MECHANICAL ASSOCIATION OF IDEAS OR »GAMES OF DICE« OF THE SOUL

ANTHROPOLOGICAL CONCEPTS OF THE DREAM IN THE LATE ENLIGHTENMENT

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During the German Enlightenment, anthropology was commonly understood as the study of the >whole man<. The anthropologists tried to find a solution for the problem of the so-called *commercium mentis et corporis*, which resulted from the rationalist philosophers' strict division between material and immaterial things, spirit and matter, body and soul. The anthropologists assumed that there might be some sort of interaction between these two sides of human beings, which they often called >influxus physicus«. The dream is a particularly apt subject for the study of this interaction, as dreams are considered as combinations of a material, physiological element – sleep –, and a more spiritual element – the (however weak) activity of the consciousness.

As Johannes Ith wrote in his *Versuch einer Anthropologie*: »In the whole sphere of human nature there is hardly any phenomenon which casts more light on the mutual influence of body and soul [...] than the constant alternation of *waking* and *sleeping*«.² But this promising introduction is not followed by anything like an elaborated concept of the dream; dreams are merely defined as »medium states between sleeping and being awake«.³ Some scientists had planned a comprehensive dream theory for forthcoming parts of their main works. Ernst Platner, who is widely known as the initiator of the anthropological movement in Germany, treated the dream briefly in the fourth section, »On Imagination« (»Von der Phantasie«) of his first work, the *Anthropologie für Ärzte und Weltweise*.⁴ Here, however, we find only some vague hints on the emergence of dreams from mechanical motions in the mind, which then irresistibly follow the rules of the association of ideas. In his later career, Platner revised his work. At the beginning of the *Neue Anthropologie für Ärzte und Weltweise*, he promises to discuss the phenomenon of dreaming in

an appendix to the second book which deals with the situation of the dreaming soul in relation to

¹ For detailed information see Jutta Heinz, *Wissen vom Menschen und Erzählen vom Einzelfall*, Berlin, New York, 1996, chap. 2: »Genesis and Development of Anthropology in the 18th Century – Approaches towards a History of Science« (with an extensive bibliography).

² German: »Allein es giebt in dem ganzen Gebiet der Menschennatur kaum eine Erscheinung, wodurch der gegenseitige Einfluß der Seele und des Körpers auf einander schöner und unwidersprechlicher in's Licht gesetzt würde, [...] als der beständige Wechsel des *Wachens* und *Schlafes*«; Johannes Ith, *Versuch einer Anthropologie oder Philosophie des Menschen nach seinen körperlichen Anlagen*, 2 vols., Bern, 1794/95, vol. 1, 142 n.; all quotations translated by the author.

³ German: »Mittelzustände zwischen Schlaf und Wachen«; ibid., 145.

⁴ Ernst Platner, Anthropologie für Ärzte und Weltweise, Leipzig, 1772.

its representations, and then in relation to the cognitive, the emotional and the voluntary faculties [...]. The *third book* deals with the lasting consequences of the ideas and their effects on the cognitive, emotional, and voluntary faculties of the mind; also in relation to the dreaming state of the soul.⁵

This would have been an investigation of all aspects of dreaming in relation to the different faculties of the waking mind — but unfortunately, the second volume of the *Neue Anthropologie* was never to be completed. Neither was, oddly enough, the third and fourth volume of Johann Karl Wezel's *Versuch über die Kenntniß des Menschen*. Platner's rival in Leipzig had announced »Reflections on some abnormal conditions of the mind (dreams, madness, enthusiasm etc.)«⁶ for the fourth volume of his *Versuch*; but only two volumes of the ambitious work ever appeared in print. Obviously, the theory of dreams had to face the same fortune as the project of Enlightenment anthropology as a whole: Scientists tried to study the whole man in all his aspects — and lost themselves in so many details and so much scientific pedantry that they never really found the time to complete their neatly planned *opera magna*. Thus the >whole mank remained a torso.

Those scientists who devoted special chapters of their anthropological studies to the dream nearly almost located those chapters in the same dark vicinity as Wezel: The dream appears as an extraordinary, and somehow sills state of the mind, dominated by the irregular powers of imagination; therefore, it has no place in a system based on the normal and healthy functions of the mental faculties. In Ludwig Heinrich Jakob's *Grundriß der Erfahrungs-Seelenlehre*, for example, dreaming is banished to an appendix »of some special states [...] of the souls, which ranges from waking through sleeping, dreaming, somnambulism, drunkenness, dizziness, and fainting to death. In Dieterich Tiedemann's *Untersuchungen über den Menschen*, the chapters about dreaming, somnambulism, and supernatural dreams are followed by those about madness and birthmarks – another remarkable compilation! One striking exception is Johann Maaß's *Versuch über die Einbildungskraft*. In this book, only enthusiasm, somnambulism, and superstition are confined to a kind of fun-section called »special states of

⁵ German: »ein Anhang zu dem zweyten Buche, welcher von dem träumenden Zustande der Seele in Ansehung der Vorstellungen, und dann des Erkenntniß-, Empfindungs- und Bestrebungsvermögens handelt [...]. Das dritte Buch handelt von den nachbleibenden Folgen der Vorstellungen und ihrer Wirkungen in das Erkenntniß-, Empfindungs- oder Bestrebungsvermögen; auch in Ansehung des träumenden Zustandes«; Ernst Platner, Neue Anthropologie für Ärzte und Weltweise. Mit besonderer Rücksicht auf Physiologie, Pathologie, Moralphilosophie und Ästhetik, Leipzig, 1790; table of contents (no page numbers).

⁶ German: »Betrachtungen über gewisse anomalische Zustände (Träume, Narrheit, Schwärmerey u.a.)«; Johann Karl Wezel, *Versuch über die Kenntniβ des Menschen*, 2 vols., Leipzig, 1794/95, vol. 1, 6.

⁷ German: »von einigen besondern Zuständen […] der Seelen«; Ludwig Heinrich Jakob, *Grundriβ der Erfahrungs-Seelenkunde*, Halle, 1791, esp. 286-99: »Von dem Schlaf und den verwandten Zuständen« (On Sleeping and Related Conditions).

⁸ Dieterich Tiedemann, *Untersuchungen über den Menschen*, 3 vols., Leipzig, 1777/78, part 3, sect. V-VII.

mind« (»besondere Zustände«),⁹ while dreaming and waking are equally considered in all other sections. Obviously, a work concentrating on the various phenomena of the imagination cannot distinguish sharply between conscious and unconscious states of mind.

There are several reasons for the systematic neglect of the dream theory in anthropological works of the Enlightenment. The anthropologists – most of them doctors of medicine – focus their scientific interest on the normal, healthy, average man. The exceptions from the rule were subjects of the popular >Erfahrungs-Seelenkunde (experience-based psychology) and were presented to the highly interested, if not sensation-seeking public, as so-called >Fallgeschichten (case studies) in many psychological magazines. Moreover, the anthropologists tried to restrict their investigations to empirical matters only; >Erfahrung and >Beobachtung experience and observation, should form the *methodological* basis of the new science of man. But nobody can observe other people while dreaming; so the scientists depended on dream reports, which often exaggerated the supernatural and miraculous nature of the dream – who would report an >ordinary edream? – and which therefore were in no way acceptable as trustworthy and representative source material.

As a result, the anthropologists excluded the dream from the more central and systematic parts of their works and developed »a well reasoned deficit theory of dreaming« instead, as Manfred Engel has called it. To elaborate this basically correct assessment, I will show how this dream theory – rudimentary as it may be — works in detail and why it is sensible indeed. In a second chapter, I shall try to add a small positive element to this deficit theory: the anthropologists succeeded in providing an explanation for prophetic dreams, which compiles some already known aspects of the philosophical dream theory in a genuinely eclectic, but nevertheless innovative way. Finally I shall discuss the consequences which the anthropological dream theory had for the literature of the Enlightenment, especially for the novel.

⁹ Johann Gebhard Ehrenreich Maaß, *Versuch über die Einbildungskraft*, 2nd ed., Halle, Leipzig, 1797; sect. 8.

¹⁰ German: »yeine wohldurchdachte Defizittheorie des Traums«≼; Manfred Engel, »Traumtheorie und literarische Träume im 18. Jahrhundert. Eine Fallstudie zum Verhältnis von Wissen und Literatur«, Scientia Poetica 2 (1988), 97-128; here: 104 n.; see also: Gabriele Dürbeck, Einbildungskraft und Aufklärung. Perspektiven der Philosophie, Anthropologie und Ästhetik um 1750, Tübingen, 1998, 229-52: »Anthropologisierung des Traumes. Ordnung und Unordnung der Ideen im Gehirn«; Peter-André Alt, »Der Schlaf der Vernunft. Traum und Traumtheorie in der europäischen Aufklärung«, Das achtzehnte Jahrhundert 25.1 (2001), 55-82, esp. »3. Die Traumlehren der Psychomedizin«. -

As shown above, the theory of the dream is only a side issue for the more fundamental and systematic works of Enlightenment anthropology. Therefore the source material for my study is not very extensive, but nevertheless quite representative. The most extensive – and most interesting – treatment of the dream can be found in the work of Tiedemann (note 8); also of basic relevance are the chapters in Krüger (note 12), Irwing (note 16) and Jakob (note 7).

1. Dream Genesis and Rules of Dreaming

If possible, the anthropologists are inclined to trace every phenomenon back to its physiological basis – relying on the medical knowledge of their time and trying to avoid the vain speculations of traditional, metaphysical psychology. In the case of dreaming, the obvious physiological starting point is the difference between waking and sleeping; in this context the dream is commonly defined as a »medium state« (»mittlerer Zustand«). But there was a wide variety of physiological explanations of sleep then. Sleeping was explained, for example, as exhaustion of the nerves, as lack of nutrition in the blood, as reduced mobility of the animal spirits (»Lebensgeister«) – the substance which in most anthropological systems builds the bridge between body and soul. As none of these theories met with universal acclaim, the anthropologists decided to ignore the irritating physiological details; Tiedemann ended his summary of the different medical concepts of sleep with some resignation:

Since we neither know exactly the state of the soul, nor that of the body: we will have to abandon, I believe, our attempts to find a complete explanation of sleep, until more detailed observations have been made on some phenomena of the first, and more experiments on the latter.¹⁴

Considerations about the indisputably graduated character of sleeping in general were a good starting point, if not for a definition of the dream, so at least for an explanation of its genesis. The anthropologists' most simple model works as follows: First there is a sensual impression, coming from the outside or from the sleeping body itself. For the sleeper this impression is very weak and obscure. Therefore it is picked up by the imagination only, not by reason – and soon we find ourselves dreaming. More complex models try to describe the transitional character of dreaming in relation to physiological processes of recreation. Irwing came up with the idea that the more subtle organs recreate themselves more quickly than the coarse ones and therefore are sooner ready to work again. Jakob thought that little by little more nerve fluid is produced, so that the imagination can take up its duty quite early, while there is yet not enough nutrition for the more complex cognitive faculties. So both scientists

¹² Johann Gottlob Krüger, *Versuch einer Experimental-Seelenlehre*, Halle, Helmstedt, 1756, 197; cf. also note 3. Krügers *Experimental Theory of the Soul* is one of the earliest anthropological texts, published twenty years before Platners *Anthropology*. Jakob, *Grundriβ* (note 7), 290, also speaks about a »Zwischenzustand« (intermediate state).

¹³ Nearly all of these theories refer to the very famous scientist Albrecht von Haller; cf. Tiedemann, *Untersuchungen* (note 8), 179 n.

¹⁴ German: »Da wir also weder den Zustand der Seele, noch auch den des Körpers genau kennen: so werden wir, glaube ich, die Bemühung, eine vollständige Erklärung des Schlafes zu finden, wol so lange aufgeben müssen, bis über einige Erscheinungen der erstern genauere Beobachtungen, und über den des letztern mehrere Versuche angestellt worden sind«; Tiedemann, *Untersuchungen* (note 8), 182.

¹⁵ Cf. Krüger, Experimental-Seelenlehre (note 12), 198.

¹⁶ Cf. Karl Franz von Irwing, Erfahrungen und Untersuchungen über den Menschen, 4 vols., Berlin, 1772-85, esp. vol. 1, 437.

¹⁷ Jakob, *Grundriβ* (note 7), 290 n.

found a physiological explanation for the different degree of efficiency which the faculties of the soul have in different phases of dreaming.¹⁸

Next, the anthropologists tried to find regularities in the course of the dream itself. The standard model works as follows: Imagination takes up the initial sensual impression and connects it with other ideas of the soul – following the rules of the association of ideas (e.g. contrast or similarity¹⁹) and combining them with individual habits, physiological characteristics (age, temperament, status of health²⁰) and external circumstances (room temperature, position of the sleeping body, etc.). The physiological equivalent to the association of ideas is the theory of the sympathy between nerves and organs, a kind of natural relationship between certain physiological functions. A short quotation from one of the philosophical doctors of the anthropological movement, Adam Melchior Weickard, shows this connection:

By some sensation – resulting perhaps from a hard sleeping position, indigestion, sharpness, touch – [...], that is by some external or internal sensation a harmonic motion is caused in some fibres of the brain. Many related fibres react in correspondence: fantasies arise, which we call dreams.²¹

Ernst Platner goes even further. He interprets the whole process of the association of ideas as a pure mechanism of the imagination, which, once set on, follows its own physical rules. If this process becomes unstoppable, the results are lasting dreams (»anhaltende Träume«) and <a href="mailto:https://www.windows.com/windows.com

The very opposite of this purely mechanical theory, which has no room for any influence of reason, can be found in the work of Irwing. He claims that the higher faculties of the soul assert themselves very soon after the reception of the first sensual impression. This impression

German: »Durch irgend eine Empfindung, von harter Lage, Unverdaulichkeit, Schärfe, Berührung [...] also auf irgend eine äusserliche oder innerliche Empfindung wird in gewissen Zasern des Gehirnes eine harmonische Bewegung erwecket, viele in Verwandtschaft stehende Zasern werden in Uebereinstimmung gezogen: es entstehen Phantasien, welche wir Träume heissen«; Melchior Adam Weickard, *Der philosophische Arzt*, 2 vols., 2nd edition, Frankfurt/M., 1790, vol. 1, 311.

Translated from contemporary terminology into modern language, the concepts of eighteenth-century anthropologists show astonishing parallels to current neuro-physiological theories of the dream, concerning the graduation of phases of sleep as well as the distinction between various faculties of the soul – i.e. activities of the brain. Experiments have shown that a special cortex of the brain is very active when we are dreaming; but the more highly developed centres, which normally process the impressions of this cortex, are not at work – in terms of the Enlightenment: reason and the power of judgement are not involved. But the connection between the cortex and the >limbic system which controls our emotions is active – so the anthropologists were right in thinking that we feel real emotions in dreaming.

¹⁹ Krüger, Experimental-Seelenlehre (note 12), 198.

²⁰ Ibid., 201.

²² German: »die mannichfaltige Schwazhaftigkeit im Trunke, in der Fieberhitze, im Traume und in derjenigen Art von Narrheit, welche ohne Wildheit ist«; Platner, *Anthropologie* (note 4), 176.

is multiplied »through the acquired assistance of the nerves«;²³ one of the resulting secondary-ideas (»Nebenideen«) most probably triggers off an emotional reaction (»Rührung«);²⁴ and since all kinds of emotions are naturally connected with a higher degree of attention in the mind, a mechanism of self-amplification is started, which makes the dream both more emotionally overloaded and more complex.

While these examples demonstrate different approaches towards a physiological reinterpretation of the association of the ideas, Dieterich Tiedemann takes his starting point from the first impulse itself. He distinguishes between two cases: In the first one the initial impression comes from the outside and is transmitted via the above mentioned »mechanical association« of nerves and organs. The soul starts searching for a reason for this impression. Here is an example: A difficulty in breathing during sleep results in a *physiological* sensation of fear; the soul works out a scenario, which gives a plausible *psychological* explanation for this fear. Hence the first rule of dreaming is: One imaginatively works out causes for one's sensations (»Zu den Sensationen denkt man sich ihre Ursachen«).²⁵ This idea is obviously modelled on the general law of cause and effect. The second rule applies to a second species of dreams which result from physical needs (e.g. thirst, hunger): »If the sensation results from a need of the body, the imagination associates things, which could satisfy this special need«.²⁶

Both types of dream-origins lead to relatively simple kinds of dreams. But Tiedemann again shows two ways in which such an ordinary dream could be continued. Either the imagination combines ideas which have a certain emotional value for the dreamer; then the understanding does not participate in the process at all, »because ideas of conscious reflections cannot prevail against the power of emotions«.²⁷ Or the imagination concentrates on an abstract problem; then the dream follows a consistent line of thinking, »sometimes to the extent that we reason in a scientific way«²⁸ (I will come back to this point in the second part of my essay).

As a conclusion, I would like to emphasise two points: (1) The anthropologists argue that dreams are products of the imagination as well as of various external factors and of all faculties of body and soul, so that a complex interaction of body and mind can be found in dreaming, too. Dreaming man is neither the slave of mechanical, irregular processes of the imagination, nor master of all his higher mental faculties. (2) Unlike many previous and contemporary dream theorists, the anthropologists do not try to draw moral conclusions from this fact. They merely notice a considerable restriction of reason in dreaming, but do not argue about the resulting moral problem of responsibility for indecent dreams, for example. But they

²³ German: »vermöge der erworbenen Mitwirksamkeit der Nerven«; Irwing, *Erfahrungen* (note 16), 442.

²⁴ Ibid., 444.

²⁵ Tiedemann, *Untersuchungen* (note 8), 193.

²⁶ German: »bey den Empfindungen, die aus körperlichen Bedürfnißen entstehen, denkt die Phantasie die Gegenstände hinzu, die geschickt sind, ihnen Befriedigung zu geben«; ibid., 193.

²⁷ German: »weil Reflexions-Ideen gegen die Kraft der Empfindungen nichts vermögen«; ibid., 197.

²⁸ German: »zuweilen so sehr, daß wir wißenschaftliche Raisonnements ausführen«; ibid., 195.

are eager to prove that a dreaming mind has to follow certain rules and that dreams are therefore well suited as objects of rational scientific investigations. The rules they try to establish from their observations mostly refer to the general law of cause and effect, which is of high importance to thinkers of the late Enlightenment in Germany. As a result, dreams are no longer >supernatural< and mysterious, but a proper object for serious scientists. These may even take a closer look at some aspects in dreaming which could legitimate a specific positive value of dreams.

2. Prophetic Dreams as Possible Worlds

But what could be the special purpose of dreams? What are they really good for? Some interesting answers to these questions can be found in an essay by G. Chr. Rapp, published in a psychological magazine called *Allgemeines Repertorium für empirische Psychologie und verwandte Wissenschaften*. In his »Essay on a Psychological and Teleological Judgement of Dreaming«, Rapp defends his teleological method: Admitting that it might be arrogant and presumptuous (»anmassend und vermessen«) to estimate everything only according to its pragmatic value, he stresses that this way of looking at things surely is pleasant and useful (»angenehm und nüzlich«).²⁹ Although Rapp is a supporter of the more popular Erfahrungs-Seelenkunde rather than an anthropologist in a strict sense of the word, his arguments are very useful for heuristic means. Without pretending to be strictly scientific or systematic, Rapp outlines characteristic features of a positive dream theory, which could be added to the anthropologic >deficit theory«. He gives five arguments for the usefulness of dreams, which are mostly of a hedonistic or didactic character.

(1) Dreams can increase the sum of our pleasant feelings in this world, because they enable us to enjoy our existence while asleep. This joy does not depend on the specific contents of the dream; it is rather the result of the creative activity of the mind itself which builds up a self-made order of things (»selbstgeschaffene Ordnung der Dinge«). (2) Dreams can help to console unhappy persons by making them forget their miserable circumstances and by setting body and mind free, at least for a short time. These are the two hedonistic arguments.

For didactic purposes, (3) dreaming is useful for exercising our powers of thinking: »We often make better judgements and draw better and more consistent conclusions than while being awake«.³¹ But dreaming can also (4) train our practical skills and even correct faults of temperament or education (»Temperaments- oder Erziehungsfehler«)³² by confronting us – in

²⁹ G. Ch. Rapp, »Versuch einer psychologisch-teleologischen Beurtheilung des Träumens«, *Allgemeines Repertorium für empirische Psychologie und verwandte Wissenschaften* [ed. Immanuel David Mauchart] 1 (1792), 3-13; here: 3.

³⁰ Ibid., 5.

³¹ German: »wir urtheilen und schliessen eben so gut und oft richtiger, und zusammenhängender, als selbst im Wachen«; ibid., 8.

³² Ibid.. 9.

a kind of virtual reality – with difficult situations, so that we are prepared to cope with them in real life. Even unpleasant dreams can be justified as a kind of test, which teaches us something about ourselves. Finally, (5) dreams can be »a strong antidote against too much uniformity and one-sidedness of our mode of thinking and feeling«, ³³ because their challenges are different from the demands of everyday life. In short, dreaming opens a new scope not only for our imagination, but also for a test of our cognitive and practical skills. Acting as a different person in a kind of role-play, we improve our knowledge about ourselves. This experience alone – not to mention the specific contents of the dream – should be delightful.

This very optimistic – and indeed very pragmatic – position provoked the criticism of a medical doctor, who answered Rapp in the third volume of the *Repertorium*.³⁴ From his professional point of view he takes up the opposite position. For him a dream is generally an unnatural condition (»widernatürlicher Zustand«)³⁵ which cannot be healthy under any circumstances; more restful than the nicest dream would be a deep sleep with no dreams at all. Those who are content with the real world do not need palliatives (»Palliativmittel«)³⁶ as a surrogate. Actually, we ought to be happy that we cannot watch our working stomach – and there is just as little need to watch our brain. For this opponent of Rapp, dreams are not a human privilege, but a proof of God's mercy for our human weakness. Their purpose is not a *telos*, but merely a »*consequence* springing – by the wise arrangement of the founder of our nature – from an unnatural condition, which actually were to be called an evil, but is inevitable because of our imperfection«.³⁷

Between these two very radical approaches the anthropologists search for the golden mean. Like Rapp, they try to establish the idea that the loss of reality faced by the dreamer has some positive side-effects. But unlike Rapp they feel themselves bound by empirical evidence rather than by wishful thinking. And, curiously enough, they find an unexpected solution in that part of the traditional dream theory which is the most problematic one for all scientists, namely the discussion of prophetic dreams. The anthropologists use as their starting-point astonishing reports in which some persons claimed to have found the solutions to abstract philosophical or even mathematical problems in their dreams, which they could not solve while awake. A prominent and often quoted example in this context is the philosopher Carl Leonhard Reinhold, who reported that »that the main idea for this deduction (having thought very hard

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³³ German: »ein kräftiges Gegenmittel gegen allzugrosse Einförmigkeit und Einseitigkeit unsrer Denkungs- und Empfindungsart«; ibid., 11.

³⁴ D. Elvert, »Anmerkungen und Beysätze zu *Repetent Rapps* Versuch einer psychologischteleologischen Beurtheilung des Träumens«, *Allgemeines Repertorium für empirische Psychologie und verwandte Wissenschaften* 3 (1793), 47-52.

³⁵ Ibid., 48.

³⁶ Ibid., 50.

³⁷ German: »*Folge*, die durch die weise Einrichtung des Stifters der Natur aus einem widernatürlichen Zustande, der im Grund ein Übel zu nennen wäre, aber der bey unsrer Unvollkommenheit unvermeidlich ist, entspringt«; ibid., 50.

about the term judgement for four weeks) finally occurred to me in all clarity and certainty while I was dreaming«.³⁸

Tiedemann, too, mentions the possibility of carrying out scientific reasoning (»wißenschaftliche Raisonnements«)³⁹ while dreaming and considers the dreamt images often to be very clear. Jakob states: »In dreams the faculties of the soul are sometimes so powerful that they even exceed the strength of their waking state«. ⁴⁰ And Maaß concedes: »Yes! It is even possible that the dreaming mind discovers facts which evaded the waking mind, which he even in vain had tried to find«. ⁴¹

The main reason for the particular cognitive value of some – perhaps very few – dreams is the particular situation of the soul in a dream. Since no sensual impressions of the outer world have access to consciousness, the faculties of the soul work in complete calmness and concentration: »This calmness has the effect that the organs can move more freely, that their motions are observed better, that in consequence a more lively perception emerges«. In the waking state, on the other hand, there are always distractions: »Not a single image has the time to be fully coloured, not a single organ is able to draw full attention to itself; because of this the images are weakened«. Dreaming therefore offers ideal conditions for cognition: even the smallest notions are set free and are granted their proper right.

Besides, because of the increased activity of the dreamer's imagination the number of new ideas and, consequently, of new combinations of ideas is constantly growing, which is

³⁸ German: »die Hauptidee dieser Deduktion, nachdem ich über vier Wochen den Begriff eines Urtheils mit großer Anstrengung festgehalten [...] habe, *mit aller Klarheit und Bestimmtheit im Traum eingefallen ist*«; Rapp (note 29), 9. – The same example can be found in Maaß, *Versuch* (note 9), 136. Georg Christoph Lichtenberg also often reports on scientific discussions or instructions in his dreams; cf. Georg Christoph Lichtenberg, *Schriften und Briefe*, 4 vols., ed. Wolfgang Promies, München, 1968; *Sudelbücher I*, F 1229, J 171; *Sudelbücher II*, J 1416, K 85.

³⁹ Tiedemann, *Untersuchungen* (note 8), 195.

⁴⁰ German: »Zuweilen beweisen die Seelenkräfte im Traume eine so große Kraft, daß sie selbst die Kraft in wachenden Zustande zu übertreffen scheinen«; Jakob, *Grundriβ* (note 7), 292.

⁴¹ German: »Ja! Es ist sogar möglich, daß der Verstand im Traume Wahrheiten entdeckt, die ihm beim Wachen entgingen, die er sogar zu finden sich vergeblich bemühte«; Maaß, *Versuch* (note 9), 135.

⁴² German: »Diese Ruhe macht, daß die Organe sich ungehinderter bewegen, daß ihre Bewegung mehr beobachtet wird, daß folglich eine lebhaftere Perception entsteht«; Tiedemann, *Untersuchungen* (note 8), 200.

⁴³ German: »Kein einziges Bild hat folglich Zeit genug, sich recht auszumalen, kein einziges Organ kann die Aufmerksamkeit ungetheilt auf sich ziehen; dadurch werden die Bilder geschwächt«; ibid., 200.

⁴⁴ A similar argument can be found in Maaß: »Während des Wachens zerstreuten äusserliche Empfindungen die Aufmerksamkeit zu sehr; oder verdunkelten die Vorstellung des Gegenstandes, des Merkmales, wovon die Entdeckung der Wahrheit abhing« (While being awake, perceptions from the outside distracted the attention of the mind too much; or they darkened the idea of the object, the characteristics, on which the discovery of truth depended); Maaß, *Versuch* (note 9), 135.

obviously good for creative thinking. Krüger already speaks of the one, real world (»eine würckliche Welt«)⁴⁵ in contrast to the countless possible (»unzähligen mögliche«)⁴⁶ worlds of the dream. Tiedemann additionally emphasizes the positive effect of a release from conventions and habits:

While dreaming, the mind is not restrained by painful reflection, not even by the principles which it has grown used to, and therefore unhindered makes all kinds of connections between ideas. He imagines the future more freely, as if he were building castles in the air while awake.⁴⁷

These castles in the air are not necessarily cloud-cuckoo-lands. They often have a statistic probability or even lead to a spontaneous feeling of evidence »because then [while dreaming] we overlook the circumstances more calmly, or because the ideas somehow sort themselves out better, too«. 48

Taken together, these arguments give a second reason to consider the dream as the ideal state of cognition: both the novelty and the multitude of freely flowing ideas from »possible worlds« force the dreamer to revise his usual habits of thinking. The resulting variety of combinations even can involuntarily organise itself in patterns that make some new sense.

The concept of the possible worlds, which was imported from rationalistic philosophy and also became quite important for contemporary literature, gave the anthropologists a chance to show that dreams could have a certain coherence. Dreams could be at least probable – and the more the soul concentrates in its splendid isolation on its own faculties and the more it acts independently of the senses, the more dreams tend to be true. The result can be poetry: The anthropologists often connect the activity of the imagination in the dream with a special ability of the mind which expresses itself in the production of poetic works. Other results can be cognitive insights, even scientific discoveries, as well as personal decisions.

This acknowledgement of a special clairvoyance of the dreaming soul is to be understood as an attempt to give a scientific foundation to the theory of prophetic dreams. According to the anthropologists, supernatural dreams can be interpreted as a stroke of luck in the lottery of the possible worlds. Krüger compared the dream to games of dice (»Würffelspiele«), ⁴⁹ in which the results just seem to be coincidental, but are actually determined by the throw and its outer circumstance – in the case of dreaming: the surrounding circumstances and the personality of the dreamer. Tiedemann uses the same metaphor: If one knew enough about the laws of probability, »one would realise that dreams naturally could come true in a perfectly

⁴⁵ Krüger, Versuch (note 12), 209.

⁴⁶ Ibid., 209.

⁴⁷ German: »Der im Traume nicht durch mühsame Reflexion, oft auch nicht einmahl durch angewöhnte Grund-Sätze zurückgehaltene Geist macht ungehindert allerhand Arten von Ideen-Verbindungen. Er stellt sich das Zukünftige noch weit freyer, und in noch weit mehr verschiedenen Gestalten vor, als wenn er wachend Luft-Schlößer baut«; Tiedemann, *Untersuchungen* (note 8), 212.

⁴⁸ German: »weil wir da [im Traum] die Umstände ruhiger übersehen, oder auch weil sich von ohngefähr die Ideen beßer ordnen«; ibid., 212.

⁴⁹ Krüger, Versuch (note 12), 209.

natural way – just as there could be three sixes in a hundred throws of a dice«. 50 Moreover, it seems only logical that by means of our dreams we can »draw a probable conclusion on the condition of one's soul and body« 51 – such extrapolations, after all, are a commonly known and quite logical method while being awake, so why should the same procedure not work when we are dreaming?

If we combine both aspects – the concentration of the mind and the increased activity of the creative powers – it is easy to find the connection with the problem of supernatural dreams. The anthropologists invite us to assume that there are certain signs which may indicate a hidden defect of the body or a special need of the mind, but which are not strong enough to catch our attention while we are awake:

The actual cause from which predictions of the future are derived could be something which we felt or recognised in some other way while being awake, but which was not noticed, because stronger sensations darkened its representation and prevented the attention from focusing on it. In our dreams, this representation can take effect, even if it should not reach our consciousness. Then a representation can arise which we cannot trace back to its individual context. ⁵²

In this dream theory, the insights resulting from such a dream even remain unconscious – and therefore produce the delusion of a truly supernatural dream. Moreover, the premonitory quality of some dreams not only applies to questions of the mind or to personal decisions but also to the constitution of the body. The resting soul might even have a more precise idea of the healthiness or illness of the body, and might get valuable hints for its further development:

Those who do know their body exactly, and who are not deceived by their desire to live, can, in all likelihood, set for themselves a certain live-span in advance. Why should that not happen in dreams, too? Why should the soul not be able to fix the duration of her life more definitely than while being awake, from certain secret feelings of the strength or weakness of her organs?⁵³

⁵⁰ German: »würde man sehen, daß Träume sehr natürlich eben so gut eintreffen, als unter hundert Würfen drey Sechsen zugleich seyn können«; Tiedemann, *Untersuchungen* (note 8), 213.

⁵¹ German: »auf die Beschaffenheit seiner Seele und seines Leibes einen wahrscheinlichen Schluß machen«; Krüger, *Versuch* (note 12), 206.

⁵² German: »Die gegenwärtige Ursache, woraus das vorhergesehne Zukünftige abgeleitet wird, kann etwas seyn, das im Wachen zwar empfunden, oder auf eine andre Art erkannt, aber nicht bemerkt wurde, indem stärkre Empfindungen die Vorstellung davon verdunkelten und die Aufmerksamkeit hinderten, sich darauf zu richten. Im Traum aber kann diese Vorstellung wirksam werden, gesetzt, daß sie auch nicht einmal zum Bewußtseyn käme. Dann kann eine Vorhersehung entstehen, von der wir den individuellen Zusammenhang anzuzeigen nicht im Stande sind«; Maaß, *Versuch* (note 9), 138.

⁵³ German: »Wer seinen Körper genau kennt, und sich dabey nicht von der Begierde zum Leben täuschen läßt, kann sich mit großer Wahrscheinlichkeit eine gewiße Zeit von Lebens-Jahren vorher festsetzen. Warum sollte dies auch nicht im Traume geschehen können? Warum sollte nicht hier die Seele aus gewißen geheimen Gefühlen von der Stärke und Schwäche ihrer Werkzeuge sich die Dauer des Lebens bestimmter, als selbst im Wachen, festsetzen können?«; Tiedemann, *Untersuchungen* (note 8), 210. – A similar argument can be found in Maaß, *Versuch* (note 9), 139: »So ist z.B. nichts einfacher, als daß einem Menschen, der das Vorgefühl einer Krankheit mit sich herumträgt, worauf er aber im Wachen nicht achtet, daß, sage ich, einem solchen träumt, er werde auf einen bestimmten Tag

12

Thus dreams troubled the anthropologists of the late Enlightenment not because of their lack of rationality, but because of their lack of causality. Therefore, they searched for traces of a causality hidden beneath the surface of arbitrariness. They found them in certain laws by which the genesis of dreams and their course could be described, and in the explanation of premonitory dreams by the assumption of an ideal state for cognition and creative thinking. As the anthropologists' methodical convictions do not allow metaphysical arguments, they are eager to provide physiological explanations for the advantages and disadvantages of dreaming, as well. So they develop theories like that of the organic cycle of exhaustion and recreation, the sympathy between organs and nerves, or the feedback mechanisms between the different faculties of the soul. But soon afterwards most of them lapsed into philosophical speculation disguised as psychology – the association of the ideas, for example, or the concept of the possible worlds. And finally, they end up as poets: even the most pedantic anthropological scientists sometimes try their luck in reading dreams – the more mysterious and supernatural, the better. They mostly take a report which describes a premonitory dream at some length; and then they add a lot of additional information about the character and personality of the dreamer, his current situation in life, his physiological constitution, the outer circumstances of the dream and so on. Their aim is to explain every detail of this special dream by a >natural < cause. The resulting case histories are pragmatic novels in nuce. Thus the traditional qualities of the dream - the supernatural and the mysterious - are almost reduced to nothing. The probability of the story deduced from the dream proves the validity of the law of cause and effect in the real world as well as in all possible worlds. In dreams imagination enjoys more licences than in the waking state – with all the resulting advantages and disadvantages – but it is not allowed to cut itself loose from the most basic laws of nature.

sterben« (So nothing could be more simple, for example, than that a person carrying with him the premonition of an illness, to which he pays no attention while awake, dreams that he will die on a certain day).