

Territorial Aspects of Communication and Social Perception

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Abstract

人間は、哺乳類の動物として進化してきた。哺乳類動物は、ある程度自分が繁殖できるまで生き延びるため、自分が必要な領域を認識している。人間も例外ではない。領域を認識するとともに、群の中で位が決まる。これを「社会的領域」と考える。他の動物と違い、人間には言語があり、言語ではさらに領域の新しいタイプができる。それは「象徴的領域」である。象徴的領域の構造（つまり、その象徴的領域にある信念）により、現実の知覚が異なり、知覚の制限が決まる。本稿では、象徴的領域の構造により、様々な問題が起こることを主張する。その中から、「位」・「非コミュニケーション」・「無知」・「病気」を特に取り上げる。さらに、それらの問題点に対する解決方法も紹介する。

0. Preliminary remarks

In this paper, I try to show that social structure in human societies is ultimately based on adapted mechanisms, in particular territoriality. Furthermore, I also argue that increased order in society creates disorder at specific social interface levels. The emergence of this kind of disorder is system-immanent and cannot be avoided without changing the system. Social reality is responsible for an individual's perception of him/herself, and a disordered social reality contributes to miscommunication, stupidity and ultimately sickness.

1. Territoriality

Human beings have evolved by living in groups. Mental capabilities that are required for a successful existence in groups also evolved and serve as an underlying foundation of social organization. These specialized abilities are necessary because still older mechanisms exist that have to be countered in order for group dynamics to work.

1.1. Physical and social territories

Humans are an ape species. Our closest biological relatives are chimpanzees, gorillas and orangutans — in that order. Apes are mammals, and all mammals share specific mechanisms in their brains. Still older mechanisms are shared with birds, reptiles and fish.

One important and very old mechanism is territoriality. Practically all animals are territorial, i.e. they possess an instinct that enables them to judge how large a territory needs to be in order to fulfill subsistence. Coupled with this territoriality instinct is the flight-or-fight response. Animals are able to recognize if their territory has been invaded by an unsolicited member of their species, which automatically leads them to act in the following way: either fight the intruder or flee and leave to territory to the newcomer.

Territoriality is less expressed in animal species that live in rather firm horizontal social structures. A horizontal society is a group form in which hierarchies between members are less pronounced. A shoal of fish is a good example. Although there are different social roles enacted by different members of the shoal, the structure of the shoal itself does not lend itself to the interpretation of the vertical dynamics of its social structure. The more organized a horizontal social structure is, the less territorial the species acts. This can be observed in species that live in herds or shoals. Herds or shoals move through a territory and use up a certain amount of resources of this territory. However, they do not try to defend that territory but rather move on if confronted. Territory must of course be distinguished from the social space that a group constitutes. Invasion into social space by non-members of the groups is always acted upon.

Species that express a vertical social structure react to any intrusion into what is perceived as territory. However, territoriality does not necessarily imply sedentariness. Even species that roam will express territorial instincts if their social structure pronounces verticality.

Verticality as a social principle extends territorial instincts into social instincts. Social ranks are equally fiercely defended against confrontation as intrusion into physical territory is. Concludingly, vertically structured groups distinguish between at least two types of territory: physical territory and social territory. This does not include the above-mentioned social space any animal requires for stress-reduced existence.

1.2. Symbolic territory

Humans differ from all other animals in one important respect: Humans use language as a non-limbic means of communication¹⁾. All animals communicate in one way or another, be it by sound, smell, movement or other means. However, animals use their respective codes of communication in order to express purely limbic content that cannot be abstracted to non-limbic content. Humans use both forms. If I am hurt and utter “Ouch” then I am communicating limbic content. Limbic communication is inseparable from the communicator’s personal experience. Non-limbic content, however, is abstract insofar as the communicator’s personal experience need not necessarily be known in order for the content to make sense and to be understood. In technical jargon, non-limbic content is variant with respect to the communicator’s experience.

Since animals use limbic communication but not non-limbic communication, we can safely assume that the mode of limbic communication is older. Limbic communication is restricted to an animal’s

personal approach to reality. A species' approach to reality is dependent on the form of brain genes possessed by individual members of this species can produce. These genes have been selected by the environment in which the species exists and by social interaction pressures. That means that brains are devices to enable their possessors to survive in a certain type of environment long enough to reproduce. Brains have not evolved to enable a species to recognize reality. Reality is what brains process. According to brain type the experience of reality changes.

This is not only true if we compare different species, but it is also true if we compare different members of the same species. Female and male members of *Homo sapiens sapiens* are sufficiently different to warrant a comparison of different species²⁾. But even if we compare only brains of human males with those of males, and female brains with those of females, there are enough differences to suggest that the personal experience of reality is not identical.

The advent of a mode of communication that can be used to express other than limbic content has further compounded the possible experiences of reality human beings can have. Since human beings had already evolved with instincts pertaining to physical territoriality and social territoriality, non-limbic communication came under pressure to incorporate these instincts. This led to a mode of communication in which non-limbic content — i.e. information — was and is experienced as symbolic territory.

I believe this in an important insight. When we communicate we do not merely transmit information from our brains to the brains of those who listen to us, but we try to take over what they think or believe³⁾. To win or lose an argument evokes emotions very similar to those which we experience when we successfully or unsuccessfully defend ourselves physically or socially or what we perceive as our physical or social territories. In industrialized societies, the experience of being confronted to defend a physical territory is statistically much lower than intrusions into social or symbolic territory. Bio- and neurochemical reactions are identical, but differ only in terms of concentration. That means that attacks on symbolic territory are dealt with on a chemical level in exactly the same way as attacks on physical and social territory. Again, this is an important insight because it implies that we will have difficulties to act rationally, if we experience a vehement intrusion into our symbolic territory.

1.3. Similarities of physical, social and symbolic territory

The question arises why this should be so. Physical territory is worth being defended because it contains resources needed for subsistence and procreation. Also, physical territoriality in animals is always correlated with the amount of resources required. A squirrel does not regard the whole of Europe as its territory because Europe contains far more resources than one squirrel can deplete. A squirrel rather considers that amount of physical environment as its territory that meets its demands on resources.

Social territoriality is also resource-related because higher rank within a social group grants privileged access to resources within the physical territory the group dominates. It is therefore desirable for every member of a species that has social territoriality instincts to increase its social rank and thereby its access to resources.

Symbolic territory — i.e. information — is covered by the same resource-related instinct. To possess relevant information which other members of the species do not share implies a resource-related

advantage. The fact that flight-or-fight responses also occur in trivial arguments is owed to the fact that the human nervous system interprets every argument as a fight over resource allocation. It does not matter whether the confrontation takes place on physical territory, social territory, or symbolic territory: stimulation of neurotransmitter response acts on identical pathways within the nervous system.

1.4. The difference between physical/social territory and symbolic territory

However, in an important manner, symbolic territory is different from physical and social territory. Information — the primary resource of symbolic territory — is an important means for humans to form reality experiences. Human beings are the only animals that can fall ill because of the structure of their symbolic territories. Furthermore, in societies with highly codified physical and social territories, virtually every argument takes place on symbolic territory. Disputes over physical or social territory are executed on symbolic territory. Information is thus the most important building block of individual experience of reality. Because every human commands a different symbolic territory, every human also experiences reality differently. Some researchers call this a reality tunnel⁴⁾. Reality tunnels can be highly individualized, but many of them are also public — or “tribal”. To view reality through a German reality tunnel results in some spectra of the reality being perceived as enhanced, while others are being perceived as unaccented. A Japanese reality tunnel may enhance other spectra and fog others. In sum, there are as many reality tunnels as there individuals and groups because every individual has his personal reality tunnel, and groups are based on sharing a group-related reality tunnel. Since one individual can be a member of many groups, it follows that an individual can have many different reality tunnels. There are, however, psychological mechanisms that limit reality tunnels to compatible ones. Such mechanisms are for instance consistency, avoidance of cognitive dissonance, commitment etc⁵⁾.

The importance of the paragraph above is the implication that there is no reality as such, but rather differing experiences of reality. Reality now is that experience that can be gained via a specific reality tunnel. It is not possible to experience reality outside of a reality tunnel; it is only possible to change reality tunnels with respect to a problem addressed, or to try to broaden a reality tunnel.

2. System-immanent limits of perception

When human beings argue they fight over opinions formed by how they experience reality through their reality tunnels. Although discussion is not a futile human endeavor, often reality tunnels differ so much as to make reconciliation impossible. One main obstacle to fertile communication is a faulty reality tunnel; in particular one which does not recognize that it is a reality tunnel. Many human beings believe that they experience reality directly and interpret different opinions as unintelligent, stupid, or motivated by ulterior purposes. However, there is no privileged access to reality, and the belief in privileged access to reality is based on insufficient information contained in the symbolic territory of the respective believers.

2.1. Maps

In a widely used metaphor, reality tunnels provide humans with different kind of “maps”⁶⁾. Maps are always maps “of something”. Even if this “something” is the same, if the maps of it are different, then

these maps convey a different reality. In this jargon, many humans are prone to confuse their maps with that what their maps depict. A map of Germany is not the same as Germany. It lacks uncountable substantial properties. The belief that privileged access to reality is possible characterizes a type of reality tunnel in which the map this type of reality tunnel produces is equated with what the map depicts. The equation "map = depiction of the map" is a piece of faulty information residing in the symbolic territory of those who share this reality tunnel. In this respect, the faulty information "map = depiction of the map" can be considered as much the same as a gene in which one or more letters are changed as a result of which a required enzyme cannot be produced. All those who experience reality through a reality tunnel connected to a symbolic territory that contains "map = depiction of the map" are advised to change this piece of information to "map \neq depiction of the map".

I am careful to note that the above-said does not imply the notion of relativity. Different reality tunnels allow different aspects of realities to be perceived, and in many cases it is impossible to judge which reality tunnel is the correct one. However, that does not mean that every reality tunnel is equally correct, and that it is merely a matter of taste which one to choose. For example, in the U.S.A. there are many people who share a reality tunnel called "Creationism". Creationists do not believe that the earth is 4 billion years old and that life has evolved independently by natural selection. The competing reality tunnel "Theory of Evolution", however, suggests natural selection of animals and plants. Which reality tunnel is the correct one? The answer is "Theory of Evolution" because this reality tunnel combines information — i.e. resources of symbolic territories — from many different reality tunnels and integrates them into a highly consistent map of life⁷⁾. One distinct difference is that "Creationism" requires the above-mentioned faulty equation "map = depiction of the map". The belief that evolution did not take place is nothing but a map and to claim that the map is real is to claim that the map equals the depiction of the map. Furthermore, the reality tunnel "Creationism" is very narrow, and it cannot be broadened by scientific research. On the other hand, "Theory of Evolution"⁸⁾ not only incorporates knowledge gained by a plethora of different scientific fields but is also permanently open to new research. In other words, the reality tunnel "Theory of Evolution" is malleable and broad while the reality tunnel "Creationism" is stiff and narrow. Nothing but the propensity to believe in the equation "map = depiction of the map" — and in a variety of statements that contain the word "god" — suggests that "Creationism" is the correct reality tunnel. Everything else suggests that "Theory of Evolution" is the correct reality tunnel with respect to the question of how life developed on earth.

At this stage, a summary of the above-said is in order: animals experience their physical territories through reality tunnels that are confined to what their respective nervous systems allow them to perceive. Cetaceans have the articulation and sensory organs to produce infra- and ultrasound waves. Bats perceive and produce ultrasound waves. Deep-sea fish can perceive other spectra of electromagnetic waves including infrared waves than humans can. The olfactory organs of cats and dogs are at least a hundred times more sensitive than those of human beings. All in all, there are many different ways how a nervous system can be structured to allow different aspects of the reality to be perceived.

Many animal species also constitute social territories in which different members have different social ranks. The reality of social territories follows from the reality of physical territories insofar as social rank allows privileged access to resources within a physical territory. Social territory is perceived

by species-specific instincts. Higher social rank can be recognized by larger size, aggressive behavior, sex etc. Instincts are also strictly confined to the type of nervous system the gene pool of a species can generate.

2.2. The feedback loop

The perception of physical and social territory is — in cybernetic terms — an open loop: no amount of experience can change whether an animal perceives infrared light waves or not. No amount of experience can change whether an animal perceives ultrasound waves. Movement within social territories is also rather mechanical: larger size combined with aggressive behavior will provoke a flight response in a smaller and less aggressive animal. However, in primate species such as Chimpanzee and *Homo sapiens sapiens* political strategies have evolved to counter tyranny by larger and more aggressive individuals⁹⁾.

In contrast to physical and social territory, symbolic territory is a closed loop. In closed loops a phenomenon called “feedback” applies that cannot occur in an open loop. In an open loop any behavior increment that happens later than another one, cannot influence the earlier increment. However, in a closed loop that is possible because later increments can feed information back to earlier increments.

Symbolic territory is constituted by language, i.e. the information it contains as resources. If the information within a symbolic territory changes then the symbolic territory also changes. Since symbolic territories are most important in creating human reality tunnels, human reality tunnels change according to information contained in symbolic territories. To give an example, if you have a tree in your garden which you like because it provides shade and distracts noise from the neighborhood you will not be inclined to tear it down. Your present reality tunnel will be formed thus that the tree in your garden is assigned a positive predicate in your symbolic territory. However, if you are told that the roots of the tree in your garden start to grow under your house and threaten your underground plumbing, the positive predicate assigned to the tree in your symbolic territory will change to a negative one, and thus your reality tunnel will change form. You will now begin to ponder whether it is not better to tear the tree down. It is important to note that the actual tree in your garden has not changed in any way: it is the same before and after the change of your reality tunnel. All that has changed is your reality tunnel by a subtle but important change of information in your symbolic territory.

This feedback phenomenon pertaining to symbolic territories and thus to reality tunnels is also responsible for changes in recollections of past perceptions in human beings. Recollections are encoded as information, i.e. within the symbolic territory. Different approaches to recollections provoke different recollections, a phenomenon well-known by anybody who works in the legal sector. Eye-witness accounts differ according to what kind of questions are being asked. If an eye-witness of a car accident involving a blue car and a green car is asked which car moved onto the intersection first, the answer will be “the blue car” or “the green car” or perhaps “both moved at the same time”. However, if the questions are leading such as “From where did the blue car enter the intersection first?” or “Where did the green car brake suddenly?” many witnesses start getting confused. Leading questions¹⁰⁾ are thus intrusions into personal symbolic territory that alter some of the information contained there, and intend and often provoke a change of reality tunnels.

There is a certain class of information that automatically instills a fatal feedback loop. For instance,

the mindset of any kind of secret police is such that secrecy is relevant because some information is not deemed fit to be public domain. That means that some information is regarded as privileged. Thus it is to be kept secret. In the collective or “pseudo-tribal” reality tunnels of people working for a secret police, the symbolic territory is changed in such a way that there is now a statement that says “There is some information that must be kept secret”. This decreases the breadth of the collective reality tunnel. The assumption that there is information that must be kept secret — for what ever harebrained reasons — further implies that it must be kept so secure that nobody who is not allowed is able to acquire this information. The result is that the collective reality tunnel constricts further. In the third loop, the assumption gains ground that if there is information that must be kept secret and thus so secure that nobody who is not allowed will be able to access it, there must be somebody who wants to do exactly that. The collective reality tunnel constricts again further. In the final and fatal loop, the assumption that there must be someone who wants to access secret information leads to the conviction that this someone must be found. The collective reality tunnel constricts further and reaches that stage which in clinical terms is described as the borderline to paranoid schizophrenia. This predicate indeed best describes the habitual mindset of human beings working in a secret police apparatus.

It is noteworthy that the description of the fatal loop above had not to assume at any single point that anybody working in such an agency had to come in contact with someone who wasn't. The fatal loop can work within in the confines of the collective reality tunnel. In summary this leads us to the insight that state security is endangered by any institution that is endowed with the task of defending state security. This is also called “Hagbard Celine's First Law”¹¹⁾.

2.3. Quantum effects

This principle, however, does not solely apply to state security agencies, but to all endeavors that are directed towards a goal whose accomplishment is ultimately directed at the creation of order. In other words: any attempt to produce order has to be necessarily based on the information that disorder exists. The singular fact that this information is inserted into the symbolic territories of those charged with these tasks leads inevitably to the constriction of their collective reality tunnels in such a way as disorder is perceived practically everywhere. Of course this leads to increased attempts to instill order which in turn leads to even more cases that are perceived as disorder. The recursive application of order to disorder displays at a critical junction what is called a “quantum effect”¹²⁾: the assumption of disorder is not anymore part of reality but part of the map, i.e. contained in the structure of the reality tunnel through which it is perceived. The feedback loop affects the symbolic territory not reality. Since the loop can recursively feed back to the symbolic territory without affecting reality in the least, this is a run-away process that can only be stopped if at one stage the feedback loop is interrupted and the information “map = depiction of the map” is changed to “map ≠ depiction of the map”.

The quantum effect has first been observed by Niels Bohr in the field of quantum mechanics which he has founded. At one critical stage Bohr realized that the equations of his theory of quantum mechanics do not make statements about reality but about the structural limits of human reality tunnels. This insight is formulated in Werner Heisenberg's famous principle of indeterminacy. Even in modern quantum physics, scientists always seem to be one step short of achieving total order. Every time total order is about to be achieved disorder waits around the corner in form of a new subatomic particle.

Physicists have now taken dramatic steps forward to postulate subatomic particles that have not been proved to exist in experiments.

The scientific field of linguistics is also a fitting example for the above-said. Linguistics is the task of finding the order of speech. It has progressed significantly in the last century and many different phenomena have now been described. Vast areas of human speech are now ordered. However, the downside is that many pockets of resistance remain that seem to be all the more disorderly if perceived in front of the background of order.

Many fatal feedback loops are based on the attempt to instill order which ultimately leads to quantum effects. Sometimes fatal feedback loops are triggered because the information that is changed in the symbolic territory has an intimate relationship with the perception of other territory types. For instance, every form of human organization inadvertently mimics a vertical social territory type. Since human beings perceive social territories through reality tunnels that are formed by information of symbolic territories, changes of the information in these symbolic territories can lead to changed reality tunnels as a result of which social territories shift. Every type of organization has words — i.e. elements of symbolic territory — that feed back to the mode of perception of the social territory. Words such as “vice president”, “general”, “professor”, “head nurse” etc. denote social ranks within specific hierarchies. To whom these words apply has grave consequences for what is perceived through a reality tunnel. Things look very different when you see them through the reality tunnel of a general compared with what you perceive through the reality tunnel of a private 1st class.

3. Principles of interaction in hierarchical social structures

Imposed social hierarchies therefore create new information in the symbolic territories of those who exist within the hierarchies, which feeds back to perceptions of personal social territories. If the symbolic territory contains the fatal information “map = depiction of the map” this would mean that someone would think of his/er boss as his/er boss even outside of the respective hierarchy to which the respective rank applies.

3.1. Caste

Social ranks on the same horizontal plane of a vertical social structure form a collective reality tunnel that can be distinguished in significant ways from collective reality tunnels of higher or lower planes. It is possible to call collective reality tunnels of equal horizontal planes “castes”. One important property of castes is that their respective symbolic territories contain self reflexive information. Regardless of whether the caste is perceived as being of high rank or not the self reflexive information always contains commitment to the caste — as long as caste status cannot be changed. However, if there is a chance to advance to a higher caste it is very likely that one will want to advance despite committing information. In rare cases, commitment, however, is so strong that humans will not move out of their caste.

Because castes are part of a vertical structure, being member of a given caste always implies the promise of advancing to a higher caste and the danger of being relegated to a lower caste. This information — contained in symbolic territories — is a strong motivation for caste commitment as long as caste status cannot be changed.

But because castes are in certain aspects rather homogenous reality tunnels with a certain amount of commitment, communication between castes — i.e. between members of different castes — mostly does not flow rationally. Caste commitment produces a consciousness of belonging to a group, to which by definition non-members cannot belong. Since the whole concept of “caste” is based on the attempt to achieve social order, disorder now occurs at the level of inter-caste communication. Higher castes are by definition more powerful than lower castes which implies the power to relegate members of lower castes to even lower ones, so that lower castes only communicate to higher castes what is expected of them. This is a logical extension of the way reality tunnels are shaped by the imposition of social order.

3.2. Caste-induced miscommunication

The elaboration above accounts for the curious phenomenon that members of very high castes such as politicians and executive officers of big corporations seem to be so out of touch with reality. Military history is also full of anecdotes where miscommunication between different ranks contributed to blunder. In terms of communication theory, the creation of social order that produces anything resembling castes contributes ultimately to miscommunication — which is nothing but disorder. Miscommunication between unequal communicators is predicted by “Hagbard Celine’s Second Law”¹³⁾.

Of course, proponents of hierarchy engineering have by now caught up with this inescapable and paradoxical feature of intentional creation of order. Which is why contemporary employment strategies favor temps, i.e. workers that are not officially employed by a company but rather on loan from a work agency. Temps are not assigned castes which means that a caste consciousness based on caste commitment cannot evolve. There is however the drawback that not belonging to any group instills renegade behavior. Which way ever, it is doubtful that communicative flow can be improved by this measure. Studies rather indicate the opposite¹⁴⁾.

One important psychological aspect of social ordering in form of castes is that members of a higher caste perceive themselves as better in many respects than members of lower castes. This includes in particular intelligence. In other words, a member of a relatively high caste is more likely to perceive of him/herself as an intelligent person than a person of a lower caste will. In any case the member of the higher caste will inevitably perceive of him/herself as more intelligent than a member of a lower caste by virtue of the fact that s/he belongs to a higher caste. This of course, constitutes another possibility for fatal feedback loops to become active.

Above I elaborated that within a caste system communication cannot flow freely between castes. In particular, I pointed out that insufficient information will flow from lower to higher castes due to the fact that higher castes hold significant power over lower castes. Therefore only information that is deemed to be expected is transmitted to higher castes. However, the reverse is also true. Due to the fact that a member of a higher caste will think him/herself more intelligent than a member of a lower caste, insufficient and possibly dangerously simplified information will flow from higher to lower caste. Since insufficient or simplified information may not suffice to do the job the member of the lower caste is expected to perform, it is likely that s/he will fail. If this should be the case, the expectations on lower intelligence of lower caste members, that the higher caste member holds seem to be justified. As a consequence, even less information will flow downwards. If, however, the lower caste member through

personal enterprise manages to do a perfect job, the expectations of the higher caste member are still justified. Then the higher caste member has reason to believe that s/he did exactly right in communicating just what s/he did to the lower caste member. This resembles what psychologists call a “double bind”¹⁵⁾, i.e. which way ever the lower caste member performs the result is always the same: the higher caste member’s judgment about the lower caste member’s intelligence will not change and as a result information flow will not increase. If this happens it is also equally unlikely that the lower caste member will in any way change his/er communication policy.

Any situation in which information cannot flow freely and openly is defined as “secrecy”. Here again we happen on fatal feedback loops encountered within security agencies. Worse yet, security agencies are themselves modeled exquisitely after the caste concept, which means that castes as horizontally collective reality tunnels compound the overarching collective reality tunnel in which secrecy is a maxim inscribed in the respective symbolic territories. If thus, castes incorporate the secrecy maxim into their collective reality tunnels and as a result secrecy starts to develop between castes, the worst case scenario becomes reality. Examples can be readily found by perusing a newspaper.

4. The value of information

There is a further side effect that wreaks havoc. Since by definition secrecy is any withholding of information and thus any hampering of free communication, any organization that is modeled vertically will eventually turn into a source of stupidity. As stupidity I regard any form of constriction of a reality tunnel. I have pointed out in the paragraphs above that a) the assumption that information must be withheld creates dangerously constricted reality tunnels, and b) any organization modeled vertically decreases the flow in information between its strata. Since in most forms of human organization both instances apply, it follows as a logical conclusion that most forms of human organization promote stupidity¹⁶⁾.

4.1. Stupidity

Stupidity is also easier to create than knowledge, because the equivalent of the Second Law of Thermodynamics works in favor of stupidity. Even though ultimate order cannot be achieved in any system — as I have illustrated above — that does not mean that stupidity should be given free reign. The attempt to instill order happens to have limits which are defined by the occurrence of quantum effects. This just means that as far as we can judge at present, human reality tunnels will never be perfect. In every human reality tunnel there resides a pocket of disorder that cannot be expunged because the mere attempt of expunging it creates new pockets of disorder. Stupidity is the systematic deterioration of a reality tunnel. This has to and can be prevented. Stupidity as such is not non-information but merely faulty information. Faulty information contracts faulty information. The problem is that faulty information contracts faulty information to a much higher degree than proper information contracts proper information. This is a principle recognized which is why it is widely used by any agency that understands its task as the promotion of stupidity.

4.2. Learning

Systematically integrating new information into one's symbolic territory is called "learning". Ultimately, integrating information that did not previously reside in your symbolic system means that the brain must be altered. New information must be stored in the brain, and this is achieved by the process of establishing new connections between previously unconnected neurons. If new information enters a symbolic territory it causes the respective hardware to be reprogrammed. However, this rewiring process requires a substantial amount of time and effort. Only very few human beings can skim over a list of words in a foreign language and recall them at a later time. Most adult humans must make a deliberate and conscious effort to learn the vocabulary of a foreign language. This is usually achieved by repetition. If the words to be learned are repeated a sufficient number of times, then the mere process of repetition will establish the required connections between neurons. However, if the words learned are not used often enough the connections will again fade. The problem is that this process itself is opaque to whether the information to be acquired is faulty or proper. Therefore, propagandistic techniques build heavily on repetition¹⁷⁾.

If new information resembles information already residing in the symbolic territory then it is likely to be absorbed much more easily than if such resemblance does not exist. In other words, new information which is in some way consistent with information already acquired is also more likely to be acquired. This principle again accounts for both faulty and proper information.

4.3. Distinguishing faulty and proper information

The difference between faulty and proper information may be that faulty information is less tested and checked against than proper information is. Human beings who attempt to integrate proper information into their symbolic territories usually run a variety of checks. One possibility is to test how the new information operates in one's reality tunnel in comparison to the reality tunnels of other individuals. This is what influence psychologists call "social proof"¹⁸⁾, and not without various problems. If the reality tunnels of the other individuals are already faulty, chance is that the new information is also faulty but is integrated in spite of it. In most cases, new information is pseudo-checked for authenticity by checking the source of the information. If the source is reputable then it has a high probability of being proper. However, this method also has problems. Influence psychologists call this "proof by authority"¹⁹⁾, and the main problem is that authority can be easily forged. For example, the various "think tanks" that U.S. corporations sponsor so lavishly are organizations installed for the very purpose of feigning authority in fields of immediate corporate interests such as economics, financial theory etc.

The best measure may well be to just be aware that new information is about to enter your belief system. Awareness is that attitude that is most dreaded by professional propagandists because it has turned out to be the most effective weapon against outside influences. On the other hand, unawareness is the most deleterious attitude you can take. Various methods are known and widely used which slip new information — and usually not information that is in your interest — by your relaxed defenses. In this sense, unawareness is the best friend of faulty information, because any new information that comes to reside in your symbolic territory that has got there without much effort is likely to contract information that can enter your system in a similarly easy fashion. One example are pseudo-syllogisms

which look like logical conclusions already known in ancient Greece. The classical example for a proper syllogism is “Socrates is a man” (first condition) and “All men are mortal” (second condition) therefore “Socrates is mortal” (conclusion). An example for a pseudo-syllogism is “Most men in U.S. prisons are African Americans” (first condition) and “African Americans constitute the largest segment of welfare families” (second condition) therefore “Welfare promotes crime” (first conclusion) ergo “Abolish welfare” (second conclusion). I hastened to emphasize that I do not believe in the truth of the conclusions, and that I do not know for sure whether the conditions are true. However, the conditions of the pseudo-syllogism have the same ring of media sound bites which we encounter often enough. If someone were inclined to believe these two conditions for whatever reasons, s/he would be susceptible to accepting the conclusions if unaware. The first condition connotes “crime” via the word “prison”, while the second condition explicitly mentions the word “welfare”. Since both conditions also mention “African Americans” there are other possible conclusions of which most will be equally nonsensical as the made-up conclusions above. The first conclusion above relates crime to welfare feigning a cause-effect relation. The second conclusion exploits the automated consent that nobody sane would want crime, and if welfare happens to promote crime, it seems a logical conclusion that it must be abolished.

Pseudo-syllogisms occur more often than one wants to believe, and their danger lies in the mechanism they mimic, namely reasoning. They look like a chain of reasoned thought, but actually they make use of improper cause-effect relationships insofar as they relate the conditions in a manner that only looks logical. In this case, the new — but faulty — information is the conclusion and it is easily accepted because it relies on conditions that seem innocent and a process that seems rational. If caught unaware, conclusions of pseudo-syllogisms are likely to become integrated into your symbolic territory.

Two other highly dangerous psychological mechanisms are “commitment” and “consistency”²⁰. Commitment can be triggered simply by making a possible solution hard to achieve. If in a discussion — a dominance struggle over symbolic territories — consensus is achieved only with great difficulty, the probability that the agents engaged in the discussion will stick to the consensus reached is rather high. The rationalization is that if it took so much time and effort to finally reach the point of consensus, then the expended time and effort were not worthless, ergo the consensus reached is not worthless either. Nobody likes to expend his/er time for nothing, so it seems very rational to simply assume that they have been spent producing a viable result. The rationalization process itself utilizes the “consistency” mechanism. In their reality tunnels human beings usually have rather consistent self images. One aspect of a consistent self image is that one does not spend time and effort for nothing. So, if one has already spent time and effort, it could not have been for nothing, because that would not fit the self image of consistency one has. Concludingly, time and effort exerted have been properly invested. The consistency mechanism is employed to avoid “cognitive dissonance”. Cognitive dissonance occurs if different aspects of our self images are conflicting and thus not rendering a wholly consistent self image. Human beings are then prone to alter one or more of the respective aspects of their self images to again achieve a consistent self image.

These two mechanisms are employed very stealthily and are therefore doubly dangerous. They often work hand in hand and are not easily checked. They force us to change information in our symbolic territories duping us into thinking we changed our opinions by our free will.

4.4. Mind sickness

The above-said confirms the initial assumption that stupidity is easy to acquire but hard to root out. Stupidity also contracts stupidity more readily than knowledge contracts knowledge. The main reason is that you do not have to do anything to contract stupidity, but you have to do a lot to contract knowledge. Stupidity utilizes information that already resides in the symbolic territory; in other words, faulty information enters the nervous system by attaching itself to preexisting information for which connections between neurons have already established. This may be proper as well as faulty information. However, faulty information attracts other faulty information that is sufficiently similar to be able to be incorporated without too much reprogramming. Proper information is not immune against stupidity contraction as the above-mentioned example of the pseudo-syllogism has shown. However, proper information is usually acquired in a much more aware state of mind than faulty information. The reason that proper information is usually acquired in awareness is that new information sometimes needs to establish completely new connection between neurons. This takes a deliberate effort which can only be made when sufficiently aware.

The principle that faulty information contracts other faulty information translates itself into the level of personal interaction. I have mentioned that stupidity can be understood as the contraction of reality tunnels. Since it is reality tunnels that come in contact during personal interaction, the degree to which a reality tunnel is already contracted determines the degree of available interaction options. The more contracted a reality tunnel is the more it will tend to dominate the outcome of personal interaction. According to Timothy Leary, the sicker individual determines the relationship when two individuals interact²¹). Sickness in Leary's terms means that an individual has — for various reasons that need not be specified here — specialized in techniques that provoke similar responses with different interaction partners. In other words: a sick individual has contracted his/er reality tunnel with the result to create similar interaction patterns with other individuals — and as a result with the same interaction outcomes. Contracted reality tunnels thus can be equated with sickness. So, clinically speaking stupidity is contagious.

5. Education

There exists a form of human organization that boasts eradication of stupidity. This endeavor is called “education” and it is institutionalized in schools and universities. High hopes ride on these institutions, hopes that have not fully been realized yet. After the elaborations made above I believe the reader knows what line of argument is about to follow.

Education does not teach people what the world is but rather how to view it. Put differently, education is the attempt to align personal reality tunnels. Since this is done mainly by language and by non-limbic content in particular, education consists of creating similar symbolic territories for individuals by manipulating these symbolic territories with the result that the reality tunnels of these individuals become also similar.

The problem, however, is that education is not communication in the strict sense of the word, because information is not freely shared between teacher and pupils. Rather, the pupils have to adopt the reality tunnel of the teacher, which means that the symbolic territories of pupils are systematically invaded. The

situation in a classroom equals a social territory in which the teacher constitutes a higher caste and the pupils a lower caste. Aside from miscommunication in hierarchically ordered organizations, flow of information in the classroom is perhaps the classic case of miscommunication from lower caste to higher caste. Everything I said about assumptions and expectations on intelligence also applies in this scenario. There may be two exculpatory differences: usually teachers do not withhold information and they are certainly not out to constrict their pupils' reality tunnels — at least not knowingly. Unarguably though, pupils try to communicate to the teacher what the teacher wants to hear.

Recent studies involving the new field of memetics seem to show that most knowledge that children acquire does not travel along generational paths, i.e. a child does not acquire most of what s/he learns from his/er parents²²⁾. It rather seems to be the case that most ideas that children are confronted with generate with their peers.

In some Western countries this fact has already been acknowledged and new classroom situations have been adopted accordingly. Rather than letting the teacher transmit knowledge to the pupils, the pupils are given the opportunity to work on a problem in groups. This has the effect that the gained insights and the acquired knowledge are peer-generated and thus more effectively entered into the pupil's symbolic territories. Since this method of indirect teaching also requires the pupils to argue they learn to propose and defend ideas without making too invasive intrusions into other pupils' symbolic territories. Since other pupils are considered as peers, communication is conducted among equals which is the only form in which communication can work.

This way of teaching is a good example how forms of human organization should be restructured. The teaching method above employs the strength of a non-hierarchical form of organization. The classical classroom caste hierarchy of teacher/pupil is avoided in order to acquire more knowledge in a shorter time, faster, and for a longer period of time. The teacher rather stays in the background and acts as an advisor not as an intruder. This is what may be called "wú-wéi" or "Taoist" teaching.

Not everybody has yet caught on to this new reality tunnel of education. According to the latest PISA-study²³⁾ German 15 year olds display a functional illiteracy rate of more than 20%. The reason — in terms couched in this paper — is that the complicated German school system creates castes among pupils. This seems to have a most deleterious effect on learning and may be the main reason why standards of learning and knowledge among German pupils are so disparate. On the other hand, Japanese 15 year olds scored rather high in the same study which — frankly — took me by surprise. From personal experience I have to say that young Japanese entering the university display less intelligence and general knowledge than should be expected after 12 years of education. The Japanese school system does only indirectly create castes by ranking schools differently, but it does not create castes within one type of school. Quite the opposite, most Japanese schools demand school uniforms. Uniforms are a standard propagandistic technique of reducing caste consciousness among its members but increasing it with respect to non-members. The fact that most Japanese pupils regularly visit prep schools is probably most indicative of what is not done in Japanese schools: learning. That miscommunication between teachers and pupils is the rule in Japanese schools is indicated by the almost complete inaptitude of Japanese pupils to communicate in class and with a university teacher.

6. Counteraction

One of the conclusions to be drawn from what I elaborated in this paper so far is that human beings have to radically change the way social organizations are structured. For different symbolic territories and thus different reality tunnels to work smoothly together organizational forms are required that display at best no social hierarchy whatsoever. This will best ensure free flow of information within a group of people.

6.1. Eradicating hierarchies

One way to achieve this goal is to levy a new tax: the anti-hierarchy tax. According to the number of hierarchy levels displayed by any organization the tax will be set. If there are two different castes, 10% of income will be levied; if there are three different castes it will be 20% and so on. This should apply to any organization even if it should be non-profit. Whether an organization is non-profit or profit oriented does not make any difference for how people's reality tunnels are affected by the social order imposed.

Ultimately, this will mean that churches, political parties, and other Paleolithic forms of organization will come under pressure to give up their hierarchical social structures modeled after their alpha males' reality tunnels. The question, in fact, is whether something such as a political party is necessary at all. Technologically, human beings are now at a stage where polling could be conducted by Internet or cell phone²⁴). There is of course the necessity for a caste of public clerks who implement the decisions made by the public. This caste should be modeled after religious orders, i.e. s/he who decides to become a public clerk forfeits his/er right to vote in order not to corrupt the implementation process. Another, even more republican way of dealing with policy implementation would be by random appointment while voting rights during tenure are withheld.

Such a type of democracy will also ensure that tax revenue is properly spent. If human beings have a direct opportunity to influence policy decisions they will recognize the necessity of a good education. Education is the main sector in which public resources must be invested. The perverse fact²⁵) that the State of California spends more money on its penitentiaries than on its schooling is telling in itself and does not require comment. It is self-evident that this is not the right way.

6.2. Eradicating currency-based economies

Perhaps the most troubling sector is the economy²⁶). The economic power elite — in particular in the U.S.A. — has invested enormous amounts of capital to shift the public opinion to a mercantile reality tunnel furtively couched in terms of "the free market". This attempt has largely been successful even though voices of protest can be heard coming from globalization critics. The prevailing economic reality tunnel is so deeply entrenched that every attempt to disguise it as just one of a multitude of possible reality tunnels endangers one's social credibility. However, all human reality tunnels critically depend on what information is contained in respective symbolic territories. Since symbolic territories can be changed, reality tunnels can be changed accordingly. I give one example how our present economic-symbolic territories influences our reality tunnels: if you buy a new car, the exact moment you sign the contract the car's worth diminishes even though you might not even have driven it out of the dealer's

yard yet. A commodity's worth — here: the car's — decreases by economic default as soon as its legal proprietor changes. I dare to doubt that the same principle would apply in an economic-symbolic territory which is not currency-based. In a barter-economy, the car's worth is not defined by how many proprietors it had, but by the degree to which a customer would think of needing the car. If s/he needed the car very much then s/he would be likely to give more in return than if s/he did not need it so much.

As a result, the prevailing economic-symbolic territory may be diagnosed as faulty because it contains the faulty assumption that the worth of commodities and services is currency. The proper information would be that the worth of commodities and services relates to other commodities and services. In other words, the worth of commodities and services is what other commodities or services you can get for them in a specific market situation. Currency was useful as long as it acted as a kind of abbreviating tool, so that you did not have to lug around your chicken when you wanted to buy a pair of boots. The problem, however, is that at some stage somebody's economic-symbolic territory changed the “≠” in “map ≠ depiction of the map” to “=”.

A further problem is that currency is a symbol of the state which can — for all practical purposes — not be influenced by a normal citizen. The only entities that have influence on currency policy are big corporations with enough clout to influence respective institutions. Currency is therefore less an economic symbol but mainly a power symbol.

One interesting point that occurs when a currency-based economy ceases to exist is that taxes can be levied in form of commodities and services. If an organization is taxed according to the number of its castes, the tax would be “paid” in terms of commodities free of charge — for the needy — and/or free services — such as for instance driving a school bus once a month. This also means that a state organization cannot misappropriate funds and use them against the intention of the public — which is what happens right now all over the world with your taxes.

6.3. Eradicating nations states

This brings us to our final topic: nation states. Nation states are of course a geographic-symbolic extension of the physical territory reality tunnel. Other than island nations such as Island or Japan, the borders of continental nation states are defined by convention. Convention is symbolic action, thus referring to the symbolic territory. Whether German territory ends at the Rhine and the Oder was caused by human beings changing information in their respective symbolic territories. In only a very ephemeral way has anything changed in the actual geography. Stop-signs east of the Oder are now in Polish, and west of the Rhine they are in French. No course of a river has been changed, nor the location of a hill, village or forest.

Nation states are very complex metaphors how human beings perceive their physical territory. But historically and anthropologically, the concept of nation state harks back to times when one individual or a caste of individuals started to generalize their personal physical and social territories to a tribal reality tunnel. This conversion of a personal reality tunnel to a “feudal” reality tunnel usually happened under force. Whether this force was military or ideological power is rather irrelevant. Both means can be — and still are — used to create or influence feudal reality tunnels. Since the willful creation or change of reality tunnels includes the insertion of faulty information into personal reality tunnels, this act constitutes the willful contraction of reality tunnels, i.e. it creates stupidity. Stupidity limits

interactive options which is something not desirable. The mere fact of existence of the concept of nation state within a collective or personal reality tunnel is based on stupidity and thus contributes to disorder — although of course the opposite is desired.

Nation states have also caused the most suffering experienced by mankind. War is the logical extension of an exaggerated territorial instinct, and I think it is no overstatement to say that war is the most violent and lethal form of disorder. This is further proof of my central assumption in this paper that the exaggerated attempt to create order ultimately results in pronounced disorder. Nation states are obviously social organizations — with an overt hierarchical structure — that are designed only for the purpose of establishing order. The “Tao Te King” written by Laotse almost 3000 years ago says unequivocally that exaggerated meddling in the affairs of the people ultimately leads to the downfall of the state. This is a lesson that many of us have not yet learnt.

7. Conclusion

Human beings have a long biological history which means that any changes that must be made cannot be made overnight. Changes must be subtle but effective and ultimately directed at decreasing the survival value of any territorial instincts. As long as increased aggression potentials are rewarded by increased opportunities of procreation — the proliferation of genes — or dissemination — the proliferation of ideas — progress will remain elusive. Human beings now inhabit increasingly dense habitats where many evolved behaviors — in particular the territorial behaviors addressed in this paper — are counter effective to the physical and mental health of the species. In other words: if we continue to do as we did the survival of the whole human species is at risk.

I think there are many ways how this can be achieved or at least tackled, and I have made several suggestions above of which not all are equally practicable at this stage. To repeat the most important two of them: vertical social structures must be reengineered to contain the least possible number of castes, and the education system must be reformed to emphasize learning through self-experience, self-detection, self-determination, and communication and personal interaction between equals with a minimum of interference by educators.

And every one of us must learn to less trust any attempts of creating unnecessary order where it will only lead to increased disorder. Remember: the attempt to create unnecessary order necessarily leads to the creation of disorder. The increased perception of disorder fatally leads to contracted reality tunnels. The contraction of reality tunnels is stupidity. Stupidity limits interaction options. And decreased interaction options constitute sickness. I believe there is no need for humans to be sick when they can be healthy instead.

It is a fact of our biological history that we act according to behavior patterns hard-wired into our nervous systems throughout eons of evolution. However, we have reached the stage from where we can see and understand on which principles our perceptions, i.e. reality tunnels, work. The environment has changed in which these principles, in particular territorial and social behavior, have evolved as an adaptive solution to a challenge in this environment. The parameters have changed, and accordingly, our adapted behavior is not fit enough to perform in our new environments. This, we do not have to accept as fate. As a species capable of self-determination, human beings can change the way they live

— and thus themselves.

Endnotes :

- 1) See Pope (2000) for the distinction between limbic and non-limbic communication. On evolution of language in general see Pinker & Bloom (1990) and Pinker (1994).
- 2) See again Pope (2000) on human brain activities differing to sex.
- 3) That communication is to a large extent Machiavellian in nature is illustrated in Gross (2001).
- 4) For the term “reality tunnel” see Korzybski (1995⁵) and Wilson (2000⁵).
- 5) Cialdini (2001⁴) gives a formidable overview about these mechanisms. I will later go into more detail. Pratkanis & Aronson (2001) also provide a wealth of interesting facts.
- 6) See again Korzybski (1995⁵). Wilson (2000⁵) gives other metaphors such as “the menu is not the meal”. See also Bandler & Grinder (1975, 7).
- 7) For more clarification visit <http://www.huppi.com/kangaroo/L-creationscience.htm>.
- 8) On my preferred notions of theory of evolution see Dawkins (1989) and Dawkins (1999).
- 9) Cf. Ridley (1996).
- 10) See Spindler (2001) on a variety of linguistic techniques besides leading questions.
- 11) Hagbard Celine is a fictitious character from Robert A. Wilson’s famous trilogy “Illuminatus”. In Wilson (1980), Wilson has a more confined notion of what I call the fatal feedback loop and regard as a much more general principle.
- 12) I owe this term to Wilson (2000⁵).
- 13) Cf. again Wilson (1980).
- 14) Cf. Klein (1999) who goes into much detail on how the increase of temp workers changes company loyalty.
- 15) Cf. Spindler (2001) on “double binds”.
- 16) I owe this insight again to Wilson (1980).
- 17) Cf. Spindler (2001).
- 18) Cf. Cialdini (2001⁴).
- 19) Cf. Cialdini (2001⁴).
- 20) Cf. Cialdini (2001⁴).
- 21) Cf. Leary (2000). However, this insight is much older and goes back to Leary’s research in personality psychology during the late 1950’s.
- 22) Cf. Aunger (2000). Memetics tries to define itself in a parallel way to evolution genetics. The problem, however, is that genes are transmitted from the parent generation to the filial generation, while memes — the cultural genes — proliferate also horizontally, i.e. within one generation.
- 23) Visit <http://www.pisa.oecd.org/>.
- 24) After the inception of modern democracy England again seems to be the first to try new approaches.
- 25) Cf. Parenti (1999) on this and more shocking facts on the US penitentiary system.
- 26) See Fuller & Zung (2000) for various different approaches in this area.

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