abuse
and eating disorders, 2) a model focusing on deficient impulse control, and 3) a model
focusing on obsessive-compulsive features. The models will be discussed in relation to
the research of Peter Fonagy et al. on affect regulation, attachment, and mentalization.
Finally, the implications for treatment of an addiction perspective as well as a mentaliza-
tion perspective on eating disorders will be presented.
Keywords: Eating disorders, addiction, personality, psychotherapy.

Jakob Linnet: Heterogeneity in addiction: When similarity makes a difference.
This article focuses on the heterogeneity of sensation seeking, which is a construct met
with great interest as well as controversy. In the following, I will use the example of
sensation seeking in pathological gambling to illustrate the complexity of heterogeneity
in addiction, and address some of the controversies about the construct. I will start with
presenting the literature on sensation seeking in pathological gambling, followed by
three recent studies on sensation seeking in pathological gambling: 1.) a treatment study
of more than 300 pathological gamblers; 2.) a neuroimaging study of dopamine binding
potential in relation to sensation seeking and pathological gambling; and 3.) a decision
making study of pathological gamblers and non-gambling controls. Finally, I will discuss
the interaction between sensation seeking and other bio-psycho-social factors relevant for
the heterogeneity of addictive disorders.

Mads Uffe Pedersen: Youths with a problematic use of substances
Danish youth belongs to the most substance using youths in Europe. Since heavy use can
be connected to development of substance abuse and substance dependence, there are
reasons to take the Danish youths consumer habits very seriously. On the other hand, sub-
stance abuse and dependence are not a stable phenomena and very often the problematic
use of substances has little to do with the substances per se. For those youngsters with a
wide range of severe psychosocial problems the explanation of the problematic use may
be found in these psychosocial problems while for those youngsters with a heavy use but
less psychosocial problems, the problematic use may be understood in close connection
to culture, socialization and normalization. During the last thirty years many explanations
of why some youngsters develop a problematic use of substances have been suggested. In
this article a differentiation will be made between four hypotheses, called respectively the
disposition, socialization, stress and burnout hypothesis. From these four hypotheses dif-
ferent understandings of different groups of youngsters use of substances will be drawn.
Bo Møhl: To Cut Away the Pain – Cutting as a Drug
Within the recent years self-mutilating behaviour and especially cutting has been more and more common. Cutting means to injure the skin with a razor blade, a knife, or a peace of glass in order to feel pain or feel the blood. Especially among younger women you often see a development starting with impulsive self-mutilating behaviour, which is repeated in order to calm an inner feeling of pain. Many self-mutilating patients gets dependent on cutting with craving, increased tolerance, withdrawal symptoms and the risks of relapse which is similar to addiction to alcohol or medicine. This article describes self-mutilating behaviour as a cultural practise and as a symptom of psychopathology. Prevalent studies are revued and psychological function of cutting is analysed. Finally psychological and biological theories of dependency of cutting is discussed.

Gert Martin Hald: Pornography & Internet Addiction: Caught in the Net
Addiction to pornography on the Internet is a relatively new phenomenon. The purpose of this article is to examine this new addiction as well as to provide guidelines for the assessment and treatment of it.
In particular, the article aims to: a) uncover characteristics of the addiction, b) understand which aspects of Internet pornography that serve as prerequisites for the addiction, c) identify risk factors, d) examine key psychological processes responsible for causing and maintaining the addition, e) provide a clinical perspective on the addiction, including assessment and treatment, and f) suggest strategies and outline perspectives for future research in the field.

Estrid Sørensen: Addiction to online games? When children and adolescents play too much
The danger of child and adolescent computer gaming is often debated, and in recent years there has been a focus on addiction in relation to computer games, particularly with regard to the internet games, the so-called online games. This article focuses on the question of how to approach the problem of online games among children and adolescents using data from Nordic project of internet use among children age 6 – 16. The project was carried out in 2002-2003 and focused particularly on the amount of time spent on the internet.
As a follow-up, “Medierådet for children and adolescents” initiated a quantitative interview survey which aimed at providing a better understanding of what motivated children to play for many hours. Results from the survey are presented in the article, including time spent on other activities and alternatives to playing computer games. It is argued, that addiction of online gaming cannot simply be measured or understood as the amount of time spent on online game. Instead the relation between online gaming and other activities should be integrated in the understanding of addiction. It is suggested that the specific life-activities and time-activities of children and adolescents how play online games should be included in the understanding of online game addiction.

Reinhard Stelter: »To exercise and work – these are the things that mean something in my life« – About exercise dependence
The article is on the case of Henning, a 54 old fitness exercise, who spends all his free time in a fitness centre. Henning has started his training after a divorce which his former wife initiated and which has happened six years before the research interview. The case analysis is oriented towards finding the plot of Henning’s narrative, a plot which can be described as the key towards an understanding of exercise as part of his life situation. At
the same time, bodily experiences and other exercise related elements were connected to the central life event (Henning’s divorce) which obviously has a very central impact on his life and which is assumed to be the major incentive to his excessive exercise involvement. In a second section of the article, diagnostic criteria – inspired by the DSM-IV – are the basis for an evaluation whether or not Henning’s exercise behaviour can be characterized as abuse or dependence. The result of this evaluation is positive, but can be moderated by using another definition of dependence. In a final section of the article, the case is interpreted on the basis of the reversal theory, developed by Apter (1982) and applied to sport and exercise by Kerr (1997).

Jörg Albers: Cue Exposure Treatment
At Sydgaarden we developed a structured Cue Exposure Treatment based on a well evaluated treatment approach (Monti, Kadden et al. 2002). During 20 months we administered CET in 6 group sessions (6-8 participants) in aftercare treatment during the first three month after discharge from a 12 week’s inpatient program. Until now 30 patients have participated in the aftercare treatment in a randomized controlled trial compared with patients who receive standard medical care after inpatient treatment. Results indicate a significant lower relapse rate in the treatment group. CET has the following therapeutic effects for the participants:
They acquire greater knowledge about their personal drinking triggers.
They are exposed to the triggers until the urge to drink decreases to a low level. Habitation and/or desensitization can occur.
They learn a set of urge- specific cognitive strategies for coping with urges to drink.
They practise these strategies while experiencing real urges to drink, and experience the effects of these strategies on the individual urge level.
They find out which strategy is most effective with each specific trigger. A strategy that works well with one trigger may not work well with another.

Helle Vibeke Dahl: Drug use, drug addiction and substitution treatment: from morphine to methadone.
It is a well-established assumption that drug misuse and addiction above all is a matter of the relation between substance and behaviour. The purpose of this article is to show that other and more important forces are at work.
Using Denmark as my main example I will illustrate how the use of opiates and the attitudes and interventions towards this use have changed from the late 1800s till today. Instead of looking at the chemical effects of the drugs I will focus on the development of societal and political interventions towards drugs and drug users and how it has influenced the drug users life situation and possibilities outside as well as clients in the treatment system. Sharply formulated the argument is that the big group of socially marginalized drug users and their various severe problems is not an effect of the drugs themselves, rather it is the result of the political responses characterized by criminalization and treatment politics.
The article falls in four parts. First part is an introduction to and a discussion of the concepts used in relation to the problematic of drug (ab)use, that means especially the concepts of drug abuse and addiction. In the second part the development of the history of opiate use – from prescribed morphine to the introduction of black market heroin in the 1970s – will be outlined. It will be shown that the traditional users of morphine never experienced the kind of social condemnation, which the later users of heroin have been exposed to. The third part is a description of the history of treatment ideologies and initiatives. The focus, however, rests on methadone treatment, which from the start seems to have been characterized by ambivalence. This half hearted and
reluctant attitude seems to stem from a moral and political aversion of treating drug addiction with an addictive drug. For users of methadone the consequences of this ambivalence are marked and constantly present, which will be illustrated in the fourth and final part with empirical examples from an ethnographic fieldwork and qualitative interviews about the daily life of methadone users.

Talli Ungar Felding: Psychological factors associated with criminal behavior in adolescent immigrant boys in Denmark: A content analysis of 14 case studies and the handling of the cases exhibited by Danish social authorities.

The public debate in Denmark concerning criminality in immigrant boys gives the impression that sociological factors as unemployment, poverty and racism are its reasons. A study of psychological and psychosocial factors, seen in psychological examination reports concerning 14 criminal immigrant boys, 13-16 years of age, showed that these boys faced psychosocial risk factors as parental neglect, corporal punishment, and substance abuse and psychopathology among parents. The boys exhibited symptoms and defense mechanisms which, according to Otto Kernberg, are associated to borderline or psychotic personality structure. The existence of a high prevalence of such risk factors and psychopathology in criminal adolescents, independent of ethnicity, is supported by forensic psychiatric studies. It is suggested that such psychosocial risk factors and personality traits may be more likely reasons for criminality in immigrant boys than the sociological factors mentioned.

The next phase of this study was an investigation of the recognition of and intervention in the problems of the 14 immigrant families exhibited by Danish Social Authorities. It emerged that the authorities especially failed to notice signs of serious psychopathology within the boys as well as their parents. It seems that the authorities often regard criminality in immigrant boys as »bad behavior« and underestimate the severity of their psychopathology. The authorities thus appear to focus to much on cultural factors and to little on psychosocial factors. When psychosocial risk factors in the families are not recognized, the boys are not offered relevant help, such as psychological treatment and placement outside the home. This implies that the social authorities must develop better methods for identifying psychopathology and psychosocial risk factors in immigrant families, and that psychologists and psychiatrists should be used for evaluation and treatment in a higher degree than today. The tendency of failing to notice miserable conditions in immigrant families may be seen as discrimination of immigrant children when compared to ethnically Danish children in same situation, which is contradictory to Danish laws about equal rights for all citizens.