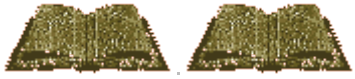
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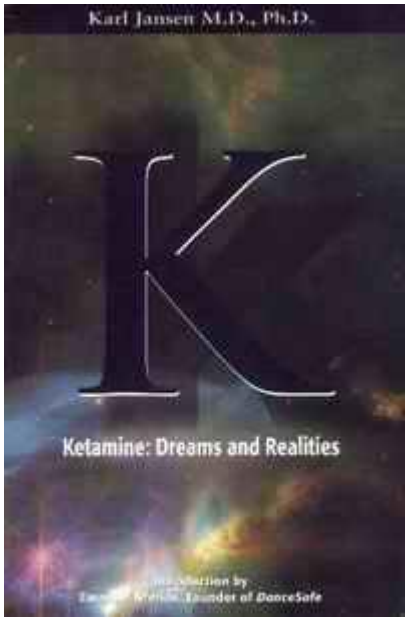
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EXCERPTS

Ketamine: Dreams and Realities *by* Karl Jansen (Introduction by Emanuel Sferios). Soft Cover, 5.5" x 8.5". References, Index.
MAPS, 2105 Robinson Avenue, Sarasota, Florida 34232, USA. . . E-mail: info@maps.org. Publication Date 2001. 355 pages, ISBN 0-9660019-3-1. Price $14.95

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N*ot only does this book contain a wealth of practical harm reduction information for the ketamine user, it also elucidates for doctors, therapists, treatment providers, and policy makers the enigmatic reasons why many people do make a fully informed choice to use this drug...."*, thus observes our expert reviewer. It indeed does. Full of references at the end (635 to be exact), the book would be sheer delight to researchers desirous of delving deeper into this fascinating area.

The board of editors decided to run some Excerpts from this book, so the readers could get some idea, what this book contains. One of the most interesting (and informative) chapters in this book is the one describing Near Death Experiences (NDE) achieved by Ketamine. This chapter contains a useful section devoted to transmitters and receptors. We decided to let our readers read the following section from this chapter, so readers get an idea, how Dr. Jansen conveys even complicated ideas to the reader in a simple fashion. This is what Dr. Jansen writes in this chapter (chapter 4 entitled *Ketamine, Near-Death, and Near-Birth Experiences*; pages 114-115)...

Transmitters and Receptors

It's good to have an open mind, but not so open that your brain falls out. In this section we will look at the contribution of the brain itself. The section is written for the layperson. For a more detailed, up-to-date account of the neurochemistry of the Near Death Experience (NDE).

Click here to read review of this book by V.V.Pillay

Brain cells can have many branches and sub-branches extending outwards from a central core. Where a branch of one cell meets a branch of another, there may be a special junction. On one side of the junction, there are storage pools containing messenger molecules called neurotransmitters. When an electrical impulse travels down a branch of the nerve cell, it arrives at a junction and causes these storage pools to release their neurotransmitters into the gap between the cells. These messengers travel across the gap and land in special docking bays on the other side called receptors-like a key into a lock. The chemical key may turn the lock and trigger a cascade of events within the cell, including setting off a new electrical impulse in the nerve on the other side of the junction, or the activation of genes to produce proteins.

View this book on Amazon

There are tunnels through the cell wall connecting the inside with the outside. Most cells are bathed in a sea of dissolved salts that washes in and out through these tunnels. Sometimes these tunnels contain binding sites. If a drug binds to such a site, the tunnel can become blocked. This may stop salts from moving in and out, so no current flows. The messenger molecule may bind to its receptor on the cell surface, and turn the key in the lock, but while the tunnel is blocked no impulse can be fired.

Blocking the Tunnel

Ketamine binds to receptors (called PCP receptors for historical reasons) inside tunnels and causes a blockage. The outer end of the tunnel is attached

to a glutamate receptor (called an NMDA receptor) on the cell surface. The whole complex is known as an NMDA-PCP, or N-P receptor. The "N" part is on the outside and locks onto glutamate, and the "P" part is on the inside of the tunnel and locks onto ketamine. There are also binding sites for other chemicals, such as magnesium, which block the same tunnel. The complex is like a large space station with several docking bays for different crafts.

It was once thought that sigma receptors were the same as PCP receptors, and that they were opioid receptors. We now know that sigma receptors are completely different entities.

The N-P receptor complex plays important roles in thinking, memory, emotion, language, sensation, and perception.

Ketamine has effects in all of these areas, changing the way in which incoming data is integrated or blocking it out altogether. This can isolate parts of the brain from the setting, removing players from the central stage, which may then fill with other realities originating from the depths of the mind.

Glutamate is an excitatory messenger. It turns on the cell, triggering an electrical impulse. Ketamine opposes this action by blocking the tunnel. Ketamine also has direct and/or indirect effects on Opioid, dopamine, Serotonin, cannabinoid, nitric oxide, noradrenaline, sigma, GABA (gamma amino-butyric acid, an inhibitory messenger), and acetylcholine systems amongst others. These are different types of messenger molecules. As the dose level rises, the drug becomes increasingly promiscuous and binds to more and more types of receptors. There are also hormonal effects that include release Of the stress hormone, Cortisol.

Jansen then goes on to describe other messengers and receptors. Particularly interesting are his descriptions of Near Birth Experiences and Near Death Experiences (NDE), and how these could be recreated with the use of Ketamine. Readers would enjoy reading them.

Order this Book by clicking here.

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