ing; and Dr. Wallace A. Reed, the local host, a vote of thanks for his well-conducted arrangements.

DAVID M. LITTLE, JR., M.D.
The Hartford Hospital
Hartford, Connecticut

American Society of Clinical Hypnosis

Increasing maturity in the field of hypnosis was evident in the improved scientific quality of the papers presented at the tenth annual meeting of The American Society of Clinical Hypnosis in New York City, October 18–22, 1967. It was attended by more than 650 physicians from all fields of medicine, as well as by dentists and by psychologists.

Dr. Hans Selye pointed out that the most disturbing, as well as the most common, factors setting off the Alarm Reaction and the General-Adaptation-Syndrome are psychological. If one can remove any of the building blocks, be they conditioning factors (*e.g.*, heredity, environment, attitudes) or challengers (*e.g.*, heat, cold, anesthesia, fear, pain), then resulting disease syndromes cannot develop. Dr. Selye likened stress to a force and disease to the result of the application of stress in a specific manner according to the bodily apparatus and its circumstances. Electricity is a force in the same way. The results of the use of electricity vary according to whether the machine plugged in is a lamp, a washing machine, a heater, or a radio. All symptoms are manifestations of the liberation of energy which is used in different ways. Dr. Selye showed data obtained from rats which were conditioned for responses such as thrombotic and hemorrhagic phenomena, necrosis or calcification. The conditioned lesion in each instance was produced at the anoxic site as the result of stress. Blocking one element in the conditioned response could also prevent the disease.

Understanding of hypnosis as a natural, inborn phenomenon was increased by Dr. Esther Bartlett, anesthesiologist, in her definition of it as "control of a control." Hypnosis is the regulation of input for the purpose of controlling output (behavior). In everyday life we accept some of the signals entering on efferent pathways. We ignore others ("turning a deaf ear") and distort still others in accord with previous experience and understanding—or lack of it. As Dr. Kenneth Bartlett, dentist, phrased it, we have "filters and amplifiers" which modify incoming signals. Although these operate spontaneously they can also be used deliberately. In what he terms "Need Hypnosis" the operator directs interpretation and response to accomplish such phenomena as pain relief and cessation of bleeding, or increase of bleeding to relieve a "dry socket." Trance induction is unnecessary for this. Dr. Kay Thompson, dentist, bore this out in her presentations and demonstrations using suggestion, redirection of attention and various hypnotic techniques to provide relief of pain and of anxiety in her patients.

Another shibboleth concerning hypnosis, besides the idea that trance induction is needed, was attacked by Dr. Herbert Spiegel, psychiatrist. This was the concept of hypnosis as "sleep." He pointed out that we should shift to the idea that hypnosis is an *alerting* process. We should be saying, "Wake up!" "Pay attention!" "Let's see what capabilities you can apply in this situation!" Wrongly following the notion of sleep, we bore ourselves and our patients with long induction procedures, and then complain because it takes too long and give up a good tool. Or we fall into the trap of becoming upset when the patient declares, "But I wasn't asleep!" and reject a perfectly good means of therapy. Or a colleague who misunderstands hypnosis prevents its use, even in the face of well-designed research showing its proved value, on the basis that "For this we need the patient's cooperation. We can't have him asleep!" Dr. Spiegel emphasized that hypnosizability ought to be evaluated routinely, just as we test the patient's other capacities, his Babinski reflex, knee jerks, etc. We then know at once to what extent hypnosis can be used in each patient. Properly done, hypnosis should take no more than ten minutes in a nonthreatening situation. We are incompetent professionally if we do not learn enough about hypnosis to apply it within our own fields or to make referrals just as we do in other situations.

Dr. Margaret Mead, anthropologist, also brought up the problem of misunderstandings which reflect on all of us in her discussion of the relationship between belief and research. If we say "I believe (or don't believe) in hypnosis," it puts hypnosis at once in a situation where research is impossible. Saying instead "I believe that hypnosis is helpful in dentistry (anesthesiology)" allows one to set about examining the evidence and finding out the circumstances under which it applies. We must scrutinize carefully orders of belief/disbelief to avoid this type of confusion, a confusion common to all researchers and scientists. (Where would anesthesiology be if left to those who only said "I don't believe in ether?")

Having noticed the frequency with which patients reported verbatim on conversations overheard in operating or recovery rooms, Dr. Kirk Klopp, oral surgeon, investigated the possibilities of giving constructive suggestions to patients in the early period of awakening from anesthesia. Getting a response to instructions such as "Nod your head when you understand what I am saying to you," he then tells the patient: "You will be surprised at how comfortable you are on awakening. It will probably not be anything like you thought it would," "You will have some bleeding but no excess, not enough to spill over into your mouth," or "You need some swelling as material for repair is brought to the operative area, but there's no need for it to be excessive." Swelling, bleeding and the use of sedatives postoperatively were remarkably decreased by these suggestions. In 78 per cent of the cases no narcotics were administered. Most patients had amnesia for receiving the suggestions but still responded well to them.

Dr. Fred Kolouch, previously a surgeon but now training in psychiatry, discussed doctor-patient relationships and the transactional factors therein. Illness is always accompanied by a perplexity in the patient which needs to be resolved for successful treatment. When this is done through a holistic approach, the result is a cure. When it is not, new conflicts and symptoms arise, treatment is partial and, in effect, a new illness is created. Dr. Kolouch illustrated this with several cases. Shunted from clinic to clinic, with outstanding cues ignored, patients experience mounting anxiety and fright and a vicious circle develops. He contrasted these patients with cases where the use of hypnosis had broken such a vicious circle and where the allaying of anxiety prevented adverse psychological response and led to smooth recovery. Teaching the patient to respond with relaxation instead of mounting tension offers a means of breaking such a vicious circle. This is done with a minimum of time involvement during the course of pre- and postoperative visits.

Dr. Ernest Werbel, surgeon, dealt with the use of hypnosis in the effective prevention of emergence delirium through preoperative suggestions reinforced in the recovery room and, in the discussion following, with its use in alleviation of pain and spasm and in the prevention of postoperative complications.

Dr. George Hoffman, obstetrician, compared psychophysiological methods used in obstetrics. All of them proceed on the premise that relaxing to a state of normality obviates pain. Becoming calm, confident and released from excess tensions gives relief of pain and the spasms of dyskinetic contractions which hurt but are ineffective.

Dr. Stanley Rose, psychiatrist (Birmingham, England), reported on his use of hypnosis with asthmatics. Even in an acute attack they can respond dramatically to suggestion, especially as it is given indirectly and attention is turned away from the self. When the patient thinks differently, freed from the fear of the attack, he feels better.

An eye surgeon, Dr. Graham Clark, had a unique opportunity to study the speed of wound healing. In his ten-year study Dr. Clark found a 400 per cent differential between slow and fast healers. There were no physical nor physiological patterns which accounted for it. Psychological profiles showed the slow healers to be the dissatisfied, the complainers with low pain threshold, needing large amounts of sedation. The fast healers were characterized by few complaints, little need for sedation and were "the people whose rooms you enjoyed entering." Coding it still further, fear was rejected as being a necessary protection against danger. Anxiety was cast out for lack of agreement as to definition. The

key was found through the work of Viktor Frankl in *meaning*. The fast healers were able to accept life as it is, good and bad together, and to participate in treatment. One implication whose connections were made by various participants in other presentations was that the anesthesiologist or the surgeon had an opportunity of awakening the patient to his own potential through the judicious use of creative suggestions made during the time he normally spends with the patient. Dr. Clark reported one case which dramatically demonstrated the before-and-after effects of reorienting attitudes. Born with congenital cataracts, rejected by her mother who felt put-upon by the resulting problems, the patient showed no healing at all when an attempt was made to replace a detached retina. Before attempting repair of a detached retina in the other eye at a later date, a team of the patient's own physician, her pastor and a psychiatrist worked to help her. This time she was in the category of the most rapid healers.

Excellent material was presented by other speakers also. It is hoped that many of the papers will be published. Certainly some will appear in The American Journal of Clinical Hypnosis.

BERTHA R. RODGER, M.D.
Ridgewood, New Jersey

Surgery

MYASTHENIA GRAVIS Following thymectomy for myasthenia, all patients are placed immediately on assisted mechanical ventilation, if respirations are spontaneous, or on controlled mechanical ventilation if they are apneic. In the immediate postoperative period no drugs are given for control of the myasthenia. With assisted or controlled mechanical breathing for the first few postoperative days, cholinergic crisis is avoided completely by eliminating the need for anticholinesterase drugs. Arterial blood gases are monitored at periodic intervals to insure adequate oxygenation as well as elimination of carbon dioxide. Ventilation is carried out with air if arterial oxygen tension can be kept at approximately 100 mm. Hg. Gram stains and cultures of tracheobronchial secretions are obtained daily. About the fourth or fifth postoperative day, anticholinesterase drug therapy is reinstituted by adding pyridostigmine syrup at a reduced dosage level to the formula being given through a feeding tube. (*Cohn, H. E., and Schlezinger, N.: Thymectomy in Myasthenia Gravis, Surg. Clin. N. Amer. 47: 1265 (Oct.) 1967.*)

KETOSIS A series of experiments was performed during the induction of starvation ketosis and in the acute reversal of the ketotic state. In contrast to the predictions of two widely-held theories of ketogenesis, control of acetoacetate production by the liver appeared to be unrelated to the changes in fatty-acid mobilization from the periphery, fatty-acid oxidation, fatty-acid synthesis, or acetyl coenzyme A concentration in the liver. Ketosis of fasting was shown to be reversible within five minutes by the injection of glucose or insulin. This effect was due to a prompt cessation of acetoacetate production by the liver. The possibility is raised that the ketosis of fasting is due to a direct activation of acetoacetate-synthesizing enzymes secondary to a starvation-induced depression of insulin secretion by the pancreas. (*Foster, D. W.: Studies in the Ketosis of Fasting, J. Clin. Invest. 46: 1283 (Aug.) 1967.*)