THE COMPASSIONATE BRAIN

HOW EMPATHY

CREATES

INTELLIGENCE

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this stage inevitably comes to see himself as limited in the freedom of action he previously thought he enjoyed. From then on, in order to get better at assessing the unintentional consequences of his actions, such a person must work with ever greater care and circumspection. There are people who consider themselves "big shots," who will not tolerate such limitations on their freedom of action and who therefore choose to remain standing on the first rung of the ladder of knowledge. It is not unusual for such people to cause considerable harm through their one-sided, goal-oriented actions.

All others, once they have noted the unintended consequences of actions of theirs, have to ask themselves if they want to continue behaving as they have. Such people are now on the third and highest rung of the ladder of knowledge, the rung of self-knowledge.

This rung is most easily reached by those who have had occasion early on in their lives to take notice of the effects of their outward-oriented actions on themselves, on their bodies, and on their brains. Most of these people understand fairly soon that everything one does leaves a trace—including in oneself. This is both a painful and a wholesome cognition, one that only a human brain is capable of.

5.4 On the Ladder of Consciousness

In recent years scientists in the field of brain research have been providing more and more compelling evidence that all our behavior, our highest rational functions as well as our emotional reactions, are based on certain neuronal processing activities that go on in

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our brains. Highly complex activities such as perception, memory, planning, decision making, and even intuitive feeling and evaluation depend on an equally complex foundation that is at once tremendously intricately networked, yet material. This holds true also for the all-important attainment that is generally held to distinguish human beings from animals: consciousness.

By consciousness we mean the ability to be aware of our own feelings and perceptions, our "being-in-the-world." Here the primary processing activities on which the brain's functions depend themselves become the object of cognitive processes, and the results of this meta-analysis are represented once again on a higher level. In order to develop consciousness, the brain must be able, so to speak, to observe itself. By building up meta-levels on which internal processes are reflected and analyzed, a brain can arrive at the point of being conscious of its own perceptions and intentions. It can grasp the state of what it has become and its role and place in the world. This ability has been developed to different degrees by different people. What level of consciousness a particular person can reach is inextricably bound up with how high he has been able to climb in the course of his life on the ladders of perception, feeling, and knowledge.

Typically, both on the level of human history as a whole and on the level of the personal history of any individual, the ladder of consciousness begins with the appearance, out of a dreamlike state of concrete identity with the life of the body, of a small kernel of inner experience that grows and becomes progressively clearer and more autonomous. With the emergence of this experience the primal stage of mythical consciousness is left behind. Through a proc-

ess of step-by-step detachment from an original close bond with nature (the natural environment, early caregivers) arises both the possibility and the necessity of thinking about oneself. The emergence of this individual consciousness is at the same time an awakening out of a paradisiacal feeling of unity with the world. At this stage, a person begins to see himself as an autonomous, free, independently deciding and evaluating ego.

This process of transition is a difficult one that has yet to reach its end point in many cultures even today. There are always certain individuals who are the first to make the leap from the primal collective mythical stage of consciousness to the level of ego-related (self-) consciousness. Cultural and intellectual-historical evidence tells us that this transformation of consciousness began in the so-called Western cultural world about six thousand years ago. The first clear expression of it comes in the Gilgamesh epic, the tale of the heroic deeds and the personal life of the king of Uruk, written more than three thousand years ago. It took until the beginning of the Enlightenment for enough people to reach this stage of consciousness of their own egos so that this could become the basis of the prevailing (average) consciousness in the cultural world of the West.

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As this ego-oriented (self-) consciousness became more and more widespread among the population, the period of time during which children could remain on the level of mythical consciousness decreased. For many of today's children, a slow and gradual onset of the process of becoming conscious of their own ego and their role and place in the world is a thing of the past. A growing number of children now quickly develop a kind of pseudoautonomous self-

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centeredness that, in its many and varied manifestations, has come to represent a serious threat to the stability of Western society.

This errant development makes it clear how important it is for a person for a consciousness of his own to grow and mature gradually in and from himself. When a person has a certain view of himself and his place in the world forced or imposed on him by the circumstances in which he grows up, various attitudes and convictions arise, but no real consciousness of his own develops. It is true that with these attitudes and convictions he can live and deal with the world, but he will be unable to take full advantage of the potential of his human brain, that is, to become conscious of himself, of the state of what he has become, and of his "being-in-the-world."

Worse still, a person who passes through the phase of mythical consciousness in only a very abbreviated and one-dimensional manner will subsequently barely be able to develop from within himself an autonomous, self-reflecting ego consciousness at all. Without such a consciousness of his own, he will remain pretty much imprisoned by (and dependent upon) ideas that he has taken over from other people in an unconscious and unreflective manner. In relation to our metaphor of the ladder of consciousness, he will more or less fall off all the rungs. He will be programmed by others and thus will be subject to their manipulation.

It will be much the same for people who grow up in a cultural and psychological environment that prevents them from discovering their own ego. In many languages—Chinese, for example—there is no word at all for what we, entirely as a matter of course, call "I." In such cases, the individual can only describe and understand himself by representing his relationship to others. What can all too

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easily come about in such circumstances is an unreflective, collective consciousness that hinders the individual as well as his egoconsciousness from developing their potential.

Despite the strong forces at work to canalize the thinking of members of a community in one direction or another, a certain number of individuals have always succeeded in freeing themselves from the concrete circumstantial pressure of prevailing opinions and attitudes and managed to develop a general, all-encompassing conception of humanity and its place in the world. This is what is called transcendence, and the level of consciousness attained by it is transcendent (or transpersonal, or cosmic) consciousness. At the present time it is hard to imagine that at some point all human beings will reach this highest level of consciousness. But the fact that it has been attained again and again by individuals already makes it clear in principle that a human brain—and only a human brain—is capable of it.

5.5 Practical Advice

Having established the only direction a human brain can really take on the ladders of perception, feeling, knowledge, and consciousness, two practical questions remain open.

The first is: Why should a person take the trouble to embark on this difficult path? Why should he sharpen his senses and try to perceive changes in his outer and inner worlds as sensitively and precisely as possible? Why should he develop the capacity to put himself in the place of other people and to empathize with their

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feelings? Why should he try to know himself and ultimately even to become conscious of what is taking place in himself, conscious of who he is and how he has become what he is?

The answer to this first question is simple. If you take a difficult path, you begin to use your brain in a significantly more complex, multifaceted, and intensive fashion than somebody who complacently remains until his last gasp where he has either ended up accidentally or been dumped by the push and pull of circumstances. The type and intensity of brain use determines how many connections are built up among the billions of nerve cells in it, what patterns of neuronal connectivity become stabilized there, and in how complex a fashion these neuronal connective patterns interconnect with each other. Thus in making a decision about how and for what purposes you are going to use your brain, you are also making a decision about what kind of brain you are going to end up with. This may be an unpleasant and uncomfortable realization, but that is simply the way the brain works. We didn't come to have brains capable of lifelong learning just so that we could set ourselves up comfortably in life. We possess them rather, so that with their help, we can take steps on the path of development, not only at the beginning of our lives, but throughout them. Of course we are always free to choose to stay where we are at any given point, and from that point on to use only the neuronal circuits that have already been established in our brain. But the more frequently we use these circuits in the same old way, the better and more efficiently set up and worn in they become, and so that the choice to just stay as we are could very well end up being the last free decision we ever make in our lives. Once we have gone ahead and



successfully programmed our brains for a very specific kind of use, then as long as nothing else intervenes, the rest runs by itself, to the very end. By then, the chance to put in place program-opening structures, the chance for the comprehensive use and complex configuration proper to a human brain, has passed us by.

If you do not want to stay stuck in your well-worn ruts of perception, feeling, and knowledge and thus lose your freedom, you have to choose the hard path and try—rung by rung on the ladders of perception, feeling, knowledge, and consciousness—to come closer to that which distinguishes a human brain from all others: the ability to keep calling itself into question, again and again.

This brings us to the second practical question. How does one achieve this ability and how does one hold onto it? Certainly not, as has been suggested in the media lately in such glowing terms (claiming to represent the latest findings of brain research), by occasionally going down the stairs with your eyes closed, smelling a flower, or surprising your colleagues with a new behavior pattern or a novel hairstyle. Just deciding from time to time to do something you ordinarily do not do does not bring about changes in the neuronal circuits in your brain. To really change the circuits, we must create conditions that will not only make it possible but actually urgently necessary to perceive more of what is going on around us, to feel these perceptions more thoroughly and deeply, to evaluate them in a more complex fashion, and above all, to think about them more carefully before we decide to do one thing and drop something else.

There are only two routes we can take to bring about these kinds of conditions, one comfortable and one uncomfortable. The comfort-

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able route is the one we are already familiar with, the one regarding which we have already had the opportunity to accumulate a rich store of experience in the course of our development thus far. This is the path on which we simply just try to keep going, with all our mistakes and limitations. Unfortunately, as time goes along this path gets more and more tiresome, until we finally get completely hung up in the tangle of all the problems our limited approach creates. Only when it becomes impossible to keep going along on this path just as we have been doing, do we finally reach the insight that the way we have been using our brain has failed us. To call ourselves into question in this way is not only quite painful but also quite dangerous, especially if we have taken other people along with us on this path, and on top of that, if it has seemed to us for a long time that we were making really good progress on it. Success makes us blind, and communal success all too easily also blinds the people who are really the most open and see the best. Those people are the children who grow up in the community. With the help of their enormously flexible and learning-capable brains, they are in an excellent position to take over all the capabilities and skills, ideas and convictions of the people they grow up among. Of course, they most readily adopt whatever of all this seems the most critical to them for dealing with their lives. The more successfully the parental generation has progressed along a particular path by using a particular strategy, the more likely it is that their children will not only follow them on this path, but that later as adults they will lay out this path more efficiently and tread it with even greater resolve.

And since the more exclusively you concentrate on a specific goal, the better progress you make toward achieving it, these off-

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spring will tend, even more than their parents did, to push away, not to perceive, or to suppress anything they take to be useless or cumbersome in achieving this goal as quickly and directly as possible.

Whatever the goal might be-assertion of personal interests; attainment of power and influence, of fame and recognition; the dominance of one's own tribe, people, or nation; the spread of a particular faith; the achievement of a political ideal; or the realization of a crazy idea—the results of these efforts is always the same, the path just varies in length. The more thoughtlessly a particular goal is pursued, the sooner one gets caught up in the tangle of problems that result from one's own shortsightedness and inattention. And if these consequences do not catch up with the fathers, they will catch up with their sons or grandsons. Sooner or later people will have to face the mess and ask themselves what has been the matter with the way they have been using their brains. In any case, they have become richer by one more experience. And through this, whether they wanted to or not, they have come one step closer to the second path, which begins where the first, the initially seemingly easy and comfortable one, so painfully endedwith the ability to call oneself and the way one has been using one's brain into question once more.

No one sets out on the other, more demanding path voluntarily. A person must feel compelled. And this path can only be entered upon if a person continually retests his behavioral patterns and attitudes toward himself and everything around him. The best approach is for the person to ask if what he considers truly important really is so important.

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Once behavioral patterns and attitudes have taken us over, we are no more conscious of them than we are of the power they exercise over us in forcing us to use our brains in a particular way. Inattention, for example, is a behavioral pattern that does not require much in the way of "brains." If a person manages to be more attentive and careful, then, she will automatically put more "brains" into whatever she perceives, into whatever she associates with her perceptions (what she activates in the brain in connection with them), and into whatever she includes in her decision-making process than somebody who just keeps relating with himself and the things around him in a superficial and heedless manner. Thus attention—care—is a highly essential factor in the service and maintenance of a human brain.

What attention and care can achieve in terms of the fundamental expansion of brain use on the level of perception and psychological processing can be achieved on the level of the neuronal connections that are responsible for our decisions and behavior through an attitude that we call gentleness. Through a lack of gentleness, that is to say, thoughtlessness and inattention, a given goal can be achieved in a hurry. However, complex neuronal circuits are not needed for this approach. Such an approach neither uses nor firmly establishes any.

If one begins to think what basic attitudes one must adopt in order to use one's brain in a more comprehensive, more complex, and more highly networked fashion, a whole series of concepts come to mind, many of which have almost begun to disappear from our current vocabulary: sensibleness, uprightness, humility, prudence, truthfulness, reliability, courtesy. All these are basic attitudes





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that were regarded as worth aspiring to in times when brain researchers did not yet exist—(to say nothing of complicated picture-producing technologies like computer-aided positron emission tomography, with whose help nowadays we can compare the brains of an attentive and an inattentive person and demonstrate the differences that result from the different ways they have been used).

A person can no more develop these attitudes all by herself than she can learn to speak a particular language or to read or write a book all alone. For these things, she needs other people who can read and write who can demonstrate these skills. And what is still more important, she has to have a close emotional relationship with these people. They have to be important to her-just as they are, with everything they can do and know and also everything they cannot do and do not know. She has to like them not because they are especially good-looking or rich people, but because they are as they are. Children can be open to other people in this way and love them without reserve, just for themselves. For this reason children most easily take on the attitudes and speech of the people they love. And sometimes adults too can relate to each other just as unreservedly and selflessly as children do. Love creates a feeling of connectedness and solidarity that transcends the person loved. It is a feeling that keeps spreading outward until in the end it includes everything that brought us-and all the people we love-into the world and holds us here. A person who loves in this expansive way, without reserve, feels connected with all things, and everything that is around him is important to him. He loves life and takes pleasure in the multiplicity and colorfulness of this world. He enjoys the

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beauty of a meadow glistening with morning dew as well as a poem that describes it or a song that sings it. He feels a deep awe before everything that lives and that life brings forth, and he is sorely moved when any part of this is destroyed. He is curious about what there is to discover in this world, but it would never occur to him to take it apart out of pure greed for knowledge. He is grateful for what nature has given him. He can accept it, but he does not wish to possess it. All he needs are other people with whom he can share his perceptions, his feelings, his experiences, and his knowledge. A person who wishes to use his brain in the most comprehensive manner must learn to love.