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TRADITION, CLINICAL NEEDS AND ECONOMY: THEIR EFFECTS ON THE DEVELOPMENT OF NEURO-PSYCHOPHARMACOLOGY. CZECH AND SLOVAK EXPERIENCE

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The sources of interest of Czech and Slovak researchers in psychopharmacology go back to the work of J.E. Purkinje. The prehistory is then marked by the experiments with mezkaline (S. Nevole) and by the publication of PHARMACOLOGY OF THE MIND (1937) by V. Vondráček. Pavlovian era, partly imposed by political pressure, taught Czech and Slovak pharmacologists to elaborate conditioned reflexes. In the years when behavioral pharmacology was the main tool how to elucidate psychotropic properties of newly synthesized compounds, Czechoslovak psychopharmacology was in the foreground of the world progress. This success was made possible thanks to a close cooperation with clinicians and their emphasis on reliable clinical methods, elaboration of sensitive rating scales, organization of multicenter randomized clinical trials and the ingenuity of the synthetic chemist M. Protiva and his group. It was not by chance that the first book on PSYCHOPHARMACOLOGICAL METHODS (Pergamon Press, 1963) had Czech Editors. With the increasing role of biochemical pharmacology in the mid-1970 necessitating expensive technical equipment and large financial resources, Czechoslovak psychopharmacology began to lose its prominent position in the World. After the Soviet occupation in 1968, the contacts with the West became more difficult. Nevertheless, some new drugs (e.g. oxyprothepine, isofloxythepine, 7-metoxycitracine) began to be investigated in the clinic, but were not registered and/or produced due to economic considerations. At present, Czech and Slovak psychiatrists cooperate mostly in multinational clinical trials sponsored by the foreign industry. Recently, first interesting results of the studies using new imaging methods appear demonstrating their predictive potential.

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NAVIGATION AND IT'S IDIOTHETIC AND ALLOTHETIC COMPONENTS IN HEALTHY YOUNG HUMANS

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Allothetic and idiothetic navigational strategies are combined in natural conditions. Since either can presumably be deficient in neurological and psychiatric patients, an attempt was made to evaluate each of them separately. A fully enclosed circular arena (290 cm in diameter) was used. It had a computerized tracking system and 8 electronic symbols on the inner walls that could be controlled independently by a computer. Three tests of navigation towards a previously visited unmarked circular target (35.6 cm in diameter) were administered to ten healthy young subjects. Each test consisted of 8 searches. To make background cues irrelevant, the relevant cues were electronically rotated around the arena before each search. During the first ("combined") test, the mutual positions of the start, target and two wall cues were kept constant while the start moved around the arena circumference between searches in a pseudorandom manner. Only the "start - target" or the "target - cues" relationships remained constant in the second (idiothetic) and third (allothetic) tests, respectively. Subjects were asked to walk to the target and to place a pole upon it. If incorrect, they were led to the target before the next search. The mean distances (\pm SEM) from

the pole placement to the target center did not differ among tests (combined: 19.1 ± 1.7 cm, idiothetic: 21.0 ± 2.7 cm and allothetic: 19.9 ± 1.2 cm). The same was true for the subjects' ability to judge the radial and angular coordinates of the target relative to the arena center or to estimate the start - target distance. The bias in judging the start - target azimuth during the idiothetic and the allothetic tests was different (mean errors 1.28 ± 0.82 deg and -1.89 ± 0.81 deg, respectively), while the absolute values of the azimuth errors were not. Thus the ability of healthy young subjects to use the combined, allothetic and idiothetic navigation strategies in our arena was similarly good. This provides a reasonable basis for testing this battery on patients with brain damage, e.g. with early Alzheimer's disease.

Supported by JSMF 97-34.

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POST-TRAUMATIC STRESS DISORDER IN A STUDENT POPULATION SEVERAL YEARS AFTER BOMB ATTACK

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On 16.02.90, a class of Belgian university students during a seminar were victims of a bomb explosion. Several of them suffered from burns and showed psychological distress. Three to four years after this traumatic event, thirteen students underwent a psychological examination to evaluate the psychic post-traumatic consequences from a medicolegal point of view. On a psychopathologic level, the main complaints in decreasing order were: nervousism, anxiety, mistrust and phobic avoidance, emotional lability, recurrent recollection of the traumatic event, recurrent compulsions, awakening difficulties, physiological reactivity on exposure to external cues that remind of the trauma, irritability, neurovegetative hyperreactivity and depressed mood. All these symptoms are typical of a post-traumatic stress disorder (DSM IV). The psychometric testing revealed the presence in all patients of moderate but persistent anxious and depressive complaints. Also the data demonstrated personality disturbances of phobic and obsessive nature. Especially the MMPI and Rorschach results show phobic withdrawal and emotional and relational impoverishment. As a conclusion, we can say that a medicolegal approach of this problem reveals the reality of long-term posttraumatic sequels that consequently deserve a financial compensation.

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AGRESSION AND PTSD: MEDICOLEGAL EVALUATION

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Fifty consecutive patients, victims of aggression, were examined in order to assess semiological and psychometric characteristics of PTSD: 27 males and 23 females with a mean age of 41 years were examined 18 months after the traumatic event. The results showed the following semiology in decreasing order: excitability, phobic avoidance, distrust, recurrent traumatic nightmares, difficulties in concentration, impaired memory, dysphoric mood with self-depreciation and discouragement, hyperfatigability, recurrent recollection of the traumatic event, headaches, sleep disturbances, neurovegetative hyperreactivity with palpitations, trembling, sweating and oppressions. On a neurocognitive level, the results showed moderate concentration difficulties, memory disturbances and hyperfatigability. The statistical analysis of the data (Spearman) did not demonstrate a correlation between type of aggression (only