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Short Communication

SOME OBSERVATIONS ON MDMA EXPERIENCES INDUCED THROUGH POSTHYPNOTIC SUGGESTION

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This article reports a preliminary study of the use of posthypnotic suggestion to produce states similar to those produced by the substance methylenedioxy-N-methylamphetamine (MDMA), a psychoactive drug of the phenethylamine family (Shulgin & Shulgin 1991; Shulgin 1986). MDMA was patented originally in 1912 by the E. Merck Pharmaceutical Company in Germany and considered for use as an intermediate for pharmaceuticals. However, this use was not commercially developed. The drug resurfaced in the 1970s and was used in the United States as a psychotherapeutic substance. It was initially used by a few therapists as an adjunct to individual and couples therapy, and by individuals for personal insight. It was not produced pharmaceutically, but rather by individuals in private laboratories. Because of its psychoactive properties it became a recreational drug, lending itself, for example, to social facilitation, enhanced experiences in nature, personal insight, and dancing. Its popular names include Adam, Ecstasy (XTC), and MDM. Since 1985 it has been in Schedule I, making it illegal to manufacture, sell, or possess it without federal approval. One research project has been recently approved to study the physical and psychological effects of MDMA in normal human subjects. Some psychiatrists and psychologists in Switzerland, with the required government permission, are using MDMA for therapeutic treatment.

CLINICAL AND THERAPEUTIC USES OF MDMA

The use of MDMA in psychotherapy has been to facilitate communication, to decrease fear around traumatic experiences and threats to emotional integrity, to reduce defensiveness, and to contribute to a sense of security and well-being (Greer & Tolbert 1990, 1986). The clinical use has been in single sessions in which the drug creates a discrete, time-limited state of consciousness, rather than through continued use as with tranquilizers or stimulants. The effects occur during the duration of drug effect (about 3-5 hours) and they allow therapeutic work on traumas, fears, relationships, esteem, honesty, locus of control, and other issues affected by fear and threat. The ego is generally maintained intact during this time: memory, perception, emotional awareness, and thought processes are usually experienced normally, which helps desensitization as well as the integration of new learning. The individual may also experience a feeling of love and empathy with others in a therapeutic, social, or private setting. These effects may lead to psychological benefits that are long lasting and integrated into the person's thoughts, feelings, and behavior. After a two-year follow-up, Greer and Tolbert (1986) reported continued improvement for many patients.

Central nervous system (CNS) side effects that occur with some, but not all subjects, include jaw clenching, physical jittering, nystagmus, restlessness, and increased pulse and blood pressure. High blood pressure, heart or liver disease, diabetes, glaucoma, hypoglycemia, and a history of convulsions are usually considered to counterindicate MDMA use. Some research (e.g., Commins et al. 1987) has concluded that MDMA is toxic neurologically in animals, though this is not a consensus. Extrapolating these findings to humans and the effects of dose levels are not yet spelled out. Grob and colleagues (1992) suggested that experimental studies of MDMA are justified, especially in relation to the exploration of its treatment potential. Nevertheless, the side effects and other concerns suggest caution in screening, preparation, and procedures in using MDMA.

Some physiological effects, such as headaches, pain, shortness of breath and discomfort, appear to be related to psychological issues, traumatic experiences, and emotional conflicts that are released by the lowered level of fear, which may also prove fruitful for therapeutic work during the experience.

Clinical procedures, results, and therapeutic potentials with the use of MDMA have been described by Downing (1986), Greer and Tolbert (1990, 1986), Grinspoon and Bakalar (1986), Wolfson (1986), and Liester and colleagues (1992), who interviewed 20 psychiatrists who had ingested MDMA. Adamson (1985) and Eisner (1989) reported personal accounts and guidelines for private use.

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HYPNOSIS AND PSYCHOACTIVE DRUGS

In the literature on psychedelic drugs and hypnosis research there are several reports suggesting that hypnosis can influence the content of a drug state, or can evoke experiences similar to some qualities of the psychedelic experience. While MDMA is not usually categorized as a psychedelic, these studies are relevant because of the theoretical implications that states produced by drugs can be affected by hypnosis, and even produced without the physical presence of the drugs.

Perhaps the most striking case was reported by Fogel and Hoffer (1962), in which an individual trained in hypnosis was given LSD. During the LSD experience, which was judged to be proceeding normally, the subject was hypnotized and instructed to come out of hypnosis in an ordinary, normal condition. On awakening, the LSD effects (e.g., perceptual changes) had almost completely stopped; the subject appeared normal to the observers, though she said she was still sensitive to touch. Her pupils were dilated, indicating that the LSD was still biochemically present. Put back in hypnosis, she was instructed to return to the LSD experience and continue in it upon wakening. After wakening, the LSD effects returned fully. Twice more posthypnotic suggestion was used to interrupt the LSD experience, with a resulting condition that observers and subject considered to be completely normal. She was then allowed to return to the LSD state and come out of it naturally.

Three weeks later, in a second experiment without the ingestion of LSD, the subject was hypnotized and given posthypnotic instructions to have the same experience on wakening that she had when she had taken LSD. When she came out of hypnosis, the LSD experience with its usual perceptual and mental changes was present, including the pupils being dilated. During this condition she remembered events from the previous LSD session, and supplied memories not mentioned before. She had additional typical LSD effects, not just the ones from the previous drug session. Hypnotic suggestion was used to reevoke the non-LSD state successfully, then to return the subject to the LSD experience. The session was ended after a total time of 42 minutes. Fogel and Hoffer concluded that the drug-induced effects were clearly terminated and restored in the first experiment, and in the second that the state was an LSD experience produced by hypnosis. The one difference they noted was that the aftereffect of the drug-induced experience was a period of unusual relaxation and a feeling of well-being. This was not present after the hypnotic LSD experience.

Hypnosis has also been used to facilitate LSD therapy. Levine and Ludwig (1967) developed an approach they called hypnodelic therapy. The client is trained in hypnosis before the LSD session, and hypnosis is used both to ease the transition into the LSD experience, and to enable rapport. Hypnosis itself is used frequently as a therapeutic tool, and might be expected to enable guidance and focusing of therapy within a drug state.

Aaronson (1990, 1970) found that hypnotic suggestions could produce states of perception, mood, and emotion, some of which were analogous to psychedelic experiences. These were not direct suggestions, but rather instructions to change perception, such as speeding up or slowing down time, expanding depth, perceiving the room to be smaller or larger, and overlaying particular colors on the environment. In one experiment, the effects of expanded depth for most subjects was happiness, joy, and a feeling that the world was divine. Decreased depth produced a negative state for the participants.

The indications are that hypnosis per se can lead to states of transpersonal experience or states similar to those engendered by certain drugs. Tart (1969) pioneered a technique called mutual hypnosis, in which two participants alternately hypnotized each other during several sessions. Together they achieved experiences with similarity to some qualities of psychedelic experiences, such as vivid imagery and shared imaginary realities. In another study, Tart (1970) found that what he called deep hypnosis led to mystical and transpersonal experience (without specific instructions to do so). Using direct suggestions and a guided-imagery approach, Aaronson (1969) developed a hypnotic induction that produced mystical experiences similar to the "void" of Buddhist meditation practice.

THEORETICAL MODELS

The above research originated during an era of keen the interest in drugs such as LSD and psilocybin, and the essential research question was whether hypnosis could facilitate or reproduce psychedelic states. The answer appears to be yes. However, the state of consciousness produced by MDMA seems to be somewhat different. While Siegel (1986) concluded that the MDMA-produced state is like the initial phases of a psychedelic experience, most researchers and users consider it quite different, rarely producing perceptual changes or inner imagery, and affecting more the emotional tone, empathy, and defensive psychodynamics of the individual. However, there is no reason to believe that hypnotic suggestion is limited only to one band of drug effects, since it is well known that subjects in hypnosis can enter into many different behavioral and emotional states.

There are several lines of thought that led to the present study. First, the case reported by Fogel and Hoffer suggests that hypnosis can be used to induce a psychophysiological state once the person has experienced that state. Once the experience is stored in memory, perhaps it can be recreated through remembering the same sensations,

TABLE I
DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

Participant	Age	Sex	Number of MDMA Experiences	Time Since Last Experience	Setting
A	49	F	3	3-4 years	Therapy
B	51	F	4+	3-4 years	Not Stated
C	30	M	2	3-4 years	Social
D	35	F	4+	1 year	Rock Concert

proprioceptions, emotional qualities, and body states, separated from the original content of the experience. Second, Tart's (1975) systems model of consciousness postulates that a discrete state of consciousness is made up of elements, such as perception, emotion, sense of identity, and time flow, each with a certain balance, strength, and content. In a recognizable ordinary or alternate state, these elements are in a particular relationship and strength, with particular contents. Some of these elements are amenable to hypnotic suggestion (e.g., time flow, perception, emotion, as in Aaronson's studies). It would seem plausible that hypnotically setting the elements to be similar to those of the MDMA state would reproduce the experience. This line of reasoning suggests more speculatively that a similar state might be reproduced without there being an MDMA experience in memory. Third, it may be that memory could revivify the state of consciousness without the specific content that occurred in the earlier experience, by reevoking the substrates of the experience, such as blood flow, sensations, sensitivity, body chemistry, energy level, and neurological patterns. Hypnotic effects on these processes are well documented.

Finally, one may simply note that hypnotic subjects have all sorts of experiences as a result of suggestion: slapping at invisible flies, feeling hot or cold, suppressing pain, and seeing things that are not there and feeling accordingly. These are all mind-body states brought about by suggestion, either directly or indirectly. Therefore, why not suggest an MDMA state and reproduce it, given that the subject had experienced it before? Or in a case where the person had not experienced it, perhaps it could be produced to some degree by drawing on general expectation and assumptions.

From these lines of reasoning, and the aforementioned studies, it seems probable that hypnotic suggestion can bring about an MDMA experience in good hypnotic subjects, who had had previous positive experiences with MDMA. The best approach would be to evoke memories (not content) of the previous experience, and additionally to suggest the qualities that are a structural part of the state.

SETTING

Four participants, three women and one man, were students in a course on clinical hypnosis taught by the author at the Institute of Transpersonal Psychology in Palo Alto, California. Three were enrolled in the doctoral program and one in the master's program. Their average age was 41 (see Table I for demographic information and data on MDMA use).

During class demonstrations, practice with each other, and self-hypnosis, the students experienced hypnotic inductions six to eight times. There was some discussion with the group about the possibility of reproducing other altered states of consciousness (ASC) with hypnosis, and an exploration of this was undertaken with volunteers who had ingested MDMA in the past. In the final class (week 10), four volunteers were selected, the criteria being that they had ingested MDMA previously and were willing to reexperience the state. In this classroom, students sit on pillows, and the setting is informal. The rest of the class gathered around to observe the experience.

PROCEDURE

Each of the four participants was asked to select a partner to act as a sitter during the posthypnotic period. The participants lay on the floor on cushions. Each was asked to describe the most prominent qualities of the MDMA state for themselves, providing several words or phrases, such as quieted, openness, free, energizing, making love with friends all the time (presumably metaphorical), no boundaries, heart spreading, feeling of well-being, and warmth.

A standard sequential relaxation induction (e.g., Alman and Lambrou 1990) was used, which was familiar to the participants, and with which they had gone into hypnosis many times. No depth checks were requested, but the nonverbal cues suggested a medium depth. Posthypnotic suggestions were given that after awakening each would

TABLE II
PARTICIPANT RATINGS OF ELEMENTS OF THE HYPNOTICALLY INDUCED MDMA EXPERIENCE*

	Participants					
	A	B	C	D	Total	Mean
Elements						
Emotions	5	2	4	5	16	4.0
Thinking	2	3	4	3	12	3.0
Behavior	5	3	3	3	14	3.5
Energy	5	4	3	5	17	4.25
Body	5	5	4	3	17	4.25
Sensory	2	3	4	5	14	3.5
Self Sense	2	3	4	3	12	3.0
Overall	5	3	4	4	16	4.0
Total	31	26	30	31		
Mean	3.87	3.25	3.75	3.87		

*1=completely different, 2=mostly different, 3=some similarities, 4=mostly similar, 5=identical

experience an "MDMA state" for ten minutes. They were told to remember what the state feels like, mentally, emotionally and physically, and they were told they would experience these qualities—naming the experiential elements they had given. To those, a few others were added that have been generally reported, such as feeling a lack of fear, nondefensiveness, and being unthreatened. Participants were informed that the experience would end when they were told that the ten minutes had elapsed.

RESULTS

On being awakened, two participants got up, went outside the room with their partners, and laughed, giggled and talked for the entire ten minutes (both smoked cigarettes). One participant continued to lie on the floor, speaking occasionally to his partner. One participant sat up, moving her hands in front of her body as though checking her physical sensations (which was the case). When the ten minutes had elapsed, the four obviously shifted in their focus of attention and manner, and reoriented to the group and class.

Three stated that the experience was identical with the MDMA-produced state. One said it was different, but "wonderful." The participant who lay on the floor said that his previous MDMA experience was with friends who were "partying," and this was unpleasant for him so he had left the party and found a quiet place to sit for the duration of the drug's activity. In the posthypnotic condition he felt the same way, and remained quiet. He noted that shortly into the posthypnotic time, his chronically congested sinuses opened up. The person who was moving her hands commented that she was testing her body energy, which in original MDMA experience had been suppressed. found it to be the same in the posthypnotic condition. two who were outside reported that they had a good u

To obtain more information about the qualities of posthypnotic experience and the similarities to the pr ous MDMA experiences, a questionnaire was sent to participants a week after the experience inquiring a individual characteristics and the overall effect, using Li rating scales with space for comments. They were as to complete it anonymously and return it in a stampe velope. All four questionnaires were returned.

The questions asked participants to rate the simili of the posthypnotic experience to an MDMA experie on a scale, with 1=entirely different and 5=identical. egories for comparison were given as indicated in T II, including an overall rating. Combining all ratings g to the component elements, the overall mean is 3.64

The written comments flesh out the ratings. Par pant A described the features of the experience as "c centered, love of all humankind, no judgment, a mor pansive available feeling, no anxiety, energy extrave rather than introverted." She was one of the two who outside and interacted with each other.

Participant B reported that her experience was a all physical sensation, a rush and flush of the body beating faster, some trembling at first with a clenchi the right side of the jaw. She said that she did not fe heart-opening experience of previous MDMA sessio connection to the energetic fields around her was a she noted, but not so much as with MDMA.

because of the widely different setting. Another noted that the classroom setting was unfamiliar and did not allow her the interaction that had characterized previous MDMA states. Thus, ratings may have reflected the effects of settings, rather than the basic characteristics of the experience. Also, the questionnaires were completed more than a week later, so the passage of time may have changed memories of the experience in one direction or another.

Theoretically, while Tart's systems model provides an elegant way of breaking a state of consciousness down into various aspects, the overall state is also a whole, not reducible to component parts. Further, the parts that were selected for the questionnaire may not be the best ones to capture the dimensions of the MDMA-produced state. For example, one obvious omission is the characteristic of empathy, reported consistently in the literature, and reported by some of these participants.

Finally, to ask for a comparison of any experience "X" with an "MDMA state" (or a person's experience with the drug) ignores the fact that the MDMA experience may vary from one time to another, and indeed from individual to individual. Certainly there are consistencies, but they are affected by set and setting. One MDMA experience can be quite different from a previous one. What may be responded to as differences may be caused by the setting or the psychodynamics of the person, and not the substrate of the state. For better understanding, it seems that it will be necessary to go to the structural level, rather than the surface experiences.

IMPLICATIONS AND QUESTIONS

These cases suggest that it is possible to use hypnotic suggestion to create a state quite similar to that produced by MDMA in persons who have previously experienced it. In such a case it may be possible to use the hypnotic procedure for therapy sessions, counseling, and other clinical work by beginning with MDMA experiences, and then using hypnosis to continue with similar work without using the drug itself. One of the participants in this study had only two previous MDMA sessions; this would appear to be sufficient for the effects to be reproduced. Perhaps one previous experience would also suffice. Though MDMA is not legal now, this technique could be used with clients who have used it in the past. As noted, MDMA sessions have advantages for therapy, and the hypnotic procedure could produce those qualities without physical side effects (or aftereffects), and could shape the state to facilitate therapeutic process. For example, the time frame could be varied for shorter or longer sessions.

It is not clear if the hypnotically induced condition as a discrete state of consciousness will hold sufficiently stable for sustained psychological work in the face of habits and dynamics of the personality. A drug can shape the state chemically and hold the parameters in a biological way until it has run its course. One would expect hypnosis to vary in its ability to do this, depending on the strength of the effect and whatever limitations are inherent in the process. In this limited study, the participants were not given hypnotic suggestibility tests or asked for reports of depth, so there is no way to correlate their experiences with the level of hypnosis or their hypnotizability.

It is possible that this hypnotic procedure could be utilized in recovery and rehabilitation work with substance abusers. It may be that an MDMA-like experience, via posthypnotic suggestion, could be utilized in treatment and therapy for substance abuse. The reproduction of other drug states in the absence of the drug, and indeed with qualities that could be shaped or directed, could be of value in a substance abuse treatment program.

RESEARCH QUESTIONS

In light of this study, three principle questions may be asked in regard to future research:

1. Could an MDMA-type experience be evoked through posthypnotic suggestion in individuals who have not previously experienced MDMA? Following Tart's model, the obvious procedure would be to attempt to create it by influencing the elements of the consciousness system. If this is possible to some degree, this approach would be fruitful in therapy, personal growth, counseling, and other applications. Since MDMA is currently illegal, it would seem useful to explore the potential of posthypnotic suggestion to create similar experiential states of consciousness for clinical work.
2. Could this approach be used to reproduce other psychoactive drug experiences? In the case of LSD, the work of Fogel and Hoffer is indicative, but apparently there has been no attempt to create the psychedelic effects directly as described here. Would it be possible to call up or create the experiential effect of tranquilizers and other psychoactive medications?
3. Could the experience produced by MDMA be recreated with procedures other than hypnosis? Anecdotal reports indicate that the MDMA experience is sometimes reevoked when persons who have taken it talk with each other and recollect the experiences, with neither hypnotic nor ASC inductions. Some reasons for this might be that a person's cognitive processes and ego are usually intact during the MDMA state, which may act as a bridge to revivify the experience, or that the emotional openness that is often experienced is like a door that cannot be closed once it is opened. An MDMA-produced state of consciousness may be less state

dependent than more extreme ASC. An MDMA state may also be available with inductions less formal than hypnosis, such as using imagery to stimulate memory, by replaying music listened to while under the influence of MDMA, or listening to tape recordings made at a previous MDMA session. However, these may not create a state of consciousness as stable as one developed through hypnosis.

CONCLUSION

This small study indicates that hypnotic suggestion can produce a state of consciousness that is experienced as closely similar or identical to one produced by the drug MDMA, including psychological and physiological effects. The procedure described here and the potential applications are worthy of further exploration.

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