

Summary – Station 3

Space Brain Laboratory

Institut d'Art Contemporain, Villeurbanne / Rhône-Alpes



The Brain Space Laboratory's Station 3 took place on 18 June 2010, with five of its regular participants – Ann Veronica Janssens, Nathalie Ergino, Elisa Brune, Denis Cerlet, Jean-Louis Poitevin – and two guests: Marion Laval-Jeantet and Pascal Rousseau. Station 1 had looked into the relationships between multisensory perception, artistic creation and space, while Station 2 offered a wide-ranging definition of the concept of space extending from the brain to astrophysics. The theme for this third study day was altered states of consciousness – hypnosis in particular – and their consequences for perception.

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Elisa Brune, science journalist, began with an overview of hypnosis from a scientific point of view. Down the ages hypnosis has been the subject of numerous interpretations and utilisations in a range of cultural contexts, including that of recent Western medicine, which has empirically confirmed its value in the treatment of pain and as an aid in anaesthesia. However, it is only since the advent of brain imaging that we have been able to speak of objectification of a cerebral state peculiar to hypnosis. The PET scan and magnetic resonance imaging (MRI) have revealed marked, specific, convergent changes in the activity of several areas of the brain under hypnosis, with these changes taking the form of a paradoxical state of consciousness: a combination of diminished alertness and more focused attention.

Brune stressed a number of points of interest brought to light by experiments with hypnosis:

1. A demonstrable dissociation of the sensory and emotional components of perception, which is modulated by the anterior cingulate cortex.

If one applies a constant heat stimulus to a hypnotised subject, at the same time suggesting to him that he is becoming more and more anxious, he will feel a growing anxiety. Only the activity of his anterior cingulate cortex – and not that of the sensory cortex – increases. By contrast, if it is suggested to him that the temperature is rising (when in fact it remains unchanged), the sensory cortex is activated and the subject feels a rise in temperature, as well as in his anxiety level.

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2. Confirmation of the fact that pain and attention use the same neural circuits.

It had already been noted that a constant, painful stimulus is felt to decrease if the attention is focused elsewhere. The attentive state uses the same neural circuits as does pain, and “dispels” the latter: the sensory cortex is less activated if the attention is directed elsewhere. This is what makes hypnosis so effective in the treatment of pain, for it creates intense focus of the attention elsewhere than on the undesirable perception.

3. The “reality” of hallucinations.

Studies of the brain under hypnosis have shown that hallucinations correspond to real activation of its sensory areas. The stimulus is absent, but the pattern of activation is triggered exactly as if it were present, and the message is transferred towards the conscious mind. The object is seen or the sound heard exactly as if they were there; although they are pure productions of the brain, the perception of them is the same. The hallucination of movement, which requires motor activity, involves a highly distinctive pattern: when the hypnotist suggests that an arm is becoming so light that it can rise of its own volition, the hypnotised person actually feels his arm rise with no decision on his part. Brain imaging shows the motor neurones active – the subject’s muscles really are working –but the parietal cortex, which should normally anticipate the result of the movement, acts as if taken by surprise, as when someone grabs your arm and raises it. The hypnotic state has inhibited the message which would usually accompany the motor decision and take it to the conscious mind. The movement is carried out without anticipation, which is to say, involuntarily. The body is acted on from the outside, having lost the projective automatism that is its habitual mode of functioning. In the case of this altered functioning, when the movement is induced by the hypnotist, space is no longer “calculated” and takes one by surprise. The perception of time is similarly modified: in an induced movement time passes more slowly than in a voluntary one.

It should be noted that in another state of altered consciousness, the orgasm, the same disconnection can occur: conscious motor control disappears as the body is shaken with spasms. These are neither

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voluntary nor controlled by the person concerned, who temporarily loses the notion of space and time and remembers little or nothing of what he or she has done.

Analysis of these kinds of altered states produces two contradictory interpretations. For some researchers the brain attains to a dimension of higher consciousness with spiritual, sometimes mystical, or simply sensory overtones. It moves towards more reality or a different reality. For others the state is a regressive one, in that the brain loses the use of its most highly evolved functions – mainly in the frontal cortex – and reverts to a more “primitive” level of functioning. There are two ways of reacting to this contradiction.

1. By considering the altered state as neither more nor less, but rather as different. There are as many states of consciousness as there are activation profiles in the brain, with each representing a place on an extensive, non-prioritised territory.

2. By considering that to regress is to progress. The brain is brought to its habitual mode of functioning through a long learning process that favours certain circuits while inhibiting all the others. In particular, sensory perceptions are channelled into five modalities interpreted by five different modules of consciousness, whereas in the infant the circuits are much more permeable and intermingling. Seen in this light, an effective way of increasing the field of consciousness consists not in adding but in removing functions. Removal of control and sensory channelling can lead to synaesthetic experiences. Removal of interpretation via language can provide expanded perceptual experiences of everything that cannot be conceptualised with words. Thus the “return” to a “primitive” chaos gives access to all the potential of a non-constrained brain, especially where artistic creativity is concerned.

Pascal Rousseau, art historian, suggested approaching the question of hypnosis and art via a photo of a performance by American artist Matt Mullican, whose large-scale exhibition at IAC notably included performances involving the use of hypnotic trance. Taken at Tate Modern in London in 2007, the photo in question shows a pose –

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arms raised, facing the audience – that immediately creates a sense of ambiguity, of a clear polarity between active and passive: is he hypnotised or hypnotising? In his work Mullican uses a pictorial vocabulary including arabesques, spirals, whorls and writing to effect dense spatial occupation. Pascal Rousseau discerned similarities to Art Nouveau here, and a fit with the great hypnosis/art encounter that took place in the late nineteenth century.

Emerging at that time as a psychiatric but also as a popular practice, hypnosis was widely depicted in images and drama-charged situations: in the tradition of Mesmer and his magnetic fluids we find such varied representations as the laying-on of hands, intense interpersonal exchanges, awe-inspiring gazes, and stage presentations with members of the audience roped in as participants. Systematically involved are an active hypnotist and his passive subjects. In the photo mentioned above, Mullican appears to be playing both roles, as hypnotic subject and hypnotiser of his audience. In a 1982 performance at The Kitchen in New York we see him less hypnotist and more subject: he is standing with arms raised to shoulder level in the receptive posture of certain hysterics captured on film by Charcot and his colleagues at the Salpêtrière hospital in Paris. These famous, seemingly unposed photos, portray young women in a range of ecstatic postures. Only one image, of the hospital's photography room, uses a calculated mise en scène, with a kind of studio set up like a theatre stage. This theatrical aspect was the link between hypnosis and art. Certain young women, among them Magdeleine Guipet and Lina, were even transformed by the hypnotism craze into music hall celebrities, being put into trances for tableaux vivants which, most often, were excuses for showing them scantily clad.

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This trend coincided with the flowering of Art Nouveau, with its giddy proliferation and obsessive occupation of space. Charcot, Bernheim and Luys, all prominent medical figures and specialists in hypnosis, were steeped in the movement, and Charcot actually made drawings in this style. Art Nouveau master Alfons Mucha used hypnotised models to obtain the intense emotional states that are perceptible in his paintings and posters.

Theoreticians like philosopher Paul Souriau then took up this

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model, with the mechanism triggered in the work of art being seen as an analogue of that of hypnosis. Art historian Deborah Silverman has made a connection between Art Nouveau and the “new psychology” of the time, the core element being brain-to-brain transfer of sensibility. At the Charité hospital in Paris an “electromagnetic headpiece” was used for treating hysterics; and anyone putting on the headpiece just after a patient could begin to talk like the patient, for he was “absorbing” the other’s mental state. This is a relevant model for art: the work of art is the medium (the headpiece) connecting artist and viewer, and art is thus conceptualised as suggestion.

The art/hypnosis alliance has resurfaced periodically since this first appearance – in, for example, the Surrealism of the 1930s: Robert Desnos and Paul Eluard had attended a show by hypnotist Donato just before founding the movement. Automatic writing is a process that documents the split between the individual and his double, the latter being “acted on” from outside just as in a hypnotic trance. *The Phenomenon of Ecstasy*, Dali’s famous collage of 1933, is a montage of photographs some of which have their roots in pornography, and through its use of extensive cropping ultimately suggests the imagery of medical hysteria of 1900. Dali explained that when you look at an ecstatic face, you yourself go into ecstasy. In 2005 artist Frédéric Vaesen paid tribute to this collage with his video *Le Phénomène*, which underscores the hypnotic process with the rhythm of its visuals and of a sound track that includes a remix of Jimmy Scott’s *Day by Day* (1969).

These examples, together with that of Matt Mullican, show that hypnosis remains a possible paradigm for the understanding of the creative process in art.

Since 1991 visual artist Marion Laval-Jeantet has been working in tandem with Benoît Mangin under the name Art Orienté Objet (Object-oriented Art). An ethnopsychiatrist and, on a more personal level, heir to the Corsican shamanic tradition known as Mazzerism, she presents her artistic work as a reflection of this distinctive background.

The creation of objects is a significant part of the Mazzerist tradition, according to which certain codes are understood by the dead. One example is seamless knitted pieces which serve as channels

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of communication. They represent the harmony of forms and are seen as providing protection in the after-life. The same means of communicating with the dead is used by the Chokwe people of Angola. In a series of knitted works representing animals, Laval-Jeantet has reused this technique with a view to “repairing” nature.

Another focus of her approach is electromagnetism as a vector for communication with the animal world. She has set out to register the telepathy between man and animals, for in shamanic traditions the animal is an avenue for communicating with the invisible. Animals rank very high in the shamanic system of values because they do not control their own fate and thus appear as absolute victims. This makes them ideal as messengers to the other world. Attending a seminar directed by Samantha Khury, Laval-Jeantet is learning to communicate with animals through hypnosis-related techniques which abandon the verbal in favour of the affective and the corporal. She then seeks to highlight the resultant mental states via the Kirlian effect – the recording of the electromagnetic aura. Auras alter only slowly, except in the case of cats and mediums, and Laval-Jeantet documents the changes in cats and in herself.

Another of her projects involves Corsican cassocks, penitents’ garments that cover the whole body and provide authentic withdrawal from the world. When the penitents appear in a village, food is laid out for them on the threshold of the church, but no one may speak to them. The result for the wearer is an intense inner experience.

Laval-Jeantet points out that Mazzerism has no written texts: rather, it is a shamanic tradition handed down through certain families and positing dialogue with the Beyond as a means of solving the problems of this world. It involves manipulation and ways of exerting influence. But when does such influence begin? For Marion Laval-Jeantet and Benoît Mangin it begins with the object: the object alters consciousness as long as it contains an element of surprise. The task as they see it is to make objects that actively express their creators’ personal repentance.

Laval-Jeantet has also studied and been initiated into the Bwiti cult in Gabon. For Bwitists there are two ways in the world, one for hunters who need to communicate with animals, and one for awakening, in which the subject is taken to the verge of death via ingestion of iboga,

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a plant that induces a coma more profound than any classical near-death experience. Why take such a terrible risk? In Laval-Jeantet's case, to convince a companion with no background in shamanism and no understanding of relationships with the Beyond; to test the possibility of multiculturalism (she had to make herself accepted); to reverse the direction of globalisation (the West has a lot to learn from other cultures); to convey the truth about an outside tradition (until recently ethnologists refused to be initiated, so they could not observe as participants and their interpretations were erroneous); and above all as a way of justifying the vision-inflected artistic approach she was already practising. It is not enough just to have visions: one is always called on to explain them and to vindicate them with a conceptual framework. The simple presence of the body or the object as a seminal narrative is not seen as enough. There always has to be an underlying, legitimising discourse.

A The coma induced by iboga can be a very long and fluctuating one, with surfacings during which the subject talks a lot. The Bwiti tradition is distinctive in that it is purely experiential: its starting point is that founding experience, the approach of death, and it involves interpreting and commenting on the experience with others. Marion Laval-Jeantet and Benoît Mangin were given permission to work on a number of photos taken during their initiation, and the group photo circling around four screens arranged in a square is in itself an especially effective hypnotic instrument.

Their way of proceeding means that the genesis of each work lies in an altered, shamanic state of consciousness that induces countless visions, often marked by the presence of animals. A request is made and "that" replies. For a commission for Chamarande Park, southwest of Paris, "that" called for a spider-shaped work with a tree in the middle. For a project at La Courneuve, in the Paris suburbs, the vision involved a barrel organ, a decoy, a wind turbine and the wreck of the tanker *Erica*. It was up to the artists to find an active object capable of combining these elements – sometimes to the despair of the engineers involved – but they finally submitted to the vision: if you've seen something it must be feasible. This principle underlay the making of the chair for thinking about the fate of migratory birds, and the machine for making

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trees speak. A vision can sometimes arise in material form, just as it can also suggest undergoing a specific experience or process.

One of the veins Laval-Jeantet is working is trying to get closer to the animal way of being. But how is one to think like an animal? Perhaps by incorporating its blood. The current project entails absorption of immunoglobulins taken from horse's blood, as immunoglobulins convey information to the glands. Separate tests have already shown alterations of mood and sleep patterns, and irritability. The next step will be to inject all the immunoglobulins at the same time.

This is playing with the body's limits: we are totally dependent on our bodies, and when the body functions differently, so does the mind. For Bwitists the vision presents itself when the body is almost dead, but there are plenty of other ways of coaxing speech from that which usually does not speak.

Elisa Brune

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