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WHAT TO DO IN CASE OF MALFUNCTION

In the case of a mole's brain, we recognize a malfunction when the brain no longer does what it has to do for the mole to lead a proper mole's life. When the mole no longer knows where it should burrow, when it loses his way in its tunnels and even begins to confuse repugnant-tasting roots with edible earthworms—and at such a point it is not helped by anyone—the mole is lost.

People are not moles. When something goes wrong with their brains, usually somebody comes along who tries to help them. People are most easily drawn to offer this kind of assistance in cases where the malfunction is quite pronounced, especially if it is life threatening. But finding help turns out to be a lot harder if the malfunction in question is only a so-called partial-performance deficit. These are malfunctions that create a situation where one can still do a great deal but can no longer do certain things, so

they are disturbances in which the brain is still functioning almost normally. Even in cases like these, a person can usually find somebody to help. However, finding help is hardest of all for people whose brain is still functioning quite normally but who are leading a life that is anything but human. This has been the case in the past for people who spent their lives as Roman slave dealers in Egypt, Spanish plunderers of the native peoples of Peru, or scalp collectors among the Indians of North America. Things were no better for people in the more recent past who put their brains to work as Nazi thugs in Auschwitz, poison-gas manufacturers in the town of Leverkusen, or mercenaries in the jungles of Vietnam. And of course this also applies even today to people who are using their brains as arms dealers, child molesters, environmental polluters, speculators, liars, fencers of stolen goods, and cheaters. Anybody who constantly uses his brain to achieve his own interests at the expense of other people—and is thus feeling, thinking, and behaving in anything but a human fashion—finds getting somebody to help him lead a more human life extremely difficult. For him, things are not really that much different than they are for a mole with a malfunctioning mole's brain.

In spite of this, such people remain alive and often even live longer than people who have human brains and who for that reason persist in using them in a human fashion. This is hard to understand. Either somebody is helping these people to survive, or what we call human being is not a biological appellation for a definite species that has reached a definable and stable stage in its development. Both of these are true. The process of becoming human has still not reached its conclusion, and we have obviously far from fully

exhausted the possibilities for the development and application of our brains. We are still en route, already half human and still half animal; we remain undetermined, we are still searching. For this reason, we are also ready to accept as human and take on as companions anybody who looks like we do and who possesses a brain that in principle ought to be just as capable of learning as ours.

We can only really take on other people as companions if we know what path we want to travel together. Once we have decided to follow the path that leads toward greater humanity, we can try to approach this goal through common effort. That is the point at which it really makes sense to come to grips with those malfunctions that prevent an otherwise normal brain from being used as a human brain. At that point it is important to be able to recognize this kind of malfunction as early as possible, with the first signs and symptoms. Becoming human is an extraordinarily complicated and therefore very fragile process, in the course of which we continually run the risk that a distortion of the process resulting from malfunction will be declared normal. At that point, of course, the question of where we should be going ceases to apply.

6.1 User Errors

Not all who think they see something have their eyes open; and not all who look about know what is happening around them and with themselves. Some only begin to see when there is nothing left to see anymore. Only after they have already brought their house and home down around them do they start to become

USER ERRORS

sensible people. Seeing how things are too late brings no remedy, only sorrow.

—BALTASAR GRACIÁN

We do not owe this advice concerning a very frequent error that can be made in the use of the brain to modern brain research. It dates from the seventeenth century and appears in the Oraculo manual, a text composed by the Jesuit priest Baltasar Gracián (1601-1658) as a kind of handbook or mirror of self-knowledge. Along with shortsightedness and blindness, Gracián describes in this book a host of other user's errors, which in general lead to a failure to benefit fully from the many-sided potential that exists for the use of the human brain. These errors include complacency, arrogance, indolence, superficiality, bias and narrow-mindedness, thoughtlessness, and (yet again) inattention.

If you look around today, you can plainly see that Gracián's advice has not been put to much use. This also holds true for the insights of other wise guides who have held up before our eyes the limitations of human perception and thought, making use of more or less witty, cryptic, or sometimes, cynical images to do so. We look at these books, are amused by the shortsightedness and folly people manifest in the use of their brains, but then we do no more than blithely gloat over the simplemindedness and stupidity of others. The moment it comes down to seeing our own limitations in these images, the entertainment quickly ends. The better polished the mirror of self-knowledge is and the more clearly and undeniably it reflects the errors we make in the use of our own brains, the sooner we lose our desire to keep looking at ourselves in it.

That which is obvious is not always easy to understand. This is especially true regarding the really important things in life. A thing only really becomes important to a person when he himself is personally touched by it and it makes him feel a sense of deep personal concern. Deep personal concern always arises when a person has to acknowledge having made a mistake. It is a profoundly unpleasant feeling because it calls into question and challenges the way we have been thinking, feeling, and behaving. It not only forces us to look at ourselves but also forces us to change. And the less willing we are to change, the less able we are to comprehend the mistakes we have been making in the use of our brains, as obvious as they might be. For this reason, most people, operating with ego-centered, shortsighted, one-sided, superficial, and thoughtless strategies, have to experience failure or breakdown on some level before they can get a look at themselves and understand the mistakes they have been making. "Only after they have already brought house and home down around them do they start to become sensible people," said Gracián. And he also noticed that: "Many recast an unsuccessful enterprise as a moral duty; having taken the wrong path, they see it as strength of character to keep going on it."

But there has been a great and significant change since Gracián's time. In his days it was mostly individuals who brought house and home—and sometimes whole principalities and kingdoms—down around their heads as consequences of their limitations. In our times, however, a multitude of individuals has turned into an anonymous mass entity, and the many individuals comprising this mass entity, now endowed with collective blindness, are in the process of bringing the house and home of all of us down around our

heads—on a global scale. They foul the air; alter the climate; pollute rivers, lakes, and seas; destroy the natural habitat; and squander the earth's resources. They stand by and watch as more and more people lose the basic underpinnings of existence, as the rich variety of natural life forms and human cultures dwindles, as rainforests are cut down, oceans are fished out, and fertile lands are turned into desert. They see all this plainly. Newspapers and television parade it before their eyes on a daily basis. But somehow they do not really feel a sense of deep personal concern about it. And as long as all these people manage to ward off and suppress the feeling of deep personal concern, they can and will go on behaving as they have, using their brains in the same old way.

Anybody can make a mistake. In fact we cannot avoid making mistakes again and again. Only by doing something wrong can we learn how to do it right. A person who made no errors in the use of his brain would not be able to change. He would be like one of those robots that are optimally programmed to perform specific tasks but is incapable of further development. But a person who keeps managing to suppress the feeling of deep personal concern regarding his mistakes, and who is able to stave off all doubts concerning the rightness of his thinking and behavior, at the same time robs himself of his chance to learn. He loses the ability to correct his mistakes, to change, to develop further. He becomes more and more like a lifeless and unfeeling robot. Thus he has lost precisely that which characterizes a brain as human—the ability to step out of well worn ruts, to undo already existing programming. Consequently, suppressing and resisting the feeling of deep personal concern is the only real error a user can make in using his brain.

The problem with thinking

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Parson of n A person can be too shortsighted in his thinking, too narrow in his perceptions, and make inattentive, superficial, complacent, narrow-minded, thoughtless, and otherwise limited use of his brain. However, as long as he is still capable, in the face of all these errors and inadequacies, of developing a feeling of deep personal concern and self-doubt, he is also still capable of changing. However, if he successfully manages to keep suppressing this feeling, he can and will continue to use his brain as before, until he has pulled house and home down around his head.

> The insidious part of this user's error is the fact that deep personal concern and self-doubt are extremely unpleasant feelings. No one happily and willingly calls himself into question in this way. A person will all too readily grasp at every chance that comes up to stave off this kind of insecurity. This work of suppression goes best if he can submerge himself in an anonymous mass composed of many other people, whose desires, hopes, and fears he can share. On top of this, since time immemorial, the desires, hopes, and fears of these many other individual people have proved to be wonderful things to exploit in achieving one's own personal ends. There have always been individuals who have seen this possibility with particular clarity and taken advantage of it skillfully to achieve security, stability, power, influence, wealth, and prestige for themselves. People who are successful with this strategy have the least reason to doubt the rightness of their thinking and behavior or to feel deep personal concern—even in those cases where the way in which they have achieved their success really ought to trigger precisely that.

> Deep personal concern can be really well suppressed if a person is able to set a very high value on himself, his goals, and his ideas,

and to regard himself as more important, more on the mark, and on the whole just generally superior to other people who have different goals, attitudes, and convictions. The more like-minded people he can find, the easier this is for him. When these like-minded people add up to a very large number, it is only a matter of time before the other "inferior" people are declared the common foe of the nation and are persecuted and killed. This is done with conviction, without any individual sense of deep personal concern, and without any doubt as to the correctness of one's own behavior. For deep personal concern can only be felt by a person when he destroys something or sees something destroyed that is important to himself. And something can only be important to a person if he feels a sense of close connection to (it. Otherwise it leaves him cold.)

It takes no great art to use and influence the human brain in such a way that it eventually loses the capacity to arouse or let in a feeling like deep personal concern. In the second half of the last century, we learned to master this art, to the extent that it is one, and transmit it to our children as never before in the whole history of humanity. The basic approach is quite simple: All that has to be done is to ensure that nothing else is really important to a person besides living the most comfortable life possible. For this to work, the person must be prevented from developing close bonds with other people, with his home, with nature, and with everything that surrounds him. He must not put down any fixed roots and he must not notice the fact that with his clipped wings he can no longer fly. He must be kept in a state of continual excitement with trivial matters, be flooded with useless information, and confronted with so many expert opinions that he can no longer distinguish important



from unimportant or true from false. To prevent him from reflecting seriously, it is advisable to keep him rushing about frantically until he loses the ability to sit still for more than five minutes at a time, to say anything meaningful, or even to think about what he is going to do next. You can also overstimulate his brain with lurid and exciting images, loud and shrill noises, and continual sensational input, until his ability to perceive has been completely blunted. And if you keep him in a continual state of agitation with fresh reports of catastrophes and images of brutal violence and inhuman crimes, at some point his ability to feel will also die.

The earlier on you can provide a person with all these possibilities and cause him to use his brain in the corresponding fashion—that is, the more malleable his brain remains—the surer you can be of achieving the desired results. And if, in spite of this, the inevitable occurs and some individuals realize that what is going on around them does implicate them personally, and when consequently a feeling like deep personal concern does arise in their brains and they begin to doubt the rightness of their attitudes and convictions, then all you have to do is persuade them that everything is under control, it is all being taken care of, things are still workable, and it can all still be fixed. There is nothing people would rather believe than that. They gratefully grasp at every straw that will enable them to escape the sense of personal implication and compunction arising from their dark depths and get back into the same old habitual flow.

Relieved, they buy a ticket for a quick trip to Honolulu or go a shopping junket to London, Paris, or New York. They rent the latest horror movie or watch the constantly replenished scare news on TV. They surf the Net for hours without knowing or acknowledging

to themselves what they are looking for there, or they log onto a chat group and exchange trivialities with people they have never met and never wish to meet. They read in the newspaper that there are people who keep having cosmetic surgery until their faces have turned into grotesque masks or that others have rings put around their stomachs because they cannot control their appetites and have gotten so fat they can hardly walk. And it amazes them that there are doctors who perform such operations and journalists who make their living writing about them. They get hold of all the pills and drugs that they have heard touted for the relief of their problems or the increase of their pleasure; or they simply reach for the liquor bottle when their frustration gets to be too much for them. They are in favor of less traffic on the roads, but they buy all kinds of products that have to be shipped to them from a distance, shrimp that are caught in the North Sea and shelled in Morocco, carrots grown in Germany and washed in Sicily. They spend their time as observers, watchers. They click through the channels on TV or lose themselves leafing through magazines. Then they complain that they have so little time.

They are continually on the lookout for opinions that confirm that they are absolutely just fine the way they are. And they are grateful when they find an expert who, through his objective, scientific findings, definitively proves the correctness of their convictions, opinions, and attitudes. And they maybe even buy a user's manual for their brain and read it with the expectation of finding tips in it for how to protect what is supposedly their most important organ from user's errors without significantly changing the way they have been using it up to now.

6.2 Error Messages and Damage Control

In a technical apparatus, errors in usage result in the apparatus not functioning the way it is supposed to. Often they lead to a breakdown of some kind, and if your luck is running bad, through a small error you can turn your whole expensive machine into a pile of junk. The same goes for a brain. You can cut off its blood supply (through strangulation), you can stop its oxygen supply (through suffocation), or so disrupt its functioning (through poisoning) that it can never be restored. Usually a brain reacts to such interventions with such alarming error messages that the perpetrator stops before it is too late. Only someone who has lost his faith in the worth of the functioning of his or any other human brain can ignore these warning signals.

In fairly complicated technical apparatuses, such as computers, protective mechanisms are built in to protect the device against serious errors in usage. Then there are the moderate user's errors that, though they do not destroy the computer, result in its not doing what it should do, or in the operator not being able to make use of all its potential functionality. A person who cannot operate his computer properly inevitably ends up reducing it to a commodious typewriter or a somewhat complicated Game Boy and begins to regard it as no more than that.

The same is essentially true with regard to the brain. The only difference is that, in the case of the brain, the mechanism does not remain as it was but gradually takes on the form of what it is used for. Just like a computer, the brain does not sound any alarm to

make us aware of the fact that we are in the process of reducing it, out of ignorance of its inherent potential or mere complacency, to the thing we are continually using it as. Basically, the brain does not care any more about this than a computer does. As long as it keeps being able-even as the stunted version of what it could be—to perceive all threatening changes in the outer or inner world in a timely fashion and to compensate for them, it doesn't make a peep. It only sends out an alarm when it is no longer capable of doing this, because the processing activities going on within it have gone haywire. Usually only when our brain responds to a threat to its inner order with a massive fear and stress reaction do we finally become aware that something has gone wrong. Many people, however, react even to this kind of emergency signal from their brains with a mere shrug of the shoulders and simply try to go on as before. Until they get physically or psychologically sick. That is the very last emergency brake the brain can apply. If a person is unable to regard even that as a chance to make changes in the use he has been making of his brain, then he has come to the end of his (and eventually all medical) possibilities of damage control.

In order to get out of such narrow, deep ruts, people need the help and support of other people, especially those who think, feel, and behave differently than they do themselves. The more complex the fashion in which a person's brain is networked with the brains of other people, the less danger there is that his individual user's errors will go unnoticed. And thus the likelihood is greatly increased that a well-networked person will be able to fully benefit from the multifaceted potential inherent in every human brain.

A computer behaves in a similar fashion. Anyone who has

connected his own computer to a complex computer network has had an opportunity to appreciate the many new possibilities this opens up for the use of the machine. But even in setting up and configuring such a network, there are pitfalls. Such networks are all too vulnerable to individuals or groups who might want to begin to use them as handy instruments for the achievement of their own specific ends and the spread of their own ideas. If they turn the whole network into a mere tool, instead of fulfilling its potential to offer a wide range of possibilities, it ends up being used for one primary purpose—manipulating the thinking, feeling, and behavior of everyone connected with it.

We can try to guard against this danger by setting up our computer network-or any other means of communication through which people influence each other-in such a way that each person can use it the way he wants. Then everyone has the chance to put forward and promote whatever he likes. What might come out of this is unpredictable. But what cannot come out of it is the very thing that a human brain needs to unfold and develop its manysided potential. What a person needs to develop his brain is not the greatest possible number of relationships with the greatest possible number of other people that will enable him to exchange the greatest possible number of ideas or products with them. Rather what he needs is perhaps just a few-but intense and meaningfulencounters with other individuals of the kind that will make it possible for him to merge the various experiences he has had the opportunity to acquire in his life thus far with an increasingly larger and more inclusive bank of experience.

If more and more people simply pass each other by with no more

than a superficial exchange and all their brains begin to adapt to this sort of use, then even when, as a result, the whole society's shared bank of experience becomes extremely fragile and gradually begins to collapse, no alarm will go off. Nothing will happen—at least nothing will happen as long as the whole system continues to function to some degree.

What can happen to a whole society is not that different from what happens to a single individual who manages, throughout his life, to deal with the whole range of his problems with one and the same strategy of action. Just like the individual, the society progressively loses its flexibility and creativity. It too becomes increasingly unreceptive toward whatever disturbs it in the execution of its hitherto successful strategy. It too finally breaks as a consequence of brittleness if it cannot get out of the ruts it has been traveling in and find new, more appropriate solutions for the problems it has created for itself. The individual has to reorganize the neuronal circuitry in his brain. The society has to reorganize the inner structures that determine the thinking, feeling, and behavior of its members.

These inner structures are actually not terribly hard to see and describe. On the bottommost layer, deeply anchored, we find the attitudes and convictions encountered and adopted during child-hood, with all the more or less clear traces in thinking, feeling, and behavior left behind by the parental house and school. There, too, are the conceptions concerning what life is all about assimilated from peers, adults, and the media. On top of this foundation are piled all the further experiences that the developing person acquires during his education and his working life in dealing with the world

he has inherited. Built into this is everything that has proven useful over time, that is, that has aided the individual in finding security and inner stability.

The most appropriate strategy, the most effective means, for achieving inner stability and security—perceived as by far the most important these days, and therefore most loudly proclaimed by many—is achieving psychological and material independence through the acquisition of power and wealth, or—if that does not work—at least by being able to display symbols of status indicative of power and wealth.

There is another way, one that has lost a great deal of its popularity in recent years but that is also well suited for coping with people's fears and for creating a sense of security: the acquisition of knowledge and skill. However, this strategy must inevitably dwindle in value in a society where the knowledge of the individual is being drowned in a tremendous flood of information and individual capabilities and skills are being replaced by computer-guided machines, which are causing an increasing number of people who are well equipped with experience and skills to sit around unemployed.

The third path a person can take to a sense of well-being and security in life is the path of social bonding, the anchoring of the individual within the community. This path can be found only by those who have had the experience in their lives of being themselves only a part of a larger whole. These people realize that they can attain security only by contributing to the cohesion and sense of togetherness of the community. Unfortunately, this is a path that nowadays is chosen by only a few people, and, what is more unfortunate, by very few people of influence.

COMPLAINTS AND LIABILITY

A person must have as many different experiences as possible in his life with other people and in this way acquire such broad and comprehensive knowledge and such a wide variety of abilities and skills that he can no longer be made dependent, either materially or psychologically, on other people. This is the only way he can arrive at a place where he is able to choose freely how and for what purposes he will use his brain. But even such a person can change himself and use his brain differently only if he has recognized some decision he has made in the past as an error, and if he has felt deep personal concern as a result. For an entire society to be able to change, many individuals must feel this sense of deep personal concern. Thus to enter upon a different path, a given individual must know what he needs to pay more attention to in the future than he has in the past. For an entire society to enter upon a different path, many people must agree where they want to go together.

"We are the transitional stage between monkeys and human beings." This insight was imparted, many years ago now, by Konrad Lorenz as his gift to us for our journey. We still have the possibility of deciding where we really want to go—and of setting the appropriate example for our children.

6.3 Complaints and Liability

In case after reading this user's manual, you come to the conclusion that there have been shortcomings in your use of your brain thus far, you can regard the resulting feeling of uncertainty that begins

to spread through your brain as a sure sign not only that you are alive, but that you do indeed possess a human brain.

In case such a feeling fails to set in, please, if you are still able, see your doctor or pharmacist, for as Gracián said, "He who does not understand anything* is not alive either."

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^{*}And, I would add, does not feel anything.—G. H.