

Shaman's drumming as a kind of indirect hypnosis

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The important characteristics of the hypnotic state are the particular changes in subjective experiences. The most important changes are the enhanced imagery and imagination, the availability of visual memories of the past, the subsidence of the planning function and the reduction in reality testing. The other important characteristic of the hypnotic state is an increased suggestibility (Hilgard 1977). Physiological changes also were found; there were changes in the EEG activity during hypnosis (Crawford, Mészáros, Szabó 1988). Hypnosis is usually induced via relaxation or imagination, but a similar state can be induced through increasing activity (Bányai, Hilgard, 1976). Hypnosis can also be induced in indirect ways, where hypnotic processes are controlled in a more subtle way. Indirect hypnoses are frequently based on associative strategies, where the subjects are given thoughts, which serve as base in guiding their associations. Inner processes can be directed such an indirect way. Sometimes confusion or a paradox communication technique is used in inducing trance. Imagery processes play important role in indirect hypnosis, and it is thought that the state of trance is equal with the state of being absorbed in something.

In shaman trance we find many similar changes to subjective experiences. The ancient belief system of the inhabitants of Siberia and Inner-Asia is called shamanism by the literature of ethnography (Hoppál 1994). The central figure is the shaman who mediates between the human and the spiritual world. One of his main characteristics is that he reaches an altered state of consciousness which helps him wrestle successfully with problems.

The shaman cosmology divides the Universe into three spheres: the Upper-, Middle-, and Underworld. The upper- and underworld are the spiritual spheres, where the Gods, the Spirits and Ghosts live. In a state of trance the shaman makes his journey into these worlds. His main instrument in inducing trance is his drum. Before using it, the shaman warms it up - or as he says, to wake it up - at the fire and then, like a good horse, it flies his owner into the underworld. During the

rite, the shaman enters into trance by beating his drum, and visits the world of the Ghosts. The neoshamanism of our days use many elements of the ancient rites. During exercises subjects listen to drums and make journeys into the underworld for self-knowledge or healing (Harner 1980).

Studies on shamanism usually focus on the behaviour and trance of shamans and do not pay much attention to the mental process which occur in the participants during the rite. Vilmos Diószegi (1962. pp. 95.) reporting a shaman rite, mentions how deeply the people who are present get involved in the rite, how they follow the shaman in his journey and how they become more sensitive to suggestions. According to the observation of the ethnographer these men were in a trancelike state. In an experiment it was found, that subjects who were more susceptible for hypnosis showed greater changes in their subjective experiences while listening to monotonous drumming (Maurer, Kumar, Woodside, Pekala 1997). This latter result supports the notion that shaman trance and hypnotic phenomena have common components.

In the recent experiment under artificial laboratory conditions we examined how similar the changes were while listening to a monotonous drumming to the changes in a normal hypnotic state. We measured how the subjects hypnotic susceptibility affected their involvement into subjective experiences.

Methods

SUBJECTS

29 university students volunteered to participate in the experiment, 22 females and 7 males. None of them had any experience of hypnosis. They were told that the experiment would be a shaman journey. They were given no money and no credit point for their participation. They participated in the experiment individually.

PROCEDURE

The experiments were made in a laboratory in nearly total darkness in order that the subjects would not be disturbed by the light. They were asked to sit in an armchair, close their eyes, and listen to a monotonous drumming on a tape. The rhythm of the drumming was 210 per minute and was recorded from a synthesizer. Subjects were asked to take an imaginary journey to the Underworld while listening to the drums. The instructions and the rhythm of drumming were in

accordance with Harner's (1980) proposals. The journey lasted for 30 minutes but after 15 minutes into the journey, the subjects' suggestibility was measured by giving them the test suggestion of the Stanford Hypnotic Susceptibility Scale form "B" (SHSS/B, Weitzenhoffer, Hilgard 1959).

The instruction was the following:

"Imagine a hole in the earth, that you've seen sometime in your life. This may be a childhood memory or something, you've seen last week or today. Any kind of passage leading down is fine - it may be a den, a cave, a hole in a tree-trunk, a spring or a swamp, anything. It may be a hole made by man. The important thing that it is comfortable for you and that you can imagine. For a while you look at the hole without entering, observe all details...

When the drumming begins, you imagine this hole, enter and begin your journey. Through this entrance go downwards in the tunnel. In the beginning the tunnel may be dark and dim, normally it will slope gradually but it may become steep. Sometimes it seems to be ribbed and there are frequent bends. There're persons who pass through the tunnel without perceiving it. Sometimes one finds a stone-wall or other obstacles in it. In this case walk around or find a hole in it to pass through. If you don't succeed, come back and try again. You must not make too much effort during your journey, you'll achieve success effortlessly if you relax. The most important thing in the journey is the moderation, not making too much or too little effort. At the end of the tunnel you'll reach the somewhere. Observe the sight, make a tour and notice all it's characteristics. Discover everything, until I call you back. At this moment come back through the tunnel, the way you went down. Bring nothing with you from there! This is only a voyage of discovery." (Harner, 1997. pp. 57.)

After this the drumming began.

Measurements

SUBJECTIVE INVOLVEMENT

Subjects rated their subjective involvement. They rated the depth of their journey on a 10 point scale, where "0" means that they remained on the surface and "10" was the deepest possible point of the underworld.

SUBJECTIVE EXPERIENCES

For exploring subjective experiences, subjects were interviewed, further the Phenomenology of Consciousness Inventory (Pekala 1985) was used, which have several subscale concerning experiences.

SUGGESTIBILITY DURING THE JOURNEY

After 15 minutes drumming the suggestibility was tested. While the drumming was continuing and the subjects followed their journey in the underworld, the 3-12 test suggestions of the SHSS/B were given them.

After the amnesia and post hypnotic suggestion they were told to start back to the entrance of the underworld.

The instruction was this:

“The drumming will be finished soon. Look for the way back.”

After this the drumming gradually faded, subjects finished their imaginary journey and opened their eyes. In accordance with the hypnotic susceptibility test, this was followed by the posthypnotic suggestion and amnesia probe. After this subjects were interviewed for further examination.

HYPNOTIC SUSCEPTIBILITY

Measurement of the subjects' hypnotic susceptibility was made one week later in another room. The SHSS "A" version was used (Weitzenhoffer, Hilgard 1959).

Results

There were notable differences in the subjective involvement. The average depth in the underworld was 6,03 $sd=2,45$. One subject reached the “10”, this was the deepest point of the underworld and the least deep point was 2. The subjects involvement correlated moderately with their hypnotic susceptibility. The higher one's hypnotic susceptibility score was the deeper level one reached in the underworld ($r=0,55$ $p<0,05$). The relationship between the involvement and hypnotic susceptibility was moderate, which means that low susceptibility subjects may experience deep involvement too. This phenomena can be observed during indirect hypnosis.

Subjects reported that their subjective experiences was that the rhythm the speed and the direction of the journey was controlled by the drumming. “Here the music is who governs and not me.” said one of the subjects.

Some subjects felt that they would have liked to look around, but the drum did not let them do so, and they were driven away. “The drum is the horse of the shaman,” because this flies him into the underworld, say the people of shaman, this notion was supported by our results.

In subjective experiences during the journey lots of movements and dances could be found. There was one person, who showed spontaneous movement, like a dance while sitting in the armchair, during his journey according to the rhythm of the drumming. This movement became more and more intensive, at first only his hands and legs were moving but later this movement spread over his whole body.

Several subjects reported, that they felt their body image changed, e.g. they became little, so they could go through narrow places between the roots. Sometimes they felt, that they could fly easily. Their perception of time was changed too. It was difficult to esteem the lengths of time spent in the underworld. There was who perceived 3 hours, and other perceived 5 minutes only. The PCI results affirmed these changes.

The indicator of trance was the regression of subjects after coming back from the underworld. During the interview they "forgot to speak". They had difficulties in finding the proper words, and their sentences were grammatically wrong. This phenomena disappeared at the end of the reports only.

The comparison of suggestibility during the shaman journey and the hypnosis was made by counting the sum of the test points of the suggestions equivalent in the two situation (they were the 3-12. SHSS suggestions), and these sums were compared with a paired "t"-test. There was no significant difference between the scores of suggestibility (suggestibility in shaman journey: mean=5,86 sd=2,58; in hypnosis: mean=5,71 sd=2,52 t=0,64 df=27). Results show, that subjects while listening to the drumming become as susceptible for suggestion as they become after the hypnosis induction. The suggestibility scores correlated significantly ($r=0,89$; $p<0,001$) in hypnosis and during the journey.

Discussion

In the experiment subjects listened to shaman drumming while they made an imaginary journey into the underworld. According to a quite indirectly worded instruction, they went on their own way in the underworld. They entered differently, went on different ways, and experienced different things.

Results show changes in this situation similar to those in a hypnotic state. Subjective involvement correlated significantly with hypnotic susceptibility. The correlation between the hypnotic susceptibility and subjective involvement was not too high, which means, among others that low hypnotic susceptibility subjects can experience relatively deep involvement. This phenomena can be observed frequently during indirect hypnosis.

During the “journey” subjects became susceptible to suggestion to the same extent, as if they were in hypnosis. It was found in some experiments that the subjects performance in suggestibility tests was not affected by the style of the induction. Suggestibility was the same following the standard direct and the indirect style induction.

Several subjects reported, that direction and speed of journey in the underworld was governed by the drum. Possibly, drumming, a continuous stimulus evoked associations. There were some similar components in the reports, e.g. dancing, fire, but every one of them basically went on his or her own way in the underworld basically. Subjects reported, that they could not stop, or change the way, because they felt, that the drum did not let them to do so. Although, every one of them went on his own way, there was one similar thing in the journeys. All subjects, coming back from the journey, felt that they met very important personal experiences.

All these characteristics indicate, that the journey, made in the underworld while listening to drumming, have similar results in experiences and mechanisms to those we met in indirect hypnosis.

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