

A BIO-PSYCHO-SOCIAL APPROACH TO ADDICTION

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Welcome to this special issue of *Psyke & Logos*, which focuses on addictions. Several journals are dedicated to the issue of addictions (e.g. *Addiction*, *Addictive Behaviors*, and *Psychology of Addictive Behaviors*), yet little attention has been dedicated to the concept of addictions and the addictive component in different types of addictive behavior.

Since the 60s and the 70s with the introduction and wide spread use of substances such as cannabis and opiates, there has been an increase in the multitude of substances used for recreational (i.e. non-medical) purposes including the use of cocaine and amphetamine in the 80s and 90s and so-called »designer drugs« such as ecstasy in the new millennium. At the same time, we've seen concerns 'addictive behaviors', particularly among children, associated with technological developments ranging from the use of comic books in the 60s and 70s, to the use of video films in the 80s, the use of video games in the 90s and the use of the internet and mobile phones in the new millennium. A third development is the efforts of information and reduction of health risking behavior. Most noticeably, probably, is the perceptual and behavioral changes related with tobacco use, which has resulted in a reduction of the total number of smokers as well as a reduction of smoking in public places. Other areas which have received attention in later years is eating disorders (both anorexia nervosa, bulimia, and over eating (binge eating)), as well as the efforts to inform about risk behavior of alcohol consumption among youths.

The *Psyke & Logos* conference held on January 28, 2005 has the focus of comparing different types of addictive behavior in a conglomerate of clinical manifestations. The papers produced from the conference together with the invited papers for this issue, all present different aspects of addictive behavior, and have been chosen to provide the reader with insights into the different types of behaviors as well as different disciplinary approaches to understanding and treating addictive behavior. The papers are divided into three main categories: 1.) Approaches to addiction, 2.) New types of addiction, and 3.) Treatment of addiction.

The first article by the conference key-note speaker Mark Griffiths addresses the bio-psycho-social aspects of addictions exemplified by pathological gambling. Griffiths offers a model for understanding the core of addictions which consists of: Saliency, mood modification, tolerance, withdrawal, conflict and relapse. He also offers a distinction seconded by many authors throughout this issue that addiction cannot be understood solely as drug ingestion, but that cer-

tain types of behavior associated with changes in mood can lead to addictions. Griffiths uses pathological gambling to illustrate this point, and describes how biological, psychological and social factors interact in the addiction. He also describes how both structural and situational characteristics about gambling set the scene for reinforcing addictive behavior.

The second article on dopamine and addictions by Paul Cumming represents a biological approach to addiction, and describes the involvement of the neurotransmitter dopamine in addiction. Dopamine has traditionally been seen as a 'reward' neurotransmitter, i.e. increase of dopamine is associated with a positive change in mood, which reinforces the individual to continue or increase the rewarding behavior. Cumming offers the possibility that previous dopamine reward models may be too simplistic in that the increase of dopamine in itself may not constitute a reward, but may mediate or subserve reward processes in the brain. Such an approach would call for a more complex understanding of rewards processes in the brain, as well as the role of dopamine in addictive disorders.

Susanne Lunn & Stig Poulsen's article on eating disorders and addictions represents a psychological approach to addictions. In the article the authors focus on the co-morbidity between eating disorders and addictions, which is commonly seen in the eating disorder population. The authors present a biological model of addiction which they relate to three psychological approaches to addiction in eating disorder: 1.) an affective model which focuses on the addictive component mediate by anxiety and depression, 2.) an impulsivity model which focuses on addiction in relation to poorer impulse control, and 3.) and obsessive-compulsive model, which sees addiction in relation to obsessive-compulsive disorder problems or traits. The authors discuss these three approaches in relation to the research of Peter Fonagy et al. on affect regulation, attachment, and mentalization. They conclude that while different treatment models have been developed for eating disorders and addictive behavior, a common third way of treating patients with co-morbidity of eating disorder and addictions may be to see both the eating disorder and the addictive behavior as a problem related with affective containment and regulation.

The article on sensation seeking in addiction by Jakob Linnet also represents a psychological approach to addiction. The focus of this article is on understanding how certain personality traits are manifested differently in addictive disorders, and on discussing the clinical implications of such differences. The article uses sensation seeking in pathological gambling to describe that even though personality traits may not differ in their distribution between psychopathological and normal populations the distribution of personality traits within the heterogeneity of addictive disorders may have significant implications for the course and development of the addiction, and have significant implications for the approach to treatment and the prognosis for recovery.

The article by Mads Uffe Pedersen represents a social-psychological or sociological approach to addiction looking at the social consequences of youth

alcohol consumption and behavior in Denmark. The author argues that while the high consumption of alcohol among youth in Denmark must be seen as concerning, the key to who later in life develop alcohol abuse and dependence cannot be found in the consumption, which is often a transient behavior among youth. Rather, one should be looking at psycho-social problems in the home and environment of young people with a high alcohol consumption. Mads Uffe Pedersen distinguishes between four types of hypotheses (disposition, socialization, stress and burn-out) and concludes that youths who primarily have socialization problems with secondary stress and burn-out symptoms may be more at risk for later developing alcohol addiction in life.

In the section on new addictions Bo Møhl leads off by introducing the area of self-mutilation, i.e. self-cutting. The author describes the 'culture' and history of self-cutting together with the prevalence and clinical manifestations. Bo Møhl concludes that although self-cutting is currently not seen as an addiction, but rather an addiction like behavior, a differentiated approach to the self-cutting population is necessary, and within the heterogeneity of the disorders there are individuals for whom self-cutting becomes a serious addiction, while other never develop addiction-like symptoms.

The second article by Gert Martin Hald, describes addiction in relation to pornography, especially the explosive use of pornography over the internet. This type of addictive behavior is very new and encompasses addictive behavior both in relation to the development of new technologies (the internet) and a change in accessibility of pornography not previously seen. For instance, while there is a correlation between the use of internet pornography and depression, it is currently not clear whether internet use in itself mediates depression or the social withdrawal of depression fosters a higher internet use, or whether both factors are interdependent. The author argues that this new field offers challenges both to understanding the phenomenon, providing conceptual models and developing treatment methods. Both empirical evidence of prevalence, theoretical modeling, and clinical treatment of addiction to internet pornography need to go hand in hand in a concerted effort to help people addicted of internet pornography.

The third article on new addictions from Estrid Sørensen is about the use of internet gaming of children and adolescents. The author takes a descriptive approach to addiction and rather than talking about abuse or addiction of internet or internet gaming use, she looks at the amount of time spent on the internet with the focus of how children spend their time. She argues that not all time spent on the internet is 'bad' or contribution to negative or addictive patterns of behavior, and that a qualitative approach to understanding the phenomenon of internet gaming should be included in the description of the life-situations in which such gaming occurs.

Finally, Reinhard Stelter rounds off the section on new types of addictions with an article on exercise addiction. The article is a case study of Henning, a 54 years old man, for whom exercise have become the key coping strategy fol-

lowing his divorce. The author describes how the exercise becomes the central element to understanding the plot or the coping patterns of Henning, and how this behavior, while constituting the main coping strategy also provides a paradox: While exercise gives him a feeling of control, this control also prohibits him from mastering other aspects of life, thereby rendering Henning with very little control. The author argues, that technically, Henning fulfills the criteria for addictive behavior, and that reversal theory can be used in solving the problem presented by patients like Henning.

The third section on treatment of addictions provides a practice oriented approach to addictions, both with regard to actual techniques which can be applied and the practice of treatment of substance abuse exemplified by methadone treatment. Jörg Albers describes the use of bio-feedback in a craving-confrontational technique of alcohol abuse and dependence. In contrast to other treatment forms which attempt to reduce craving by avoiding alcohol and situations associated with alcohol, this technique emphasizes the control over craving through confrontation with the craving stimulus. Subject are confronted with their favorite type of alcohol and encouraged follow the intensity of the craving through bio-feedback until the craving wears off, a cycle which can then be repeated until craving associated with confrontation with alcohol is diminished to a controllable level. The author present data on the method and concludes that the treatment showed good effect both on the cognitive, emotional and physiological reactions to exposure, as well as the risk of relapse.

Helle Dahl offers an ethnographical approach to methadone treatment in Denmark. Her main focus is on the historical development and societal approach and perception toward opiate use and substitution treatment in Denmark. Her second focus is on how this perception has affected the current methadone treatment programs, and how users perceive the treatment. Helle Dahl concludes that the ambivalence between acknowledging the need for substitute treatment and yet the distancing from such a need, has lead to an uneven balance between treatment and control which continues to provide conflicts between the treatment establishment and it users.

In the category of »under the line«, Talli Ungar Felding writes about a psychological investigation of 14 criminal immigrant boys aged 13-16. Peter Elsass and Simo Køppe present comments of the opponent and defense of Simo Køppe's doctoral thesis on the modified internalism. Alice Theilgaard reviews »Kroppen i Psyken« by Simo Køppe, Birgit Bork Mathiesen, Jesper Brøsted Sørensen, Bjarne Jacobsen, Mette Skovgaard Wæver, Susanne Harder & Susanne Lunn. Finally Ole Sylvester-Jørgensen and Dennis Lind discuss Dennis Linds artikel: »Tilknytningsforskningens bidrag til forståelsen af psykopatologi hos børn« brought in Psyke og Logos, 2003, 24, 686-718.