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L S D

D-Lysergic acid diethylamide (LSD) is an alkaloid synthesized from lysergic acid. It has a powerful action in altering the behaviour of animals. It has been used to produce model psychoses in man with the object of studying abnormal psychological states and the possibility of restoring aberrant man to normal.

A. Hofman, of Sandoz Laboratories in Switzerland, first experienced what LSD can do to normal man in 1963, and since the report of that experience was published hundreds of studies have been reported. There have been a number of controversies about the effects and the possibilities of this drug.

There are two main sources of LSD: From ergot, the parasitic fungus which grows on certain grasses and the rye plant, and from the morning glory plant. Varieties of the latter plant have been aptly named 'Heavenly Blue', 'Pearly Gates', and 'Wedding Bells'.

LSD is a remarkable substance. A typical experience induced by this agent cannot be described, because the experience depends on a number of variables. This is one reason why investigators studying LSD seem unable to comprehend one another's work. The variables include the personality, physical type, education, vocation, age, health, previous experience with hallucinogens, previous psychiatric treatment of the subject, and factors within the therapist-psychiatrist. There is no limit to what normal people may experience when they have taken LSD. Among the changes normal subjects have described are the following: Vivid perceptual changes occur in most subjects; blurring of vision, distorted and queer, shifting and fluttering, imagery filling the visual world with patterns of weird or lacework design, rainbow-effects, fog or smoke filling everything, and so on. Space may become smaller or larger in pulsations, floors and walls move, and particularly disturbing is the change in dimensional space of the walls closing in on the subject. Interesting changes appear in faces and pictures; faces may appear flat and photographs or paintings may become three-dimensional and alive. Changes may occur in the shape of faces, eyes commonly becoming very piercing and frightening, colours altered, the skin often appearing markedly green; the extremities also are changed, with hands appearing to wither away, or hair or fur seemingly growing on the subjects' hands. Hallucinations are frequently described.

Blind people do not have the vivid visual perceptual changes, but in them particularly auditory changes are most important. They may develop increased or decreased sensitivity to sound, inability to localize the source of sound, confusion about sounds, and more rarely, auditory hallucinations occur. Other changes that may occur involve taste, smell, touch, kinaesthetic sense, body image, and thought changes.

Many workers have been impressed with the similarity between the LSD experience and the 'schizophrenic experience'. Thus has arisen the concept of the model psychosis—the experimental psychosis which so much resembles schizophrenia. There is still much controversy about the validity of the model psychosis—whether studies of the LSD psychoses will yield valuable data towards a solution of the problems of schizophrenia. The LSD experience has become a standard with which other hallucinogenic compounds must be compared. It seems that the experiences produced by all the known hallucinogens are quite similar. Mescaline, LSD, and psilocybin produce very similar experiences. These drugs probably trigger or activate a process whose content will depend on variables such as some that have been mentioned above. Some common biochemical mechanism may be activated.

There are two diseases in which a reaction to LSD does not occur in the normal manner: in schizophrenia and in alcoholism.

The experiences gained with the use of LSD and mescaline have made an enormous impact on psychiatry. These and certain other hallucinogens are among the revolutionary discoveries of our present era. It has become essential to control the use of these materials. A full review of this most important and controversial subject, written by an authority actively engaged in the problem, is available for study, comment, and invited correspondence by A. Hoffer, an important psychiatric research worker.[1]

1. Hoffer, A. (1965): Clin. Pharmacol. Ther., **6**, 183-255.

BURO'S VIR HUWELIKSVOORLIGTING

Deskundige leiding en voorligting ten opsigte van maatskaplike en sielkundige probleme van allerlei aard word al meer 'n kenmerk van die tyd waarin ons leef. En dit is goed dat dit so is. Ons is nie meer gewillig om Gods water maar net goedskiks of kwaadskiks oor Gods akker te laat loop nie, want in dinamiese aanpassingsterme is dit te 'n verkwistende praktyk. Ook in hierdie opsig, soos in baie andere, glo ons aan die drie noodsaaklik Bs, nl. om te Besin voor ons Begin, en om dan te Beplan op grond van wat ons besin het.

Op die gebied van aanpassingsprobleme by kinders het ons, byvoorbeeld, kinder-leidingklinieke. Ons het klinieke waar raad en leiding aan verwagtende moeders gegee word, en ons het klinieke waar probleme van gesinsbeplanning en geboortebeheer behandel word. Daar is buro's wat hulle dit ten doel stel om raad te gee oor hoe en waar *enige*

soort inligting verkry kan word. En gedurende die afgelope aantal jare het daar ook orals in die grotere sentrums van ons land organisasies ontstaan wat getroude pare met aanpassingsprobleme in die huwelik met raad en daad bystaan.

Dit is interessant en belangrik om te let op hoe diep hierdie laaste soort organisasie ingeslaan het. As voorbeeld kan ons noem dat die bestaande huweliksadviesraad in maar net een stad gedurende 1964 ontledende en raadgewende onderhoude met 647 huwelikspare gehad het.

Dat dit 'n ontsaglike werksprestasie vir 'n organisasie van hierdie aard is, moet enigeen kan besef. Advies en leiding aan wanaangepaste huweliksmaats is moeisame en verantwoordelike werk. Dit sluit gewoonlik lang-uitgerekte onderhoude in deur ervare raadgewers—eers met die een, dan met die ander, en later met altwee van die huweliksmaats. Ook sluit dit opvolgonderhoude in.

Ons kan die groot werk wat die verskillende huweliksadviesrade op hierdie gebied doen, nie sterk genoeg aanprys nie, en dit ly geen twyfel nie dat daar op hierdie manier 'n groot bydrae gemaak word tot die uiteindelike gevoel van geluk en stabiliteit van 'n groot aantal lede van ons bevolking.

Sommige huweliksmaats het intensiewe leiding en behandeling nodig—veral diegene in wie se gevalle die wanaanpassing op 'n ernstige psigiatriese abnormaliteit by die een of ander van die huweliksmaats berus. Heel dikwels kan die toestand gediagnoseer en die regte behandeling aanbeveel word.

In baie ander gevalle berus die wanaanpassing op gebrekkige kennis en insig in aspekte van die menslike natuur—in watter gevalle openhartige bespreking en beraad letterlik wonders verrig. En in nog ander gevalle is dit nodig om die bestaan van uiteenlopende, maar nie noodwendig onversoenbare nie, persoonlikheidstrekke by die huweliksmaats aan te toon en die dinamiese implikasies daarvan aan die betrokke persone te interpreteer.

Dit is natuurlik nie moontlik om alle mense te help en om alle huweliksverhoudings te red nie. Hier, soos op ander gebiede van die lewe, sal 'n ervare raadgewer sy beperkinge ken. 'n Mens moet in staat wees om die hopelose geval te erken. En 'n mens kan slegs diegene help wat hulself wil help. Máár, en dit kan gesê word op grond van die ervaring van baie beroepsvoorligters, daar kan baie gedoen word om die meeste mense met huweliksmoeilikhede te help.

In terme van die geesteswelsyn van 'n hele gemeenskap en in terme van veral die sekuriteitsgevoel van so 'n groot aantal kinders wat indirek by die huwelikswanaanpassing van hul ouers betrokke is, kan ons sê dat die dienste wat op hierdie gebied gelewer word van onskatbare waarde is. Ons wil dan ook graag langs hierdie weg erkenning betoon aan diegene wat hierdie soort werk in vrywillige hoedanigheid onderneem, en ons wil ook graag 'n beroep doen op alle moontlike organisasies en gemeenskapsbronne om die werk van die huweliksburo's orals oor ons land, met raad en daad te ondersteun.

HOMOCYSTINURIA

In 1962 investigators in the United States[1] and England[2] described a previously unrecognized abnormality in the metabolism of the sulphur-containing amino acid, homocystine. The latter occurs as an intermediary in methionine metabolism and is not a normal urinary constituent. Clinical features of affected patients include mental retardation, ectopia lentes, fair skin and hair, malar flush, genu valgum and frequently a history or findings compatible with spontaneous vascular thromboses. Pulselessness, premature coronary thrombosis or cerebral vascular accidents are not uncommon and may be precipitated by minor trauma or surgery. The plasma concentration of homocystine in these cases is elevated, indicating that the aminoaciduria is of the overflow type rather than due to a renal tubular defect. Further, it has been established that affected individuals lack the enzyme cystathionine synthetase. This is normally present in the liver and is responsible for the conversion of homocystine to cystathionine. Parents of these patients possess about three-quarters of the requisite amount of enzyme, confirming that autosomal recessive inheritance is operative.

By screening known cases with ectopia lentes ascertained through ophthalmologic records and by rechecking patients who had a diagnosis of the Marfan syndrome, but in whom the typical dominant pedigree pattern was lacking, an American group of workers[3] have collected as many cases in a few months as have been reported in the world literature since 1962! It appears that this newer of the inborn errors of metabolism is by no means rare. The screening test is quite simple and consists of adding one part of 5% sodium cyanide solution to two parts urine. The addition of a few drops of 5% sodium nitroprusside should result in a magenta colour developing immediately and then gradually fading. Since the test does not discriminate between cystine and homocystine, chromatography or high voltage paper electrophoresis is required for precise diagnosis.

The founder effect in South Africa has been ably demonstrated by the exhaustive work of Dean on porphyria[4] and Klintworth on Huntington's chorea.[5] The founder effect is an example of genetic drift. If an unpopulated country is colonized by a few original settlers who by chance differ widely from the average of the parent population in the genes they carry, then the descendant population might differ markedly from the parent population.[6] In this country 1 million people now bear the names of 40 original burghers.[4] The above diseases are both Mendelian dominant defects, but it is likely that recessive disorders—such as homocystinuria—may be equally prevalent in this country in terms of the founder effect.

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