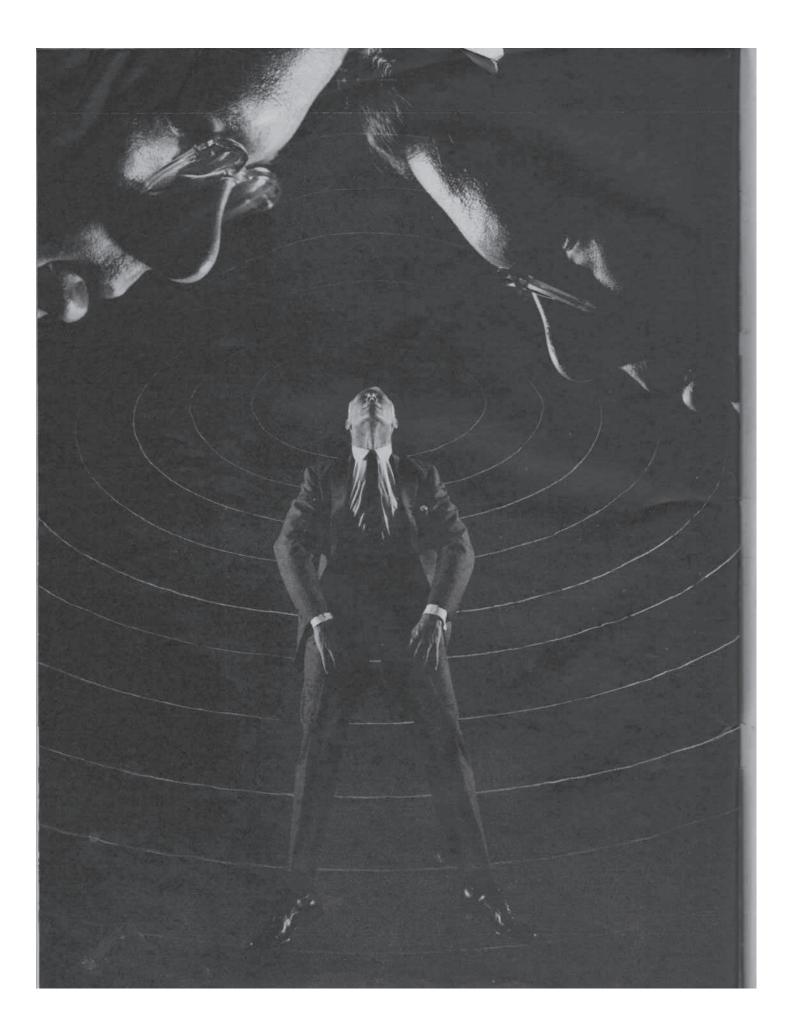
HYPNOSIS

OLD 'BLACK ART' IS NOW ACCEPTED MEDICAL TOOL

DARWIN'S INSECTS: JEWELS OF HIS JUNGLE PARADISE

SENIOR AT HARVARD

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# OUT OF ANCIENT MAGIC COMES NEW MEDICAL TOOL:



### **HYPNOSIS**

Hypnosis has finally gone medically legitimate. Because it traditionally has been the secret of the stage magician, the public usually has looked on hypnosis as black magic, picturing its practitioners as spell-casting Svengalis (above). But in the past 10 years some 900 U.S. doctors, dentists and psychologists have been quietly employing hypnosis to help their patients. Their success has so impressed the American Medical Association that it has now endorsed hypnosis as a therapeutic aid for doctors and dentists properly trained in its use.

This significant vote of confidence means that more and more Americans soon will be experiencing the feeling (opposite page) of drifting into a vortex of sound – the reassuring, repetitive sound of the hypnotist's voice. They will find that the suggestions his voice plants in their minds can help them through crises that range from the extreme stress of undergoing open heart surgery without general anesthesia to the problem of gagging at the dentist's. They will discover that hypnosis can put them into a contented, relaxed frame of mind, allay their panic and help them forget their ordeal.

As an anesthetic in surgery, hypnosis persuades the patient he feels no pain, prevents the vomiting, fatigue and loss of appetite that often follow operations. It is specially useful in operations where general anesthetics should not

be used and in childbirth where too much anesthetic can harm the baby. In relieving cancer pain, it often is better than opiates, for it is not habit-forming, does not lose its effect, as narcotics do.

While medical hypnotists are gratified by its new legitimacy, they are afraid hypnosis may stimulate the fad-loving public to clamor for it as everybody's cure-all. This could cause tragic disappointment, for at least one out of 10 patients cannot be hypnotized at all and one out of six will not go into the deep trance needed for painkilling in major surgery. What is more, hypnosis does not cure anything. Compulsive overeating in obese patients, for instance, can be stopped through hypnosis. But this does not remove the cause of the compulsion — the patient may stop eating candy and start chewing his nails.

Research in hypnosis is still so new that its potentials are not fully understood. Startling new findings on the psychiatric uses of hypnosis and its potential threat in psychological warfare will be discussed in a future issue of LIFE. Meanwhile hypnotism's most striking present applications, in the field of childbirth, surgery and therapy, are shown on the following pages.

IMPRESSION of entering a hypnotic trance is portrayed at right. With his eyes closed drowsy subject feels as if he were floating, receding into a whirlpool of sound-the hypnotist's calming, compelling, insistent voice which seems to be omnipresent and to come from all sides

MEDICAL INTEREST expressed by doctors watching Gynecologist David Cheek (right) hypnotize one of their colleagues (in arm chair). This was in California, at one of a series of symposiums which since 1956 have been attended by over 1,000 physicians, dentist and psychologists.





**IN TRANCE** and thus able to hold arms up without tiring, three expectant mothers practice hypnosis.



**HYPNOTIZING HERSELF** Mrs. Mucci makes her arm numb, then transfers numbness to her cheek.



**BEFORE DELIVERY** doctor tests the state of Mrs. Mucci's trance by telling her to raise her arm aloft



JOYOUS SMILE BREAKS OVER SHIRLEY MUCCI'S FACE AS, COMING OUT OF HYPNOSIS, SHE LOOKS AT HER NEWBORN SON. "OH, IT'S A BOY!" SHE SAYS. "HE'S BEAUTIFUL." THROUGHOUT LABOR AND DELIVERY SHE RECEIVED NO ANESTHETIC BUT STILL FELT NO PAIN

#### IN CHILDBIRTH, NO SUFFERING AND NO FEARS

"Open your eyes, Shirley. Look-look at your baby." At these words, uttered by a Chicago obstetrician, Shirley Mucci came out of a hypnotic trance and saw her minutes-old son. Hypnotized before going into labor, she was conscious of no discomfort during delivery.

Months before, she had shed the anxieties of pregnancy by attending a group clinic for prenatal training (top above) where a doctor taught her to hypnotize herself by repeatedly assuring her under hypnosis that she would be able to put herself into a light trance at will when she got home. For 15 minutes each day Mrs. Mucci had done so (middle above), closing her eyes, telling herself she was very relaxed and that her arm was as numb as if it were anesthetized. Then she had said to herself over and over, "I am completely calm. I am not at all worried."

At the hospital she hypnotized herself again as labor began. Next morning the doctor cam by, said. "Now it's time to go under." Immediately she did. Her husband came in. "Ralph will now put his hand on you," said the doctor. "Ralph will reinforce you." In the delivery room the doctor murmured, "Think of yourself doing something very pleasant. Maybe you're gardening.... I want you to pant like a dog. Grunt. Pant." At delivery he said: "You don't feel anything." And Mrs. Mucci did not.

Not all pregnant women can be as fully hypnotized a Mrs. Mucci. Nor should all cases be hypnotized. But for many women the eliminations of tension through hypnosis is a blessing. And for those who have to be delivered by Caesarean section yet cannot tolerate required anesthetics, this is an ideal way to have a baby.

#### IN STRESS-FREE SURGERY. . .



**BEFORE SURGERY** nurse helps Fred Heywang eat. Parkinson's disease has crippled his right arm.



**DURING DRILLING** Heywang is calm, pain-free, keeps eyes closed as hypnotist (foreground) talks.

For Fred Heywang, five hours of what might have been living hell went by in peace. At Dallas' Parkland Memorial Hospital, Psychologist Harold Crasilneck, the hypnotist, kept him relaxed during the awful stress of operation while part of his skull was removed and a needlelike instrument inserted deep into his gray matter.

Heywang, who had been suffering from crippling limb tremors for 20 years, had to undergo this without a general anesthetic. Surgeon Kemp Clark had to be able to watch his reactions as he penetrated the brain to discover which part was the area controlling spasms and then treat it to stop the spasms. Under hypnosis Heywang was conscious enough for Dr. Clark to see when the tremors stopped. Only once did Heywang sense mild pain, saying: "Oh, brother! It feels like a thousand bites." When he awoke, he recalled little of his trial,

MAKING SURE HEYWANG IS IN TRANCE, DR. CRASILNECK (LEFT, FRONT) SAYS TO HIM AT SURGERY'S START, "YOUR ARM FEELS FLOATY, AS IF A BALLOON WERE PULLING IT UP." HEYWANG THEN RAISES HIS ARM



#### . . . AND PAINLESS THERAPY



HYPNOTIZED MRS. HARALSON EXERCISES BURNED ARM PAINLESSLY WHEN DR. CRASILNECK TELLS HER TO

For Dorothy Haralson, hypnosis meant the end of torture. Her body had been burned when a gas heater exploded in her Irving, Texas home. As healing began, dead tissue had to be cut away, and she was supposed to exercise her badly injured right arm. But even with opiates the pain was so excruciating (below) she refused to move the limb and its muscles contracted.

At Parkland Memorial Hospital her surgeon suggested that the Dallas psychologist Harold Crasilneck (left) try hypnosis. Under it she felt nothing during tissue removal. Later he hypnotized her for therapy. "You are getting drowsy," he suggested. "Your eyes are sealed tight, though you are very relaxed. We're going to exercise that arm. Stretch it, stretch it. When you wake up you will continue to move it but this will not be painful." Awakened, when moved her arm. "How do you feel?" asked Dr. Crasilneck. "Just fine." she beamed.



AFTER OPERATION Heywang can use right arm, now tremor-free. His legs also are no longer shaking.



**WITHOUT HYPNOSIS** Mrs. Haralson holds brow in agony during the changing of her burn dressings.

**ENTERING TRANCE** Maxine Rhodes stares at coin held by her doctor at her Phoenix, Ariz. home. She has had pelvic operation for cancer, was in great pain.



## IN CANCER, A RESPITE FROM TERRIBLE AGONY

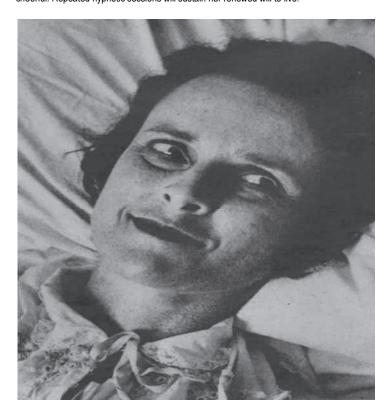
**REMEMBERING PAST PAIN** Mrs Rhodes has moment of anguish. Hypnotist purposely has her recall pain so that later pain-free contrast will be stronger.



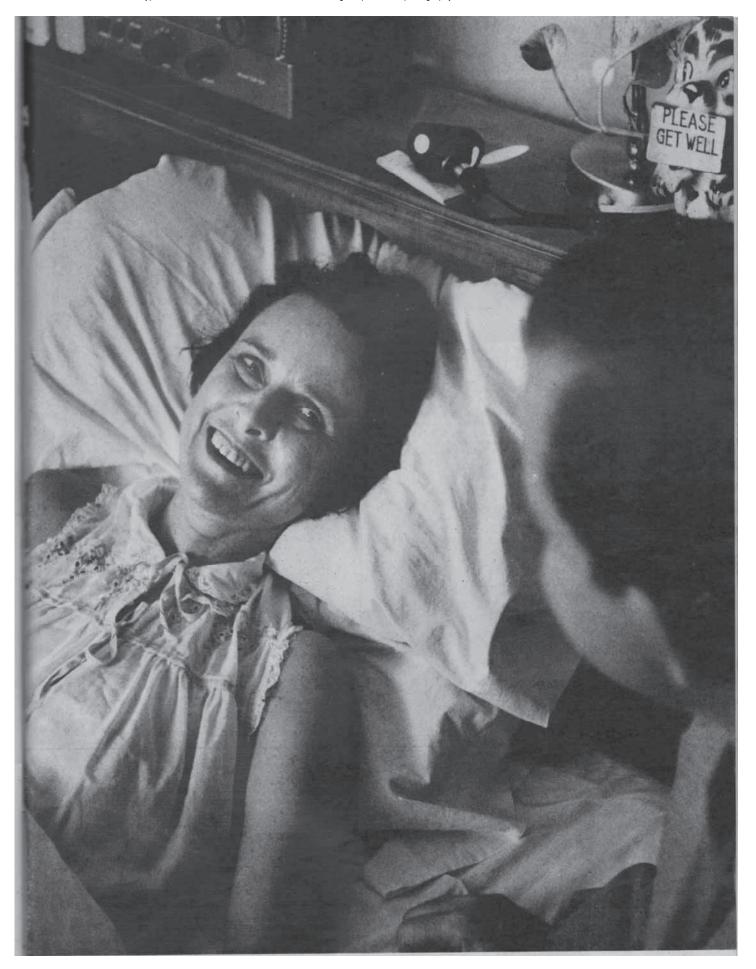
**LOSING HER PAIN** Mrs. Rhodes blissfully relaxes as the doctor then tells her that a soothing warmth is spreading through her back, abdomen and thighs.



**AWAKENING** Mrs Rhodes is conscious of no discomfort, no fear. She feels actually cheerful. Repeated hypnotic sessions will sustain her renewed will to live.



**FINDING HERSELF PAIN-FREE** Mrs. Rhodes smiles with relief at Dr Byron Butler, who was both her surgeon and hypnotist. When he left, she frequently played records of his voice to maintain the beneficial effects of hypnosis until next session. She even felt well enough to plan some photography-her former work.



### HUMBUG IN THE PAST, DANGERS IN PRESENT

**VAUDEVILLE HYPNOSIS** shown in this early photo and still practiced by entertainers, is deemed dangerous by medical hypnotists. Here hypnotized subject has been made so rigid he is like plank, can support weight of two men.



The widest use of hypnosis in modern times has been for entertainment, and the medical profession views with considerable alarm the stage magician who puts members of his audience into trances. Both physical and mental harm can come from his act. "The use of hypnosis for entertainment purposes," the A.M.A. has flatly stated, "is vigorously condemned." Medical hypnotists hope state governments will pass bills banning hypnosis in the amusement field, but the opposition from entertainers is powerful. In 1957 the city council of Buffalo, NY considered such a resolution. It was opposed by Ring Twelve of the Buffalo Magic Club on grounds of discrimination and was quietly dropped.

Hypnotism has a long history of misuse. Its earliest uses were religious and medical at the same time, for primitive man correlated faith with healing, considering the witch doctor both

priest and physician. As far back as the Old Stone Age, anthropologists believe, religious leaders awed their caveman audiences by going into hypnotic trances. Ancient soothsayers who gazed into crystals to divine the future undoubtedly fell into trances, believing this gave them foresight. Persian magi and Hindu fakirs practiced self-hypnosis, claiming supernatural healing powers when in this state. The priests of ancient Egypt brought their patients to temples and, using a form of hypnosis, told them the gods would cure them as they slept.

In later centuries certain religions retained self-hypnosis as a spiritual aid. During the 1880s the Christian monks of Mt. Athos in Greece practiced it as part of their devotions. So do Hindu yogis of today. But in medicine hypnosis was not recognized in modern times until the end of the 18<sup>th</sup> Century. Then Franz Anton Mesmer revived and expanded an old and erroneous theory that sickness was due to an imbalance of 'universal fluids" which, he believed, could be readjusted by man through a magnetic force. He used a type of hypnotism to control this force and treat patients. Europe's aristocracy took up mesmerism as a dad until a scientific commission, which included Benjamin Franklin, denounced his practices as humbug.

One of Mesmer's disciples, the Marquis de Puysegur, accurately described Mesmer's 'magnetism" as artificial somnambulism. The British Surgeon James Braid said it was a state of mind and named it hypnotism. In 1821, in France, the first operation under hypnotic anesthesia was performed. It was followed over the next 60 years by thousands of other operations carried out by European surgeons. Dr. James Esdaile even persuaded the British government to set up three hospitals in Britain and India where hypnosis would be used.

At the turn of the century, hypnosis received a crippling blow. Sigmund Freud tried it to treat hysteria but discarded it as ineffective and turned away from it in favor of psychoanalysis. This nearly ruined hypnotism's reputation. It was not considered valid treatment again until World War I, when it was briefly used to treat "shell shock." But doctors did not understand it and lost interest in it. In World War II the old tool

was tried again for combat neuroses. This time doctors began to study its complex nature and to prove its worth.

Today most practicing medical hypnotists are not full-time hypnotist, but are doctors who use hypnosis as an aid to their practice. In the U.S there are about 400 dentists well trained in its use, 250 general practitioners, 150 specialist such as obstetricians, internists, surgeons and anesthesiologists, and 100 psychologists and psychiatrists. Some of these men were recently trained at medical schools but more than half learned the techniques by themselves years ago when no good courses were available. Only two U.S. universities now offer extensive training in hypnosis, giving it as a graduate course which is open to any doctor dentist or psychologist.





**HYPNOTIZING CHILD** Dr Abraham Weinberg of New York puts 8-year-old Jay Avelino into trance (above) by repeating that Jay is leader of cowboy band. Doctor then painlessly sews up long cut on boy's brow without anesthetic.

Hypnotism's increasing popularity will almost certainly create a shortage of trained practitioners. The first and oldest organization of medical hypnotists in North America today, the Society for Clinical and Experimental Hypnosis, recommends at least a year of training for any doctor or dentist who wants to use hypnosis in his specialty. It fears some doctors will try hypnosis after only a cursory course and, unaware of its limitations, will do more harm than good. "Quickie courses," warns Dr. Milton V. Kline, editor of the society's journal, "give the men the tool but not the appreciation of how carefully it must be used." He points to the case of a patient who came to him after having been hypnotized by a dentist. With hypnosis the dentist had stopped the man from grinding his teeth. But the man was neurotic and when he could no longer find a teeth-grinding outlet for his tensions, he started to overeat. When Kline got him, his weight has soared from 145 to 288 pounds.

#### Widespread application and a warning

HYPNOSIS is now being tried in many cases other than major surgery - to treat asthma, hay fever and multiple sclerosis, relieve pain in minor surgery, help patients hold awkward positions for skin grafting and substitute for the needle at the dentist's. But as these applications become more and more varied there is danger that the public will take to hypnosis as heedlessly as it has welcomed tranquilizers. Doctors may be pressured into using it unwisely. To avoid this, Southwestern Medical School in Dallas permits hypnosis only after the case is discussed at a conference of several different specialists.

Dr Harold Crasilneck advises that hypnosis "should be used only with specific cases that no longer respond to standard treatment." Some doctors may not heed this advice. Having used hypnosis to relieve physical distress during a patient's ulcer operation, for instance, a too ambitious doctor may try to get at the psychosomatic reasons for the ulcer. Unless he is grounded in clinical psychology he can botch this and drive the patient into hysteria.

Unfortunately, healing by untrained hypnotists flourishes in the nation today and the situation may get worse now that hypnosis is medically respectable, Many reputable hypnotists now warn their patients under hypnosis: "You will never under any condition allow yourself to be hypnotized by anyone who is not qualified to do so."

The true nature of hypnosis is still debatable, but I general it acts in the following manner, usually, for a person to 'go under," or be induced into a trance, he must be willing. No one normally can be hypnotized against his will, nor will anyone who is hypnotized perform an act that goes against his best interests. The best subjects are those who want it most – those in great pain.

Induction works only if the person concentrates completely on one repetitive stimulus, somewhat in the way an infant falls asleep to the repeated rocking of his cradle. This stimulus can be sight or sound or, as in the case of whirling dervish, motion. In a typical hypnosis session, the subject responds to only one of his five senses. As he stares fixedly at a small object or a light, his vision becomes fuzzy with fatigue and he is unaware of any sensation except hearing. He pays attention to only one sound, the hypnotist's voice murmuring repetitively, "You are so sleepy, so very, very sleepy." The voice gets the brain's undivided attention and literally talks the brain into a sleeplike trance.

As he drifts off, the subject may feel slightly dizzy, as though swaying, gloating or falling down a shaft. Objects around him may seem to waver, as if seen under water. His temperature may fall slightly. He may see streaks of light, gaudy kaleidoscopic patterns or complementary colors — a green wall may look yellow. Patients have described such temporary illusions as "I feel as if my body were not here, only my head," or "I am an egg-shaped disk, and you (the doctor) are like a luminous crescent hovering over me."

The illusions and strange feeling of unreality come from the fact that during induction the personality that the patient had when he was awake – his consciousness – becomes temporarily altered. With many inhibitions released, he may feel intense emotion – generally elation, but occasionally anger and terror. Then his ability to perceive sensations and to conceive ideas about them change. He will take unreal things for reality, but only if this is suggested to him as an image. For example, one subject had no reaction whatever when informed under hypnosis: "Your temperature is falling." But when told that he was going up into the stratosphere in a plane, the image made him start to shiver and his temperature dropped to 92 degrees.

When a patient is in a trance his subconscious can be influenced. He lacks volition, feels that resistance is too much effort. He is extremely susceptible to suggestion, reacts to what he is told without question or criticism. If he has to undergo surgery, he will, under hypnosis, be convinced that he is pain-free. Physically he will be receiving pain, for damaged nerves will be sending signals to his brain. But psychologically he will not be feeling pain, for his brain will refuse to perceive these signals and coordinate them into the feeling of pain.

How far suggestions, which is intensified in hypnosis, controls the reactions of the human body becomes of increasing importance to doctors as they use hypnosis more widely. Recent experiments indicate that hypnosis may affect more than the brain and may actually reduce the nerves' pain signals.

Other tests give startling evidence of hypnotism's power over physical functions. Some subjects were given constipating doses of opium under the guise of castor oil; the results were cathartic. A patient whose leg was immobilized with anesthetic was told under hypnosis that he could walk – and he did, as though his leg were normal. Another was advised he was swallowing spoonfuls of honey, and the sugar content of his blood immediately rose. And one man, assured he was eating tenderloin, chewed up a blotter with great satisfaction.

