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Freedom from Identification

Sense in a Scientific Age

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COMMENTS:

PREFACE

Does the scientific view of the world make sense? How sensible is the traditional interpretation of science as mapping out the structure of the objective world, 'out there'? What is 'sense', and what role does it play in our interpretation of our scientific knowledge? And if the object pole of experience can be questioned, what about the subject pole? Who are 'we' anyway?

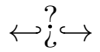
These are some of the questions that I have struggled with for a number of years. This struggle has been simultaneously very exciting and very frustrating.

It has been very exciting to engage in a fundamental type of questioning. Asking myself what I really know about myself and about the world I find myself in, the only firm answer I can come up with is this: there is appearance. And appearance makes sense. What appears is interpreted as experience, as something that a subject (me) has of objects (the world). In appearance, a world is woven as a web of meanings, and I am part of the web. And even though I am an intrinsic part of the web, I find myself pulling out into the subject pole of experience, through an intricate set of identifications. I identify myself with the many roles I play, and I identify things and events around me similarly through multiple levels of role playing.

At the same time, it has been frustrating to struggle with this type of fundamental questions. My main frustration is that of a lack of vocabulary, a lack of a framework within which to formulate my ideas, in order to bounce them off of others as well as of myself. When I read continental philosophy and post-modern criticism, I feel a clear resonance with the ideas presented, but at the same time I miss the clarity and simplicity I am familiar with in my work as a natural scientist. And when I talk with my colleagues in physics and astrophysics, I do often find a willingness to engage in 'clear and distinct ideas', but rarely a willingness to drop an adherence to an objective world view.

This book, then, is an attempt to start a dialogue, a Socratic type of questioning in simple terms, starting from scratch. What I present here is an inquiry into sense, in which I try to avoid as much as possible the use of any pre-existing philosophical or scientific ideas. For truly fundamental questions, daily life provides enough study material. In every-day situations, what sense does it make, to make a distinction between an objective world out there and a subjective observer, here at the center? Can we separate the two? Is the one more fundamental than the other, and if so in what way? These are the questions I start off with. Only in Part IV do I return to a brief discussion of some aspects of science and philosophy.

My main theme is a quest for freedom. First, I argue how the whole world of experience can be seen to hang together through a complex and heavily nested role play. For each object we encounter in daily life, both we and the object we deal with are playing particular roles. And any sense of solidity, objectivity, massiveness, and continuity or lack thereof, all of these are just that, forms of sense, part of the roles being played. Second, I indicate how sense arises through a web of distinctions. Third, I present the working hypothesis that all of our problems ultimately lead back to mistaken types of identification. By identifying with only one pole in the polarity of a dichotomy, and neglecting the other as if we could freely cut of and jettison the undesirable pole, we get ourselves into trouble. Freedom from identification is then suggested as a way out, a direction to explore in an open-ended questioning.



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INTRODUCTION

The world we find ourselves in, or more correctly, the view of the world we find ourselves to have, is a dynamic web of meanings, woven by ever-varying mixtures of opposites. We interpret our experience as a composition of reality and fantasy, mind and matter, outer and inner, and other dichotomies. Each concept we use is defined with respect to contrasting concepts, requiring an elaborate contextual backdrop in order to make any sense at all.

The self we identify with is also a view, a notion of a self defined through all kinds of attributes that are constituted by a particular mix of identifications we make, selecting some elements from pairs of opposites while disregarding others.

When we discard metaphysics and prejudice, we can take a direct empirical approach, starting with experience as it presents itself. Self and world are then seen to be two views that arise from experience, through a kind of polarization.

This polarization of experience into self and world is always tentative and contingent upon an active effort to keep the two apart, as the two ends of a rubber band being stretched. However, the nature of this polarization into a pair of opposite poles is such that the rubber band can never snap. There simply is no meaning to the concept of 'self' or of 'world', taken in splendid isolation, out of the context of experience.

Although we have an ingrained habit of talking about *our* experience, it is actually experience that gives rise to the notion of self, of I, we, and our. When I report that I see a cup, I have polarized an originally unitary experience into the three seemingly separate components I-see-cup. But separate as they may seem, it is only through the seeing that the seer and the seen appear.

Normally, we do not deal with appearance in a direct way, except at a very early age, before we have learned to take appearance apart. Decomposing our experience in a complex system of a myriad set of opposites, we literally make sense of our world and of ourselves, with the self-world one of the many inseparable polarities involved in this sense-making.

Again, this is not quite correct. We cannot say that we are the ones making this sense, since sense pervades the whole stage on which both we and the world appear. Rather, appearance appears, and sense appears, making sense of appearance, and as part of this sense we arrive on the scene against the backdrop of a whole world.

Having found ourselves in the world, we identify ourselves with countless limitations, partly for the purpose of functioning in the world and in society, partly just through sheer habit forced upon us by the way we are raised and educated. We identify ourselves with what we consider to be limitations forced upon us through the character and personality we have, the job we work in, the country we are born in, etc.

Many of the most stringent identifications we are involved in are not readily apparent. We may notice some of them when we move to a different part of the country we live in, or to a different country altogether. Through the mirror of other customs and value judgements we can then look back at our own culture, with a chance to notice the extent to which we have taken for granted all kind of identifications that are not made or made differently in other cultures. Returning after an extended stay abroad can result in a type of reverse culture shock that brings out some of our hidden identifications.

Who knows how deeply anchored those identifications are? The most fundamental identifications, shared by humans of any race, may never become visible in a comparative study. Asking the question in a different way, how can we know the difference between what we are and what we have? After an identification with what we *have*, such as a job of a farmer, we feel that we *are* a farmer. After identifying ourselves with an ideology that either encourages or forbids killing others in order to transform society, we feel that such action *is* either right or wrong.

Every time we recognize that a certain aspect of our life is something we have, rather than something we are, we gain an extra measure of freedom. This does not mean that we have to give up whatever was set free by this realization. It only means that we have regained the freedom to make a more conscious decision in an area in which we reacted automatically before, before we realized that we had a choice.

A particularly direct road to freedom is a systematic questioning of the relative independence of the two members in a pair of opposites. For example, we usually assume that we have a clear and distinct idea as to what reality is and what fantasy is. We have learned to separate the two very clearly, and this separation sustains us in our daily way of dealing with our world of appearances. It functions like a cast that can be very helpful in giving a broken leg the chance to heal. But once healed, it would be a mistake to keep walking around with the cast, no matter how firm our empirical evidence was of the past usefulness of the cast.

Perhaps there is a way to drop the cast, to abandon the crutches, to leave the playpen of dichotomies we have grown up in. Or more accurately, to keep the dichotomies as they present themselves, but to drop our ingrained belief in the separate existence of members of polar opposites. The more we see to what extent the members in each pair of opposites are mutually related, the more we can unglue ourselves from the various identifications we have made with one or the other member of each of the many pairs we use in finding our bearings in the world. And through this process of ungluing we can gain the most fundamental type of freedom, freedom from identification.

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An outline of the main problems, together with some illustrative examples, is given in Part I. There no attempt is given to analyze each problem in detail. Rather, a sketch is given of a landscape of questions that could be addressed effectively by focusing on the single problem of identification.

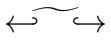
In Part II a much more detailed treatment is given of specific questions related to the way in which we construct our reality. Starting with a few

extremely simple examples of every-day perception, an attempt is made to bring out some of the tentative and contingent character of the sense of reality we usually rely on.

Part III continues this more detailed analysis by facing up squarely to the question "do we really need to postulate the existence of a world out there — and what would the consequences be of not doing so".

Part IV then makes contact with some traditional philosophical approaches, to show the affinity and similarities our way of questioning and in particular those of Socrates and Husserl.

Part V concentrates on practical questions concerning applications to daily life. How can we gain more freedom from identification? Can this lead to practical consequence? If so, how can we implement an approach aimed at a broad-based campaign towards un-identifying? These questions ultimately have to addressed in a personal way, and some suggestions are given toward ways of grappling with such a form of inquiry.



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Part I. QUESTIONING IDENTIFICATION

1. How We Carve Up Our World

Reality and fantasy, matter and mind, our inner experiences and the outer world, these pairs of opposites play a fundamental role in everything that happens in our life. At an early age we have learned to make a clear distinction between the two poles in each set of polarities. From a baby grasping for his toe, and realizing that that particular object is part of his own body, to a soldier fighting for a piece of territory that is conceived to be 'ours' and therefore should not become 'theirs', everybody has learned to carve up the world of experience into a very complex and densely interwoven pattern of polarities.

The ability to carve up experience is an essential skill, without which we could not function in society. At the same time, our tendency to take our own carvings all too seriously may be the biggest problem in our life. Having learned to discriminate between the polar opposites which form the woof and warp of our language and of the whole web of interpretation of our experience, we have gained the power of expertise — both the expertise of functioning in daily-life situation as well as the expertise needed to perform particular jobs. But the power of expertise, sharp and pointed as it is, is also narrow and relatively inflexible.

The alternative form of power is the power of innocence. If we can learn to put our expertise on hold every once in a while, to return to a measure of child-like innocence, we may recover a forgotten dimension of openness and creativity that has been covered over by the dense fabric of polarities that plays such an overwhelming role in our every thought and emotion. And if we flex our muscles of discrimination, tensing them up and relaxing them in a playful exploration, we may find a way to have it all:

to keep playing the game of discrimination while enjoying the freedom of innocence beyond polarities. Who says that we have to choose? Why not have it both ways?

Can we live up to the serious responsibility that we have as human beings, for ourselves, for our fellow humans, as well as for animals and plants, for the whole planet and beyond? Can we do that and still enjoy ourselves in a playful way, freely crossing boundaries and challenging seeming limitations, playing in earnest, while choosing our strategies playfully? These are the questions that I would like to explore in this book. And in doing so, I prefer to keep this exploration as simple as possible, staying as close as I can to our immediate life world of every-day things and thoughts and feelings and interactions.

It may seem strange to focus on detailed discussions of subject and object, of mind and matter, of reality and fantasy, while aiming at a more responsible treatment of the global environment and at more harmonious relationships between human individuals and populations. For me, there are two reasons to do so, one professional and one personal. Let me first address the former, before coming back to the latter at the close of this chapter.

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My professional reason to start with the most simple elements of reality at hand stems from my work as an astrophysicist. In physics, anything we know theoretically, and anything we can achieve technologically, ultimately is based on experimental verification. And these powers of fundamental insight together with our powers of applied knowledge have not been obtained in a straightforward form of exploration. Knowledge of nature has not been excavated as in a mine shaft, but rather on a winding path hacked through a jungle of confusing facts, false leads, and many a retreat to previous base camps. Underlying this approach has been a keen eye of early observation of seemingly insignificant experimental facts of daily life, together with an eagerness to find out more about the patterns of the manifold events confronting us in nature.

Astrophysics in particular offers a striking example of a successful application of an understanding of local regularities to the most distant systems we can observe. Newton proposed his theory of gravity based on a comparison of the motion of the moon with the way objects fall when we drop them a few feet, here on Earth. By itself, it was a fantastic achievement to connect phenomena on the scale of a few feet with those taking place on a scale of more than a hundred thousand miles, spanning a range of a factor hundred million in distance. But this very same law has been successfully applied in this century not only over interstellar distances of several light years, but even over intergalactic distances of millions of light years. Reaching further than the Moon (at a distance of only one light second) by an additional factor of more than a hundred trillion, we routinely use supercomputers to simulate the effects of encounters and collisions of galaxies using little more than Newton's theory of gravity, applied to the collective interactions between all the stars of the various interacting galaxies.

Many more examples can be given, in which local discoveries have been used to make global interpretations. By analyzing the light of distant stars and galaxies, using a prism to decompose the light into the relative contributions to different spectral wavelength bands, we can determine the compositions of those distant objects in terms of the different chemical elements they contain. If you throw some salt from a salt shaker into a flame or open fire, you will see a characteristic yellow color, from the sodium (Na) contained in the salt (NaCl). When the light from this glowing salt is analyzed in a spectrometer, the yellow glow is seen to originate from a pair of spectral lines at a characteristic wavelength, signaling the presence of sodium. Similarly, a study of the light of the sun and the light from distant stars can give us an accurate idea about the amount of different chemical elements present at their glowing surfaces.

However, once we have used our Earth-bound knowledge to gain an understanding of the cosmos, this newly won knowledge can be applied back home again as well. Not unlike a poet, an astrophysicist can see a world in a grain of sand. The shape and size of the sand grain tell us about the erosional processes that have ground rock into sand over hundreds of

thousands of years. On a smaller scale, the molecular structure of the same grain of sand tells us about the geophysical processes that have shaped the particular rock, perhaps hundreds of millions of years ago, from which the grain originated. Descending to yet smaller scales, the silicon atoms in the sand tell us of the nuclear reactions that formed them, deep inside the central ovens of stars that exploded well before the Sun was born, seeding the primordial matter from which the Earth was formed with a form of stardust, interstellar pollution that conglomerated to form our planet. And the neutrons and protons that combined to form the silicon themselves were formed very early on in the Big Bang, within the first millisecond.

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Why is the Universe so regular and understandable, that we can successfully apply rules that seem to hold up locally in order to explain phenomena in galaxies at distances of tens of billions of light years? We do not know the answer, and therefore we have no choice but to accept it as something given in our experience. As Einstein expressed it: the fact that the universe is understandable is the most ununderstandable aspect of the world [1]. What we do know is the encouraging message astrophysics tells us: no matter how remote or alien something seems, chances are that a judicial application of local, every-day laws will give you a good shot at understanding the phenomenon in question.

Of course, I realize that it is dangerous to carry over a lesson learned in one area to a completely different area. But for the sake of honesty, let me admit that I find it tempting to take the lessons learned in astrophysics seriously, seriously enough to wonder whether other domains of human curiosity may not have a similar structure. It seems to me that there are enough arguments, based on past experience, to continue exploring the whole from the lessons learned from its parts. But there are good reasons for widening our exploration. Staying with experience that is close at hand, we can look at a grain of sand, and ask ourselves who it is that is doing the looking, what is involved in the experience of looking, and what the structure of awareness is that allows experience to appear in the first place.

Here I am not referring specifically to physiological and neurological

studies, nor to psychological experiments is a laboratory. Interesting as these all are, they are grounded on our received notion of an objective world, with ourselves being highly complex organisms in this already-given world. Such a view, practical as it may be for many purposes, explains a lot, but can never be the whole story. Rather, it can only arise after a polarization of experience into subject and object has *already* taken place, and after mind and matter, reality and fantasy have *already* been assigned their proper place. Rather, I propose to probe the structure of experience prior to the arising of those polarizations.

Remarkably little effort has gone into such a type of exploration, characterized by an fully open-ended questioning of all and anything that appears in its immediate givenness. In each moment, our habitual analysis freezes the fluidity of experience, crystallizing what we can handle and discarding whatever we cannot easily digest. Out in the cold, we are left with a variety of ice crystals, dangling from the branches of our various trees of knowledge. Intricate though the shapes and detailed structure of this frozen world may be, we have lost touch with ourselves and our world if we forget how to restore the fluidity in our knowledge.

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This book, then, is a call to explore our roots, beyond even the notion of 'our', back to the immediate givenness of appearance. Before the interpretation of appearance into experience, of experience that a subject has of an object, I propose to investigate how the notions of subject and object themselves appear. We can recognize experiencer and experienced as late-comers, as the two poles arising from experience, or perhaps more accurately, from appearance, from whatever seems to appear in its most direct givenness.

It is in the process of transcending traditional boundaries, such as that between subject and object, that we have a real chance to make a contribution to the challenges posed to us: that of taking care of the environment, of others, and of ourselves. I cannot prove this assertion, that a philosophical approach to the question of subject and object can have such far-ranging applications. Therefore, I will treat this idea only as a working hypothe-

sis with which to confront the riddle of reality. And towards the end of the next chapter, I will sharpen it further. But for now, I can only try to make the hypothesis plausible, and to invite the reader to join me in an open-ended form of questioning, a quest to test this working hypothesis.

I have given one reason for adopting this working hypothesis, a professional one, based on analogy. Having seen how astrophysics has enabled us to explore the structure of the physical Universe from a study of its tiny parts, right around us, I am encouraged that a search for an underlying universal unity makes sense, starting with what is close at hand: directly given appearance. The other reason I can offer is more personal, and related to a search for meaning.

I am deeply dissatisfied with a purely scientific outlook at the world that seems to leave us with a plethora of facts but a lack of values. In previous eras, traditional mythologies gave us a place in the world: a ground to stand on, and a path to walk on. Over the last few centuries, traditional views have been undermined by a new emerging scientific world view, often strongly rational and skeptical.

Yes, science has given us a new ground to stand on, a secure knowledge of the laws of physics that seem to rule the Universe on all scales, including the more complex interactions in chemical and biological systems. But in the process we seem to have lost a path to walk on. Could it be that our skeptical and rational approach, liberating as it has been in many ways, has overshot its goal, and left us with only part of the picture? I strongly suspect so. And what does it really mean, when we hear that (a) science describes what is ultimately real and that (b) there is no room for value in science, only for facts? Whatever it means, observation shows me this: when watching others, colleagues as well as non-scientists, paying attention to their deeds rather than to their words, it is clear that values are that what makes us tick, not just facts.

So let us explore the relationships between fact and value, between mind and matter, between inner and outer, reality and fantasy, and other pair of opposites. Let us investigate the structure of experience, in an fresh appreciation of appearance in its original fluidity, before our habitual crystallization into concepts and distinctions.

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Notes

[1] Einstein, xxx xxx

2. Ill-Fitting Boundaries

After the general introduction of the previous chapter, it is time to look at some specific examples. We will briefly discuss three types of opposites: 1) inner vs. outer experience; 2) reality vs. fantasy; 3) objects vs. space.

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1) Inner and Outer Experience.

Daily life involves an ability to distinguish between such fundamental pairs of opposites as reality and fantasy, and between our inner experiences and our perceptions of the outer world. Whether we are day dreaming about a wall, or whether we actually run into a wall does make a very palpable difference.

The pair of opposites of something-thought and something-seen would seem to parallel the pair of opposites of inner fantasy and outer reality. Without any trouble, we can use our fantasy to think about anything we want, such as a horse with eight legs and two pairs of wings. However, when we use our sight to look for horses in reality, rather than fantasy, we generally find them to have four legs and no wings.

However, there are many examples where the differences between the pairs of opposites is less straightforward. When you are sitting in a room, the walls of the room form a very concrete part of your external reality. Some of the walls may be visible for you, but typically there will be at least one wall behind you, hidden from your immediate perception. Unless you turn to check its actual presence, the wall that is invisible for the time being

exists for you only as a thought. And while the content of the thought is very concrete, namely that of a solid wall, the thought itself is nothing more than a thought, something that we would normally classify as something belonging to our internal experience.

So, is the invisible wall something inner or outer? Is it part of our mind or part of the matter around us? Clearly, it is both [1]. *The opposites of something-thought and something-seen and the opposites of inner fantasy and outer reality are not at all parallel.* In fact, our experienced world hangs together by strings and hinges of thoughts. While actual observation does essential maintenance work to our sense of reality of the world around us, by far most of our world escapes direct detection at any given moment.

We use our perception to check and update our sense of the changing and always partly unknown world around us. But at any given time, we only see a small part of our world, typically a wedge centered on our own bodily presence, with a limited depth and width. And of those objects we see, we only see a particular surface view, rather than the full three-dimensional existence which we somehow feel them to possess.

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2) Reality and Fantasy

Any time when we recognize an object, such as a cup, we use our perception of reality as well as our fantasy. If we would strictly stick to what we actually see, without using any fantasy, we could not recognize much of anything. When you walk into a restaurant, and a waiter hands you a cup, chances are that you have never seen that particular cup before, and certainly not in the particular perspective, and with the particular lighting present. Somehow, you do manage to grasp the fact that you are given a cup. The details of the recognition process are fascinating, and only partly understood (as is illustrated by the poor performance of artificially intelligent robots). But the explanation may be something along the following lines.

Somehow, we manage to do a quick and fuzzy search among related shapes, different from the actual cup given. We grope in the imaginary

world of possible shapes, playing with the actual shape given, until we stumble upon something that comes close enough to fit (the concept 'cup') without significant interference of other concepts, which remain sufficiently distinct (such as 'glass', 'saucer', 'spoon').

In other words, each time we see a particular object, such as a cup, we have to mix in a whole lot of fantasy, in the form of free variations, together with our particular perception of reality. It is hard to escape the conclusion that our whole lived world is an intimate and ongoing interplay of reality and fantasy, just to be understandable in the first place.

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3) Objects and Space

Physical objects need space to appear in. Space in turn requires a presence of objects in order to be measurable, and to be talked about meaningfully in reference to the positions of those objects in space. These physical objects can be any type of 'thing', a stone or a light ray or whatever has a location that can be measured. Thus we find, already on this level of analysis, that things and space cannot be separated from each other.

However, the dependency is much more intimate and direct than just that given by this general form of reasoning. Take a single object, such as a wooden table. When asked to point at the table, we typically point at the wood. Where else would the table be than in the wood? Sure, there is a whole history behind this particular table. It was made somewhere else, was purchased and transported to its present locality, and perhaps could somehow be considered to be 'connected' with the very first 'table' used by primitive man, ten thousand years ago or longer. But even ignoring such connections, whatever its history, we have here in front of us a table, a solid table made from massive mahogany. Here is the table, a physical object, and the table is present through its wood and its wood alone. Right?

Wrong. Just image that we leave the table the table, but that the wood of the table would extend further than its present boundaries. Instead of the wood stopping at its present surfaces, the tabletop and its downside together with the outer contours of the legs, let us imagine the wood to

continue to extend further and further from the table, until the solid mahogany fills the whole room. What do we have? A solid block of wood. And where is the table? Well, yes, *in principle* the table is still there, where it always was. However, to bring it out clearly, we'd better carve it out of its surrounding block. For all intents and purposes, the table is gone!

This example suggests that what makes the table a table is *both* the presence of the wood *inside* the table and the presence of non-wood *outside* the table. A layer of air, or water, or anything that is distinctly non-wood is necessary in order to meaningfully talk about that particular piece of wood being a table. And we are not talking about an infinitesimally thin layer of non-wood, in a mathematical sense. Nor are we talking about a finite but flimsy layer in a physical sense. If we only required one sixteenth of an inch of air, say, and leave the further environment unspecified, somebody could again fill up the remaining room with mahogany. What would we get? Another solid block of mahogany, with a table carved out all right, but extremely tightly fitting into a solid jacket of wood, all around. Not what a customer would easily recognize as a table delivery, having ordered one by mail. We conclude that a room-with-a-table really implies a room with a very substantial amount of non-table present, in order to let the table be an actual table [2].

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Let us take stock of what we have learned from these three brief excursions. 1) we continuously fill in a whole world, well beyond what we can perceive at any given moment. We assume the chair in front of us to be solid, and not a card-board cut-out compatible with our momentary perception. Similarly, we presume there to be a wall behind us and a ground outside our room, rather than a gaping abyss or an ocean. 2) we mix in pounds of fantasy with each ounce of reality we observe, in order to make reality understandable in the first place. Straight reality is simply unrecognizable. 3) we habitually neglect the role of nothingness, of no-thing-ness, even though it plays an equally essential role as that of thing-ness. Without the no-wood, there would be no wooden table.

Why is it that we can be so easily fooled into thinking that it does

make sense to talk about a table as a piece of wood *all by itself*? Or about a *real* table as given by perception, without realizing the need to lubricate our perceptive process with liberal shots of *fantasy*? Or about a solid table while forgetting that much of the time the solidity is something present for us as a *thought*, rather than as an *empirical* finding?

The answer may be that we are easily tricked by language. It is so easy to write the following sentence on the blackboard:

the right side of a stick

without giving any thought whatsoever to a possible left side of a stick. But in practice, as soon as we try to isolate a right side of a stick, by breaking or cutting it off, lo and behold: what we took off comes complete with *both* the old right side *and* a new left side. And similarly, as another unintentional by-product, the remaining piece of the stick has miraculously acquired a new right side. As in a fight with a multi-headed mythological monster, the more heads are cut off, the more new heads are spawned. As a result, we never manage to isolate a single right side of a stick, all by itself.

What is true for the sides of a stick, holds true for subject and object, for matter and space, for mind and matter, and for all other pairs of opposites that we use in daily life. As long as we use those pairs of opposites in a practical way, there is no problem. The problem begins when we fall into the fallacy of trusting our language to allow us to isolate single halves of a pair ('taking our language's word for it').

Alas, this habit of trying to find a perfect limp, to pretend that we can walk on one leg, is deeply ingrained in our culture.

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After these few simple examples of daily life, let us be bold and take on one more example, this time a nightly, rather than a daily one. Let us consider the way we apply pairs of opposites in a dream. And let us then look at the way we analyze our dream experience afterwards, after we wake up.

During a dream, we identify ourselves with our (dream-) body, and we encounter many (dream-) things as well as other (dream-) persons. As long as the dream lasts, we feel a clear distinction between self and world, between our own body and the rest of the world. But after we wake up, and look back at the dream, we conclude that it was 'all in the mind', the whole dream with all its parts.

In other words, all the objects in the dream were equally created by our imagination: our own body; the bodies of other people; other inanimate objects; as well as all the non-material aspects of the dream, our own moods, say, and that ascribed to others we encountered. Each and any aspect, in retrospect, is classified as made up off 'dream stuff', independent of the previous distinctions made *within* the dream.

How real and essential some of the distinctions seemed from within the dream — and how relative they seem afterwards, after waking up! It is not that the distinctions disappear after waking up, since we can still remember certain dreams with great clarity. It is rather that we acknowledge the presence of the distinctions without being carried away into assigning to them any objective validity.

Once we acknowledge the distinctions without being caught up in them, we realize that while dreaming we must have overlooked an enormous amount of freedom, simply because of our limited awareness. Reflecting on a dream from within our waking life, we realize that there was no real need to identify with a dream-body while we were dreaming. In principle, we could have identified equally well with somebody else's body, or that of an animal, or a rock, or the sky, or empty space for that matter. Why not? It seems to be only force of habit and nothing else that limits us to adopt only standard identifications within dreams.

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When we realize how each day we spend part of the twenty-four hours in a dream state, using in most cases only a tiny fraction of the intrinsic freedom we have, we may well wonder about our behavior during our waking state. How firm are the limitations with which we have learned to live?

Which of the boundaries that make up our world are real and immovable, and which are such that they only appear solid because of our effort of holding them up?

There is the example of a moth flying around a lamp. Physically, the insect is free to fly away, any moment. There are no walls of force fields that imprison the moth. But at the same time, biologically, instinct and force of habit keep the moth caught in its circling, as effectively as the most solid prison would.

Even though many of our habits seem nearly as strong as that of the circling moth, it would be a pity not to investigate to what extent we have allowed ourselves to be fooled. Which of our habitual patterns are like that of a moth? Which of our boundaries and limitations are purely fictional? Some? Many? All? Without serious questioning, we have no way of knowing. And the type of questioning applied here should better be such that the very limitations to be investigated are not built-in into the assumptions underlying the questioning process.

Truly original questioning requires a return to a radical type of innocence. It requires us to take seriously Socrates' judgement that the unexamined life is not worth living. And if we want to be radical, we may as well try to jump away as far as we can from what we always took for granted. We can explore the consequences of the following radical working hypothesis: *there are no boundaries*.

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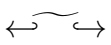
Whether this no-boundary working hypothesis is true or not, or whether it even makes sense to talk about the truth or falsity of such a radical working hypothesis is not the most relevant question. What *is* relevant is the fact that this hypothesis encourages us to be more radical, and more naive and innocent than we normally allow ourselves to be. At the same time, this *working* hypothesis indeed allows us to *work*: it challenges us to come up with counter examples, to show the hypothesis to be wrong.

Can we find exceptions? Can we find real honest hard solid boundaries and limitations? If so, then that would be it for our hypothesis. The

working hypothesis would have done its work, and shown us at least some part of the limitations with which we simply have to live. It would have shown us some part of the corral within which human being has to accept to stay with absolutely no possibility of ever straying beyond.

But what if we cannot find any exception, and if each and any limitation we scrutinize turns out to be only relative and constructed rather than really final? That would not prove the truth of the working hypothesis, since there still could be counter examples somewhere, to be found later. But at least it would encourage us to keep looking further. And most importantly, in the process of debunking many of our previously perceived limitations, we stand a real chance to regain a considerable degree of freedom. And each new aspect of freedom that we discover, each new prison wall for which we unexpectedly find a way to scale it, will be ours, as our freedom gained, no matter what insights future analysis may turn up about other aspects of freedom.



Notes

[1] a reference to William James' *Radical Empiricism*

[2] a reference to Tarthang Tulku's *Knowledge of Time and Space*

3. Freedom

Many problems arise from the wrong usage of opposites, in which one of the two poles is singled out and objectified as independently existing. When this mistake is not recognized as such, we may have a very serious problem. But when this mistake *is* recognized, an unexpected freedom may become available, a freedom that goes beyond limitations inherent in the framework that gave rise to the original pair of opposites.

This brief summary is what I would like to explore in the remaining chapters of this book. The red thread leading through these chapters will be freedom, as a central and recurrent theme.

Freedom beyond opposites is something paradoxical when seen from within the structure of the pairs of poles spanning the world of opposition. But it is something natural when viewed from the outside, from a position in which we can observe the two poles and their interaction together. But what does 'outside' mean here? It is certainly not an invitation to try to step outside or to ignore our world. Rather, the stepping out is relative, a matter of a switch in perspective, without any need for an active change — although active change may well follow later on, as a consequence of a change in perspective.

To be more specific, let us take one particularly striking dichotomy, that of reality and fantasy. We have seen already in the previous chapter how a fair amount of fantasy has to be added to reality to make it 'work' in the first place. But this does not take away the fact that we still have a very clear distinction between these two poles. If someone is locked up in a secure prison, the reality of the situation, allowing no escape, seems totally unrelated to the fantasy a prisoner might have of being elsewhere, in a form of wishful thinking.

But perhaps here, too, fantasy can play an important role. Instead of fantasy trying to live up to the standards of reality, fantasy may instead undermine reality, showing how reality itself has never been as secure and certain as we had always assumed.

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A particularly keen observation of the most concrete implications of different views of reality is given by Jean Améry, a survivor of the concentration camp Auschwitz, in his book 'At the Mind's Limits' [1]. His account is at the same time sharp and sensitive: sensitive and respectful to the diverse views of those who shared his fate, but also sharp in his observations and analysis of the practical consequences both of his own views and of that of others.

When Améry describes the religious and ideological views of his camp mates, he considers those views to be completely illusionary. But at the same time, he is clearly aware of what for him is a paradox: that those illusions do have the power to transform reality for those living their 'illusion'. On the one hand, religion and ideology for him are a form of fantasy. But on the other hand, from a purely descriptive point of view, he notes how much more powerful those fantasies turned out to be than his own view of reality.

> I entered the prisons and the concentration camps as an agnostic and, on April 15, 1945, freed by the British in Bergen-Belsen, I left the Inferno as an agnostic. ..... Also, I was never bound by a particular political ideology, nor was I ever indebted to one. Yet I must confess that I felt, and still feel, great admiration for both my religiously and politically committed comrades. They may have been "intellectual" in the sense we have adopted here, or they may not have been, that was not important. One way or the other, in the decisive moments their political or religious belief was an inestimable help to them, while we sceptical and humanistic intellectuals took recourse, in vain, to our literary, philosophical, and artistic household gods. Whether they were militant Marxists, sectarian Jehovah's Witnesses, or practicing Catholics, whether they were highly educated national economists and theologians or less versed workers and peasants, their belief or their ideology gave them that firm foothold in the world from which they spiritually unhinged the SS state. Under conditions that defy the imagination they conducted Mass, and as Orthodox Jews they fasted on the Day of Atonement although they actually lived the entire year in a condition of raging hunger. They held Marxist discussions on the future of Europe or they simply persevered in saying: the Soviet Union will and must win. They survived better or died with more dignity than their irreligious or nonpolitical intellectual comrades, who often were infinitely better educated and more practiced in exact thinking. [2]

One reason he gives for their ability to better cope with the horrors

of life in a death camp is their subjective view of reality. Accustomed to living in a type of fantasy world, in which reality and illusion were mixed to fit their beliefs, they could extend this mixture to shield them from the harsh reality of the camp.

> Here nothing unheard-of occurred, but only what they, the ideologically schooled or God-believing men, had always expected or at least considered possible. Both the Christians and the Marxists, who already on the outside had taken a very subjective view of concrete reality, detached themselves from it here too in a way that was both impressive and dismaying. Their kingdom, in any event, was not the Here and Now, but the Tomorrow and Someplace, the very distant Tomorrow of the Christian, glowing in a chiliastic light, or the utopian-worldly Tomorrow of the Marxists. The grip of the horror reality was weaker where from the start reality had been placed in the framework of an unalterable idea. Hunger was not hunger as such, but the necessary consequence of atheism or of capitalistic decay. A beating or death in the gas chamber was the renewed sufferings of the Lord or a natural political martyrdom. The early Christians had suffered in that way, and so had the plagued peasants during the German Peasants' Revolt. Every Christian was a Saint Sebastian and every Marxist a Thomas Münzer. [3]

He then asks the crucial question of what lies behind the secret of the success of what he considers illusory world views. Could it be that in some paradoxical sense their illusions enable them to deal better with reality?

> Both Christians and Marxists scorned us sceptic-humanistic intellectuals, the former mildly, the latter impatiently and brusquely. There were hours in the camp when I asked myself if their scorn was not justified. Not that I desired their political or religious belief for myself or that I even would have held this to be possible. I was not in the least bit curious about a religious grace that for me did not exist, or about an ideology whose errors and false conclusions I felt I had seen through. I did not want to be one with

> my believing comrades, but I would have wished to be like them: unshakable, calm, strong. What I felt to comprehend at that time still appears to me as a certainty: whoever is, in the broadest sense, a believing person, whether his belief be metaphysical or bound to concrete reality, transcends himself. He is not the captive of his individuality; rather he is part of a spiritual continuity that is interrupted nowhere, not even in Auschwitz. He is both more estranged from reality and closer to it than his unbelieving comrade. Further from reality because in his Finalistic attitude he ignores the given contents of material phenomena and fixes his sight on a nearer or more distant future; but he is also closer to reality because for just this reason he does not allow himself to be overwhelmed by the conditions around him and thus he can strongly influence them. For the unbelieving person reality, under adverse circumstances, is a force to which he submits; under favorable ones it is material for analysis. For the believer reality is clay that he molds, a problem that he solves. [4]

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What is especially striking is that Améry "would have wished to be like them: unshakable, calm, strong", but at the same time finds it impossible to follow their example. Why? In his opinion, a typical believer is too far "estranged from reality" since he "ignores the given contents of material phenomena".

Améry, then, was faced with two options, both of them far from attractive. The one option was to join a belief that had positive practical consequences. The other option was to remain agnostic and thereby put himself in an admittedly inferior position from a practical point of view. Why does he nonetheless stick to the latter choice? The answer is simple: the various varieties of the first option all rested on a foundation he could not agree with, on a gut level.

In other words, for Améry there was no symmetry between his views and those of others. Although he considered himself agnostic, literally

someone who does not hold a belief, he clearly *did* believe in the "given contents of material reality". What would have happened if he had reinterpreted his own world view, that of an agnostic intellectual, as one more belief, next to the other beliefs held by the Marxists and Christians?

For him, such a step seemed clearly out of the question. He did not see his view of the world as a *belief*, so the notion of being *agnostic* only excluded the beliefs of others, not that of himself. His reality was not that of the Marxists or Christians, it was a 'given' material reality that could not be questioned, and certainly could not be interpreted as a belief, on a par with other beliefs. His considered his own world view to be basic, containing the bare and minimal substratum of harsh and solid reality. In contrast, he interpreted the views of others as adding something to this minimal substratum, something questionable that he could not go along with.

It is only with great hesitation that I am writing these paragraphs. After all, who am I to comment upon the choices made by Jean Améry, under circumstances which I can barely begin to imagine? While I am writing these, it is fifty years ago that Améry was sent to Auschwitz, and twenty-eight years ago that he wrote down the reflections that I have quoted above. Here, in a different world and a different time I am reflecting on Améry's reflections. What right of speaking do I have in these matters?

The only right I feel I have is the right of questioning. I cannot imagine myself pretending to suggest a solution. And I certainly have no way to predict how I or anyone else would react under such extreme circumstances as the ones Améry found himself in. But I can at least pose the question 'what if?' — what if Améry or another agnostic under similar circumstances would have recognized his or her own views to be a type of belief, in a relationship of fundamental symmetry with that of more traditionally recognized forms of belief?

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In Améry's own words, a believer is in some sense closer to reality than a non-believer, because "he does not allow himself to be overwhelmed by

the conditions around him". And this closeness provides a real form of power: "For the believer reality is clay that he molds". Where does this strength come from? Does it come from the particular belief held by the believer? Or does it come from the fact that the believer has seen through the misguided limitations inherent in the belief system of the agnostic?

Let us sum up the main points in Améry's analysis: (1) a believer transcends the limitations of a conventional 'realistic' world view by substituting it by, or appending it with, a belief; (2) an agnostic can see the practical advantage of doing so, through its resulting greater freedom; (3) but seeing through (and thereby in turn transcending) the limitations of the beliefs, the agnostic feels forced to stay with the original 'realistic' world view.

In questioning these points, two possible alternatives present themselves, at least in principle. The first one would be for the agnostic to look for another type of belief. Not satisfied with either Christianity or Marxism as presented by others, he could search for a different interpretation which *would* be palatable to him. If he would be acquainted, even vaguely, with other belief systems, such as Buddhism or Islam or pantheism, perhaps that could provide an alternative opening for a search to an effective belief. Or he could turn to an open-ended form of prayer or other forms of introspection in search of an altogether different type of belief, outside the received standard classifications.

The second possibility would seem even more radical. Rather than looking for an alternative belief as an antidote for the limitations posed by the 'given' material reality, there is the possibility to look at the 'givenness' of that reality, and to see whether that reality itself could be recognized as a belief, on a par with other beliefs. If it would be possible to recognize the 'givenness' of material reality as no different in principle as the 'givenness' of other belief systems for the adherents of those systems, perhaps it *would* be possible to regain the same type of practical freedom they did.

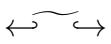
What I suggest as a topic of exploration is an inquiry along the lines of this second possibility. Would it be possible to gain the type of freedom that true believers have gained, without subscribing lock, stock, and barrel to their whole belief system? It is this question that I had in mind when

I introduced the 'no-boundary' working hypothesis towards the end of the previous chapter.

Again, let me make it clear that I am not trying to give any judgement. Who am I to say whether or not it is possible, and under which circumstances, for someone to find real freedom after first having been subjected to the limitations of a belief system? And who am I to say whether or not, and under which circumstances, an agnostic humanistic world view can lead to real freedom?

The only aim I have is to explore the possibility of finding freedom from limitations through a form of inquiry. I propose to embark on a quest that from the start neither affirms nor rejects any particular belief system, *including* the 'agnostic' belief system that considers itself to be beyond any belief system.

This inquiry will focus on the boundary lines between reality and fantasy. Few requirements are necessary in order to get started. About the only one is this: a willingness to withhold early judgement. In other words, a willingness to consider the possibility that fantasy might be much more real, and that reality might be much more fantastic than we ever thought.



Notes

[1] New York: Schocken Books, 1990; translation from the original German "Jenseits von Schuld und Sühne [Stuttgart, Ernst Klett Verlag, 1976]

[2] Ibid., p. 12-13

[3] Ibid., p. 13

[4] Ibid., p. 13-14

4. Fables of Matter and Mind

Science has uncovered a remarkable unity behind the diversity of phenomena that confront us in our daily lives. This unity speaks of a beauty inherent in the natural world. Scientists are nature's art critics: in trying to decipher its inner logic, they have brought out aspects of its beauty in a new and unexpected way. What has emerged is an astonishing simplicity of design, based on a few fundamental symmetries that seem to give rise to the behavior of all forms of matter.

These discoveries of beauty have brought with them a twofold responsibility, concerning both the application and the interpretation of science. The dangers inherent in its the applications have become abundantly clear: through the power of technology science has been used as a tool of greed. Whether through fast destruction by spectacular weapons of war or through slow destruction caused by environmental mismanagement, narrow-minded views have led to great harm. And it is in these views that the dangers of interpretation show up: too often simple-minded 'scientific' attitudes have led to a view of the world as a life-less mechanism, as a toy to make or break as we please.

The problem seems to lie in a split between beauty and value. The scientific method has its roots in a fiercely felt freedom and independence of prejudice. Theoretical investigations have long been considered to be 'value-free'. A preconceived idea of what is valuable has been associated with religious or ideological dogma — and indeed, there are many historical instances where scientific progress has been held back by such external ideas. For science to triumph, it was time and again necessary to take a strong stance against dogma.

As a result, individual scientists have learned to be careful to keep their ideas of meaning and value to themselves, separating them from their work, viewing them as personal, nearly accidental attitudes. Meaning is seen largely in a practical sense, as a bunch of tricks to keep the fabric of society together. Gone are the days of Descartes and Newton, each of whom still had their own perception of a Christian God as Meaning-giver of the Universe. Though perhaps disagreeing with much of the Church' es-

tablished dogma, they and their colleagues did not question the underlying scheme of meaning and value.

Many of us today, scientists and non-scientists alike, by and large tend to look upon nature, both in its animate and its inanimate aspects, as ultimately meaningless. A clear statement of what many leave unspoken is given by Steven Weinberg in his fascinating and lucid popular exposition of the Big Bang theory: "The more the universe seems comprehensible, the more it also seems pointless ..... The effort to understand the universe is one of the very few things that lifts human life a little above the level of farce, and gives it some of the grace of tragedy" [2] (For some reactions, and his comments on these reactions, see his recent book "Dreams of a Final Theory" [3]).

An appreciation of the beauty or the regularity of nature is not quite the same as a sense of meaning, nor is an appreciation of the degree to which our own existence is intertwined with that of the cosmos. Sure, from a practical point of view, we are becoming more and more alarmed by the ongoing destruction of the environment. We begin to realize that the greed fueling this destruction is a stupid form of egoism. To be egoistic in a more long-term sense, both for ourselves as well as for our children, implies a deep concern for a balanced ecosphere. But it seems that such practical considerations provide only a thin veneer covering a deep-seated sense of lack of meaning.

What could possibly provide meaning in our world, in our Universe that we have come to know so well? We have discovered the afterglow of the Big Bang, and even the traces of the initial instabilities that gave rise to the formation of clusters of galaxies. And we have a pretty clear general picture of how we appeared on the scene, some ten to fifteen billion years after it all started. Although many of the details of this picture are still lacking, their is relatively little doubt about its overall accuracy.

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Very briefly: the Big Bang started off as a very hot and very dense soup of elementary particles. While rapidly expanding and cooling, some

fraction of these particles were converted into hydrogen and helium during the first three minutes of the history of our Universe, following the Big Bang. A whole lot later, some time during the first few billions years, much of the primordial mixture of hydrogen and helium gas started to clump, here and there falling together under its own gravity. In this way galaxies were formed, and around this time stars started to form as well, through gravitational contraction on much smaller scales, deep inside the galaxies or proto-galaxies.

Around some of those stars a small fraction of left-over material did not make it all the way in, and later underwent subsequent gravitational clumping to form even smaller bodies circling the parent star: planets, asteroids, and comets. Our Earth is one such planet, and was thus formed as a byproduct of the formation of our Sun, a later-generation star, formed several billions years after our Galaxy (visible for us in the form of the Milky Way) was first assembled.

A billion years or so after the Earth was formed, a random interplay of macromolecules led to self-reproducing chemical reactions complex enough to form their own tiny laboratories: the first primitive cells. Inside the first defensive suits, in the form of the cells walls, ongoing chemical experimentation and natural selection worked hand in hand, resulting in further differentiation and optimization. This lead to the appearance of multicellular organisms, and especially in the last half billion years, to an explosion of diversity of plant and animal life in the sea and on the land.

A few million years ago, homo sapiens appeared as a one more product of this evolutionary Monte Carlo game. For a long time we lived as hunters and gatherers, until more and more of us began to settle down some ten thousand years ago. And here we are, a few hundred generations later. We can trace the shapes of our ideas to a few thousands years of civilization. We can trace the shapes of our genes back to the beginning of mankind, and the composition of our DNA's building blocks back to a much earlier origin, billions of years ago. On an even more elementary level, we are literally a form of stardust: the chemical elements making up our body are ashes of nuclear reactions that took place in previous generations of stars, that were born and died before our Sun was formed.

What, if any, meaning or value can be found in this story? When we take a spectator stance, we can appreciate the intricate spectacle: the wonderful way all these complex processes interweave together over billions of years across billions of light years. We can appreciate the universal archeology of the world, back to its early beginnings. For example, each water molecule in our bodies is built up around one oxygen nucleus, formed in a star that exploded and shed its debris into the gas cloud from which our Sun was born, and two hydrogen atoms, dating back to an origin that took place a fraction of a millisecond after the onset of the Big Bang.

But appreciation of beauty and vastness and intricacy still leaves us far removed from meaning and value. If science would deserve its old name of natural philosophy it should again become a philosophy, a love of knowledge, concerning nature. And love is more than appreciation *per se*. It does not stand apart as a spectator. Love entails more than an appreciation of the intrinsic unity of an external object or an external play. True philosophy has to abandon the purely-outsider role to which most of us seem to have condemned ourselves.

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I will try to indicate what I think is lacking in our modern explanation of the origin of our own existence. The problem I see has nothing to do with the content of science, nor with its method. Rather, what I object to is the one-sided *interpretation* that has become so amazingly universal nowadays, and in some sense has almost become a *de facto* religion.

Let me present my criticism in the form of a group of fables, the third of which presents the usual interpretation of our scientific knowledge. The fourth one is an equally unpalatable alternative, while the first two are given here as warm-up exercises to get into the spirit of the fables. Here is the first one.

The fable of the origin of sticks
[left-handed version]

In the beginning there were only left-handed stick-ends. After a while, in a way we don't quite understand yet, some of the left-

handed stick-ends somehow got overturned, and thereby became right-handed stick-ends. The left and right ends could then pair up, meeting each other to form little tiny sticks. When those sticks in turn stuck together, larger and larger sticks were formed out of them. That is why you can go out into the woods and find sticks; they all have been formed this way, from the primordial left-handed stick-ends.

Pretty amazing, isn't it? Obviously, there is no need to give the right-handed version here, since it follows from the above fable by a simple switching of the words left and right. Instead, we will go straightaway to our third fable: our scientific explanation of the origin of human beings.

The fable of the origin of mind
[matter-based version]

In the beginning there was only matter. After a while, in a way we don't quite understand yet, some of the matter got organized into increasing complexity, until consciousness arose, and eventually self-consciousness, resulting in an activity we call mind. That is why you can go out into the world and find human beings; they have all been formed from this way, from matter as the underlying hardware, featuring a mind, as a form of software add-on.

How does this compare with the alternative, our fourth and last fable?

The fable of the origin of matter
[mind-based version]

In the beginning there was only mind. After a while, in a way we don't quite understand yet, some part of mind started to focus on particularly types of fantasies, that took on a more and more convincing shape. Mind got drawn into these complex fantasies, to the extend of losing itself into the play, fragmenting its own awareness into many bits and pieces, distributed so as to identify with the individual players. That is why you can go out into the

> world of experience, to find a world of (experience of) matter as well as other minds each glued to their own individual piece of 'matter'. That is why you can find how human beings; they have all been formed from mind as the underlying hardware, featuring an experience of matter as a form of software add-on.

All four of these fables are equally inconsistent. Not only do they attempt to put a cart before a horse, but worse, they try to put a one-sided vehicle before the horse, a mythological vehicle that miraculously appeared, real from only one side but non-existent from the other. Another picture that comes to mind is that of a person trying to lift himself by his shoelaces.

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Why is it that the mind-based fable strikes us as so much more strange than the matter-based fable, even though as presented above both are seen to be equally one-sided? An attempt at answering this question would require a detailed historical study. If I were asked to make a quick guess, my response would be along the following lines.

Although a body/soul split is clearly present in Plato's thinking, as well as in early and Medieval Christian thought, it is with Descartes that we have a clearly defined body/mind split, where the mind plays a role of a ghost in the machine. Descartes' views did not just drop out of the sky. During the preceding two centuries, man had gradually withdrawn from direct participation in the world, to play more and more the role of spectator. In art this movement was expressed through the use of perspective, leaving the viewer of a painting outside the picture, as if looking through a window upon a world. But not only did man withdraw from the world, he also withdrew from his own body. In medicine, the human body was treated more and more as a machine, about which information was obtained through anatomy studies in which corpses were dissected [1].

After Descartes, the enormous success of science tended to strengthen his view of the world based upon a body/mind split. The rational approach of science, based on a firm empirical basis, elevated the view of the natural world as something objectively given, out there, independent of our

subjective whims, and largely independent of religion as well – since the body/mind split had neatly separated the natural world from the world of the mind that could be left to the theologians to focus upon.

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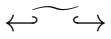
In analyzing the matter-based fable, it is extremely interesting to see how the development of physics in the twentieth century has upturned many of the original assumptions of separability of the earlier days of science. For example, space and time were clearly distinct quantities in earlier theoretical treatments. In practice, the two could never be really separated, though. In order to measure space, it takes a certain amount of time to do so (even a light signal takes time to travel, and so does the inspection of a measuring rod). And in order to measure time, one needs some space in which to do the measurement (whether to hang a pendulum or to watch a spring vibrate). But these practical details did not seem to be relevant for the more idealized theoretical treatments — until Einstein showed in his special theory of relativity how space and time are intrinsically interwoven, as different projections of a more fundamental spacetime continuum.

Another breakdown of earlier notions of separability came with the development of quantum mechanics. It was realized that a theoretical treatment of measurements could no longer ignore the presence and actions of the observer doing the measurements. There was no longer any room left, not even in principle, for a purely objective description of nature. Yes, it is still possible to give a mathematical description of a collection of atoms or elementary particles, and to compute the probabilities of different outcomes of the measurement process. But no, it is not possible to assign values to a set of objectively existing 'hidden variables' such that this set could explain the outcome of different types of experiments, even after the fact. Under the laws of quantum mechanics, there is no straightforward way to define an objective world independent of the observer: "No elementary phenomenon is a phenomenon until it is an observed phenomenon" [4].

These developments in and by themselves do not seem to convince most scientists to give up a notion of an objective world, for all practical intents and purposes. And indeed, the fable given above has nothing whatsoever

to do with quantum measurements. However, it is intriguing that two very different types of arguments both express a lack of sense of positing a purely objective realm.



Notes

[1] Romanyshyn, R.D. 1989, *Technology as Symptom and Dream* [New York: Routledge].

[2] Weinberg, S. 1977, *The First Three Minutes* [London: André Deutsch], p. 154, 155.

[3] Weinberg, S. 1992, *Dreams of a Final Theory* [New York, Pantheon Books], p. 255.

[4] Wheeler, J.A. 1979, in *Problems in the Foundations of Physics*, proceedings of the International School of Physics "Enrico Fermi," Course LXXII, ed. N. Toraldo di Francia [Amsterdam: North Holland]

5. Reality and Fantasy

Reality and fantasy: the opposition of these two notions forms one the key stones under our world view. At a young age we have learned to discriminate between reality and fantasy. Growing up, we have often engaged in fantasy of all kinds, most of it centered around the future. By the time the patterns of our lives have become more established, fantasy is likely to play less of a role in our lives. We have learned to resign ourselves to what we consider to be part of our reality. By this time, the word 'fantastic' may have shifted its meaning from conveying excitement to indicating something uselessly unrealistic.

Unreal as a fantasy is considered to be, it has the strange property that it can turn into reality. Depending on the context, we talk about

plans or dreams or other types of fantasies. An architect planning the global structure and layout of a building may start with a vague fantasy, perhaps a sense or feeling more than a concretely outlined structure. When this fantasy becomes more specified in its details, we say that the plans for the building 'take shape'. And with the final blueprints in hand, the process of building can start, resulting in the actual presence of the building as a solid presence, a full-fledged member of our massive reality.

When a popular leader like Martin Luther King tells us "I have a dream", he shows us the power of fantasy to shape our lives, by giving us a blueprint for society. And it is in the arena of society that struggles are fought. And if peace is not established, the resulting violence can destroy the most massive buildings, together with the so much more fragile humans that have erected and occupied those building.

When fantasy can lead to creation and destruction on ever larger scales, what remains of the distinction between reality and fantasy, which seemed so well established? A mountain is real and very massive indeed, and has always seemed as something difficult to 'wish away'. But the very precise tools of fantasy utilized in theoretical physics to unravel the secrets of the nuclear structure of matter have resulted in the most coarse tools of destruction mankind has ever manufactured. And with these tools, in the form of hydrogen bombs, we can now literally move mountains. Indeed, the vast destructive power of nuclear weapons in turn has lead us to entertain the terrible fantasy of a third world war — something that did seem altogether possible during the cold war, and that will keep hanging over our head as a possibility as long as there will remain stock piles of thousands of nuclear weapons.

Imagination and speculation are other terms often used instead of the term fantasy. We speak about the imagination of a scientist coming up with a new and interesting theory. Or we talk about speculation concerning the ecological future of our planet. Dreams, plans, speculation, or imagination: all of these point to the creative power of fantasy in one form or another. In all these activities we step outside the reality that we consider is making up our here and now, and we transport ourselves to a different realm, a 'realm of the imagination' as we call it.

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Fantasy may well be the most important criterion that makes us human, and separates us from other animal species. It is difficult to make a watertight case for such a notion. It is hard enough to defend the definition of humans as toolmaking animals, since Chimpanzees are known to make and use some primitive forms of tools as well. And it is even harder to make a clear definition of what constitutes speech, making a definition of humans as animals-with-speech even more dubious. Imagination and fantasy are even more slippery concepts, and I will make no attempt to draw up any firm criteria for what constitutes fantasy and what does not. But at least as far as we know, humans far outperform any other species as far as fantasy is concerns.

One consequence of humans being 'fantasizing animals' has been the abilities to plan for the future, and to come up with new ideas about how to do things. In other words, the development of human culture is closely linked to fantasy and imagination. In two rather different ways has fantasy enabled us to make a quantum jump forwards with respect to natural evolution. The first one is related to a qualitative enlargement of our habitat, at least potentially: we have left our planet and entered space.

We can draw some rough parallels between the cultural evolution of human beings and the natural evolution of plants and animals. For example, life originated in the sea. Only relatively recently, in the last ten percent or so of the history of life on this planet, did life emerge from the sea and started to settle on the land. Interestingly, each land plant and each land animal still carries the heritage of the sea with them. Inside, they contain a salty mixture of liquids, shielded from the outside by a form of 'land suit', not unlike the space suit of an astronaut. The step we took a few decennia ago, of leaving the Earth and setting foot on the Moon, was a logical next step after the previous step, half a billion years ago, in which we emerged from the sea.

It is interesting to look at a picture of an astronaut standing on the moon, and to consider the triple play involved. Three layers of costumes are present. Deep inside, there is the system of blood circulation and lymph

nodes, reminiscent of the oceanic environment for the earliest life forms that dominated the Earth for billions of years, while the continents remained bare and void of life. Thus each human cell is a tiny sea creature, fed no longer by a primordial oceanic soup of nutrients but by the blood circulation that has taken over the job, hundreds of millions of years ago. And each cell has a tight jacket, the cell wall, which forms the most inner set of costumes. The next costume is the human skin. And the outer costume is the space suit of the space traveler.

Thus the astronaut, as a space creature, hides a land creature under its skin, in a small terrarium, a container filled with air. It is the land creature that in turn hides sea creatures under its skin, in a small aquarium, a container filled with fluids. According to our current understanding, the step from sea to land was made by random occurrences slowly giving rise to the collective effect of natural evolution. The step from land to space, in contrast, was made much more swiftly, through the more directed process of fantasy in cultural evolution.

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There is a second, more fundamental way, in which fantasy has enabled us to make a quantum jump forwards with respect to natural evolution. If we compare plants, animals, and humans, we see a very interesting difference in the dimensionality of their freedom of movement.

Plants do not move, are restricted to an essentially zero-dimensional existence. Animals can move through several dimensions, largely two in the case of land animals, and three in the case of birds and fish. But humans are the first four-dimensional animals to have appeared on the planet, as far as we know.

Human beings have mastered time. They can remember specific events in the past, and plan for specific occasions in the future. They are not restricted to the here and now of the plants, nor to the now of animals. For us, both the there and the then are accessible. And this is what has given us such tremendous power over both animals and plants, a form of power that may well prove detrimental for the whole ecosystem of the planet, if we do not manage to balance it better in the immediate future.

Of course, plants react to time in several ways, through their passage through seasons of blossoming and of dropping their leaves. But this behavior seems to be encoded in their genes. Animals can learn, but after having learned something, they just apply what they have learned in a way that seems to be no different from what they know instinctively. Humans on the other hand can consciously go back in time, remember specific events, and can go into the future, imagine courses of action and choose how to behave. In other words, humans have fantasy. Perhaps these distinctions not clear cut, and somewhat present in some animals. In any case, they seem to be most clearly present and distinctly developed in the human race, as far as we know.

So, we are all time travelers. Long before some of us have left this planet to go to the Moon, all of us have already left both the sea and the land, and have gone into a land of fantasy. We saw that animals are all little astronauts, hiding sea creatures living under their skin. In our fantasy, too, we are all fantasy astronauts (fantasianauts?): in each fantasy, under the skin of the fantasy mode of consciousness, the laws of reality operate. Whether we dream about a table, or remember a particular table, or plan to construct a table, or think about properties of tables in general: in all cases we deal with the table as an object extended in three dimensions, we look at it from a certain perspective. Fantasy is generally a tight fitting costume, with only a thin layer of added-on variation added to a firm core of realistic thinking.

The sea is more friendly and easy to live in and drift in. The land is harsh, and requires more conscious effort to move. But movement is, once mastered, more free, with no water offering resistance. On land it is easier to develop and use tools. Similarly, in fantasy we are not led along by the senses, we have to use our own effort to walk. But once we do, we are indeed much more free. And we can develop completely new tools: it is like working solely with software rather than having to deal with the stubborn constraints of hardware: in fantasy land, we can crawl, walk, soar, whatever we like, to our hearts content, switching between various modes of projecting our ideas at a blink of the eye.

Man has been characterized as a rational animal. However, it may be

more to the point to characterize man as a fantasizing animal. The use of our reason is just one byproduct of the use of fantasy. The fact that we are four-dimensional animals means that we have the freedom to move in time, and thereby in fantasy. This is what enables us to use reason in the first place, learning from the past, and planning the future (and wasting a lot of time and energy in hope and fear!).

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Can we 'really' say that reality is more real than fantasy? In previous chapters, we have already seen how reality and fantasy are more intimately linked than is usually appreciated. But we can go one step further. Let us take something that really seems absolutely 'real': a solid mountain, out there, to look at, to touch, to climb — what could be more real? One really cannot doubt the reality of a mountain.

Or can one? I will end this first Part of the book by arguing that it makes no sense to say that 'a mountain is real' in the sense of objectively given, out there in the world, independent of human judgement. And the easiest way to argue my case would be to consider the simplest type of mountain, in the form of a single piece of land that is significantly higher than the relatively flat surroundings. For definiteness, let us say that anything more than ten thousand feet high qualifies as being part of the mountain, while the remaining area does not.

Clearly, the argument for proving the existence of a single-peaked smooth mountain of more than ten thousand feet high is not going to be very different from the argument for proving the existence of a single isolated smooth wave in the ocean. Let us consider that we encounter a single wave in the water, with a height of about ten feet, in an area of ocean in which the surrounding water only contains small ripples, less than one foot high. Anything higher than three feet could then safely be included into the wave, and the rest of the water could be considered to be outside the wave. Changing the definition of the wave to start at two or at five feet would change the size of the wave slightly, but in all three cases we would 'catch' the same isolated wave.

In fact, we can even extent the question of the reality of a mountain or a wave to the question concerning the reality of a single electron. Here, too, we have an electron field with a large amplitude in a limited region, where the probability to detect the electron is high, whereas the same field has a much smaller amplitude elsewhere.

In all three cases, we have a similar mathematical problem. Let us take the wave-in-the-ocean as our first example. What does it mean for the individual isolated wave to be 'real'? How do we measure its reality? If we carefully trace what goes into the detection of a wave, we find that there are the following three discrete steps involved.

1) We measure the height of the water at a number of different places in and around the single wave.

2) We choose a cut-off value for the minimum height that the water should posses in order to qualify for wave membership.

3) We then select all locations where the height of the water exceeds that of our cut-off value. Around these selected locations we draw a rough contour, and call that the position and shape of the wave.

Each of these three steps are essential. For example, if we recognize a water surface, but are not interested in the height of the water, but rather in the color or temperature, we will never detect a wave as such. Or if we choose a cut-off value that is either much too high or much too low, we will either not detect any wave, or we will conclude that the whole ocean is one big wave. And finally, if we would not divide the ocean into two parts, the part above and the part below the cut-off value, we still would not have found the isolated wave, but instead we would have been stuck with a table with qualifying measurements without other meaning attached.

The same argument carries over directly to the detection of the presence of a mountain. And when the necessary modifications are made to a quantum-mechanical treatment, the detection of an ensemble of electrons, or the probability of detection of a single electron, can be treated along similar lines as well.

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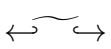
We cannot escape the conclusion that our view of an 'objective' world necessarily reflects our particular choice of interests. In this sense, there is no such thing as a unique objective world, independent of the type of choice of the observer. Of course, the absence of a purely objective world does not imply the other extreme opposite, namely that our view of the world is purely subjective. Far from that. Once we decide upon the definition of a mountain, and upon the precise way of measuring a mountain, experience shows us that we cannot wish a mountain to appear, and that we cannot wish away an existing mountain.

We have to conclude that reality can neither be described in purely subjective nor in purely objective terms. Once more we see that we have to accept both members of the pair of opposites, in this case those of the subject-object polarization.

To conclude Part I of this book, we can sum up our main result as follows. If we accept only one member of a pair of opposites, we always invite a Trojan horse within the walls of our world view. The next thing we know is that the other member of the pair somehow snuck in as well, unforeseen and probably unwelcome, but certainly inevitable.



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Part II. A FRESH LOOK AT THE WORLD

6. Problems of Identification

Our problems are the result of identification. We identify with all the roles we play to such an extent that we tend to lose perspective on our activities as being roles. And not only that – we tend to freeze the activities themselves into fixed patterns. The isolation of roles from the contextuality of a play, and the subsequent freezing of the roles may seem like a useful trick. Like a frozen TV dinner, everything seems present, neatly arranged, handy and ready to function. Everything fits into a tight framework, in which there is not even room to point out that 'taste' and 'atmosphere' are missing. Everything on the tray is accounted for – what more could you ask?

The 'more' we are asking for is something that is immediately obvious when you do a taste test, comparing a TV dinner with the real thing. But imagine someone who had been put on a exclusive diet of TV dinners, ever since age three or five. For such a person, it still makes sense to talk about quality of food. However, such a conversation will center around a comparison between different brands of TV dinners, and around fine points such as exactly how many seconds of microwave heating will produce the best results.

In this context, the following example by Gilber Ryle provides a nice illustration of the type of the type of mistaken identification that can easily follow reductionist thinking. Ryle himself provided this example in an attempt to interpret the relation between a scientific and an every-day description of physical objects.

> An undergraduate member of a college is one day permitted to inspect the college accounts and to discuss them with the auditor.

He hears that these accounts show how the college has fared during the year. 'You will find', he is told, 'that all the activities of the college are represented in these columns. Undergraduates are taught, and here are the tuition-fees that they pay. The instructors teach, and here are the stipends that they receive. Games are played, and here are the figures; so much for rent of the ground, so much for the wages of the groundsman, and so on. Even your entertainments are recorded; here is what was paid out to the butchers, grocers and fruiterers, here are the kitchen-charges, and here is what you paid in your college battels'. At first the undergraduate is merely mildly interested. He allows that these columns give him a different sort of view of the life of the college from the patch-work-quilt of views that he had previously acquired from his own experiences of working in the library, playing football, dining with his friends, and the rest. But then under the influence of the auditor's grave and sober voice he suddenly begins to wonder. Here everything in the life of the college is systematically marshalled and couched in terms which, though colourless, are precise, impersonal and susceptible of conclusive checking. To every plus there corresponds an equal and opposite minus; the entries are classified; the origins and destinations of all payments are indicated. Moreover, a general conclusion is reached; the financial position of the college is exhibited and compared with its position in previous years. So is not this expert's way, perhaps, the right way in which to think of the life of the college, and the other muddled an motionally charged ways to which he had been used the wrong ways?

At first in discomfort he wriggles and suggests 'May not these accounts give us just one part of the life of the college? The chimney-sweep and the inspector of electricity-meters see their little corners of the activities of the college; but no one supposes that what they have to tell is more than a petty fragment of the whole story. Perhaps you, the auditor, are like them and see only a small part of what is going on.' But the auditor rejects this suggestion. 'No', he says, 'here are the payments to the chimney-

sweep at so much per chimney swept, and here are the payments to the Electricity Board at so much a unit. Everybody's part in the college life, including my own, is down here in figures. There is nothing departmental in the college accounts. Everything is covered. What is more, the whole system of accountancy is uniform for all colleges, and is at least in general pattern, uniform for all businesses, government departments and town councils. No speculations or hypotheses are admitted; our results are lifted above the horizons of opinion and prejudice by the sublime Principle of Double Entry . These accounts tell the objective truth about the entire life of the whole college; the stories that you tell about it to your brothers and sisters are only picturesque travesties of the audited facts. They are only dreams. Here are the realities.' What is the undergraduate to reply? He cannot question the accuracy, comprehensiveness or exhaustiveness of the accounts. He cannot complain that they cover five or six sides of college life, but do not cover the other sixteen sides. All the sides that he can think of are indeed duly covered.

Perhaps he is acute enough to suspect that there has been some subtle trick played by this word 'covered'. The tuition he had received last term from the lecturer in Anglo-Saxon was indeed covered, yet the accounts were silent about what had been taught and the auditor betrayed no inquisitiveness about what progress the student had made. He, too, the undergraduate himself, had been covered in scores of sections of the accounts, as a recipient of an Exhibition, as a pupil of the lecturer in Anglo-Saxon and so on. He had been covered, but not characterized or mischaracterized. Nothing was said about him that would not have fitted a much taller Exhibitioner or a much less enthusiastic student of Anglo-Saxon. Nothing had been said about him personally at all. He has not been described, though he has been financially accounted for.

Take a special case. In one way the auditor is very much interested in the books that the librarian buys for the college library.

They must be scrupulously accounted for, the price paid for each must be entered, the fact of the actual receipt of the book must be recorded. But in another way the auditor need not be at all interested in these books, since he need not have any idea what the books contain or whether anybody reads them. For him the book is merely what is indicated by the price mark on its jacket. For him the differences between one book and another are differences in shillings. The figures in the section devoted to library accounts do indeed cover every one of the actual books bought: yet nothing in these figures would have been different had these books been different in subject-matter, language, style and binding, so long as their prices were the same. The accounts tell neither lies nor the truth about the contents of any of the books. In the reviewer's sense of 'describe', they do not describe any of the books, though they scrupulously cover all of the books.

Which, now, is the real and which the bubble-book, the book read by the undergraduate or the book whose price is entered in the library-accounts? Clearly there is no answer. There are not two books, nor yet one real book, side by side with another bubble-book - the latter, queerly, being the one that is useful for examinations. There is just a book available for students, and an entry in the accounts specifying what the college paid for it. There could have no such entry had there not been the book. There could not be a library stocked with mere book-prices; though also there could not be a well-conducted college which had a library full of books but required no library accounts to be kept.

The library used by the student is the same library as that accounted for by the accountant. What the student finds in the library is what the accountant tells the pounds, shillings and pence of. I am suggesting, you see, that it is in partially the same way that the world of the philologist, the marine-biologist, the astronomer and the housewife is the same world as that of the physicist; and what the pedestrian and the bacteriologist find in the world is what the physicist tells him about in his double-entry

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How to break out of the addiction to frozen dinners, administrative systems, or a world view in which everything is accounted for in terms of an objective massive reality, 'out there'? The first step is to look up and out, to see the limitations of the system one has been working under. The second step is one of action, to get up and out, beyond the previously unsuspected limitations.

There is something paradoxical, though, about these two steps. For a prisoner, it is easy to find and touch the walls of the prison, but it may be extremely hard to get out. But for someone caught in a limiting belief system, the situation is reversed. Part of the definition of 'being caught' in a belief system is to be unaware of the fact that there are other alternatives that are equally valid. As soon as the latter realization has clearly dawned upon a person, the prison walls have already dissolved in the process.

The walls of a prison are a form of hardware, that require a lot of effort to scale or break. The walls of a belief system, on the other hand, are a form of software. As soon as the 'bug' has been spotted, it is easy to change the program. All the effort has to go into the identification and precise location of the problem.

Actually, this division is again a bit too glib. The most clever break-out schemes of prisoners have not involved a breaking down of prison walls, but rather a way to obtain a key, or a way of masquerading oneself as a guard, etc. In other words, most of those solutions have relied more upon cleverness than upon brute force, shifting strategy from a hardware to a software approach.

And, finally, for those prisoners that have not found a way to escape, there are still many choices left open, concerning the way in which to deal with the situation. Do they accept their situation and try to make the best of it? Or do they spend their energy worrying? Here we have a type of choice which is purely within the software domain.

Or is it? If you are extremely worried about something, is the sheer knowledge that worrying is not the most effective way to use your time and energy enough to stop worrying? It all depends on the quality of the 'sheer knowledge'. If someone tells you not to worry, and if you vaguely accept on intellectual grounds that worrying does not make too much sense, then this type of knowledge is probably not enough to do the trick. But if you have really seen through the utter uselessness and self-inflicting aspects of an overdose of worrying, in an authentic way (most likely, but not necessarily, after a lot of worrying), then it may be possible to drop the worrying altogether.

Above, we mentioned a two-step approach to breaking out: looking up and getting out. In the case of software problems, the real problem lies only in the first one. Once we authentically see what is the problem, the seeing itself is the solution. But the problem now has shifted to the meaning of 'authentic'. And again, we can discern several separate steps or moves. The final one, the authentic seeing, may require several preparatory moves.

Let us take the example of someone mistaking the administrative system of the university for the real university. The first move would be to make it plausible that there is at least the possibility that there is something else at all, outside the administrative system. This may well be the hardest move to make. The next move would be to explain a strategy of discovery: how to get up from behind the administrative desk, and walk out into the open air of the campus and into the actual buildings. The final move would be the actual implementation of the strategy, the easiest of all is some sense: it would literally just take a minute, a few steps, and briefly looking around.

Let us return to our main question, of how to break out of a one-sided world view, such as that of the third fable presented in Chapter four. A number of opening moves have been laid out in Part I. Let us now move to the middle game, to explore a strategy of discovery. To do that, let us focus again on what we are after.

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All of our problems are the result of identification. This is a radical

statement. True or false? Let us try to find out. We can take it up as a working hypothesis, and try to shoot it down by finding counter examples, problems that are clearly not the result of identification.

Actually, the statement above is a different way of phrasing the no-boundary working hypothesis we introduced in Chapter two. Problems are problematic because they involve limitations. If there are no ultimate boundaries, then no problematic limitation can ultimately pin us down. To the extent a problem seems to pin us down, we are staring not at the problem itself, but at an unwarranted identification we are caught in.

This may all sound rather abstract and academic. To make it more concrete, we will spend several chapters investigating extremely simple every-day situations. Starting with the next chapter, we will thus treat our immediate lived environment as a laboratory to test our two related working hypotheses: *"there are no boundaries"* and *"All problems stem from identification."*

In these following chapters we will investigate aspects of how we perceive our physical environment, how we interpret what we perceive and how we integrate these interpretations into a stable world view. In this exploration, we will try to point out some of the main concepts that function as the nuts and bolts of our world view. Many of these we have learned to use tacitly, so much so that we may no longer be aware of how we use them or even that we use them. For each of these concepts, we will identify the pair of opposites of which the concept is only one pole. In this way, we can restore the contextuality of that concept by taking into account the polarity that gave rise to the concept in the first place. And this, in turn, will give us many opportunities to test our working hypothesis that all problems stem from identification.

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Although the laboratory-type examples below may not strike one as that significant in the grand scheme of things, more important examples are easy to come by. In a war, it is identification with one of the warring sides that can give rise to blind nationalism. In the current widespread

destruction of the environment, it is the denigration of nature, as being subservient to a culture of greed and exploitation, that is the cause of the short-term-benefit mentality that gives rise to environmental destruction.

This does not imply that we cannot take sides in a war. But if we do so, it would be far better to view the other side as human too, to have at least some understanding of their motives and goals, and to try as much as possible to find a peaceful and mutually agreeable solution. Similarly, environmental concern does not imply an end to all technological activity. It does, however, suggest to treat nature and culture on a par, without viewing the one as providing so much exploitable material for the other. It is the tacit assumption that our culture can be separated from nature, and that nature can be treated as an afterthought, that is underlying most of our current (lack of) global environmental policies.

Other examples are more personal. If someone is suddenly stricken by a grave disease, an understandable reaction is to be devastated psychologically, through the feeling that the rug has been pulled out from under one's sense of self-identity. As long as we are healthy, we tend to identify ourselves with a healthy body, and it is an enormous challenge to realign our identifications if we suddenly lose our health. In a different, but not necessarily lesser way, many of us tend to identify themselves with a job, or with the success of their children, or other seemingly essential and central elements of their lives.

A sudden shock, caused by an unexpected and overwhelming loss, is a very powerful way to be reminded of identifications we were never consciously aware of. But we do not have to wait for a catastrophe to hit us, in order to examine our own life, and the identifications that keep our life firmly bolted down to its seemingly immovable foundations. We can simply open a newspaper, any newspaper, and read stories about people struck by disaster. And there are plenty of background stories as well, interviews with people months or years after they have suffered a great loss. Some of these stories are very illuminating and encouraging. "In one week of disaster I learned more about life than in the preceding twenty years or coasting through happy luxury" is not uncommon as a reaction.

Apart from relying on either direct or reported disasters, we can probe

more direct and simple ways to become aware of our hidden identifications. We can start at any place, at any time, and just look around us, at the world we find ourselves in, and at the role we have accepted to play in that world.

Notes

[1] Ryle, G. 1954, *Dilemmas* [Cambridge Univ. Pr.], p. 75

7. Neither Here nor There

An exploration of the givenness of the world in the here and now can focus on anything at hand. For example, we can check out what happens when we tilt our head. This is a surprisingly simple experiment that can help us to become aware of at least some of the reconstruction of reality we all are engaged in, at each moment. The question we will focus on is how we 'here' gain our information about the world out 'there'.

We know that if we tilt a camera, the picture appearing on the film will be tilted as well, and so will the photograph we take with the tilted camera. However, when we tilt our own head we don't notice any difference. The world does not seem to tilt in response. Even though we know that the image of the world is tilted on our retina, we do not directly experience this change.

What we do see is a movement of the borders of our field of vision. Only indirectly, through our observation of these moving boundaries, can we become aware of the sophisticated process of image stabilization at work behind the scenes of our visual experience. Alternatively, when we are extremely tired or sick or drunk we may see this process at work through its failure to work properly. Suddenly the world has lost its stability. When we notice that the walls and the ceiling start to move we know that we'd better take a rest.

The usual image stabilization identifies a reference frame that defines for us a standard of rest. This rest frame is *not* hard-wired directly to the eye, as we just saw. Rather, it takes its clues from a sophisticated recognition of features within the visual field, rather than from the receptors in the eye. Objects in our field of vision are recognized, and a collective motion of all these objects across the field is interpreted as the result of a motion of the eye.

Other clues play a role as well, such as those given by the organs of equilibrium that our positioned near our ears. The whole story is rather complex, and only partly understood. However, the result is clear and obvious: it leaves us with a stable view of the 'world out there'. This is indeed a very convenient and practical aspect of the way our visual system operates. From an evolutionary survival point of view it is essential to be able to concentrate fully on one's environment, rather than to be bothered by correcting the bias introduced by one's own motions.

In fact, the solution in the form of auto-stabilization of the field of view is so efficient that we normally do not notice it at all. Only when we think about how the eye works, or more vividly if we work with a video camera, we realize that even a slight tilt of the head must redistribute the light over different receptors in the eye. And tilt is only one of many ways in which the image is affected. Each movement of the eye, sideways or up or down, will shift the image projected on the retina, even while we hold our head fixed. So what we actually experience is not at all a direct and faithful representation of the world around us, straight from the retina. Rather, it is the outcome of a complex process of meaning-building, on top of the raw data coming in through the eye.

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Already in this simple example, we can separate different levels of reality. There is the reality of what is 'really' present as an image on the retina. And then there is the reality of the world as we experience it visually. From the point of view of the raw-data reality of the retina, what we experience is actually a falsification. It is the result of a severe

censorship that has completely suppressed all information connected with the raw process of image-changing through head tilting.

The reply against this accusation, in defense of the visual processing system, is the common plea of an enlightened dictatorship. When the head tilts, the argument goes, the projection of objects on the retina is distorted. For example, the horizontal line demarcating the bottom of a roof is projected onto a slanted position on the retina. All the visual system does, the plea goes, is to benignly correct for this falsification by a counter-falsification. As a result, the final experienced output is 'unaffected' by the slanting of the head.

Let us look at this argument a bit more carefully. While we may agree that the experienced view is closer to 'reality' than an uncorrected view would be, it has become clear that in no way do we perceive things 'just as they are, out there'. The very fact that there is a significant amount of processing going on shows that perception is not at all a passive process. Rather, *what we experience is the outcome of an active process of image construction,* the result of an activity. We are never the passive recipients of some chunk of reality which is simply handed down to us through our senses. The reality we believe to be 'out there' and the reality we actually experience 'in here' in our own consciousness are separated by something that is neither here nor there: a complex process of distortion and counter-distortion.

To make direct contact with these conclusions, I strongly encourage the reader to spend a few seconds trying out the following experiment. Close your eyes, and tilt your head by a significant amount. Then quickly open your eyes, to take in the view in front of you, and immediately close your eyes again. Tilt your head by a different amount, either way, left or right, and quickly do another reverse blink, by catching a very brief glimpse of the situation from that angle. Repeat this for at least five or six different tilting angles of the head.

You will notice (if you are healthy, not extremely tired, and not using drugs) that each snapshot of the scene in front of you *instantaneously* is stabilized into the 'correct' horizontal position. Whatever the visual system has done, whether it has used our organs of equilibrium or whether

it uses clues from the visual output itself, it does its tricks completely unobtrusively. Big Brother's invisible presence seems to have become fully undetectable.

Actually, detecting it is not that hard. For those readers who value scientific objectivity even at the risk of some temporary discomfort, there is a simple follow-up experiment. Stand up straight, and then quickly turn around by 360 degrees a few times; a total of three or four full turns may already do the trick quite well. Do you notice that the world has started spinning a bit too, now, and probably continues to do so for another bit after you have stopped moving? If so, you have caught the cover-up agents by their coat tails, so to speak, just as they were trying to slip 'out of view'.

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Image stabilization is only one example of a very large number of ways in which our experience comes with layers and layers of added meaning, seemingly as built-in features. Which, if any, of these features are really built-in and which were learned at a young age is an interesting question, but not one concerning us right now. Rather, we want to concentrate on uncovering some of these layers of meaning, bringing them out into the open. Once we have seen them clearly, we can then ask how they originated.

When we tilt our head, there is extra meaning added to the tilted raw data from our retina, resulting in our perception of a stable picture. Here the corrected interpretation completely covers over and hides the raw data. Let us look now at another example in which the raw data remain available.

When someone walks away from us, we can see how that person's figure gets smaller and smaller. Rather than concluding that the person is slowly shrinking, we habitually add some meaning here as well. We consider the person to keep his or her size, and interpret the apparent shrinking of the figure to be the result of a change in perspective.

Notice that in this second example the addition of meaning is done in 'full view': here we can be simultaneously aware of the shrinking (and eventual disappearing) of the figure and of the constancy of the person's actual size. And just as in the first example, this addition of meaning is a

form of falsification. Again, the rationale is that this falsification is introduced in order to cancel the geometrical falsification resulting in shrinking images on our retina of people who 'in reality' are non-shrinking.

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We can make all this a bit more vivid. It is instructive to take an object, such as a pen or glass or whatever is close at hand, and hold it in front of you, at a comfortable viewing distance. Now move this object closer to you and away from you a few times, and observe what is happening. Notice how the perceived size of the pen is getting smaller and larger, smaller and larger. Notice too how the *felt* size of the pen does not change.

This latter conclusion is not an intellectual one. Without using any explicit reasoning processes, we simply are aware of the constant size of the 'real' pen, we feel it as a lived experience. For example, if we would move our arm out and the pen would *not* seem to shrink, we would be surprised. In that case, we would interpret the situation as caused by an unexplained *expansion* of the pen. And it would really 'feel' like an expansion.

While we are moving our pen a few times more to and from, consider now what is happening, according to our usual explanations. The size of the pen is constant. Its distance to you is changing. Therefore the angle under which it is viewed by you is changing. Therefore, the picture projected on the retina by the diminishing angle is changing in size as well. And indeed, you can verify this directly by *seeing* the apparent size of the pen shrink. Nonetheless, you are also 'seeing' that the pen *itself* does not shrink.

Clearly, two different types of seeing are involved. And corresponding to them, two types of pen are 'seen'. There is the apparent pen, shrinking and growing. And there is the 'real' pen, which we feel to maintain the same size. And presumably, the 'real' pen is indeed the real, objective pen that other people can agree upon, even though they will see an apparent pen that is different (as an image) in many ways from the apparent pen I perceive. Or is it?

Would it not be more correct to say that we have *three* pens? There is the apparently shrinking pen that you 'see' directly as clearly shrinking, at

least in appearance. Then there is the 'real' pen that you can also clearly 'see' as keeping its old size. *And then there is the 'really real' pen*, the one objectively out there, the one you and your friends all agree upon. This is the objective pen, that can be talked about, handed over, borrowed and forgotten-to-be-given-back; the pen that can be analyzed physically and chemically and described in scientific equations of various sorts. In contrast, the other two pens are subjective, in the sense of being part of subjective experience, according to our normal interpretation.

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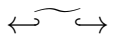
This proliferation of pens is a very serious affair, and points to the heart of a major philosophical problem with severe practical consequences, as we will see in a moment. What has happened? According to our standard scientific explanations, the really-real pen has cast an image on our retina, resulting in our experience of an apparent pen. We then somehow, clever cognitive animals that we are, do a double take on our experience and re-interpret this shrinking and expanding pen as a really-constant-size pen. Or better, we re-experience it and call that the real pen.

And here is the crux of the problem: *we normally never pause to distinguish between what we have called the 'really-real' pen and the 'real' pen*. But as soon as we do make the distinction, we realize that we have the following causal chain of three pens: the really-real one giving rise to the apparent one giving rise to the real one. Not only are the really-real and real one two separate entities, they are not even directly linked in any clear-cut way. Rather, their mediator is a very different-looking animal altogether. The apparent pen acts as a type of subjective screen between the objective world 'out there' and the pseudo-objective world re-created 'in here'. [1]

We thus reach the conclusion that the perceived constancy of size of our 'real' pen is a construct upon a construct. The image on our retina gives rise to the construction of an apparent pen in our visual consciousness. To this image is then added a layer of meaning telling us that the pen is not 'really' changing size. We trust, for good practical reasons, that our final product, the 'real' pen, in many ways is a faithful reproduction of the

'really-real' pen, but it is clear that it is not the really-real pen itself. In between there is a gap, bridged by a very different object.

And yet, we speak in daily life about 'this pen here' and 'that table over there'. We point at a chair, sit down on it, talk about it with someone else, all as part of a very complex fabric of meaning woven around our ever-changing visual images, tactile impressions, etc. Usually we consider ourselves to 'be' part of this world of tables and chairs and other objectively present things. But having gone through the above line of experimental evidence, we have to reconsider. It would seem to be more correct to say that each of us lives in a type of virtual reality, a little personal sphere of sense impressions and meanings constructed on top of raw data that are neither 'here' nor 'there'. This concept of virtual reality brings us into the next chapter.



Notes

[1] reference to Mel Cohen's 1965 article?

8. Virtual Realities

Photography and film making as well as radio and television have given us increasingly realistic tools for reconstructing reality. The first films were silent, and presented the audience only with visual information. Radio provided complementary information in the form of music and spoken word. Later, television and 'talking movies' combined visual and auditory stimulation in one medium. Extrapolating, we may expect that the senses of touch, smell, and taste might be included to some extent some day, and perhaps heat and cold and other sensations.

Extension and refinement of sensory stimulation is only one direction in which we can extrapolate beyond our current audiovisual media. An

altogether different, and in many ways more interesting alternative direction involves the notion of active participation. Rather than being taken along for a ride through a preprogrammed story, as in the watching of a movie, we can imagine a clever computer program to simulate a whole environment, in which we have a certain amount of freedom to move around. If the computer setup is really sufficiently intelligent, the view on the screen will adept itself to our choice of movements.

One example of such a participatory movie is that of a flight simulator, used to train pilots. Other examples are the many different types of video games that have become so popular with the introduction of personal computers. In both cases, we step into a made-up world. If the quality of the graphics is sufficiently realistic, and the response of the computer sufficiently fast and clever, we get some sense of being drawn into this world, a world in which we are active participants, and not just passive viewers.

Recently, some measure of tactile experience has been introduced as well, both actively and passively. The human computer user can wear a special type of glove, with sensors attached near each finger joint, to register the details of the movements of thumb and fingers. Even more interestingly, the glove can provide some degree of feedback as well. Air can be pumped into different compartments of the glove, stiffening the surface of the glove locally to different degrees. The computer can regulate the amount of air flow, and thereby create a sensation roughly corresponding to what the user would feel when picking up a solid object, for example.

In addition, the user can wear a type of headgear with a built-in television display, showing the simulated environment through which the computer guides the person. With position and orientation sensors attached to the headgear, each motion of the head is translated automatically into a change of scene projected into the visor-type screen worn by the human user. In this way, the computer creates a form of artificial world in which the user can move around and can also turn around over the full 360 degrees. At each part of a turn, the appropriate segment of the full panorama is appropriately displayed right in front of the human subject. And in this world, virtual 'objects' can be encountered, picked up with the gloved hand for inspection, and put down in different 'places'. In short, the human sub-

ject moves through a form of virtual reality, as this type of simulated world has come to be called [1].

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The concept of virtual reality will become increasingly important in many applications. With faster computers and improved algorithms, many different areas will be simulated in more and more detail. For example, a future biochemist studying and developing designer proteins can descend into an imaginary world in which he or she is shrunk to such tiny dimensions as to be able to move around through the DNA strands, watching and touching and actively changing the location of the different atoms and amino acids.

In another example, a future surgeon will be able to shrink to the dimension of an individual cell, and move through a simulation of a diseased organ of a patient, in preparation for an operation. In this case, the simulation might be based upon a detailed type of CAT scan of the actual organ to be treated, to provide realistic detail in a three-dimensional visual and tactile way.

But apart from these and other applications, there is an altogether different lesson to be learned from the very notion of virtual reality. As the Italian philosopher Vico has noted, we learn about nature not so much through a process of passive looking on, but rather through a process of recreation. After we had invented the pump, we could recognize the heart as a type of natural pump. After we had invented sonar, we could understand how bats manage to orient themselves. In a similar way, the invention of telegraphy gave us an idea how a nerve may transmit its information.

What can the invention of a simulated world, of a 'virtual reality' teach us? It can give us a specific example of the way in which we create our 'normal reality'. And it can show us our familiar environment in a whole new way. A few hundred years ago, it was a surprise to find out that the heart is functioning as an organic version of a mechanic pomp. And presently, a full realization that our sensory and nervous system creates a type of virtual reality for us, can equally come as a surprise. In other words,

what we have always accepted as the 'normal reality' out there, something empirically accessible, turns out to be a type of 'virtual reality' in here, and as such *the only* type of reality accessible empirically.

In this description, we have tacitly accepted the standard scientific picture of an objective world, and concluded that as such it is something that is not directly accessible. But apart from that problem, we have seen in Chapter four that there are more fundamental problems concerning the postulation of the very existence of such an objective realm. With these serious problems in mind, we may expect to have to adjust our views later on. But in order to get a rough idea of the problems we are dealing with in the construction of our reality, let us ignore these contextual complications for now.

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So, problematic as it may be, let us simply postulate the presence of an objective realm, and let us view ourselves as inhabiting this objective realm through our bodily presence. How, then, do we detect and verify the existence of this objective realm and its detailed structure? The scientific explanation goes roughly as follows, if we start our description at the atomic level (it would look quite a bit more exotic if we would start at a sub-atomic level; more about that later).

As the story goes, the world is made up out of a space-time continuum populated with atoms, many of which are combined to form a large variety of molecules. In addition there are different force fields, such as that of gravity and electromagnetism. Light and radio waves in turn are different types of electromagnetic radiation. A human being, then, is a highly complex aggregate of molecules with the interesting capability of functioning in such a way as to 'possess' ('feature', 'project') consciousness.

Again, let us leave aside the uncomfortable questions about what is meant by consciousness, this ugly duckling in a purely physical description, this round peg in the square hole of a mechanistic description of a human organism. Let us follow the narrative of this amazing story, to see how this 'consciousness', going along for the ride in the human nervous system, can get in touch with the objective world, out there.

What happens when we see a coffee cup in front of us, when we are sitting outside on a terrace in front of a coffee shop? Electromagnetic waves that have originated from nuclear reactions in the Sun fall on the surface of the cup, and bounce off in the direction of our eyes. There, they interact with molecules of the retina, to produce electric signals in our optic nerves that are processed and then transmitted to our brain. Deep inside our brain, a complex amount of further processing gives rise to the consciousness of a 'cup on the table, visible in the sunlight that illuminates it'.

Let us follow this brief narrative and its consequences step by step.

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We start with a collection of molecules in the form of a cup. And at the end of the story, a visual awareness of a cup is generated in the brain. Question 1: a) please point to the real cup in front of you, and then b) point to the rough location of the image of the cup. Here is an example of a wrong answer: a) pointing in front of you to the real cup, and b) in the general direction of your brain for the image of the cup is incorrect. And here is the right answer: a) shrugging your shoulders in answer to the search for the real cup, and b) pointing in front of you to indicate the *precise* location of the image of the cup.

What you see there, in front of you, this very real coffee cup that you can touch, drink out of, break by accident, or leave for someone else to wash — all this to which you have access through your various sense perceptions, all this is *what has been generated in your brain* according to the standard scientific story we are following here. The really 'objective' cup can be abstractly discussed, can be caught to some extent indirectly through a mathematical description with pen and paper, but can never be directly accessed within experience.

The inaccessibility of the objective cup has nothing to do with the question whether we consider the cup in an every-day way as a particular piece of stone or plastic with a certain shape, or in a more scientific way as an aggregate of molecules. And this conclusion is also independent on the use of tools. Even if we use a scanning tunneling microscope to image

a single atom from the material of the come, we ultimately have to use our own sense organs, in this case our eye, to let the information enter into our own experience.

The world of experience forms a closed system. No chunk of objective really, 'out there', can ever make its way to our experience 'in here'. We live in our own bubble of awareness, separated from 'objective reality' by an abyss crossed by nerve impulses, that translate objective into pseudo-objective reality, through a screen of subjectivity, as we saw already in the previous chapter. We can drive this conclusion home even more vividly, when we look at some of the details of our coffee cup, for example its colors.

If the coffee cup has a colorful painting, a golden figure on an azure background, say, the 'reality' of these colors is part of objective reality. Different people can agree that the azure is really a form of blue, and instruments can analyze the spectrum of the sunlight reflected of the azure part of the surface of the coffee cup, to confirm that, yes, the reflected light is a type of blue. But what does this mean?

Within the objective world, 'blue' says something about the spectral mix of electromagnetic radiation. The vivid azure that we humans are aware of is something that is produced in our brain, as part of our consciousness. Sure, there is a very good correlation between the type of radiation falling on our eyes, and the colors that we become aware of. But the vivid colors that we experience, the different types of blue-as-we-know-it, these are part of our experiences, created in our brain.

It would not be correct to say 're-created', since there is no color experience before the light hits our eye. Until then, there is only electromagnetic radiation of certain wavelengths. It would also be incorrect to say that our color experience is a random fantasy. Different types of radiation stimulate us to experience different types of color in a pretty predictable fashion. Perhaps the most accurate description would be to say that perception is induced hallucination. Applying such a label does not imply any type of value judgement, and is only meant to bring out clearly the basic way of operation of the senses, and their connection to our consciousness. And all of this still considered within the naive framework of a world out there,

described by real objective scientific explanations.

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What is the difference between a hallucination and a sense perception? A hallucination is internally generated, with little or no correlation with outside events, while a sense perception conforms closely to the objective world. But the experience of a sense perception is also internally generated. On the level of a pure experience, as a form of awareness, there is nothing that distinguishes a hallucination from a valid sense perception. Both are fully inside the sphere of awareness, just as the 'really objective' cup is and will always remain fully outside this sphere.

So we have to conclude that a correct sense perception is a well-behaved type of hallucination. Ergo, the whole world we experience around us, including our experienced bodily presence of ourselves, this whole drama, is all a play of our awareness, generated in our brain.

When this message really sinks in, chances are that it brings a palpable shift in perspective on the world. It is hard to describe what it is exactly that changes and how. The indirect effects are perhaps easier to describe, although they are different from person to person. An urge to take a few deep breaths perhaps, or an increased awareness of how vivid colors are around you, or a greater clarity in the way sounds are perceived. A deeper feeling of relaxation maybe, or an increased sense of affinity with one's surroundings [2].

How curious, this standard picture that science paints for us. How curious, just to look around, and to have to admit that all this, as far as the eye can see, is a product of my brain! No, not a random product, and certainly not made-up in the form of a fantasy. Rather, a very accurately carried out piece of painting on the canvas of awareness, re-created moment by moment, together with a precise execution of a prescribed symphony (or cacophony, as the case may be). All this, together with the tactile and other senses, as a beautiful virtual reality rendition of what the sense organs dictate our brain to produce, in real time.

To put it even sharper, what we see, hear, feel, taste, smell: all this is

. . . something in our brain, nothing else, nothing more — the brain playing from the script handed to it from an outside world that we can posit, but never enter, a realm forever outside range.

Yes, this is a very strange conclusion, but an unavoidable one, as long as we want to follow along with the usual scientific interpretation of an objective realm, which we form part of. And, by the way, this reasoning throws a very interesting light on the meaning of the terms 'empirical' and 'theoretical'. We have to conclude that our awareness is the only thing that is really empirical, this and nothing else. The whole notion of an objective world is purely an hypothesis, a theory, something forever outside range of whatever empirical approach we might want to devise.

All this we have to accept under the rubric of 'strange but true', unless we want to challenge the standard interpretation of what it means to live in an objective world. Could it be that this whole story has been a form of propaganda, that we have believed in uncritically for most of our life?

Notes

[1] Foley, J.D. 1987, Interfaces for Advanced Computing, *Scientific American* **257**, number 4, October, p. 126.

[2] For a similar and particularly vivid description, refreshingly un-sophisticated and down-to-earth, see Harding, Douglas E. 1961, 1988 *On Having No Head* [London: Arkana]

9. Getting the Pages Unstuck

When we pick up a book that has been lying outside in the rain, in order to leaf through it, we may find that some of the pages tend to stick together. When turning what seems like a single page, we may in fact be turning several pages at once. But when we look carefully at what is

written on the pages we notice that part of the story is missing. Further inspection may then bring out that what we thought to be a single page actually consisted of several pages stuck together. After separating the individual pages, we can then go back to follow the authentic story, instead of the abbreviated version we got acquainted with earlier.

Something similar occurred in Chapter seven, when we started to describe what seemed like a single pen. Since the description of a single pen led to contradictions, we were led to take a more careful look. We then discovered that we could indeed separate the pages, *i. e.* separate the different types of pens involved. And as soon as we began to discriminate between them, we saw the surprising differences between the various types of pen. All these differences had remained obscured earlier, as if all these pens had somehow gotten stuck together into what seemed to be a single object.

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Let us recapitulate our adventures so far. In Chapter seven, we started to shake our heads, and to stare at pens, near and far. And from these sober beginnings, we concluded that we all live inside a type of 'virtual reality', a concept that we explored a bit further in Chapter eight by looking at a coffee cup. And now we may well ask the questions 'Who are we?', and 'Where in the picture do we belong?' against the backdrop of what we learned.

In Chapter seven, we made a distinction between three types of pen, a three-in-one package. There was the apparent pen, shrinking with increasing distance. And there was the 'real' pen that we 'felt' to be non-shrinking, even though the image we saw of it was shrinking. And finally we followed our tribal custom of postulating a 'really real' pen, the objective pen 'out there', the one we could agree upon with others, and the one that presumably would still be there, even if nobody would bother to look.

And in Chapter eight, we realized that this persistent habit of modern man, of postulating a purely objective realm, was something akin to a religious belief, in that the 'really real' pen was in fact the *least* real of all — something we can talk about but something that even in principle cannot enter experience: never has and never will.

We saw the ultimate conclusion that followed logically from the conventional interpretation of an objective scientific world view. We find ourselves in a sphere of personal experience, a little universe all by itself, tailored so closely to the 'really-real' world as to let us forget that our own 'reality' is separated from the 'real reality' of the objective world by a gap spanned by a pontoon bridge of apparent sense impressions. Or more accurately, a phantom bridge that can never be crossed by living souls.

And what does it mean that we 'find ourselves' in the middle of this sphere? If we associate ourselves with our perceived bodily presence in the very center of the sphere, then that statement is correct. But if we associate ourselves with the whole complex piece of construction work we accomplish every split-second, this personal virtual reality of ours, then it would be equally valid to say that we 'find ourselves' in each and every appearance, visual or tactile or auditory or otherwise.

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From the point of view of this more comprehensive association with our whole body of experience, our usual identification with our limited bodily presence seems incredibly shortsighted and utterly arbitrary. Sure, it has practical value to associate ourselves with our perceived body when we walk around, in order to make sure that we do not bump into walls. But when we watch a beautiful sunset, why not let ourselves sink into the red and purple clouds and the golden light and the silent presence of the whole of nature around us? And when we listen to a piece of music, what would be the meaning of identifying ourselves only with that part of the room occupied by our body — why not let ourselves be naturally identified with the whole body of the music?

Fortunately, we tend to do just that, when we really enjoy and appreciate something. In such a case, we are unhindered by our conceptual understanding that wants to lock up and identify ourselves with that part of the world of our experience that we consider to be our bodies. And indeed, what we take to be our body is just a small part of the totality of our experience, a product of our brain, an organ that in turn is only a small part of our body. As long as we take this standard interpretation seriously,

our real body really should be considered to be beyond reach, extending far beyond the totality of our experiential realm.

In other words, our body can be 'located' in two ways in any type of experience we have. A small and local version of the body can be found right here, in the center of our spatial realm of experience. And a much 'larger' and global version of the body that is 'way beyond' that very same realm, containing a brain with which this whole realm is bound up. In this type of analysis, it seems clear that the global version of the body is the more 'real' one, with the local one the 'derived' one. How odd, that we normally point to this small local representative, when we are asked to point to our body. In a way, the more 'real' and global version literally does not fit inside our experience, just as a movie projector does not fit within the movie. And indeed, it is so easy to overlook the existence of the projector when we get caught up in the story of a movie, within a world in which there simply is no room for a projector. A projector of what? Of the whole Universe? After all, from within the movie, the movie does form its own universe.

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We can take more prosaic examples, other than sunsets and music performances. Let us see what takes place when we drive a car. Clearly, in doing so we identify with the body of the car. We 'feel' that something is about to scrape the car body if it comes too close. Far more directly than through any reasoned conclusions and deliberations, we sense how to pass on a narrow street, how to maneuver between obstacles in a parking lot.

In short, we identify with a car body when driving, with our human body when walking, and with a sunset or a piece of music when feeling a deep aesthetic appreciation. And why not? There is nothing very special or unique about any of these choices. And there is certainly no reason whatsoever to single out identification with our bodily contours as something special, as being more 'true' or accurate. True of what? In what sense?

This whole line of reasoning is similar to what can be said about a dream, as we have already alluded to in Chapter two. Within a dream, we

identify ourselves with our own bodily presence, and consider other people and things to be different from us, and to reside 'outside' ourselves. But after we wake up, we can switch perspective: we can view each and every element of the dream as being part of us, something constructed in our consciousness. Not only can we then consider ourselves as having played the role of each person we have met in the dream, but the role of each animal, plant, or inert object as well.

What is more, we must conclude that we have provided the supporting background notions of the dream-time and the dream-space that have formed the stage for all (seemingly) material objects to appear. Yet, somehow our usual identification with our body seems to prevent us from easily dreaming ourselves to be an animal or a plant — or a rock, a piece of trash, or a patch of empty space that generously allows each and any object to pass through without being modified by it in the least.

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With all these examples, we are beginning to see through some of the propaganda that the visual system conjures up for us, for our own practical survival benefit. We could say that the whole process of viewing the world is made possible through propaganda: for example, the propaganda of a stable world, in which we are the ones that move, not the world, contrary to a more immediate interpretation of direct experience. Here the word propaganda does not imply a value judgement, but points to the fact that what is being suggested is something that can never be independently verified.

Let us take our visual perception. While seeing is made possible through a form of propaganda, we are free to investigate its mechanisms, to uncover their operation. When we begin to see through their tricks, we start to realize the precariousness of our view of the world, and the enormous energy and activity that goes in the active upkeep of our world, from moment to moment. Let us take stock of what we have learned so far, and then add a few more conclusions.

1) Each object we perceive is the result of an active process of construction. We have good reasons to believe that this construction process

is fair and accurate, and that our stream of consciousness is fed its input in a reliable way by our cognitive agencies, for all practical purposes (such as crossing the street or stirring our coffee). But no matter how fair and accurate, the world of our life experience is a personal construction. There is nothing stable about it, and it has to be reconstructed literally moment-by-moment.

2) Since each object (as we experience it) is constructed, it bears the traces of its construction process. No object appears without a process, and the two are inseparable. Although we consider ourselves to live in a world of things, such a world of pure nouns would be impossible. Each noun has its accompanying verb in the form of the construction process. When we see a table, there is the table and there is the seeing, given together. An unseen table cannot produce a sight. And seeing in room without a table cannot produce the sight of a table either. The two go together, like a dancer and a dance. Whenever the dance changes, the changes are reflected in the way of dancing of the dancer. And whenever the dancer modifies the dancing of the dance, the dance itself changes as well.

3) We are in the habit of separating our experiences in internal and external ones. A memory or day dream is considered to be internal, since it is only accessible to us, while our perception of tables and chairs are considered external. This division is misleading, as we have seen. All our experiences are part of our ongoing stream of consciousness, and it is our *interpretation* that selects which ones are *meant* to represent parts of objective reality, and which are considered to be 'only subjective'.

4) Once we realize that all of our experience is equally internal (and also equally external, depending on the classification you prefer), we can freely focus on our realm of nouns and verbs. It now becomes clear why we were dealing with several pens before. The apparent pen has an action associated with it that is different from the 'real' pen. The construction process resulting in the apparent pen delivers a steadily shrinking product if the pen recedes from us. However, the 'real' pen we perceive is the result of a rather different construction process, one with the added meaning of 'not-really shrinking, even though it seems that way'. As orphans, the two pens carry the same name, 'the pen I see'. But their mothers are quite

different. One is following a faith more closely centered on the revelation of the retina, while the other holds a more abstract faith based on a notion of a 'transcendent' object, beyond the 'apparently' given.

5) What, then, does the third pen stand for, the really-real one? Although often conflated with the second one, the real pen, it is a different beast altogether. It is a product of an interpretation called 'the real world out there'. Here is a simple experiment to unglue the second and third one. Close your eyes for a little while. Notice how the first and second pen are both gone, but not your belief in the third one, the objectively existing pen. Now open your eyes again, and see how the real pen 'appears' and immediately 'fills up' the position allotted to the 'really real' one (but see below, for a *caveat*).

6) So we see that the 'real' pen is like a character being portrayed in a play. And a very good play it is indeed. The pen behaves in such a realistic way — just as (we presume that) the really-real one would. During intermissions, when we close the curtains of our eyes, the character disappears. But not for long: when the curtains open again, the play continues.

7) And now we can also see what the 'apparent' pen was doing all the time. As directly given by experience, it is the more fundamental player behind the character being played. The difference between player and character came out very clearly when we were moving our pen to and from our eyes. The player shrunk and grew, but in a miraculously clever way the player manages to create the impression that the character played was undisturbed by the process, like a puppet player sitting down while lifting his hands higher up, so as to keep his puppets at the same level all the time.

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Let us continue our investigation of reality. Of the three pens we have discovered, none of them are merely fantasy. Each one has its own reality: there is the real appearance of the apparent pen, and there is the real impression we have of a constant-size pen 'out there'. And certainly, the

objective pen that we posit as being there independently of our viewing of the pen is real as well, and generally considered to be the most real.

But we have been a bit sloppy in our investigation. We can easily find finer distinctions than the ones we have drawn so far, and that have resulted in three pens. For example, at the end of point 5 we put a little warning sign, when we tried to separate the objective pen from the felt-to-have-constant-size pen. Let us be a bit more careful now, and reconsider.

Closing our eyes was a good move: it split our notion of the 'real pen that we saw in front of us' into two branches. With closed eyes we no longer saw the 'real' pen, but still believed there to be a 'really real' pen. With open eyes we saw both, or more accurately, a package deal of both-in-one. And so it seemed that closing our eyes was a good trick to pull out the 'really real' one. Alternatively, we could have pulled out the 'real' one while suppressing the 'really real' one, by holding up a mirror. Looking at the reflection of the pen through the mirror, we would know that the really-real pen was not really behind the mirror. All the same, we could still watch the pen in the mirror as not-really-changing-in-size, as if it were moving to and from us, in the space of the world conjured up behind the mirror.

But were we correct in our identification of the two branches in which our closing-the-eyes had split the object? Surely, the 'real' pen, 'meant' as a constant-size pen in its overlay on top of the apparent pen had disappeared. What we were left with was our conviction that the pen was 'really' still there. But is a conviction the same as an objective object? Clearly not. The conviction was still something that belonged to us, to our realm of experience. In contrast, the objective pen by definition is not something that as such can enter our experience. Conclusion: somehow we have to admit that a fourth pen has appeared in our midst!

To sum up: there is the apparent pen, the seen-and-felt-as-real one, the assumed-to-be-there one which remains as a conviction when we close our eyes, and there is the objective pen, that others can agree upon. The third is still part of my subjective experience, and the latter is (posited as) objectively present. But who does the positing? Don't we fall into an infinite regress here? If we come to the conclusion that the objective pen

will forever remain outside our bubble of experience, what can we say about our attempts to try to reach it anyway? It seems that we generate a new type of 'pen' each time we try.

No matter how we try to resolve these problems, for now we have to conclude that there are *at least* four pens that can be separated. And to prove the reality of the distinction, here is an example recipe to separate the last two. If you put a chair in another room, and go back for a moment to the first room, it is reasonable to presume that the chair remains there where you put it. Especially if you hear no sound whatsoever, and if you have no reason to suspect that anyone else is around, you don't even consider the possibility that the chair might have disappeared. The chair is not visible, either as apparent or real, but is certainly thought to be there. However, let us imagine a situation in which a clever thief would just then have run off with the chair. Later, when we realize what had just happened, we must conclude that the 'objective' chair was not present after all, and did not cover any of the other three chairs. Enter the fourth chair.

And while we are at it, why not throw in an additional pen, by making a distinction between the objective pen of the every-day world, as a piece of metal and plastic, and the scientific model of the pen, as a congregate of atoms and molecules.

So we have the pen as it appears to us, the pen as we feel it to be, the pen as we think it should be, the pen that others can agree upon as a piece of plastic and metal, the pen the scientist sees as a collection of molecules, and, yes, there are more! The last pen immediately splits *once again* in several varieties. There is the pen of the solid-state physicist, describing its molecular structure. There is the pen of the nuclear physicist, describing the properties of the nuclei and the electrons that are the building blocks of the molecules. There is the pen of the particle physicist, who see the nuclei as made up out of bunch of quarks and gluons. And so on.

So, which is the real pen? What is reality and what is fantasy? Are all of these pens real, but somehow real in a different way? Or are some of them more real than others? Do the 'less real' ones have some degree of fantasy mixed into them? Whatever answer we come up with, we simply have to accept the striking differences between the various pens, once our

attention has been led to them.

Once we realize the intimate connection between objects and acts of construction, between objects-as-nouns and objects-as-given-by-verbs, we can no longer fight the multiplicity of objects. Whenever two or more verbs fight about different ways of attachment to what seemed to be a single object, we have to admit that the object played a multiple role, and in fact represented different objects altogether. In Part IV, Chapter twenty-two, we will see how this verb-noun connection goes under the fancy name of the noetic-noematic structure of consciousness, in the jargon of phenomenology.

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10. Seeing Through Propaganda

We have used the word propaganda in the previous chapter, to indicate the unverifiable character of sense experience. The output of sense experience can be checked indirectly, theoretically, for internal consistency. But to check this output directly, empirically, we can only use ... sense experience — and the vicious circle is closed.

We also noted at the time that we did not necessarily intend to use the word propaganda in a negative sense. And indeed, for the purposes of the discussion in the previous chapter, no value judgement was implied. Rather, a factual description was given of the circular process of attempting to verify empirical statements. But now we may want to reconsider. Wholly apart from questions of logical consistency, to what extent can we say that our empirical experience has served us well?

Most of the time, we are not really in touch with our experience. Rather, we tend to deal with our present experience in terms of concepts,

interpretations based on past experience. These concepts fit our experience very tightly, like plastic gloves. These gloves enable us to get around in life, and to do the dishes without getting our hands wet. But they are too clumsy to make fine distinctions, and do not easily allow us to separate the many pages of reality that seem so easily to get stuck together, as we saw in the previous chapter.

The use of concepts is a form of role playing. And to the extent that we have identified ourselves with particular roles, to that extent has it become impossible for us to take off our gloves. The remedy is simple: if we take a better look at our activities, we can recognize more and more of the roles we habitually play. And to the extent that we realize what is going on, we automatically gain a larger measure of freedom.

We have seen that each element of our reality, each object in the most general sense of the word, is the product of an act of construction. If we look closely, we can uncover the verbs behind the nouns. Each noun-verb combination forms an inseparable pair of polarities. Therefore, as we found at the end of the last chapter, if we find one noun that seems to correspond to two verbs, we know that we have overlooked something. We can deduce that there are actually two different nouns, stuck together. And if we pull in two directions, using the two different verbs to get leverage, we can separate the two nouns.

Each of the pens in the preceding chapter was constructed in a different way. Staring at a pen would not have separated the pens, but would have led to our habitually hopeless blend of all these pens together as if there was just one object. Instead of staring, we needed to recognize that we normally don't stare, but view. And we don't just view, we always view as. When we view a pen as something that shrinks in the distance, we focus on the apparent pen. When we view it as retaining its constant size, we focus on the 'real' pen. And so on. The rule to avoid confusion is: "when in doubt, switch your attention from the confusing nouns to the corresponding verbs".

The verbs are the actors, the nouns are the characters being portrayed by the actors. When we switch our view from the objects populating our world to the actors playing the roles, holding up those objects, our world

of experience can take on a whole different appearance.

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Our life features a continuous interweaving of many different types of play. Simultaneously we can be a child, a parent, a colleague, a passenger, a neighbor. And these roles are in constant flux. As soon as we step out of the bus we drop the role of passenger and take up that of a pedestrian. And we see others around us constantly changing their roles as well. We have learned to switch rapidly between all these different roles, and in general we do not consciously reflect on doing so. And now we have realized that even the perception of a simple object such as a pen is a form of play, with many different roles involved.

Why did we spend such a long time on the process of getting pages unstuck, in the form of various types of pens? How does this activity, seemingly a form of splitting hairs, relate to our main goal, a search for freedom? Let us recall what has guided us in our search. It has been the challenge put to us in the form of the no-boundary working hypothesis. And in Chapter six, we have translated this hypothesis is the equivalent version: "All problems stem from identification."

In order to gain freedom from identification, we first have to identify *explicitly* what it is that we habitually and tacitly identify with. And with this goal in mind, our search for freedom is revolving around the question of taking a fresh look at our world, in order to see through our automatic identifications. And since the latter are intrinsic to the many roles we are playing, we have to investigate the activities of role playing we are engaged in.

How to go about this enterprise, to try and see through the games we are playing? We could start by making a clear separation between the *activity* of game-playing and our *views* of the game from within the game. To do so, we could set out to switch our attention from the *meanings* of our actions to the *actions themselves*.

In order to do so, we need not deny the meaning of our actions, nor do we need to replace them with alternative meanings. Rather, we can try

to see those meanings in a neutral light, as meanings that present a certain conviction. If we can resist the temptation to be carried along with the message, we can view a meaning simply as a meaning.

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In other words, we can study our reality as if it were a television commercial. We can study how it is put together, what its intended audience is likely to be, and what it unspoken aims are. Specifically, we can investigate what types of tricks are employed in order to fix the attention of the potential buyers. Why this particular type of lighting, why this order of snapshots, why a close-up here and a soft-focus shot there, and so on. To engage in this type of investigation can be quite difficult at first, since it is so easy to slide into the message rather than the structure of the commercial, so easy to be pulled along by its emotionally appealing undertow.

Unmasking various forms of propaganda is a skill inherent in each specialized field of knowledge. The mark of an expert is the expert's ability to see through what is irrelevant, no matter how obviously it may dominate superficially. For example, in the study of perception, we can see how the existence of a blind spot in our field of vision is masked so skillfully in our visual consciousness that we have to do special experiments in order to uncover it. Our visual system normally has us completely convinced that we witness a seemless whole, even when we watch with one eye closed. And what a surprise, when we do a simple test and find a small object to 'disappear' completely when it moves into the region of our blind spot.

Many other examples can be given. In political science we learn to see through the rhetoric employed by a politician. In the natural sciences, too, we learn how to 'unmask' nature, for example by separating the influence of friction from the idealized motion of billiard balls. If friction could be eliminated, billiard ball motion would become much simpler. But in reality such frictionless motion can only be approached as a limiting case, by constructing more and more perfect billiard tables and billiard balls. At each stage of experimentation, no matter how good our equipment is, we still have to deal with the 'propaganda' of friction, suggesting a different

and more complicated set of laws of motion that the idealized simple set we are after.

In philosophy, the process of unmasking has to start earlier, at a deeper level of analysis, before any of the assumptions guiding the more specific knowledge enterprises are in place. Philosophy cannot afford to leave its basis uninspected, the way other disciplines can and should do just that, in order to function.

Physics posits an objective world, separate from human consciousness. Psychology, too, starts with the givenness of the human body, together with its sensory apparatus and its complex nervous system. Common-sense knowledge takes for granted the existence of a world of values, integrated with a world of people and objects.

However, if philosophy were to start from any of those premises, it would not have much to offer beyond the separate areas of study. Perhaps it could make an inventory and then present a concise review, but it would not penetrate much deeper. If we want to embark on a search for freedom from identification, as a philosophical quest, we cannot leave any stone unturned. And sooner or later we have to question the very reality of the appearance of any and all stones.

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A first step to a philosophical attempt at unmasking reality is actually surprisingly simple to formulate: we can choose to suspend for a while our belief in an objective world. This will be the topic of Part III, where we will continue our investigation of appearance.

Why talk about appearances, rather than things? Perhaps the most straightforward answer is: honesty. If we really want to investigate the propaganda produced by our own prejudices, if we want to explore the limitations of our world view, what better place to start with than the very elements which seem to make up our world — the things around us, the solid, massively real objects we deal with? But as soon as we do that, we realize that we deal with them *only through* their various appearances,

including the appearance of being-massive, and the appearance of really-existing.

In more blunt terms: if we really are ready to start some serious questioning, why not question the existence of the whole world? Why not take a hard and critical look at our belief system, to see which aspects of our belief about the world are useful and which not? Here it is essential to use the word 'useful' rather than 'true'. Usefulness is a pragmatic term which can be applied straightforwardly. Clearly it is useful to build a bridge across a river, since it is more pleasant and more practical to be able to walk rather than to have to swim, each time one wants to cross the river. Few people will dispute the usefulness of a bridge. But what about truth?

What does it mean to say that a bridge 'really' exists, apart from the function it displays, its ability to allow people to cross without getting wet feet? What does it mean to say that a bridge exist 'in truth'? The hard-nosed answer that first comes to mind is that you can see the bridge, touch the bridge, in short that the bridge is 'simply there'. But is that an essential property, needed for a thing to exist?

Let us take the existence of something altogether different from a bridge. Let us take a price. When we go to a shop, and ask for the price of an item we want to buy, what is it that we are dealing with? A price as such is not part of the hardware of the physical world. It can be read off a price tag, it can be looked up in a computer, or it can exist as a memory of the shop owner. But the price itself is not something that physically exists, although prices play an essential role in our lives. Does the fact that we can see a bridge make a bridge more real, in terms of its 'existence', than a price?

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How could we establish an objective criterion for 'really existing'? If we would put a few massive logs across a road, cars would be forced to stop, because they could not pass through. Surely that road block would seem to be a good candidate for having existence in a very solid sense. Why, try and ignore it, and keep driving your car until you hit the logs head-on —

wouldn't that convince you of its reality? It has a very tangible presence, making itself felt by its power to stop you in the most blunt way.

Now let's see what we have found: 'tangible presence', 'power to stop'. How about a traffic light, which also has the power to stop you. You can run a light, you say? Well, yes, but that can have serious consequences, very 'tangible' consequences indeed: you can be hit by a car coming from the side street, or you could get cited by a police officer. Sure, if you are careful, you could get around these unpleasant effects, by making sure that there was no side traffic, and no police car in sight. But similarly, couldn't you get around a road block too? Either by driving around it, literally, or by taking a chain saw, and cutting your way through it?

In other words, if we concentrate on the effects which 'things' have on our lives, wouldn't we have to grant equal 'existence' to a traffic light as to a road block? But if so, then the question of what characterizes existence comes up again. At midnight, the traffic light is switched off. Does that mean that it 'disappears'? Yes indeed, if we stick to our definition of existence in terms of 'tangible presence as a power to stop us'. But isn't it more correct to say that it is only the *function* of the traffic light that disappears? Aren't we then forced to admit that a function is as much a real 'thing' as any old thing?

Let us take another, even more extreme example. Imagine that you walk along a desolate road, out in the middle of nowhere. It has gotten dark, perhaps earlier than you expected, and you begin to worry a bit, because you know that you have to walk another mile or so before reaching civilization, in the form of the little town you are heading for. Fortunately, the moon gives just enough light to keep following the road, but nonetheless you have to be careful not to stray to the side.

Now imagine that you suddenly catch sight of a dark figure, hovering half-way behind a large tree, some hundred feet in front of you. With a shock you realize that this person probably does not have the most friendly of intentions, hiding as he does behind that tree. You also realize that

there is no way that you can go back now, with the moon setting and the sky growing ever more dark. Losing your wallet may be the least of your worries by now, and it may actually seem like a very attractive solution, if that would mean that no bodily harm would happen to you.

After a few minutes of deliberation, you make a resolve. The figure in front of you does not move, and seems happy to wait for you to pass by, knowing full well that it would be foolish for you to go back. Okay, you decide to gather all your courage and go forwards. With a throb in your throat, and a quickened pulse you start moving in the direction of the tree, muscles taut, and ready to give up your wallet.

Then what happens? At some point you suddenly realize that what you thought to be a human figure is actually just a play of moonlight across a tangle of vines draped around a stump to the side of the tree. What a relief! All at once your tension dissipates, your heart beat returns to normal, and you stop sweating.

What can we learn from this thought experiment? Clearly, if we define 'existence' by 'tangible effects', the imagined roadside robber for a while had a very definite existence. In true laboratory sense, a measurement of pulse rate, sweat gland output, and muscle tension all would testify in the most objective way to the tangible effects created by the 'existence' of the robber. But then, when we see through our mistaken view, what happens to this type of 'existence'? What, in short, does it mean for the world to exist?

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Part III. WHAT IF THE WORLD DID NOT EXIST

11. Sitting on the Fence

When we look at an object, such as a table, we can close our eyes, and the table seems to be gone. We open our eyes, and again a table appears. We have learned, at an early age, to identify the two appearances as presenting proof of the presence of one and the same table, considered to be present also while we have our eyes closed. All of this 'goes without saying', so much so that it seems silly even to think of questioning such interpretations. Still, this is exactly what we have to do, if we want to be able to go beyond interpretations, in order to try to see through the games we are playing in constructing our reality.

In a sense, we have to go back to regain a measure of innocence, like the innocence of an infant that has not yet learned to identify stable objects in an outside world. This does not mean that we have to forget or deny anything. We are not taking up a solipsistic position, as if the whole world would be 'only' a content of our consciousness. We are not *denying* the presence of a stable outside world. We simply refrain from *affirming* it. We take up a neutral position, sitting on the fence while watching and reflecting upon what appears.

The suspension of our belief in an objective outside world was introduced as a philosophical technique by Husserl, one of the most original and radical individuals in the history of European philosophy. Early this century, he introduced the term *epoche* to describe this method (from the Greek $\epsilon\pi o\chi\eta$ for 'suspense of judgement') [1]. Let us see for ourselves what some of the implications are from performing an epoche.

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We started this chapter with the simplest of experiments. When we closed our eyes for a moment while watching a table, we saw a table before and after we were closing of our eyes. When asked to explain our interpretation of this series of events, we could offer the following account.

There is a table. We have clearly seen it, and beyond any doubt we have established that it is there, right in front of us. We now close our eyes for a second. Because we close our eyes, we lose the image of the table. But as soon as we open our eyes, of course the image of the table reappears. And there is no doubt that it is the same table we are looking at. There was not enough time for anyone to sneak in and replace the table by another, similarly looking one. Besides, we would have heard some noise in the process.

Of course, we normally never go through these steps of analysis. Why would we? The whole notion that the existence, the presence, and the identity of the table could have possibly been affected by our blinking our eyes would seem to be too preposterous a notion to pay any serious attention to. Indeed, as long as we maintain what Husserl called our 'natural attitude', even the above analysis seems already somewhat silly. But we will not allow us to be distracted or disturbed by such initial reactions. Instead, we will firmly focus our attention on carrying out our epoche, as honestly as we can.

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Having suspended allegiance to the existence of an objective outside world, we have lost the possibility to refer to the table as a solid, massively existing object. What we are left with is the *appearance* of the table before we closed our eyes, as well as the *appearance* of the table after we opened our eyes. But we have NOT lost our *sense* of identity of the two appearances as belonging to one and the same table. Our sense of identity as well as our firm conviction of the reliability of this sense of identify — these in turn are appearances as well.

In chapter seven we have seen how our personal sense of an objective world is given by that part of our experience that we have learned to identify with the label 'objective'. We have called this the pseudo-objective world, and we found it to be separated from the really objective world by a screen of subjectivity. The really objective world by definition is something 'out there', something real as opposed to an experience, and something that can by definition never enter experience. Experience can only digest experience; purely objective reality has to stay outside forever.

Husserl realized this, and drew a radical consequence. He started from the fact that we can only experience pseudo-objective reality. In his terminology he used the word 'inter-subjective reality', to show the double nature of pseudo-objective reality. On the one hand, as an experience, it might be considered subjective. On the other hand, when we look at the content of experience, the communicable meaning, we find that we can meaningfully agree with other individuals about a large number of aspects of this pseudo-objective reality.

The radical consequence of this realization was that there really was no need for a truly objective reality. Pseudo-objective reality, as a self-contained sphere, was considered by Husserl to suffice. Not only that, purely objective reality was seen as a dubious construct, an attempt to ground our empirical reality in a type of outdated metaphysics. A useful form of metaphysics perhaps in the days of Descartes and others, which helped us to get started on the path of modern science. But not more than a scaffolding, or a set of crutches that can be discarded once one has learned to walk.

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Let us return to our very specific and concrete example of a table. Let us consider that we would try to perform a Husserlian epoche on a single object, such as a particular table, right here in front of us. What would that mean, in practice? For one thing, blinking would interrupt the stream of visual experiences, and we might well wonder whether there would be any sense left in identifying the table seen before, and the table seen after we closed our eyes briefly. Perhaps we could try to simply give up our habitual

notion of a continued presence of a single table. But such an attempt is simpler said than done.

It is questionable whether we could actually succeed in suppressing our sense of identity of the two table-appearances. It would probably require enormous efforts to counter the force of habit of a whole life of standard interpretations. And what is more, it would actually *miss the point* of the epoche. We are not trying to completely become like little children. Rather, we are trying to regain some of the flavor of that dimension of experience while *at the same time* retaining our adult way of functioning.

In practice, this means that we become simultaneously aware of: 1) the appearances of a table before and after we close our eyes as separate appearances; and 2) our sense that the two appearances are bound together by the identity of an 'underlying' existence of a 'massive' object, 'out there', independent of our viewing. The first aspect reflects the fresh view of an infant, while the second acknowledges the view of an older child or adult. Meanwhile, we are sitting on the fence. We do not take up residence in either view: neither do we proclaim that reality is 'nothing but' appearance, nor do we proclaim that the table is real. Rather, we acknowledge our *sense* that the table is real, exactly as a *sense* while at the same time suspending judgement about its reality.

In a way, an epoche of this type transforms our every-day life into a movie, and a very vivid type of movie at that, one which is fully three-dimensional, displays splendid colors and a full sound range, and includes the whole range of smell and taste and touch. And rather than it just being a passive movie, it is one that we can actively influence. In effect, for as long as we care to carry out the epoche, we have effectively transformed our world into the most perfect type of virtual reality (*cf.* Chapter eight), by far much more complete than the very best computer simulation has been able to provide.

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In a movie theater, we watch the screen, and *see* the changing patterns of light and dark colors. What we *view*, however, is not this pattern of

every-changing lights, but something else completely. What we view directly is the world depicted in the movie. We live as it were in the realm of the story of the movie, taking up a position in that world at the place from which the camera has taken up its vantage point. When somebody would ask us whether this world is real, we would of course deny it, and point to the fact that we are sitting here in a movie theater, watching a movie. But *nonetheless*, even though we know the movie not to be true in an ultimate sense, we enjoy the movie *as if* it were real, immersing ourselves in the world of the movie, taking up residence without becoming full citizens.

Applying the epoche, then, is something like the inverse process of going to a movie. In the latter case we enter the movie theater, conscious of the reality of the theater, and the unreal, imaginary character of the movie. When we take our seat, and the movie starts rolling, we deliberately let ourselves 'slip into' the world of the movie, 'letting go' of the world of the theater and the movie projector.

The order of events is reversed in the case of the epoche. Here we find ourselves *already* engrossed in an ongoing tightly woven web of stories and meanings, the so-called objective world. Without trying to force any change in this web of stories, we make a purely subjective switch of attitude. We decide to continue to partake in this intricate play, but to now view it as a play, a movie, a performance without any substantial ultimate reality. To some degree, we 'slip out' of our conviction of living in an objective world.

For starters, we can let the duration of the epoche be similar to that of a short movie. We can enter a movie theater, or switch on a television, for only a few minutes, and then return (our attention) back to the 'real' world. Similarly, we can perform the epoche, suspending our allegiance to the 'reality' of the 'real' world, for just a few minutes.

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When we watch a movie, and then reflect on the process of watching, we realize that what we see is a sequence of two-dimensional pictures, forms of light and color on a screen. Somehow we manage to transform those pictures into a three-dimensional experience similar to some extent to the

experience we would have if we would actually walk around in the landscape depicted. We can attempt to explain how this transformation takes place, in terms of the eye and the brain, or in terms of the mind or consciousness. But independent of the details of the explanation, what is given in and as experience is very clear: somehow we construct a sense of experiencing a three-dimensional world out of a sequence of two-dimensional pictures of light.

This process of transformation is a very complex one from the point of view of cognitive science, and the physiological and neurological details have so far been only partially understood. Yet, from an experiential point of view, the transformation seems effortless and immediate. Indeed, it is difficult *not* to perform the transformation from two to three dimensions. To watch a movie as a play of light, instead of being drawn into the three-dimensional interpretation is nearly impossible, just as it is nearly impossible to *not* notice the identity of a table before and after blinking our eyes. What is possible, though, is to do both activities at the same time: to notice the moving pictures in their full three-dimensionality while at the same time remaining aware of their presentation in terms of pictures on a screen.

There are, then, three different ways of viewing a movie. The first one would be to see only a play of light, as a young infant would, or perhaps somebody completely drunk or someone with a specific type of brain injury that would interfere with the usual process of interpretation of the images.

The second one would be the other extreme, a complete immersion in the movie, in which one effectively forgets one's whole surroundings and even the fact that one is watching a movie. In such a case, if the life of one of the movie characters would be threatened, our hands could actually begin to sweat, our heart could start to beat faster, and we could feel a very concrete near-actual fear. At that point, we might suddenly realize that 'it is only a movie' we were watching.

This realization, marking a switch to the third way of watching the movie, might then bring a degree of detachment. We could become aware of the chair we were sitting on, the dark walls of the theater framing the screen which is now seen to be, after all, only part of our world. We have

interchanged the horizon inherent in the movie for the (in some sense) wider horizon of the movie theater. Notice the paradoxical relativity here. The movie screen can appear to be one mile wide, and the movie theater's screen less than fifty feet. And still the former would easily fit into the latter.

In practice, there are many more than three different ways of viewing the movie. When we are very tired, or when the scenes flash by at a particularly rapid rate, such as in a wild car chase, we may become more aware of the presence of the picture as dancing shapes of light, while still following the story line. This would be an experience somewhere in between the first and third way of viewing, described above. Normally, however, our experience tends to lean toward the other side, somewhere in between the third and second way. We feel that we are to some extent 'in' the world of the movie, sharing in the excitements and disappointments of the main players, as in the second way of viewing described above. But at the same time, we may be chewing some corn flakes or gesturing to our neighbor to indicate our pleasure or displeasure with the movie, as in the third way of viewing.

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There is, then, a whole spectrum of different degrees of immersion and 'infeeling' with which we can watch a movie. And similarly, there is a whole spectrum of different degrees of intensity with which we can perform the epoche. In both cases, watching a movie and performing an epoche, the first way of viewing is nearly impossible. Instead, we tend to move somewhere between the second and third way.

To start with the first way, it is very hard to view our normal experience as a bundle of raw sense impressions, as flickering lights and sounds and other sense data, without dressing them up into meaningful constructs. In extreme cases of tiredness, intoxication or sickness we may experience a partial dissolution of our world of experience along such lines, but such cases are relatively rare.

In a movie, we typically start from the third way of viewing, in which we recognize the three-dimensional character of the pictures, but do not

take them very serious. We still clearly sense ourselves sitting in the movie theater, with some latecomers still drifting in, and perhaps bumping in to us. But to the degree that the movie grips us, we slowly drift towards a mode of viewing closer to the second kind, in which we become detached from our immediate surroundings, and find ourselves immersed in the world of the movie.

When we first attempt to perform the epoche, we start from the second type of viewing, in which we find ourselves completely immersed in a 'given' reality. For most people, repeated attempts and sustained practice are needed in order to make a really felt shift in the direction of the third type of viewing, the product of having learned not to take our 'given' reality any longer so 'seriously' as we used to do.

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There is one important difference, however, between performing an epoche and watching a movie. In the case of a movie, the process of switching between the second and third mode reflects itself in the degree to which we are aware of the elements extrinsic to the movie: the walls of the movie theater, the chair we sit on, our own bodily presence in the room as distinct from our disembodied location in the scene of the movie, where we watch from the vantage point of the camera without ever seeing part of our own body inside the movie.

In the case of our epoche, there are no extrinsic elements easily at hand for us to be taken up as handles to help us to switch our way of viewing. What is more, we feel ourselves to be bodily present, right here and now, in this reality of ours. We can see ourselves fitting seemlessly, it seems, in this objective world, being part of it, and subject to its influences [2]. Therefore, lacking extrinsic handles, we have to work purely with the intrinsic qualities of our experience. This handicap does not pose an unsurmountable barricade, but it does make it significantly harder to affect a really felt shift.

The difference between losing attachment to a movie and doing an epoche can be compared with the different ways we can measure the curvature of the Earth. In the first case we try to extricate ourselves from

being caught by an exciting movie. In the second case we try to extricate ourselves from a habitual belief in an objective reality. The first case can be compared to riding in a space shuttle, and looking down on the Earth, directly witnessing the curvature of the Earth surface from outside, from 'way above' the presence of the curved surface itself. It is like looking at the wall next to the movie, or the movie projector, and thereby realizing the limited reality of the movie.

The second case is more like a measurement of the curvature of the Earth by painstaking geodesy on the surface of the Earth itself. By carefully measuring distances and angles on the scale of many miles, we can figure out that something does not fit. We can *intrinsically* convince ourselves that the Earth' surface is curved, without ever leaving the Earth, and without ever seeing the curvature 'from the outside', in full view. This is more akin to the performance of an epoche, in which we convince ourselves of the intrinsic sufficiency of pseudo-objectivity, and the non-necessity of the additional speculations concerning a purely objective realm.

Notes

[1] Husserl's Ideen, 1913

[2] reference to a later discussion of the difference between viewing our own body ('without head') and viewing other bodies; *cf.* Douglas Harding

12. Flexing Our Muscles

Going back to the movie example once more, it is clear that we can shift the degree of immersion or detachment we experience, without taking recourse to the presence of the world of the theater room. It is not necessary to make use of such extrinsic elements, wholly outside the world depicted in the movie. Instead, we can keep our attention fully focused on the movie,

while at the same time beginning to analyze how the scenes are shot, how well the actors perform, and so on. This would be similar to watching a movie from within a sensory deprivation tank, rather than in a movie theater.

We could start by applying a simple shift in awareness. If we focus on one of the main characters, we can switch our attention from the character being played to the player we know to be present as the one playing the character. Having done that, we can that shift back, from regarding this person as a movie star playing the role of the main character, to again identifying this person with the character being played.

We can perform this type of shift repeatedly in both directions. And before long, we may find it relatively easy to remain aware of both at the same time. However, there will probably be a 'measurable' effect, in the form of a disturbance in the intensity with which we were following the movie. A conscious awareness of the main character as being played by someone else is likely to lessen the vividness with which we experience the movie.

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There is a catch here, though. It is true that the analysis described above is fully intrinsic, as seen in real time, while we are unraveling the magic, the spell cast by the movie. But what helps us in unraveling is our knowledge of movies in general, and our past experience with movies as performances in which we have seen people playing roles and portraying movie characters that are different from whom they are in real life. Therefore, if we take the time dimension into account, we can no longer call the above unmasking an intrinsic procedure. With the past taken into account, it is as extrinsic an approach as when we took direct recourse to the physical existence of the room of the movie theater.

Therefore, in the case of the epoche, we have to be quite a bit more subtle. Here we really are dealing with an intrinsically posed problem. We cannot shift our gaze to an extrinsic popcorn bag or exit light. And it makes no direct sense to look at the people around us, to try and recognize particularly famous movie stars behind the well-played roles.

Things are not as hopeless as they might seem, though. We can go into our fantasy, stepping out of that part of our experience that we identify with (pseudo-)objective reality. This does have some similarity with looking away from the movie screen with which we were fascinated. And when we watch carefully, we can also recognize how each person around us is indeed busily preoccupied with a multitude of simultaneous role playing, even though we cannot see to the bottom, to check whether anybody is 'home' behind the roles behind the roles.

But nonetheless, there exists a stark contrast between any attempt to extricate oneself from a movie, and the analogous attempt at performing an epoche. And before delving deeper into the question of how to interpret the presence of other people and of animals, towards the end of Chapter fourteen, let us first take up the somewhat simpler problem of how to view non-living objects.

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In a movie, we can interpret the view of a solid wall in a number of different ways: 1) as a play of light on the movie screen; 2) as an actual wall we are watching (if we are totally engrossed in the movie); 3) as a two-dimensional picture on the screen through which we get a three-dimensional impression of a wall. So far, these possible modes of viewing correspond to our earlier division. But we can be more precise, by discriminating between several ways in which we can take this third view.

The simplest interpretation, 3a) let's say, is that we view the movie as a movie taken from an actual solid wall, present at the scene at the time and place at which the movie was taken. An alternative and perhaps more likely interpretation, 3b) say, is that the wall was indeed present at the scene of shooting the movie, but only as a prop, and not as a solid wall. It might have been a flimsy cardboard wall, painted only at one side, and held up by a few struts placed at the back side. But these two possibilities are not exhaustive. The whole presence of the wall might be the result of some type of special effect.

Maybe the wall was present at a different place on the scene, and mirrors were used to project the image to where it became visible in the

movie (3c). Or the wall could be a hologram, a mere play of light, but still something that actually took place and was visible at the set of the movie taking (3d). Or the wall might have been shot at a different place and time altogether, and the resulting image could have been spliced into the actual movie so as to make the wall appear to be part of the scene (3e). And then again, the whole wall might have never existed anywhere, not even as a hologram; it could be purely the output of a very fancy computer program that has constructed a pixel-by-pixel picture of a wall, complete with the appropriate lighting, coloration, reflective properties, and texture(3f).

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We could continue the list indefinitely, but the message is clear: there are indeed many ways to interpret one and the same picture. And we are only beginning to uncover the many degrees of freedom behind ordinary appearance! There is a whole other dimension we have not yet talked about, concerning the very examples given above. We have a considerable freedom, not only in the *type* of interpretation we choose to consider, but also in the *way* in which we want to do the considering itself.

For example, each of those possible interpretations listed above can be thought about, for example by reading the above paragraph, and understanding the meaning of the sentences presented there. Alternatively, we could switch from thinking to active imagination, and exchange our thought for concrete mental pictures. In that way, we could imagine ourselves watching a wall in a movie, and imagine ourselves subsequently shifting our interpretation. And here is a third possibility, in which we switch again, this time from imagination to action. We could actually put this book down, and go to a movie theater or (simpler) switch on a television set — after all, it would not be hard to find a wall somewhere in most scenes, in order to perform our shifts with respect to an actual television drama.

As an example, let us take a standard case, in which we interpret the wall as made out of card board (3b). We could focus on the meaning of the above sentence as a thought, (3b-t) say. Or we could imagine ourselves watching a movie, with a wall in it, and then imagine that wall to be made

out of cardboard, with invisible struts holding it up from behind, (3b-i) let's say. Or we can switch on a TV, watch a wall, and imagine there to be struts behind the wall we are actually watching (3b-w). The possible room for play is rather large, and we have only just begun our exploration.

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What we are doing in these exercises of the imagination is a form of mental muscle flexing. This type of activity is an excellent way to soften the habitual identifications we are locked into. It can be compared to what we do when we have sat still for a long time. In such a case, we flex our physical muscles. Not only does it simply feel good to do that. It also gets our blood flowing. And in addition, it reminds us of the freedom we have to move our body, a freedom we may have effectively forgotten while we were involved in reading or studying. The flexing of our physical muscles reminds us how and where in our body we have this ability to move bits and pieces at will. Similarly, the above exercises remind us of the freedom to use our fantasy, through various form of imagination.

Because we have received very little systematic training in the use of fantasy in our education, practice of fantasy may seem difficult or useless, something rather frivolous. It is really a pity that we have not received much training in the flexing of our muscles of imagination. But that should not stop us from trying to get started. There really is no need to aspire for any fancy degree of detailed imagination or visualization. Any flexing of any type already can bring relieve to a stiff shoulder, in reality and in imagination.

For example, when we habitually sit bent over a stack of books for hours at a time, our body may have become accustomed to that rather unhealthy posture. While we are sitting thus, we may be hardly aware of the many muscles in our body we could use. We may feel a dull and nondescript sense of back ache or tiredness, but only when we start stretching our arms ands legs do we become aware again of some of the specific muscles we have.

We can locate those muscles, and continue in a systematic exploration, through various types of stretch exercises, or forms of gymnastics, or yoga,

or tai chi, or other activities. However, it is really not necessary to turn immediately to professional advice about such standardized approaches. To begin with, we can be more playful, and we may as well explore for ourselves where and how our muscles are located, which type of motion helps us most to relax and to loosen up.

Why not? A few hints from established systems may of course be very helpful in guiding our attention, and at some point we may indeed want to go deeper into a specific form of practice, guided by a book or teacher. But even so, there is much to be said for starting with an independent individual exploration. After all, if we are really stiff, than any type of motion can already bring relief.

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With respect to any type of exploration of fantasy, too, it seems like a good idea to start in a playful way. In Part V we will discuss some more specific approaches, but for now the important thing is to get moving at all. It is only when we get moving to some extent in a dimension of fantasy that we can get a feel for the type of freedom we are after: freedom from identification.

Why does a stiff shoulder require us to flex our muscles? The answer lies in the way such a condition has been brought into being in the first place. It is through an extended period of tensing up particular muscles that our back become sore in the first place. And the relatively modest amount of subsequent muscle flexing is merely a counter-measure, dynamically undoing the fixed pattern of static flexing we were caught up in.

Similarly, our habitual identifications are all nothing more and nothing less than fantasy. We have somehow gotten stuck in the fantasy patterns we learned at a young age, and now we find ourselves bent over, having forgotten how to straighten our (fantasy) back. So what we are attempting with the trick of an epoche, for example, is to find a counter-fantasy to do some battle with the persistent identification fantasies. And after letting the various fantasies do battle for a while, and letting them rattling around, we immediately notice how much better it feels, and how much

more freedom we already can gain, without any formal approach in the sense of specific stretching exercises.

This is not meant to imply that it will fantasy muscle flexing will always be a bowl of cherries. Compare again the physical counterpart. After having become tensed up from a few hours of cramping behind a desk, the first few stretches may well be painful, and actually even less pleasant that the tense position we had gotten ourselves in. But this temporary increase in discomfort is worth it, and in fact the only way to get out of the more chronic discomfort. In an analogous way, tinkering with our habitual identifications may feel a bit scary and uncomfortable at first. When we feel our assumed foundations suddenly move, we may not like what we feel. But there really is no need to put our heads in the sand. If we stick to it, and keep exploring, we can figure out for ourselves how to unmask the propaganda we grew up in, and our life, becoming more authentic, will be the better for it.

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Let us extend our analysis a bit further. So far, we have been making various distinctions between different types of viewing. Not only the interpretations of what we saw, also the way we explored those interpretation has become an open play ground for us. Let us take one such way, the way of imagination. Can we find additional degrees of freedom, additional dimensions in which to flex our muscles, apart from type of interpretation and way of dealing with this interpretation.

Indeed, there are many more dimensions left. For example, we can take the *quality* of our imagination as another degree of distinction. We can imagine the presence of an object in a relatively vague way, or we can form a more vivid image. For example, we could think about how it would be to drive a car in a country where they drive on the other side of the road from what we are accustomed to. For definiteness, I will assume that the reader has grown up in a country where people drive on the right. In case you are instead accustomed to the opposite polarity, please switch all mention of left and right in the next couple of paragraphs.

As soon as we start to think about how it would be to drive a car in a country where they drive on the left, with the steering wheel at the right, we immediately conjure up a vague type of image. Perhaps our thoughts are formed more in words than in pictures, but it is likely that there is right from the beginning at least some sense of rough spatial positions of our body, the steering wheel, and the body of the car.

When we spend more time to deliberately build up the image, we will probably get a much clearer picture. While it will be difficult for most people to reach the stage of a concrete visualization, we can at least make our awareness of the spatial relations between our body and the different parts of the car much more distinct. For example, we might imagine ourselves shifting gear, with our left rather than our right hand. We might imagine how it would be to parallel park. How it would be to look over our right shoulder before we pass someone on the road, and so on.

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When we take into account this gliding scale of distinctions between vague and clear visualizations, we can in principle distinguish between a large number of degrees of clarity. This will introduce an extra degree of freedom in the type of viewing we discussed earlier. So we can choose to make our imagination very vivid, or to leave the imagination deliberately vague. For the sake of the present discussion, let us simply stay with such a simple and rather crude two-step distinction between vague and clear, without introducing extra nuances. This will already suffice to illustrate the extra dimension of degree of clarity in our imagination.

For example, in case (3b-w), where we where watching a wall on television, we could imagine the wall to be made of cardboard in a general, non-descript and rather vague way (3b-wv), almost as a passing thought rather than an image. Or we could spend some time in imagining the flimsiness of the wall and the hidden struts in some detail, in order to build up a much more clear imagination (3b-wc).

The distinctions get more interesting when we turn to case (3b-i), where we imagined ourselves watching TV in the first place. Here we can

apply the distinction between clear and vague imagination in *two* places: in our imagination of the process of watching the movie, as well as in our imagination of the structure and backside of the wall — the latter being an imagination of the second degree, an imagination within an imagination.

If both types of imagination are vague, we could label our case as (3b-ivv). If both were clear, we would then have (3b-icc). And what about other cases? Perhaps it would be possible to imagine watching a movie clearly, but only vaguely being aware of the flimsiness of the wall (3b-icv). More challenging would be the question of the reverse. Is it at all possible to start with only a vague imagination of watching a movie, and then to introduce a vivid, clear picture of the structure of a wall in that movie (3b-ivc)? Would the second step automatically 'clarify' the first step in imagination, so that we would wind up with case (3b-icc)? Or could we keep the different degrees of clarity separate?

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These are just some of the many questions that come up as soon as we try to flex our fantasy muscles, our muscles of imagination. Independent of the type of preliminary answers or suggestions we may come up with along the line, the process of inquiry into fantasy through imagination is in itself rewarding in many ways, as will become clear when we now extend our investigation from that of a movie to that of reality itself, through Husserl's epoche, as we will do in the next chapter.

And while going through all these imaginary gymnastics, let us keep track of our goal: freedom from identification. Just as in Chapter nine, we are engaged in a process of leafing through a book, so to speak, trying to get the pages unstuck. And with each new page that we discover, we find a new verb for an old noun, and thereby realized that a new noun was hidden in the old. Note that we are using here the terminology developed in Chapter nine.

In Chapter twenty-two we will use the more 'official' jargon of phenomenology, those heavy-sounding words with which we can impress our friends and relations, such as the notion that "the general theory of the

intentionality of consciousness allows a constitutive analysis of its noetic-noematic character that in turn ultimately should be subjected to genetic analysis" and things like that there. In fact, here is a way to *really* impress somebody. Just say this sentence in German (it sounds that much better), and I bet you will even impress yourself.

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13. A Tabletop Experiment

How can we perform an epoche? It sounds pretty simple, to suspend our belief in an objective outside world. And indeed, the first steps toward an epoche are easily made. But just as imagination has various degrees of clarity and intensity, the epoche can be performed in a variety of more or less lively ways as well.

Let us begin with the situation we find ourselves in, while we are reading this book. We are aware of our own bodily presence, in a room or perhaps outdoors. We are surrounded by other objects, we feel the air we breathe, we hear sounds of different types, and perhaps we are aware of other sensations of taste or smell or touch. As a first step toward an epoche, I suggest to take some time to become aware of how we (usually think that we) perceive the outside world through our senses.

Let us take a few minutes, quietly looking around, 'hearing around' and in general sensing our environment in all directions, without any particular aim, quietly taking it all in. Having done this for a while, we can find ourselves more than usually conscious of the connection between the operation of our senses and our awareness of the world around us.

Let us then focus our attention on one particular object. At first, it may help to choose an object to which we feel some attraction, a sense

of appreciation. Perhaps a piece of nicely shaped wood, or a pretty vase, or whatever we happen to have at hand. It is not really necessary to feel a personal connection or attraction to the object, although that would probably help us to focus our attention.

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To be specific, let's say that we have chosen a small wooden box, maybe a jewelry box or a box containing coasters or a little toolbox of some kind or other. Let us again take a few minutes, in order to focus our attention on this particular object, here in front of us. After we have spent some time familiarizing ourselves with the box, and keenly feeling its objective, tangible presence right here, we can begin our epoche.

So we suspend our belief in the objective existence of this box. What does this mean, in practice? It can mean many things, in the sense that there are many ways of concretely implementing this suspension of belief. For starters, we might look at the box, and imagine that it would have no back side. Strictly speaking, we cannot tell just by looking at it for just a moment, whether or not it has a back side. Just as with the wall in our movie example, the box might be a prop.

It is simple to make a statement like that. It is also simple to laugh about it, and declare such a notion to be rather silly. After all, we just put the box there in front of us, saw it from different sides, held it in our hands, and in all these ways have certified its actual existence beyond any shade of doubt. But let us try to step past such quick dismissal, suspending such reactions together with the suspension of our belief in the objective existence of the box.

Perhaps it would help to close our eyes for a few seconds, imagining that someone would softly and swiftly slip into our room, and replace the box with a one-sided replica. Opening our eyes again, and looking at the box, we can imagine that we are now viewing this replica, which happens to look exactly alike from our vantage point, but consists only of a facade, without any backside. Let us take a minute, literally, to let the realization of this possibility sink in. We see the box, and our common sense tells us

that it has to have a three-dimensional solidity, complete with back side and inner partitions. But no matter how strong this feeling of common sense is, nothing prevents us from maintaining the alternative notion, that our box may have been replaced by a one-sided prop.

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This simple realization already tells us something rather profound. We have to admit that the very concrete lived sense of presence of the box in its full three-dimensionality is something we construct in our consciousness, and not something that is simply given by our sense perceptions. Even though we are normally completely unaware of this construction activity, and take the box as something 'given' by our sensory experience, we see that we have to revise this common sense impression.

We can of course reach the same conclusion purely theoretically, as we have done in various ways in Part II above. We know that our visual perception is based on the images projected on the retina of our eyes, and that those pictures are two-dimensional. Therefore, it is clear that our three-dimensional perception is at the very least an active re-construction, not a passive viewing.

This conclusion holds true even if we stay with the natural attitude, with the belief that a real three-dimensional world exists, out there. In that case, too, we will still have to admit that the three-dimensionality we are aware of in consciousness is not the same as the three-dimensionality of the objects 'out there'. We may have many reasons to believe that the two are very closely related, and that our conscious experience is a faithful reflection of a three-dimensional world out there. Even so, it is clear that whatever correspondence there is has to be mediated through the two-dimensional bottleneck of our retinas. In Part II, Chapter seven, we have called this bottleneck the 'screen of subjectivity' between objectivity and pseudo-objectivity, something 'neither here nor there.'

All this in turn implies that visual perception is an active process: a process of *re*-construction from the point of view of the natural attitude, and simply a process of *construction* without any qualifiers attached, from the point of view of the epoche.

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There is an important difference, though, in the two ways in which we have reached this conclusion, that our visual awareness of the three-dimensional presence of the box is the product of an active construction. The theoretical conclusion obtained in the last paragraph was perhaps quicker, partly because we have had ample opportunity to accustom ourselves to this way of theoretical analysis in Part II. But the more experimental approach of the epoche described above has the potential to be much more vivid. And if we are really serious in our aim of gaining a significant measure of freedom from identification, we need this type of vivid experience. With only a theoretical analysis, there is little chance that we can actually apply in daily life what we are beginning to unravel on a more intellectual level while reading these pages.

In Part V we will specifically address this question of how to apply our insights into daily life. For now, let us simply try to intensify our insights over and above the more intellectual approach of Part II. However, this does not mean that we should switch off our intellectual powers. On the contrary, a keen sense of understanding of what is going on together with a directly felt experience of what is happening, this combination is what will enable wider application in every-day situations. So let us think about what is going on while we are immersing ourselves in an actual epoche.

When we perform the epoche, as a tool in experimental philosophy, we can give the following observational description. First we look at our box in the natural attitude as something clearly given, a piece of wood with an independent existence, in the outside world, here in front of us. We then switch off our belief in the solid reality of the wooden box, but we still *retain the impression* of the box as forming a three-dimensional object. Reflecting upon the fact that we could be fooled, at least in principle, and that the box could turn out to be only a prop, we realize that we have been adding something all along to our directly given sense impressions.

Let us recapitulate. First, we can view an object as something 'out there', independently present. Second, we can recognize that we see an object from only one particular perspective at a time, and that the invisible

parts are not necessarily there, in 'reality' [1]. Third, we can extend our conclusion of what is possibly not 'real' to include also that which we see in full view. We then realize that what we thought was clearly out there has to be first and foremost interpreted as something appearing in our consciousness. As an appearance its character is not unlike that of a fantasy, or a hallucination. And on the level of accepting the appearance as an appearance, we have place ourselves squarely on the fence, without any need to either deny or affirm the ultimate reality of what we see as pointing to the existence of a purely objective realm.

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After this analysis it might be helpful to again take a few minutes to observe the box, in order to bring into practice what we have learned. This will further strengthen the experiential base for our understanding. And after a few minutes, we can try to switch between the three interpretations just given above, going in and out of the epoche in the process. Let us try our hand at the following type of muscle flexing.

For a few seconds, view the box as a real object out there. Then for a few seconds view the box as if it only consisted of a hollow facade exactly in the form of the presently visible surfaces. And then spend a few more seconds viewing the box purely as an image arising in consciousness, not altogether unlike an image appearing in a dream.

After cycling between these three possible ways of viewing the box, you could drop the second view. Taking only the two more extreme poles: viewing the box as an object existing out there for a while, and then switch to viewing the box as a mental construct, something existing in consciousness. Switch frequently between these two aspects, and observe carefully how your different attitude makes a difference in your sense of presence of the box, in your feelings and emotions, in your overall appreciation of the box.

It might be difficult to put this difference into words. On the one hand, watching a box as a physical object and watching a box as an image appearing in our consciousness are altogether different activities, and they

clearly carry a different 'charge' that is easily felt. On the other hand, none of the specific details of the visual image is affected by such a switch-over of interpretation. Nothing changes, and at the same time, in some sense nothing stays the same. All perceivable details remain exactly the same, although the whole world drops out of sight.

Let me stress again that I see the epoche purely as a tool, as a method to uncover the complexity of the process of world-construction we are engaged in from moment to moment. I do not suggest that we drop our belief in an outside world once and for all, and switch to a belief in our individual consciousness as a more fundamental sort of 'stuff' out of which our whole world of experience is built up. That would amount to exchanging fable number three for fable number four, in the terminology of Chapter four. And since both fables can easily be seen to be equally silly, I am aiming at a more balanced view, down the line, as will be developed further in Part V. At the same time, a healthy dose of muscle flexing is not a bad idea, as long as it is kept in mind that we are not in the business of replacing a standard identification with a non-standard one. Rather, my only goal so far has been to bring out as clearly as I can some of the facets of appearance we are normally not aware of.

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Our usual way of dealing with experience leaves a lot out of consideration. We have used the image of dealing with a book the pages of which are stuck together. We think that we have read a page fully, and are happy to go on to the next, not realizing that by turning the page we actually skip a few pages. Husserl's epoche gives us a simple but powerful tool to 'unglue' the pages. As a stamp collector who steams a postage stamp from the envelope to which it was firmly attached, so can we also use the epoche to recognize the separate layers of possible awareness that can go together with one and the same set of sense impressions.

Of course, this image of pages glued together has its limitations. After we have realized that we can look at the same (experience of a) box in different ways — as an object in the outer world or as an object that is part of our consciousness — we still have only one (experience of a) box.

We do not experience two or more *separate* boxes superimposed upon each other. And also in Chapter seven, although we did not stress the fact, we never had more than one pen in our hand, and not a bundle of several pens, held together by a ribbon or a rubber band.

Yes, we have dealt with separate pens, when viewed through their verb-like quality. But *nonetheless*, this had not led to an actual cracking or splitting of the one pen in front of us. When you really think about this curious aspect of our reality, you may get quite puzzled. One cannot help becoming surprised when going deep enough into our standard understanding of the constitution of the world. One is 'taken aback', to speak with Husserl, at each bend in the road. And after a while, one faces an abyss with the question "why is there anything rather than nothing", "why is there appearance at all?"

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William James was one of the first philosophers who recognized and clearly described this paradox of multiplicity and unity of pens (in Chapter seven) or boxes (in the present chapter). And while doing so, he has given us a strikingly simply analogy for this phenomenon [2]. He uses the example of two intersecting lines, in which there is one intersection point that belongs to both lines. Yes, there is an intersection point that belongs to the first line, and yes, there is an intersection point that belongs to the second line. But this does not imply that there are two different intersection points. Rather, there is only one point, to which we can point in two different ways using two different designations.

Similarly, our experience of a cup which we consider as objectively existing, and our experience of the cup as seen as appearing in our consciousness, are one and the same experience. And yet we can interpret them in different way, approach them in a different way, like we can approach an intersection point from different directions, along different lines. In this way, James foreshadowed the verb-noun structure of the experience of objects (the noetic-noematic structure of consciousness of the phenomenologists, starting with Husserl; see Chapter twenty-two).

Another way to bring out the inherent duality of subjectivity and objectivity is to make a simple mathematical transformation of James' example. Just as two lines in general determine one unique intersection point, so do two points determine one unique line segment connecting both. Therefore, we can replace the objective and subjective lines of William James by two single points, an objective and a subjective pole, respectively. These poles can then function as two parts of experience, with experience itself forming the line connecting the two points.

The resulting picture leads us back to our discussion of the various fables in Chapter four. And while this picture is complementary to that given by William James, there is a definite difference in emphasis.

James' example starts from the two interpretations we have of our world, and then recovers our unitary experience as the locus of intersection of the two. The alternative example starts with experience itself, and then illustrates in a schematic way how subject and object could be seen to arise simultaneously, in dependence on each other and on experience itself.

This latter notion is closer to that of the Japanese philosopher Nishida, who held that it is more accurate to say that experience has a person, rather than that a person has experience [3]. After all, we can only know objects in the presence of a subject, just as we know ourselves as subject only through our interaction with objects, be they thoughts or things or other forms of appearance. And since it all leads back to experience, it does seem reasonable to start there, and to consider both subject and object to be attributes of experience, rather than the other way around.

Notes

[1] reference to Husserl's *Abschattung*

[2] ref. to William James' intersecting lines

[3] ref. to Nishida's experience having a person

14. Back to Experience

So far, we have just begun to explore the epoche. We have only dipped a toe into the water, so the speak. Our analysis has mostly revolved around just one 'trick': we have tried to view a single object as if it were a facade, a stage prop, rather than the fully three-dimensional object it appeared to be. But just as in the example of the wall in the movie, there are many other ways of imagining how the box we were looking at could turn out to be unreal.

For example, we could imagine that the box was actually a hologram, a play of light projected here in front of us. We could spend a few minutes trying to live ourselves into that possibility, to let it come to life, as an experience. We could imagine how it would be to try to pick up the box, only to see our hand move straight through the image, without any substantiality being present. As long as we don't actually carry out this operation, we can perfectly well imagine that such an outcome could take place, unlikely as it might seem under normal circumstances.

Alternatively, we could imagine that instead of the box in front of us, there would be a mirror of exactly the same size and shape as the image of the box. We may find the actual box to be in a different place after all, for example dangling from the ceiling, while its reflection in the mirror would be what we mistook for an actual box right in front of us. If we want to be very precise, we might have to close one eye for this example to work, since otherwise the depth perception of our stereo vision might give a clue as to the actual distance of the object — but such details are not what we are interested in at present.

We could continue with our fantasy list by adding other increasingly unlikely contraptions that might somehow have been employed to make the box in front of us turn out to be different that we thought it was. But all of those are still only forerunners of the epoche. As long as we stay with this series of tricks we have not yet really suspended the reality of the box in an absolute sense, but only in a relative sense. We have imagined that 'in reality' the experience of a wooden box was induced by a different object: a prop, a hologram, a mirror — but in each case by a 'really existing' object.

Only the mode of existence was modified, not the existence itself.

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So let us again be more radical, and let us take another fresh look at the wooden box. Let us now try to drop our belief in the objective existence of the box altogether, as we have started to do a few times already in the previous chapter. And this time, we may as well drop our belief in the whole outside world. That might actually be easier than trying to do so piecemeal.

In other words, let us turn the tables between subjectivity and objectivity. Normally, we start with a belief in an objective outside world, into which we consider ourselves to be born, to have been raised and educated, and in which we are now functioning as adults. All our subjective experience we tend to trace back to our physical existence, in some way related to the complex processes of our brain. What would happen if we would turn the tables? Or in terms of Chapter four, if we would turn the fables?

We could start with experience as a given. After having 'switched on' the epoche, we notice how our sense of presence of massive physical objects is something that is largely imaginary, a product of our active construction, based on the much more flimsy momentary awarenesses of 'snapshots' of one side or the other of those objects.

It is important to note in this respect that we can no longer use our theoretical reasoning to 'explain' the presence of these two-dimensional snapshots by taking recourse to the existence of images on the retina. All the elements of such an explanation, such as a retina, electromagnetic radiation, nerve cells, etc, are all part of our usual description of the outside world, belief in which we have just suspended.

Therefore, we can only identify the retina, nerve cells, etc., as elements of our experience, notions that appear as part of our conscious experience, with experience being the more fundamental 'carrier'. And we have to take the presence of our visual field as being two-dimensional as something that is directly given in experience, rather than something that we derive theoretically — since all theories, as well as the very notion of cause and

effect, are all part of our experience as well.

So we find ourselves now living in a world of experience, in a constantly moving 'stream of consciousness'. We still are able to function, of course. We can walk into a room, take a chair and sit down on it, even though we have given up the believe that the chair is there in an absolute, objective sense. While doing so, we rely on all that we have learned early on in life about motion through space and ways of handling of objects. The only difference now is that we identify all that knowledge as elements of consciousness that do not necessarily have to correspond to anything real 'out there'.

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In the step-by-step process of uncovering of the 'stream of consciousness' in which our world seems to dissolve, we have often stressed visual perception. An analysis in terms of our other senses would be entirely similar. There is nothing special or unique about our visual system, apart from the fact that we often are biased towards sight when we describe detailed and accurate perceptions. For example, we talk metaphorically about 'insight', rather than about 'inhearing' or 'intasting'.

Similarly, there is nothing very special about the distinctions between the two-dimensional character of the raw data on our retina and the three-dimensional reconstruction through which we see depth. These readily available aspects of perceptions have only served as an easy entrance into the much more general and encompassing notion of the epoche, as something embracing all of experience. And indeed, the whole sense of epoche is much more embracing and goes much deeper. It goes against the grain of our natural attitude, the one we know and love, the one that has been spoon-fed to us from a time before our earliest memories.

As we mentioned before, we will probably still encounter our own 'belief' in the objective world, in our heart of hearts at the very least. But as soon as we become conscious of that belief we can recognize it for what it is: a belief, yet another part of our conscious experience, and in that sense in principle no different from fantasy of any type, even though it is highly

structured, and seems to be very effective in the role it plays in the whole 'drama of reality' we find ourselves in. Or more accurately, the drama of reality we find our experience to be obsessed with, to the point of wholesale identification with what is being played out.

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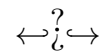
In terms of William James' example of the two crossing lines, discussed at the end of the previous chapter, we can review what we saw there: that carrying out an epoche boils down to focusing exclusively on only one of the two intersecting lines, the subjective one, while completely neglecting the objective. If we take some time to think this type of experiment through — or better, if we actually do the experiment — we will find that it is completely internally consistent. Any objections to 'the world only being given in consciousness' can itself be recognized as something that in turn is appearing in consciousness.

At this point the reader may very well object that such a one-sided reduction of experience to phenomena in one person's individual consciousness does not make much sense. We seem to have lost any explanatory power. Why do different people agree about the properties of 'seemingly' objective phenomena? How can we explain the symmetry between the fact that one person appears as an object in the other person's subjective experience, and *vice versa*? Clearly, from a common sense point of view, reducing all experience to 'consciousness only' does not make much sense, even if we have to agree that such a reduction is at least logically unassailable.

But let us be more careful, before we throw out the epoche as a tool. First of all, it has already served a useful purpose, in showing us clearly and vividly how we are actively constructing our whole world, from moment to moment. And this result holds true even if we want to reinterpret this process of construction as a process of reconstruction. Secondly, we may employ it as a tool of appreciation, as a concrete technique to help us regain a form of childlike innocence, together with a sense of wonder, a way of viewing each and every experience as a piece of art. And thirdly, a reduction of experience to (individual) consciousness, tempting as it might

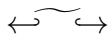
have seemed as the most 'straightforward' interpretation, is not the only interpretation of the meaning of the epoche. We can be more radical.



To conclude this chapter, a few words about these three aspects of the epoche. The first we have dealt with extensively already. The second one, appreciation, will be a recurring theme in various discussions below. For example, we will see in Chapter twenty-three how techniques similar to the epoche have been employed as teaching techniques in art classes. The third aspect of the epoche will also be discussed in Chapter twenty-three. There we will explore to what extent we can radicalize the epoche.

Husserl himself clearly recognized the challenge of dealing with objective (or more accurately: pseudo-objective or inter-subjective) experience. Although he started with a notion of consciousness which seemed in retrospect too reductionistic (his notion of *hyle* in particular, retained traces of consciousness as a form of substance), he later moved away from that notion, without coming up with a clear alternative solution.

What we will explore in Chapter twenty-three is an attempt to pick up where Husserl left of. In an attempt to make the epoche more radical, we will include *subject* as well as object as well as notions such as consciousness and experience and awareness in our epoche. After suspending our conventional belief system and interpretations of all these elements, we will find ourselves left with appearance only — with fantasy in its original meaning: $\phi\alpha\nu\tau\alpha\sigma\iota\alpha$, appearance.



Notes

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15. Nothing to Lose but Your Old Views

Objectivity has received quite a bad press throughout the preceding chapters. Although generally considered to be the corner stone of scientific progress and a rational attitude to life, the notion of an objective world has been shown to be a deeply suspect construction. We have seen how a truly empirical attitude can only give access to experience, and never to the purely theoretical construct called objective reality. The latter is a form of wishful thinking, the product of a craving for stability.

Still, notwithstanding all the arguments that have been given so far, we may find ourselves to be extremely reluctant to give up our notion of objectivity. 'The world does exist! It is clearly there, out there, massively, solidly!' When our gut feelings lead to such an understandable reaction, the main point is to not let us get carried away by an emotional appeal to 'rationality'. Rather, true rationality calls for a calmer and more detached investigation.

So the world exist, it seems? Let us see what that would mean. This street light, for example, standing here in front of me clearly seems to be objectively present. Definitely it is not something that is just subjectively made up, like a fantasy. If we don't want to cling to a received notion of objectivity, then what to do with this street light? [1]

One answer would be to point out that nothing is purely subjective or purely objective. We have seen in Chapter five that even the discovery of a mountain or a wave or an electron is something that requires active participation and active subjective choice. Without that, we might find a landscape or ocean with altitude variations, but no mountains or waves as such. We might find a wave function for an electron field, but certainly no electrons as such.

However, such an answer may seem a bit too theoretical. After all, there it is, the street light in front of us. How can we possibly shift our perspective in a natural way so as to see this street light as something that is partially the result of an active construction, rather than as something that is simply and passively given?

The examples of the wave, the mountain, and the electron all seem to

suggest that everything is contextual, that nothing can exist 'as such'. But does that really jibe with our direct experience? Let us see for ourselves. What is it about the street light that is so contextual? If we would teletransport this street light to a very different time and place, it might not function and it might not shine its light. But would it really, intrinsically, 'change' somehow? That seems a bit preposterous. Does that mean then that we somehow slipped out of the net of contextuality? Such a victory would seem a bit too easy. Let us be more careful.

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Let us do a thought experiment. Imagine that a long time ago somehow, somebody would have made a street light exactly like the one here in front of us, a hundred years before the invention of electricity. Quite a crazy idea, admittedly, but not logically impossible, just extremely unlikely. Let us accept that in principle a mad inventor could have created this very same object, without having had any idea perhaps of its purpose. After all, such a scenario does not violate the laws of physics, nor does it violate logic.

Aha, we seem to be caught! All this talk about contextuality, where does that leave us? Let us quickly review the way of reasoning we have learned to apply, to show that the street light should not really be associated with this chunk of metal and glass here in front of us, but rather with a much wider part of the world.

For example, we could ask what it is that makes a street light a light. Clearly, a light has to give off light in order to qualify as a light. And what is it that gives it light? Where does the light come from? A first answer might be: the light bulb. That is what does the shining. But what if you cut the electricity cord? We have to conclude that a live electricity wire seems to be an essential part of a shining lamp as well. And how about the power company? And the people who work to keep the company functioning? And so forth and so on. There does not seem to be any place where we can stop and say: now we have isolated where the light of the street light is coming from.

But this reasoning seems to be undermined when we admitted to the theoretical possibility that someone would have constructed this very same street light a few hundred years ago. If we would take this old but well preserved street light today and plug it into the net, lo, it will shine and become a real street light! Does this not give proof that it had been a street light all along, *even though the inventor and builder at the time had no idea about its purpose*?

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This seems like a tough case. No use now to complain that the example is highly artificial, since we agreed that there was no contradiction with any known physical or mathematical law. So we have no choice but to investigate the situation more closely. What does it really mean that an inventor had built a street light from scratch, a few hundred years ago, long before the invention of electricity? Let us keep things simple, and assume that the elementary materials, such as glass, metal, as well as rubber for insulation were all available at that time.

It then means that that person took some normal materials and rearranged them in such a way that a street light was created. Aha! What is special, then, is the pattern of rearrangement, not the material constitution of the street light itself. This insight allows us to reduce the problem we are confronted with to a different, but simpler problem, that has all the essential features of our street light example.

Let us imagine that someone had written a computer program, two hundred years ago, that is able to calculate the first million digits of the number π. Let us be specific, and let the program be written in standard Fortran, say. Again, the author of the program must have been out of his or her mind, and there is no way that that person could have known that the series of symbols jotted down were a computer program (neither the digital computer, nor Fortran had yet been invented).

But, lo, when we take this ancient program after two hundred years, type it in, and run it on a modern computer, there would appear the first million digits of π, all of them, in the correct order. If this program now

functions as a program, amidst the contextuality of the present computer infrastructure, it must have been a program back in the days it was written as well. Isn't that an iron-clad conclusion?

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Hmm. Sounds plausible. And this would suggest that a computer program can indeed be taken out of its meaning-giving context, and still be considered to be a computer program. And the same would hold for any pattern of useful information for that matter. Even when created out of context, it would already posses its potential use, to be verified as soon as the context is added on later. Eureka! Finally, after a hundred-odd pages, we have discovered objectivity!

Or so it seems. Let us be really careful now while having a closer look. Let us make just a very small variation on the previous story. Let us imagine that our mad inventor had not written the program in straight Fortran, but instead in a form of code. For each letter of the alphabet, a different letter had been substituted, shifted by a fixed number of places in the order of the alphabet. Let us call this number k. For $k = 3$, say, each A would have turned into a D, each P into a S, etc. This code would not have destroyed the program. All the original information would still be there.

In fact, it would be rather easy to 'break' this code, even automatically, without knowing the value of k. We could ask a computer to try all possible values of k, from $k = 0$ all the way to $k = 25$. Most likely, 25 of the 26 combinations would give gibberish, which could not even be compiled, let alone run on a computer. Only one value of k for which the program would compile successfully would then result in computer code that would correctly and beautifully produce the first million digits of π.

But now we can go yet one step further. Imagine that the inventor had made one random mistake somewhere in the program, and had left out one letter. Would this mean that the program would have stopped being a program?

Not quite. It may take a longer process of trial and error to insert a single letter at each conceivable place, but ultimately the program might

be reconstructed. And a clever human programmer might spot the mistake actually quite soon, if it would be an obvious misspelling of a commonly used variable or command, say.

But now the question arises, how far can we push this? Imagine that our mad inventor would have written *real* gibberish, two hundred years ago. If we systematically change each letter, one by one, until we get our Fortran program back, could we say that that program had resided 'all along' somewhere within the gibberish? This would be similar to saying that a statue had resided inside a block of marble, thousands of years before the artist happened to cut it out. In a sense, strictly logically speaking, such a statement is not 'false'. But what would be the meaning of such a statement?

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It seems that our eureka was a bit premature. If we can continuously deform an objectively present street light into its essence, a pattern of information; and if we can continuously deform a pattern of useful information into gibberish; how can we then draw the line? Clearly, in the gibberish at the end, there is no objective presence of anything meaningful. Where did objectivity evaporate?

Or . . . perhaps there never was any objectivity in the first place? This seems to be a more tenable conclusion. The route we took to get here might still strike one as strange and uncomfortable, and reminiscent of Zeno's paradoxes. And indeed, there are similarities with Zeno's treatment, as well as with that of Nagarjuna, one of the greatest Indian philosophers who lived a few hundred years later.

Why is it so hard to accept that objectivity is a tenacious fiction, a mythical object that has been something of a fetish of our culture for the last few hundred years? Perhaps the following story can give us a clue. It concerns the recollection of a conversation with the mathematician Stan Ulam, by Gian-Carlo Rota, himself both mathematician and philosopher.

I strongly recommend the reader to look up the original publication [2], only a few pages long, in which Rota gives a humoristic account of his

interactions with Ulam. In one of these, Ulam plays the role of attacking the notion of objectivity, and Rota puts himself in the role of defender.

> [Rota:] But if what you say is right, what becomes of objectivity, an idea that is so definitely formalized by mathematical logic and by the theory of sets, on which you yourself have worked for many years of your youth?
>
> There was visible emotion in his answer. Really? What makes you so sure that mathematical logic corresponds to the way we think? You are suffering from what the French call a "deformation professionelle." Look at that bridge over there. It was built following logical principles. Suppose that a contradiction were to be found in a set theory. Do you honestly believe that the bridge might then fall down?

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And in this crisp example of a bridge withstanding the onslaught of the changing winds of set theory, we recognize the crux of our resistance against a shift in our perspectives. Isn't it funny, how identification has glued our actual experience to our mistaken interpretation. And here is a typical mistaken reaction to the realization that we were mistaken: when we recognize our mistake as a mistake, our first reaction is to dump it, together with anything attached to it.

Alas, we tend to attach the whole of our actual experience to all kinds of mistaken identification. Imagine what would happen if we would throw out the baby with the bath water, each time we would see through one of our mistaken identifications. But fortunately, the danger is purely imaginary. The only thing it can lead to is confusion, but not more than that. Even if our parachute remains stuck, we cannot really hurt ourselves when we hit upon a mistaken notion. In a world in which all substantiality is the result of mistaken notions, there is no place to hurt oneself, in any ultimate sense.

We can discard a mistaken interpretation, but since it is a mistake in the first place, it does not have any substantial existence. It therefore

simply does not have the power to drag our actual experience with it, and so it literally cannot drag us down. Yes, it would be a bit more clever to unglue a mistaken notion from its attachment to our experience, before dumping that notion. But not much harm is done if we forget to do so. At worst we might look a bit silly, dragging that notion a while longer behind us on the street, until we realize our mistake and finally unglue and discard that particular mistaken identification altogether.

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The most frequent type of such mistakes is the following. Once we have identified our reality with that of an objective realm, we feel that we have to give up our experience of external objects as soon as we give up objectivity. And that, indeed, is a prime example of a mistaken reaction to the discovery of a mistaken identification.

Most forms of 'proof' of an objective reality have the flavor of Medieval proofs of the existence of God. Look around you, and what do you see (when you were raised and educated in Medieval Europe)? A creation. But how can there be a creation without a creator? Ergo, there has to be a creator.

In our present enlightened age, we look around, and what do we see (raised and educated as we are in a Scientific Age)? We see objects around us. But how can there be objects if there is not a backdrop, an embedding environment in the form of an objective realm? Ergo, there has to be objectivity.

In both cases, the circularity of the argument is evident. Once we see through them, we are no longer caught by such cheap tricks. But this conclusion says nothing about the presence or absence of forms of experience that might be *interpreted* as evidence of an objective realm, or as evidence of religious grace. The circularity only defuses the argument, but has no power to affect the underlying experiences — just as the discovery of a flaw in a set theory will not lead to the bridge to come crashing down.

When will we stop trying to cut of our toes, in order to fit into our shoes? When will we look for other shoes instead? Look, our received views don't fit. So why not just drop them? The experience of experience

will continue, and appearance will keep appearing, no matter whether we choose to hang on to our petty notions of subjects and objects or not. The difference lies elsewhere, and has to do with freedom. We have nothing to lose but our old views. And the moment we drop them, authentically, we gain a measure of freedom that simply cannot be expressed within the old framework.

Notes

[1] After a conversation with Robert Tragesser, Sept. 25 1993

[2] Rota, G.-C. 1986, In Memoriam of Stan Ulam: The Barrier of Meaning, *Physica* **22D**, 1-3.

Part IV. WHAT IF PHILOSOPHY MADE SENSE

16. A World of Sense

Many years ago, when I was a graduate student, I read with great pleasure and interest the autobiography of Carl Jung, 'Memories, Dreams, Reflections.' I was fascinated by many aspects of Jung's life and his views, some of which resonated more with me than others, but most of which I felt rather sympathetic towards. However, there was one passage later on in the book which stuck in my throat, so to speak. It was something that I could neither accept nor reject. The following quote appeared in the description that Jung gives of a trip he made to New Mexico, during which he stayed for a few days in a village on an American Indian reservation.

> I observed that the Pueblo Indians, reluctant as they were to speak about anything concerning their religion, talked with great readiness and intensity about their relations with the Americans. "Why," Mountain Lake said, "do the Americans not let us alone? Why do they want to forbid our dances? Why do they make difficulties when we want to take our young people from school in order to lead them to the *kiva* (site of the rituals), and instruct them in our religion? We do nothing to harm the Americans!" After a prolonged silence he continued, "The Americans want to stamp out our religion. Why can they not let us alone? What we do, we do not only for ourselves but for the Americans also. Yes, we do it for the whole world. Everyone benefits by it."
>
> I could observe from his excitement that he was alluding to some extremely important element of his religion. I therefore asked him: "You think, then, that what you do in your religion benefits the

whole world?" He replied with great animation, "Of course. If we did not do it, what would become of the world?" And with a significant gesture he pointed to the sun.

I felt that we were approaching extremely delicate ground here, verging on the mysteries of the tribe. "After all," he said, "we are a people who live on the roof of the world; we are the sons of Father Sun, and with our religion we daily help our father to go across the sky. We do this not only for ourselves, but for the whole world. If we were to cease practicing our religion, in ten years the sun would no longer rise. Then it would be night forever."

I then realized on what the "dignity", the tranquil composure of the individual Indian, was founded. It springs from his being a son of the sun; his life is cosmologically meaningful, for he helps the father and preserver of all life in his daily rise and descent. If we set against this our own self-justifications, the meaning of our own lives as it is formulated by our reason, we cannot help but see our poverty. Out of sheer envy we are obliged to smile at the Indians' naïveté and to plume ourselves on our cleverness; for otherwise we would discover how impoverished and down at the heels we are. Knowledge does not enrich us; it removes us more and more from the mythic world in which we were once at home by right of birth.

If for a moment we put away all European rationalism and transport ourselves into the clear mountain air of that solitary plateau, which drops off on one side into the broad continental prairies and on the other into the Pacific Ocean; if we also set aside our intimate knowledge of the world and exchange it for a horizon that seems immeasurable, and an ignorance of what lies beyond it, we will begin to achieve an inner comprehension of the Pueblo Indian's point of view. "All life comes from the mountain" is immediately convincing to him. And he is equally certain that he lives upon the roof of an immeasurable world, closest to God. He above all others has the Divinity's ear, and his ritual act will reach the distant sun soonest of all. The holiness of mountains, the rev-

> elation of Yahweh upon Sinai, the inspiration that Nietzsche was vouchsafed in the Engadine - all speak the same language. The idea, absurd to us, that a ritual act can magically affect the sun is, upon closer examination, no less irrational but far more familiar to us than might at first be assumed. Our Christian religion – like every other, incidentally – is permeated by the idea that special acts or a special kind of action can influence God – for example through certain rites or by prayer, or by a morality pleasing to the Divinity.
>
> The ritual acts of man are an answer and reaction to the action of God upon man; and perhaps they are not only that, but are also intended to be "activating", a form of magic coercion. That man feels capable of formulating valid replies to the overpowering influence of God, and that he can render back something which is essential even to God, induces pride, for it raises the human individual to the dignity of a metaphysical factor. "God and us" - even if it is only an unconscious *sous-entendu* - this equation no doubt underlies that enviable serenity of the Pueblo Indian. Such a man is in the fullest sense of the word in his proper place.[1]

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When I first read the above passage, I was deeply puzzled. I could see the value of a strongly felt belief system, on a psychological level. I could also see the appreciation that Jung had for such a system of wholeness. Both I could accept and appreciate. But what struck me was the way in which Jung clearly put our European rational view of the world on a par with that of the pueblo Indians.

Nowadays it is quite popular to give 'equal time' to different cultures. It would almost be perceived as an insult by many people if we would make the strong and explicit claim that our view of the world is more true and more correct than that of others. Especially if the others are a small minority group, such a claim is definitely not politically correct.

But there is a big difference between a present-day 'politically correct'

reaction and what Jung wrote in the late fifties. Jung had an enormous admiration and appreciation of the Western scientific method, and his whole life was dedicated to trying to find a systematic and truly scientific approach to psychology. In no way was he disparaging of Western scientific accomplishments per se.

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For me it created a strong tension, to be confronted with an admiration for the intrinsic value of the Pueblo Indians on the one hand, and having to deal with my extrinsic value judgements, from my own position that included our standard scientific world view. As an astrophysics student, I had followed a whole course on solar physics, in which we learned to apply a large variety of mathematical physics techniques to construct detailed models of the structure and evolution of the sun. We had discussed the structure of magnetic fields in and around sun spots, had studied the enormous outbursts of solar flares high into the upper atmosphere of the sun, and had learned about the composition of the solar wind that is continuously blown out into the interplanetary regions. We had learned to compute the diffusion time of radiation, all the way from the deep interior where nuclear reactions generate the Sun's energy out to the surface of the Sun. We had rederived the astonishing result that it takes a million years for the Sun's light to seep out from that deep interior, in a random walk through uncountable scattering events along the way, before finally escaping from the surface, to reach the Earth a mere eight minutes later.

This, and much more, accumulated in my mind as an active and growing body of knowledge, and in many ways I felt privileged to partake in such exciting explorations, part of our culture but known in detail to so few people. At first, this type of knowledge took the form of a physics model, couched in mathematical equations. But after having mastered the broad outlines and having become more familiar with the details, it was always a striking experience to look up at the Sun, that familiar and friendly glowing presence out there, and to realize that that was precisely the object we had been talking about so much in the class room. I do not remember clearly how I started making the explicit connection between formulas and

experience, but years later I heard a description of a fellow student who had been following the same lectures. He recalled how, during that time, he had had the following experience.

One evening, while riding home on his bicycle, he saw the sun setting straight ahead of him behind a student dormitory. All of a sudden, right there and then, it occurred to him that this big bright shining object, hanging in the sky right in front of him was the very same object he had been studying for several weeks now, catching it in a mathematical description on the blackboard and in his notebook. Suddenly, what had been an intellectual abstraction, a set of concepts, materialized right in front of him as a tangible experience. A different dimension of sense had opened up, way beyond the logical sense inherent in a mathematical formalism or a physics description of causal processes.

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I expect that most people can come up with similar examples, some more striking than others perhaps, but all in the same spirit of recognition, of a 'sinking in'. It does not even have to be sudden, it can equally well occur gradually. We can realize that we have established a connection between what previously had been understood only conceptually, and what now presents itself to our awareness in a more concrete form.

And right here, in the description of such an experience, we come up against an enormous barrier. How can we convey such an experience clearly in words? On the one hand, nothing has changed, after we realize such a break through in sense, and on the other hand, nothing has remained the same. Our factual knowledge has not changed. Our ability to solve a coupled set of partial differential equations is hardly affected by the presence or absence of an emotional resonance with the object described. And neither does the student's chance of passing an exam at the end of a course on solar physics. But at the same time, a realization of sense changes everything, and puts the 'whole world' (including our Sun) literally in a new light.

Just to give an idea of the barrier of meaning we are up against, I would like to report here one reaction I got from a reader of a draft of this

manuscript. An astrophysicist friend wrote the following comment about my description of the reaction of my fellow student: "I find that difficult to believe." Knowing the commentator, I was pretty sure that he meant that he never had felt an alienation between mathematical descriptions and every-day reality. But in turn, knowing my own reaction and that of many others, I was also pretty sure that such an absence of alienation is rather rare.

And what I found most interesting in this reaction was the following realization I had in response. Let us take someone who would have been really stuck in alienation, so much so as to never have experienced a more direct heart-felt affinity between the describing formalism and the described 'thing out there'. Such a person, paradoxically, could have written the exact same words in the margin of my manuscript draft: "I find that difficult to believe." But what a world of difference in sense – and what an abyss to cross in order to make this difference really understood!

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Let me come back to my reaction upon reading Jung's account of his encounter with the Pueblo Indians. I was very much attracted to the description. Not that I agreed with Jung's ideas in all respects. Neither did I necessarily agree with his interpretations. And whether his reactions may or may not have been a bit too romantic was not the point. The importance for me of his dialogues and musings went way beyond the particular person of Jung and the particular setting of the Pueblo Indians. Something had been triggered in me, resulting in a nagging doubt.

I had no reason whatsoever to doubt the accuracy of what I had learned about solar physics. All that made for a compelling story. It fitted into my world view, and was internally consistent. I had verified through my own calculations that many aspects of all kind of accurate observations with specialized instruments could be understood within the framework of a scientific model of the sun. While some of the technical details of that model might well be improved upon in the near or far future, the basic model seemed to be established beyond a shade of doubt.

The only room left in my world view at that time was for a friendly and sympathetic attitude towards the Pueblo Indian's view of the Sun, as something that was part of an admirable way of life, but not as something that could be considered equally real as my own astrophysical understanding. Actually, that is not quite true. My reaction was more complex. I did have a clear sense that *ultimately*, at some fundamental level of dealing with reality, all views might be considered to be limited and inadequate. Perhaps that would be a level beyond words and conceptual distinctions, a level of 'emptiness' when seen from our usual universe of discourse. But this did not imply that thereby the Pueblo Indian Sun and the astrophysics Sun were fully equal citizens in my own universe of ideas.

The nagging doubt seemed related to a deep intuition that indeed *ultimately* there was no sense in talking about 'truth', that truth had only local, contextual meaning. But how to square that intuition with an actual clash between ideas, between cultures, between universes of meaning? Within the Pueblo Indian universe of meaning, it is certainly not true that 'anything goes', and neither is that the case in the universe of astrophysics. Within either sphere there are many procedures for testing new and old ideas. Why then not test the two spheres upon each other? After all, the two universes are not really separate. The fact that inhabitants can meet each other, even through rather imperfect communication, already shows at least some kind of overlap.

And this is precisely where most scientists will point to the fact that what started out as a European enterprise has now become a shared piece of cultural property of all of mankind. No matter which university you enter, in any continent, physics and mathematics are being taught in a relatively uniform way, based on the tradition that arose in Europe several centuries ago.

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Do we have to conclude that science has 'won', that it has been shown to be closer to the truth? That might seem too narrow and culturally biased a position. But concluding that winning a competition does not count seems narrow-minded as well. There seems to be almost something denigrating in

granting equal rights and equal 'truth' to the views of 'others', as a matter of ideology, without honestly trying to test and compare and check — as all of us do as a matter of course during practical daily life, while tasting a different brand of coffee or comparing different makes of car.

With respect to this struggle, I found it interesting to see how Jung had started his autobiography, explaining at the very first page of his Prologue what he was up to.

> Thus it is that I have now undertaken, in my eighty-third year, to tell my personal myth. I can only make direct statements, only "tell stories." Whether or not the stories are "true" is not the problem. The only question is whether what I tell is *my* fable, *my* truth.

I could sense something of the feeling of liberation that he must have felt, having come to that conclusion over the years. But at that time, notwithstanding my appreciation, I could not accept such disregard for "truth". It was only many years later that it began to dawn upon me what might have been my problem all along. Of all the places I had looked in, struggling with my nagging doubt, I had basically overlooked to look at the very center, at myself, or more accurately at my self-image, at what I considered myself to be.

During all the wondering and doubting I had been engaged in, as a matter of course there had been that central beacon, unseen but assumed to be immovably solid, that sense of self we have learned to accept so strongly in the way we are raised and educated. Without making it ever explicit, I had tried to compare the Pueblo view and the astrophysicists view as if I could step in and out of their respective spheres of meaning without any essential change in my self, that solid glistening core of central meaning I identified myself with. I had in effect dealt with myself as if I were an astronaut, being able to visit different worlds while keeping unchanged inside the space suit; or like a rock in a river that would never get wet on the inside.

Little by little, realizing how fundamental my delusion had been, I began to get some glimpse of how both subject and object arise from ex-

perience, and how in turn experience is already an interpretation, a type of 'late-comer', appearing on the scene after the show has already started, arrogantly claiming exclusive ownership of appearance.

It was this new sense of sense that I have struggled with over the last several years that now has led to the present book. The identification with a relatively fixed self image seemed to be the major stumbling block, blocking our path to freedom. And in order to fix a self image, one has to provide a well-fixed world as well, to provide the necessary stable setting. I then began to see how freedom from identification could provide a way of resolving the clashes of meaning that we all seem to be caught up in, within ourselves, between individuals, as well as between cultures and populations and between humans as a species and the rest of the planet.

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In Part II and III, we have gone to great length to try and analyze some of the simplest aspects of daily life. Rather than addressing the fundamental problem of the self and our notion of self head-on, we focused on objects. But while doing so, we shifted from 'what' to 'how'. Instead of studying the properties of objects, we asked how objects came into being, in their immediate givenness. We asked how they were constructed in our experience. And doing so, we began to wonder whether any additional meaning could be gained from the notion of an objective world as something objective, existing independently from the subject.

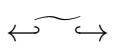
In Part V we will extend this type of analysis. There we will try to look back, not out into the world, but back upon the self that seems so central in our dealings with the world. But before doing so, the following few chapters will briefly make a connection with some aspects of our philosophical heritage.

So far, we have not used much philosophical jargon, nor did we invoke any particular philosophical theory. The main chunk of philosophy that we imported was a piece of philosophical engineering, rather than theory, by making extensive use of Husserl's epoche in Part III. And indeed, one may wonder whether there is any need for philosophy in a personal and open-ended questioning of the type we have embarked on.

There are at least two reasons to have a close look at our philosophical past. One is that, contrary to popular belief, there may be lessons to be learned, even for the present. Another, and perhaps the most important one is this: there may be more philosophy hidden in our received way of thinking and looking at the world than we realize. We are so used to the way we go about our business, we and everybody around us. We talk about our mind, about thoughts and feelings and desires and frustrations. But when we ask ourselves what a thought is, what can we really say in detail? *What if we had grown up with very different labels to classify all that is 'going on' in our mind?* And what if we had several labels for the word mind, splitting its functions up in particular ways, and using a separate label for each type of functioning? Wouldn't that profoundly change our daily life, our daily world, and our daily self?

But there is a serious stumbling block. Even if one is convinced that a philosophical investigation may be worthwhile, then there is the question of what type of philosophy to take up. First, there are several competing systems that are so different that the practitioners of one system hardly even consider the other practitioners to be worthy of the title philosophy. Second, one may wonder whether natural science, the offspring of 'natural philosophy', has not provided us with more fundamental and more reliable knowledge than philosophy.

In the next chapter we will take up the latter question. Following that, we will focus on a few individual philosophers from the past: Socrates, Descartes, and Husserl.



Notes

[1] Jung, C. 1961, *Memories, Dreams, Reflections*, [1989, New York: Vintage Books], p. 251.

17. Emulating Physics

We are living in an Age of Science. Science makes sense for us, and the scientific method serves as a role model for clear and skeptical thinking. Sure, our received notions of scientific thinking and scientific progress have come under attack by various philosophers, sociologists, and historians. But by and large, science determines how we look at our world in terms of what is 'really real'.

In every-day life, we have become enormously dependent on technology, the applied arm of science. And even in daily speech, we have begun to talk about well-tasting food in terms of its interaction with our taste buds. We talk about the 'chemistry' between two people to describe the way they interact. And we blame our hormones or our left side of the brain for whatever comes in handy to be dismissed from direct responsibility.

All this is not surprising. The physical sciences, and especially physics, provide a wonderful success story. Our understanding of the material world has increased dramatically in only a few hundred years, through the relatively coherent efforts of many scientists in many countries. Of course, progress may have often seemed slow for the people involved, a groping in the dark, a going astray on side paths for years or decades. But compared to other human enterprises, physics has been remarkably successful. And our deeper insight in the workings of nature has allowed us to apply our knowledge through very powerful forms of technology, for better and worse.

No wonder that people in other areas, searching for knowledge, have tried to emulate the physics approach, or more generally, that of the physical sciences. In this century we have seen various such attempts in the social sciences, sometimes with disastrous consequences. I see two reasons for the floundering of such attempts, one being a misunderstanding of the nature of the *praxis* of physics research, and the other a misunderstanding of the nature of the *limitations* built into physics research.

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Let us start with the first problem. One of the great things we have learned over the last decades from the study of artificial intelligence pertains

to humans, not to computers: it is the fact that experts never do what they say. In the sixties and more broadly in the seventies, computer scientists began to explore various types of more broad usage of computers, besides the traditional applications to calculations and bookkeeping. The idea was to enable a computer to make relatively complex types of decisions, comparable to those made by experts, such as doctors diagnosing a patient, or pilots reacting to changes in weather or to equipment malfunctions.

One popular name for the software products, produced in these attempts to make computers graduate beyond just doing computations, has been the word 'expert system'. Indeed, the hope was to make the computer function as a human expert, and perhaps even more reliably than a human expert, once a large number of basic rules had been entered into the program, together with an appropriate system of making inferences.

Well, the natural place to start, it seemed, was to go talk to the experts, in order to find out how they did their expert thing, before getting to the hard part, the translation of this expert knowledge into a form understandable for computers. If it had only been that easy! Alas, soon it was realized that we have to conclude that experts simply don't know what they are doing — that is, if 'knowing' is construed in the narrow sense of being able to verbalize knowledge explicitly.

Experts know what their aims are, and they know how to train others to become experts, for a significant part by personal example. But once having learned the tricks of their trade, they just do it, while perceiving their activity in a unitary matter, not aware of how their activity might be seen from the outside as splittable into fine detail. And the interesting thing is, most experts are totally unaware even of the being unaware of those details. When asked, they will give all kind of reasons and rules for what is supposed to be behind their actions, but when watched subsequently, for example in concrete teaching situations, they are seen to bluntly disregard many of their proclaimed rules.

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It took a while for the baffled computer scientists to catch on to the fact that this is a natural human phenomenon. Knowledge had always been

handed down in the form of crafts, in ancient times, in the Middle Ages and the Renaissance, and today as well. The main difference is that today it is not popular to say that you don't quite know how you do something, that you just do it, and that somebody can look over your shoulder if they want to learn it. Rather, we feel that we all *should* be able to somehow rationalize our actions.

Education really is a process of emulation, rather than explanation. Of course, explanation has its role, but it is a secondary one, it is a corrective device to check our understanding, but not the engine behind the learning process. Surely, this had been recognized long ago, but somehow seemed to be forgotten by most people during the last century or two, perhaps as part of the overly rational emphasis of the enlightenment period, together with the need of establishing public education as a system

The phenomenon, of a study of computers leading to greater insights into our own makeup, is one more example of the general pattern, to which Vico has called attention. This is the fact that humans learn about ourselves by making machines, as we already alluded to in Chapter eight.

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Back to the problem of emulating the success story of physics. What happened earlier this century, was that many sociologists, psychologists, economists, and others tried to encorporate elements of the 'method of physics' into their own research. At that time, unfortunately, it was not generally realized that experts don't know what they're doing and don't do what they are saying they're doing.

As a result, many social scientists really believed the polished positivistic stories about the alleged way physicists work, in their systematic way of defining first principles, strict rules, and neatly organized step-by-step approaches to as-yet unsolved problem areas. They were not alone in being fooled. In fact, most beginning students in physics are fooled as well by text book accounts of how progress has been made over the last few centuries.

To some extent, it is perhaps unavoidable to fool students this way, at

the start of their training. It would be rather impractical if one had to go through the details of the few hits and many misses of the historic process of building up physics, through the politicking and personal rivalries, the many emotional reactions that either helped or hindered progress at certain times, etc. And also, it is in practice not very harmful, as long as the teacher presents the text book material as what it is: encyclopedic in nature, and not at all a fair account of how this knowledge has been arrived at.

In any case, when physics students begin to do their own research, the message is quickly driven home to them that actual research is far messier and much less systematic a process of induction and deduction, as the text books had led them to believe. The real victims of the myth of 'the scientific method' are therefore not the students inside physics, but researchers in completely different fields, wanting to actually apply this mythical animal.

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Let us now look at the second problem one faces when trying to apply the ingredients of the success of physics to other searches for knowledge. We have seen that one problem lay in a misunderstanding of what really goes un in actual physics praxis, taking the methodological map for the territory, in taking the textbook account for the real research. The second problem is no less serious. Even if we look away from the map, and look at the actual territory, we are still guided toward that piece of territory that is indicated on the map. Doing so, there is the constant danger of ignoring anything else, no matter how big and nearby, which is not indicated on the map.

A general term for this self-limiting approach is reductionism, a very powerful tool if used properly, but a dangerous trap when extended beyond its domain of applicability. It is a method that starts by selecting only a few aspects of the extremely complex world of appearance we find ourselves in. It then studies those aspects in detail, ignoring the rest, at least for the time being. It is something we all do in daily life, even though we are generally unaware of it, in all the aspects of appearance we screen out: the

ticking of the clock, the background noise on the street, the shadows on the road.

Actually, the screening out we do in daily life is quite an accomplishment. Again, it was through building complex machines that it was driven home to us how complex our screening-out process is. In the eighties, people started to build automatic car controlling systems, a type of robotic driver, the equivalent of an automatic pilot in an airplane. The problem was that such a computerized car has to learn to drive on winding roads through unknown territory, something that is quite a bit more complex that flying through the open sky.

One of the obstacles that presented itself was the changes occurring when the sun would come out or hide again behind a cloud. The image from the television camera mounted in the front of the car would show a completely different picture, of course. The pattern of shadows, casts by the sun beams traversing the trees lining the road would be there, dominating the scene one moment, and gone the next. Poor computer, trying to figure out were the sides of the road were, in this phantasmagorical scene! In terms of light or color contrast, the different between the picture elements on-road/off-road can be much less than that between the sunlight/shadow parts of the road.

And then there are roads strewn by leaves and mud puddles, with rain splattering up here and there. Somehow, we have learned to ignore al this information, while picking out what is essential: the contours of the asphalt. Having learned to do this screening habitually does not lead to an irretrievable loss: we can choose to focus on the leaves and shadows if we want, and we can certainly enjoy the poetic beauty they bring. It just would not be a wise thing the revel in those aesthetic delights if we happen to be in a critical traffic situation in which we have to react suddenly to the swerving motion of an oncoming car.

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In comparison, the type of reductionism applied in physics is quite a bit more straightforward. For example, in classical mechanics, where we

study the motions of objects such as billiard balls or rockets, we don't really care about the color of the ball or the rocket. The mass and size are the most important characteristics determining their motion. For an accurate description, we may want to measure the friction between the billiard ball and the table, the elasticity of the ball, and other properties. But as long as the type of paint used does not affect these properties, the ball could be any color.

And, for that matter, the value of the ball would make no difference, whether in dollars or in the form of a personal attachment of someone to the ball. Of course, a cheaper ball might imply a lower weight, or a less elastic behavior, in which case price would indirectly affect the dynamics of the ball. But to the extent that the primary dynamic properties are not affected, all the so-called secondary properties can be completely neglected in a description of the motion of the billiard ball.

One of the most remarkable things about physics is its enormous success, starting from such limited concerns. Among the surprises of twentieth-century physics is this: we can now give a systematic accounts of many of those properties previously regarded as secondary, using methods that started off by explicitly ignoring them. For example, the fact that the sky is blue, or that grass is green, can now be explained in terms of wavelength-depended light-scattering processes. By consciously limiting themselves at first, physicists have reaped an unexpected bonus: they have gotten a lot more than they asked for. And who could have foreseen a few hundred years ago that an investigation in the mathematics of springs and billiard balls would enable us now to now create designer drugs on a molecular level?

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It is tempting to extrapolate the successes of physics, beyond their ability to give accurate descriptions of both primary and secondary properties of matter. But if we attempt to reduce essential aspects of life such as value and meaning to fit into a framework of natural sciences we are committing a category mistake. As expressed in Ryle's story of the university administrator in Chapter six, there is a great temptation nowadays to

pretend that the physical sciences can 'explain' the world, or at leat that part that is 'really real'.

Scientism, a world view cast in basic terms borrowed from natural science, but extended beyond their scientific definition and area of application, is quite popular these days. It often takes the form of a *de facto* religion, if we define one's religion as one's belief of what is ultimately real. And as a counter reaction, there are increasingly many who throw away the baby with the bath water, ignoring science once they see the inherent limitations of scientism.

However, we can use the historical lesson of the success of natural science without succumbing to scientism. Rather than trying to stretch the *results* of physics so as to cover our world and our world view, we can investigate the *methods* of physics, to see whether they can guide us in our philosophical quest.

Physics comes in many varieties: theoretical physics, experimental physics, and applied physics or engineering. Philosophy, in contrast, seems to be almost exclusively theoretical. How about trying to give philosophy a shot in the arm, by expanding into experimental philosophy and applied philosophy? And here I don't mean an application of theoretical rules to areas of ethics or aesthetics. Rather, I have in mind the sort of simple concrete investigations that we started to carry out in Parts II and III, and will continue in Part V. What about this notion, of experimental philosophy?

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Philosophy as a living quest can turn our everyday life into a frontier. We may find it possible to drop many more notions than we thought possible, including the notion of 'life', 'our', and 'quest'. Our notions of what it means to make progress, of 'reaching deeper insight', may need to be changed or perhaps given up altogether. Expecting that we can systematically map out new territory according to old rules may not be radical enough. If we are really ready to question even the most cozy and so seemingly necessary pillars holding up our world view, we may find that we can spread our wings and take off on a truly independent flight.

To take just one example, what do we really know about the notion of a 'person' and of 'experience'? We think we know what a person is and what experience is, both with respect to ourselves and (indirectly) with respect to others. We interpret everything that goes on in our lifes as experience that we, as a person, have. But is it really a fact of life that a person has experience? Or could it be possible and perhaps even more accurate to speak of experience having a person [1]? How sure are we that the usual roles we are playing, and the usual views we have of ourselves as the subject in a world full of objects is really unique or even correct?

Even if we are willing to put our notion of what it means to be a person temporarily on hold, and if we focus on experience, can we really interpret everything that appears in our awareness as a form of experience, or is the notion of experience itself too restricted? And how about the notions of 'awareness' (let alone 'our' awareness)?

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When we start with a radical exploration of the structure of reality, we do not have any answers to any of these questions. And neither is there any point in trying to reason out any definitive answers by pure thought or intuition. We may want to guess at some preliminary form of an answer, in the form of a working hypothesis. But as soon as we adopt one, we have to test it against our experience. And if we are willing to make adjust our hypotheses at every turn of the road if our experimental evidence forces us to do so, we can enter a cycle of experimentation and theorizing, in which we progressively refine our theories as well as our experiments.

This, in a nut shell, is the method of open-ended philosophical investigation that seems to me most fruitful. Such a method can be modeled in its basic structure after the method of physics, although the actual approach taken here takes on quite different forms, reflecting the different area of application.

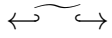
In physics, neither theory nor experiment can stand on its own. Without *theoretical* physics, there would be no framework within which to ask meaningful questions, and now way to set up, execute or evaluate an exper-

iment. But in the end, *experimental* physics has the final word. If a particular experimental result 'cannot be made to go away' [2] after repeated independent checking by different experimenters, a theory in conflict with that result cannot be accepter. No matter how beautiful or attractive otherwise, such a theory will have to be modified or else abandoned altogether if no suitable modification can be found.

The main reason for the enormous success of physics, and natural science in general, has been the constructive use of this cycle of experimentation and theorizing. I would like to explore a similar extension of philosophical theorizing and observation, to include more experimental forms of investigation as well. Observation in philosophy can take the form of introspection as well as outward observation. Similarly, experimental philosophy can apply to personal experience, intersubjective interaction and discourse, as well as to an critical exploration of the whole notion of dividing appearance into subjective and objective (or intersubjective).

The very notion of the use of introspection seems to make the skin crawl of many a philosopher of the twentieth century. But why would this be? Why not take a hard look at the great success story of physics, in order to see what can be learned from its particular approach in which theory and experiment have been so effectively interwoven, with such astonishing results? Such a comparison suggests not only the use of passive introspection, the equivalent of observation, but also active experimentation with awareness and experience. In this respect, a tool such as Husserl's epoche, extremely unusual as it is in philosophy, makes for an interesting start. We will see in Chapter twenty-three how we can extend beyond the epoche, to explore further forms of experimentation.

For now, let us turn to two of the key players in our intellectual history, Socrates and Descartes. And let us then come back to Husserl, to listen to what he had to say about Socrates' adhortation to lead an examined life, and about Descartes' adhortation to dissolve the world into clear and distinct ideas.



Notes

[1] Nishida Kitaro: Zen no Kenkyuu, p. xxx; English translation: A Study of the Good, p. xxx

[2] Peter Galison??

18. Socratic Deconstruction

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One of the most radical attempts at questioning all and everything was made by Socrates, a true beginner in the literal sense of the word. As Aristotle summarized it, "It was the practice of Socrates to ask questions but not to give answers, for he confessed that he did not know" [1].

The story of Socrates is well-known: he went around through the city of Athens, talking with many different people, and questioning their views. Whenever somebody thought to have acquired some real knowledge, Socrates would show that knowledge to be uncertain or often downright inconsistent in some way or other.

Although he never tired from questioning, he did not come up with any answers. His questions were typically cast in the form of a search for definitions. We all know instances of X, he would say, where X could be courage, or beauty, or some other characteristic. But do we really have any firm knowledge about what X is? Can we give a definition of X?

This search for definitions stimulated the construction of several philosophical systems by others who were directly or indirectly inspired by him, Plato and Aristotle being the most famous two. Undoubtedly, both Plato and Aristotle considered that they had taken up where Socrates had left off, thereby completing the work left unfinished by the master. Indeed, many later commentators have looked at them in that way.

However, such an interpretation, I think, misses the point. If I imagine Socrates to meet somebody like the later Plato, or like Aristotle, somewhere

in the market place in Athens, it would not be difficult to imagine the outcome of their conversations. Socrates would show great admiration for the acumen with which each of those two had build up a clever and elaborate philosophical system. But nonetheless, he would wind up pointing out to them the unfoundedness of some of their most fundamental assumptions. In the end, he would conclude that they, too, had no real knowledge — that their elaborate systems, no matter how pretty, orderly, and ingenious, did not provide any ultimate basis for undubitable knowledge.

I think that Socrates' quest for knowledge was a quest for freedom. In this quest, he cheerfully investigated any type of limitation inherent in any type of belief, only to show the lack of solidity of these limitations and fixed conclusions. I see his quest for definitions more as a tool to unearth our unquestioned identifications.

The crucial point, I believe, is that Socrates was not really expecting to ever find closed definitions as the result of all of his questioning. He certainly did not seem dejected or disappointed toward the end of his life. Instead, I get a strong impression that he wanted to show the limitations of conceptual thinking. In this endeavor, he used conceptual thinking as the very weapon to dethrone conceptual thinking, fighting fire with fire so to speak. Not unlike a Zen master, he has the effect of puzzling his audience, prompting them to see their cozy conventional reality in a new light. This is expressed for example in the words of Meno:

> And if I am indeed to have my jest, I consider that both in your appearance and in other respects you are extremely like the flat torpedo sea-fish; for it benumbs anyone who approaches and touches it, and something of the sort is what I find you have done to me now. For in truth I feel my soul and my tongue quite benumbed, and I am at a loss what answer to give you.[2]

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Socrates was clearly an exceedingly unconventional person. He comes across as an unusually honest and authentic. He is driven by a quest for truth, for wisdom, but a quest in which there is nothing desperate. He never

seems to even begin to reach the end of questioning, but he also does not give the impression of treading a path which leads to exhaustion in a quicksand of never-ending questioning without getting anywhere. Paradoxically, while on the surface not getting anywhere, his questioning *is* meaningful for himself as well as for (at least part of) his spell-bound audience. Paradoxically, while disavowing the teacher role, he does seem to teach people. And he teaches them what he considers to be most important: that they in fact don't know while they think they know something.

Yet Socrates does make positive statements. Perhaps his most famous one is his conviction that 'the unexamined life is not worth living' [3]. In other words, a life without self-reflection is worthless. But how do we reflect upon ourselves?

Very simple: we take anything we thought we know, and investigate it thoroughly. If we are careful enough, we will discover that our knowledge was only a veneer, covering a deeper not-knowing. This is the theme of what I would characterize as 'Socratic deconstruction'.

What is interesting about his deconstructive approach is that it is never presented as an ideology. He does not try to convince others that reality cannot be captured through identification with concepts. Rather, he approaches the problem for the other side. He shows how any attempt at trying to capture reality that way fails miserably.

The technique he uses is a form of judo, applied in dialogue form. The momentum of the arguments of his opponent is taken up, swung around, and used towards a self-unmasking of the futility of their arguments.

However, it would be unfair to characterize this technique as a trick or a sleight of hand. Socrates has seen so clearly through the intrinsic impossibility of capturing reality in concepts that he is utterly confident to take on any challenge. But since he cannot prove his point by definition, the only way open is to make his point plausible by showing patiently how all other alternatives are not viable.

Why can Socrates not prove his point? The answer is implicit in his subversive attack on definitions. How can you define the limits of definitions? In order to define that borderline, you have to define *both* what can

be defined and what cannot be defined. The latter is a tall order indeed, and implies a contradiction in terms.

This particular argument, of course, is only meant to be evocative and not an explanation, let alone a proof. It is intended to convey something of a feeling for what I think Socrates is up to. In this context I believe that Socrates is completely honest, and has no trickery in mind, when he says:

> For I assure you I myself do not say what I say as knowing it, but as joining in the search with you; so that if anyone who disputes my statements is found to be on the right track, I shall be the first to agree with him.[4]

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When I read the various descriptions of Socrates, as they have come down to us (mainly through Plato and Xenophon), the picture that emerges for me is of a man who is in search of appearance.

I realize that this statement will raise many an eyebrow. Did not Socrates always try to look *behind* appearances, trying to find his way from the particular to the general? Was he not always groping for more abstract definitions, starting from more concrete examples only to discard them in an attempt to move beyond them? Did not Aristotle testify that Socrates was the initiator of a search for definitions?

As I already alluded to above, I think there are two problems with this conventional picture. First, in many instances it is clearly Plato who uses such an image to further his own message, using Socrates as a spokesman for his own ideas. But secondly, in Plato's early dialogues where a more authentically Socratic picture emerges [5], it is not clear how driven Socrates really is to find definitions. Yes, he is driven, but he is far from desperate. He is driven to show other people how they are ignorant of their ignorance.

Here is Guthrie's summary of Socrates' approach:

> Once his companion had understood the right way to the goal (the *method* in its Greek sense), he was ready to seek it with him, and

> philosophy was summed up for him in this idea of the 'common search' ... Neither knew the truth yet, but if only the other could be persuaded of this, they might set out together with some hope of finding it, or at least approaching it more closely, for the man who has rid his mind of a false conception is already nearer the truth. [6]

The atmosphere of the Socratic dialogues, captured in Guthrie's summary, reminds me of the following Zen story:

> Nan-in, a Japanese master during the Meiji era (1868-1912), received a university professor who came to inquire about Zen.
>
> Nan-in served tea. He poured his visitor's cup full, and then kept on pouring.
>
> The professor watched the overflow until he no longer could restrain himself. "It is overfull. No more will go in!"
>
> "Like this cup," Nan-in said, "you are full of your own opinions and speculations. How can I show you Zen unless you first empty your cup?" [7]

A quest for freedom from identification seems to underly both Nan-in's and Socrates' way of questioning.

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Two-thousand years after Socrates, Descartes also attempts to go back to square one, unmasking all conceptual knowledge as just that: more concepts that can be doubted in every which way. And like Socrates, Descartes considers each discovery of a lack of knowledge a positive contribution in and by itself. In Descartes' words:

> I never found anything that was so doubtful that I could not draw some rather certain conclusion from it, even if it were merely that it contained nothing certain. [8]

Would it be far-fetched to read in Socrates' search for definitions a hidden urge to go "back to the things themselves", as the phenomenologists

would say, three hundred years after Descartes? Could not the whole search for definitions be a skillful method to force us to blink our eyes, and have a good fresh look at daily reality, from a more directly lived vantage point?

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I have the impression that Socrates is using the device of his time, intellectual dialogues, as a convenient vehicle to communicate his message. We know that a Zen master or any type of original mystic can use whatever usual or unusual means they like, in order to express their nonverbal understanding in creative and unexpected ways. And there are clear indications of a mystical or at least a rather nonrational bend in Socrates.

One indication is that Socrates spends a large fraction of his life testing the reply of the Delphic oracle, that no one was wiser than Socrates [9]. Another is the 'divine sign' or inner voice, the *daimonion* that discourages him occasionally from undertaking some action he had planned to do. And then we have an explicit reference to a mystic voice in the Crito:

> This is the voice which I seem to hear murmuring in my ears, like the sound of the flute in the ears of the mystic; that voice, I say, is humming in my ears, and prevents me from hearing any other ... Then let me follow the intimations of the will of God. [10]

In addition, there are a couple occasions where Socrates was reported to stand immobile for hours, as if in a trance [11]. All this taken together would suggest that our usual impression of Socrates as a rational intellectual searching for definitions is heavily skewed. During the last few centuries, our own 'age of reason' may have mislead us in focusing to much on the verbal-reasoning aspects of Socrates, to the neglect of the other facets of his deeply personal involvement with a search for knowledge.

To mention one other example of non-verbal teaching methods of Socrates: his encounter with Alcibiades could be called a form of '*elenchus* in action' [12]. Here Alcibiades tries to seduce Socrates, and finally succeeds in forcing him to spend the night together. However, Socrates then does in deeds what we have seen him doing in words in his dialogues: his effective

refusal to have sex with Alcibiades amounts to a non-verbal elenchus (In his dialogues, the Socratic elenchus, or refutation, was a technique used by Socrates to show how the position of his opponent leads inexorably to consequences that undermine the very position itself). Socrates' repeated refusals are highly effective: his bafflement complete, Alcibiades confesses in reaction to Socrates' zen-style teaching:

> So I was at a loss, and wandered about in the most abject thraldom to this man that ever was known. [13]

We have to conclude that Socrates' philosophical quest was never purely theoretical, but instead more like a craft, a highly applied activity.

Notes

[1] Soph. el. 183b6-8.

[2] Meno 80a

[3] Apol. 38a — check

[4] Gorgias 506a

[5] For the question of separating the real Socrates from the Platonic Socrates, see Vlastos, G. 1991, *Socrates, Ironist and Moral Philosopher* [Cambridge Univ. Pr.], Ch. 2

[6] Guthrie, W.K.C. 1971, *Socrates* [Cambridge Univ. Pr.], p. 129.

[7] Reps, P. 19??, *Zen Flesh, Zen Bones* [New York: Anchor Books], p. 5.

[8] Descartes' Methods, p. 29.

[9] see Guthrie, W.K.C. 1971, *Socrates* [Cambridge Univ. Pr.], p. 86, who argues that the Delphic response was indeed a turning point in his life.

[10] Plato, Crito, last full paragraph [transl. B. Jowett; Dover]

[11] Guthrie, W.K.C. 1971, *Socrates* [Cambridge Univ. Pr.], p. 84, 85.

[12] After conversations with Steve White, Spring 1992.

[13] Symposium, 219e

19. Cartesian Dreams

While Socrates was the first one to seek systematically for definitions, Descartes made the first explicit outline of a purely rational approach to knowledge, starting from scratch. Like Socrates, Descartes discovered his ignorance, and decided to go back to square one, questioning everything that others took for granted. Unlike Socrates, he then erected his own building of knowledge, based on the then emerging awareness of a body-mind split that he made into an explicit base of his system.

More interesting than the details of his later system is the initial approach he takes as a consequence of his discovery of his own (and other's) utter ignorance. He decides "I could not do better than to try once and for all to get all the beliefs I had accepted from birth out of my mind" [1]. From there on, he wants to make a radical new beginning: "My plan has never been more than to try to reform my own thoughts and to build upon a foundation which is completely my own" [2].

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He then comes up with four rules:

> The first was never to accept anything as true that I did not know evidently to be so; that is, carefully to avoid precipitous judgment and prejudice; and to include nothing more in my judgments than what presented itself to my mind with such clarity and distinctness that I would have no occasion to put it in doubt.

> The second, to divide each of the difficulties I was examining into as many parts as possible and as is required to solve them best.
>
> The third, to conduct my thoughts in an orderly fashion, commencing with the simplest and easiest to know objects, to rise gradually, as by degrees, to the knowledge of the most composite things, and even supposing an order among those things that do not naturally precede one another.
>
> And last, everywhere to make enumerations so complete and reviews so general that I would be sure of having omitted nothing.

It is interesting to note that these rules actually form perfect advice for computer programming. Descartes conducted his inquiry the way a good programmer would write a computer program, mapping a given problem onto a method specific enough for a computer to work on in a mechanistic fashion.

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After having defined his algorithmic rules, he sets himself four more rules of behavior, temporary guide lines so as to keep on living while wiping himself blank of any firm knowledge in his radical doubt. The first rule is to keep a low profile, obeying the laws of the land, and in general not to rock the boat. The second rule is to be resolute, to choose a course of action that seems most appropriate in a given situation, and then to follow that course as long as no compelling evidence would come forward against it. Here he compares himself to someone lost in a forest. In that situation, he says, it is better to walk in a straight line, rather than here and there at random; even if the original direction was not ideal, at least it will lead one out of the woods sooner or later.

His third rule is to accept fortune and misfortune alike, wasting no time and energy on worrying about that which you cannot change anyway, such as sickness or imprisonment. Finally, the last rule he gave himself concerns his occupation: he decides to follow his call as a philosopher. He remarks about the difficulties and the rewards of living up to his third maxim as follows:

> I confess that long exercise is needed as well as frequently repeated meditation in order to become accustomed to looking at everything from this point of view; and I believe that in this principally lay the secret of the philosophers who at one time were able to free themselves from fortune's domination and who could, despite their sorrows and their poverty, rival their gods in their happiness. [3]

It is interesting to note his stress on 'long exercise' and 'frequent meditation'. Clearly, his version of a rational approach is not one that is purely theoretical, not simply based on reason as a type of puzzle solving activity. Rather, it goes deeper, and as in the case of Socrates, he seems to have touched upon a side of life that might be considered to be a mix of mystical and rational elements — without this resulting in a contradiction for him.

Here is an example. After having proven the existence of God in more detail, in his Meditations, and before going on to discuss the True and the False, Descartes remarks that:

> it is appropriate at this point to spend some time contemplating this God, to consider within myself his attributes and the beauty of this immense light, so far as the power of discernment in my darkened wit can carry me, to gaze, to admire, and to adore. For just as we believe by faith that the greatest felicity of the next life consists in nothing more than this contemplation of the divine majesty, so now, from the same—though much less perfect—contemplation we observe that the greatest pleasure of which we are capable in this life can be perceived. [4]

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In order to throw himself fully into his quest, at age thirty-two he decides to retire to a quite life in Holland,

> where among the crowds of a great and very busy people and more concerned with their own affairs than curious about the affairs of

> others, I have been able to live as solitary and as retired a life as I could in the remotest deserts—but without lacking any of the amenities that are to be found in the most populous cities [5].

Here he spends his time in theory and experiment: the latter in his private laboratory, the former generally while lying in bed for long periods of time. Descartes' meditations did not take place in Himalayan caves hidden under ice sheets, but rather under bed sheets while he kept himself hidden in the Dutch desert — the same landscape in which Spinoza would lead a withdrawn life as well, a little later.

It is interesting to compare Descartes' very personal investigations with what we generally consider to be a 'rational approach'. Our received ideologies of rationality are duly learned in school, and subsequently passed on to the next generation. How different from Descartes' 'beginner's mind' approach! Here is what Descartes himself has to say about education:

> As for myself, I am convinced that, had someone taught me from my youth all the truths for which I have sought demonstrations, and had I had no difficulty in learning them, I might perhaps have never learned any other truths, and at least I would never have acquired the habit and faculty I think I have for finding new truths, to the extent I apply myself in searching for them [6]

The two types of laboratory Descartes used were complementary, the one being his physical laboratory, and the other his mind. In a process of introspection he let his creative intuition hand him the raw material from which he then would distill his insights by using his rational thought as a tool. In this sense, his method is dreaming-based and reasoning-honed. Imagine a course in physics based on Cartesian methods, rationality 101, with students spending the morning in isolation cells, each in their own little bed, while going off to the lab in the afternoon.

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Descartes takes a strongly reductionist approach to experience. For example, he separates the properties of physical objects, following Galileo,

into primary qualities (such as mass and shape) and secondary qualities (such as color and texture). The former are considered real and objective, the latter only subjective. Another example is the way he treats animals in his vivisection experiments. He explicitly states that he considers animals as machines, a form of robots, to which he does not ascribe any real feelings. Against the backdrop of such a picture of a rationalist, studying nature at arms length distance as it were, it is interesting and unexpected to see the high regard he gives to dreams.

Descartes has given explicit accounts of how dreams have played an essential role in his explorations. Most famous are the dreams he had when he was twenty-two, at the same time that he conceived of his method discussed above, based upon his four rules. He actually published these dreams in a special paper. The content of this paper was subsequently lost, but later related by Abbé Adrien Baillet. To give an impression, here is the last part of that account.

> ..... At this point both the man and the books disappeared and faded from his mind's eye, but he [Descartes] did not awaken. The remarkable thing is that, being in doubt as to whether this experience was a dream or a vision, he not only decided, while still sleeping, that it was a dream, but he also interpreted it before waking. He concluded that *the dictionary signified the connection between all the sciences* and that the collection of poets entitled *Corpus Poetarum* pointed particularly and clearly to *the intimate union of philosophy and wisdom*. For he thought that one should not be surprised to discover that the poets, even those whose work seems to be only a foolish pastime, produce much deeper, more sensible, and better expressed thoughts than are to be found in the writings of the philosophers. *He attributed this wonder to the divine quality of enthusiasm and the power of imagination*, which enable the *seed of wisdom (existing in the mids of all men as do sparks of fire in flint)* to sprout with much greater ease and even brilliance than the "reason" of the philosophers. Continuing to interpret the dream in his sleep, Descartes concluded that the poem on "what sort of life one should choose," beginning "Quod

> vitae sectabor iter," pointed to the sound advice of a wise person or even to Moral Theology. Still uncertain whether he was dreaming or meditating, he awoke peacefully and with open eyes continued to interpret his dream in the same spirit. The poets represented in the collection of poems he interpreted as the revelation and enthusiasm that had been accorded him. The poem "Est et non"—which is the "Yes and No" of Pythagoras—he understood as the truth and error of all human knowledge and profane science. When he saw that all these things were so satisfactorily turning out according to his desire, he dared to believe that it was the *spirit of truth* that wished, through his dream, to reveal to him the treasures of all the sciences. There now remained nothing to be explained save the small copperplate portraits that he had found in the second book. These he no longer sought to elucidate after receiving a visit from an Italian painter on the following day. [7]

It is striking to see the important role given to poetry by Descartes. We are told that he explicitly puts the enthusiasm and imagination of the poets above the reason of the philosophers. Not necessarily what one might expect after having read standard accounts of Descartes as the champion of rationalism.

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We have to conclude that the popular impression of Descartes as the rationalist's rationalist is rather one-sided. As we found to be the case with Socrates, there is an nonrational side for Descartes too, a side that played an essential role for him.

Descartes' interests go much further than the abstract and theoretical realms of mathematics, physics and philosophy. He is deeply concerned with living an examined life, and philosophy for him is equally a fundamental and an applied science. Earlier we saw him stressing the importance of 'long exercise' and 'frequent meditation'. Here is another passage in which he describes how he conducted his explorations in an *experimental* type of

philosophy. After having described how he had started to doubt all and everything, Descartes makes the following observation.

> But it is not enough simply to have made a note of this; I must take care to keep it before my mind. For long-standing opinions keep coming back again and again, almost against my will; they seize upon my credulity, as if it were bound over to them by long use and the claims of intimacy. Nor will I get out of the habit of assenting to them and believing in them, so long as I take them to be exactly what they are, namely, in some respects doubtful as by now is obvious, but nevertheless highly probable, so that it is much more consonant with reason to believe them than to deny them. Hence, it seems to me, I would do well to turn my will in the opposite direction, to deceive myself and pretend for a considerable period that they are wholly false and imaginary, until finally, as if with equal weight of prejudice on both sides, no bad habit should turn my judgment from the correct perception of things. For indeed I know that no danger or error will follow and that it is impossible for me to indulge in too much distrust, since I now am concentrating only on knowledge, not on action. [8]

What better transition to a discussion of Husserl, who modeled his epoche on this type of Cartesian experimentation?

Notes

[1] Descartes, *Discourse on Method*; Adam and Tannery edition: p. 13

[2] ibid, p. 15

[3] ibid, p. 26

[4] Descartes, *Meditations on the First Philosophy*, p. xxx.

[5] Descartes, *Discourse on Method*; Adam and Tannery edition: p. 31

[6] ibid, p. 72

[7] Jacobsohn, H., von Franz, M.-L. & Hurwitz, S. 1968, *Timeless Documents of the Soul* [Evanston, Northwestern University Press], p. 78

[8] Descartes, *Discourse on Method*; Adam and Tannery edition: p. 22

20. Husserlian Detachment

Husserl has posed the same question as Descartes, 'what if the world did not exist'. But he used this question in a rather different way, as a tool to uncover the many layers of sense that constitute our world, our life, and ourselves as well. Like Descartes, Husserl exercised a form of detachment from the world, losing the world through the epoche in order to regain it through direct experience. But unlike Descartes, he did not stop at a convenient answer. Instead, he kept asking questions, about the way the world is constituted, and the way in which it appears from moment to moment, and our way of sense making and stabilizing our world across those momentary experiences.

Like Descartes, Husserl started off as a beginner, rejecting all previous knowledge as unreliable and ultimately unfounded. But unlike Descartes, and much more like Socrates, he remained a perpetual beginner. He went back to square one, time and again, whenever he had the slightest doubt about some inconsistency or incompleteness in his basic assumptions. In a nutshell, one could say that Descartes discovered consciousness, that William James recognized it as being a *stream* of consciousness, and that Edmund Husserl waded into the stream, charting it and mapping its currents.

When reading Husserl, as when reading the earlier Platonic dialogues in which a more authentic Socrates is portrayed, one is struck by the sense of honest amazement that is conveyed. In Husserl's case, this comes across

between the lines of his dry and scholarly German writing style. An amazement about the presence of the world, the way we make sense of the world, and a deep sense of surprise about sense, something we find everywhere but something we cannot catch. Like space, like time, sense is for us what water is for a fish. Our lives are embedded in it, given by it, irremovably linked to and through it.

Sure, we can interpret our world as a world of things. But what is a thing? When we look carefully, then we find that what we considered to be an object appears in our consciousness as a bundle of meanings, draped around sense impressions that are far, far less complete and filled in and filled up than the 'real thing' we feel to be present, three-dimensionally, continuous in time. What then remains of the solidity of the object? It is recognized in its givenness for us through the *sense* of solidity we have. Its continuity? This follows from our *sense* of continuity and identity. Its reality? Nothing but a *sense* of reality. The indubitability of its reality? The only thing we have a real handle on is our *sense* of indubitability of its reality.

No matter how we look at our world of experience, if we remain directly empirical in our questioning, the only answers we find are answers given as different forms of sense. We recognize that we live in a world of sense. And not only do we find the world to be dissolved in sense, upon close inspection, but we find that we ourselves too are known to ourselves only as complex forms of sense.

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Through the experimental tool of the epoche, Husserl has answered the question as to whether philosophy makes sense. It does. It can uncover for us the structure of 'all there is', taken in the widest possible way, as sense.

Statements such as the above are easily misunderstood. If these remarks about the epoche are taken as conveying some information, or stating an idea or speculation, their meaning is easily lost. But when the revolutionary meaning of the epoche hits home, through direct experience, one

is taken aback, and most likely quite shocked. Subsequent reactions can vary greatly. One temptation is to dismiss this type of analysis, to make a U-turn towards the past and its addictions to solidity and security. Another reaction is to take up the challenge, to explore the freedom it brings.

Simply put, a shift from the 'what' to the 'how' can be our ticket to freedom. Questions about 'what' appears around us are questions that arise *after* identifications have already taken place, and serve to tidy up one's world. But questions about 'how' arise *before* identification is complete, and have a running chance to catch the freshness of experience before it has been labeled, wrapped up, packaged and sent off into the mausoleum of the past.

Here is a striking summary of Husserl's epoche, seen as a shift from the 'what' to the 'how':

> Husserl's procedural techniques for inducing the "shift" are an attempt to articulate a certain strange experience that has happened to philosophers, to artists and poets, and perhaps to everyone save the hopelessly sane, now and again throughout their personal history. This strange experience is the experience of the strangeness of experience, and of the world. And this strangeness is nothing more (nor less) than the act of *seeing through* the sedimented meanings that one inherits and develops, and the structure one's world. [1]

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Concretely, performing an epoche implies regaining a form of childish innocence. For a child of five years old, to hear a fairy tale about a river of wine, or a mountain of gold, may be quite exciting. But for an even younger child, to hear about rivers and mountains may be equally exciting. For a very young child, living far from a river, the notion of a river full of water can be as fantastic as that of a river full of wine for an older child, who has already gotten used to the notion of rivers of water. And for a child growing up in a flat landscape, the notion of a mountain as a part of the

landscape miraculously raised up thousands of feet may be more exciting that that of a mountain of gold for an older child.

For adults a similar distinction holds. Why is it so exciting to see someone walking on the Moon, or walking in space? When we see something like that for the first time it is novel, unexpected, fresh and exciting. But what holds us back from a similar appreciation for walking on the Earth? Walking on asphalt, gravel, or grass *in principle* can be equally fresh and exciting as walking on water or walking in space. Just ask someone who has recovered unexpectedly from a terminal illness about the first steps after getting up from the sick bed. Or better, explore the world of experience for yourself, for example through the tool of the epoche.

The few examples above express how innocence and appreciation go hand in hand. Just as power comes in different varieties, the power of expertise and the power of innocence, so appreciation can be based on expertise as well as innocence. An expert can appreciate something against the backdrop of his or her knowledge, collected over the years. A beginner can appreciate something as it appears, without help or hindrance from the past.

Perhaps we can say that the power of innocence lies in the power of appreciation that innocence brings. Of course, the return to a beginner's mind does not imply the literal return to the state of mind of a new-born baby. Expertise and innocence are not necessarily contradictory. The best experts are in fact those who have been able to forget, in some sense, what they have learned, using their knowledge based on experience not as a conscious filter, but rather plowing back their experience, creating a rich soil from which new insights can grow.

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The radical approach of Husserl's epoche, of setting aside all questions about objective reality, was partly inspired by William James attitude towards empirical investigations. Like the later phenomenologists, James made it a point to go back to the 'things themselves', as they appeared, without adding or subtracting anything. Towards the end of this life, he summarized his view as follows:

> To be radical, an empiricism must neither admit into its constructions any elements that is not directly experienced, nor exclude from them any element that is directly experienced. [2]

Similarly, Husserl introduced his main guiding rule:

> Am Prinzip aller Prinzipien: dass jede originär gebende Anschauung eine Rechtsquelle der Erkenntnis sei, daβ alles, was sich uns in der 'Intuition' originär, (sozusagen in seiner lebhaften Wirklichkeit) darbietet, einfach hinzunehmen sei, als was es sich gibt, aber auch nur in den Schranken, in denen es sich da gibt. kann uns keine erdenkliche Theorie irre machen. [3]

At each stage of his investigations, Husserl painstakingly tries to guard his thinking against any type of traditional interpretations and identifications. Rather, his first and foremost goal is to stay true to the attitude of a perennial beginner, ever ready to go back to appearance *as* it appears and *how* it appears, even if such a closer look would seem to contradict the most convincing conventional views about reality. He writes:

> es gilt dem 'Prinzip aller Prinzipien' treu zu bleiben, daβ vollkommene Klarheit das Maβ aller Wahrheit ist, und daβ Aussagen, die ihren Gegebenheiten getreuen Ausdruck geben, sich um keine noch so schönen Argumente zu kümmern brauchen. [4]

[Note:The two English translations I could find are both completely unpalatable; I will have to come up with a better translation myself]

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All this was not an easy thing to do, as Husserl occasionally testifies to in the middle of a long and dry monologue. Clearly, he considered it to be a long and hard struggle, to reach a phenomenologically 'pure' view. And late in his life, in a letter to Roman Ingarden, he writes

> Es is schwer, das Schwerste der Philosophie überhaupt ist die phän[omenologische] Reduktion, sie mit Verständnis zu durchdringen u. zu üben. [5]

It is interesting to compare this statement with some of the quotes from Descartes in the previous Chapter, in which he similarly stresses how 'long exercise is needed' to follow the path he had set out for himself.

It is easy to psychologize the epoche. To start with a world and a person, and to let that person do the epoche as an exercise. However, that is clearly not what Husserl had in mind, and not what he had in heart. Reading his various descriptions, one gets the impression that for him, the epoche was a way of life.

It is clear that for Husserl, the epoche is not simply an intellectual exercise, a quick trick, or a play with words. This also shows, for example, through the trouble he had in teaching even his best students how to perform the epoche in a way he considered to be appropriate. It is illuminating to read a footnote in his last major book, written a couple years before his death, more than thirty years after his discovery of the epoche:

> The first breakthrough of this universal a priori of correlation between experienced object and manners of givenness (which occurred during work on my *Logical Investigations* around 1898) affected me so deeply that my whole subsequent life-work has been dominated by the task of systematically elaboration on this a priori of correlation. ...
>
> ...Contemporary philosophy of the decades since then [1913] — even that of the so-called phenomenological schools — preferred to persist in the old philosophical naïveté. To be sure, the first breakthroughs of such a radical change, a total transformation of the whole natural manner of life, were difficult to present adequately, especially since certain considerations, which will become understandable in the following, constantly give rise to misinterpretations resulting from relapses into the natural attitude. [6]

These words were written nearly sixty years ago. And indeed, throughout twentieth-century philosophy the epoche has retained a relatively isolated position. Curiously, the most well-known philosophers who have been strongly influenced by Husserl saw no use for the epoche. Neither Heideg-

ger, nor Sartre, Merleau-Ponty, or Derrida took up Husserl's favorite type of experimental approach.

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Was the epoche a personal quirk, an aberration of a man who saw vistas of contextual life while still stuck with an urge to apply methods that gave a semblance of scientific analysis? Or does the problem lie with European, and in general with Western, philosophy?

My guess would be the latter. Socrates had plunged his whole being in the pursuit of the examined life, losing wealth and prestige but gaining peace of mind. Descartes had lost the world in his methodic doubt, and gained back an objective realm to study systematically. Husserl had lost the world through epoche, and gained it back as a realm of consciousness, in which each object came with its 'manner of givenness', as a noetic-noematic pair (see Chapter twenty-two). What could be the next step?

It was the unsatisfactory status of the objective realm of Descartes that motivated Husserl to scrutinize the object pole of experience, with the result that he found the constructive handles inherently attached to each object.

And now we are faced with the unsatisfactory status of the subjective nature of Husserl's realm of consciousness, laid bare by his epoche. None of Husserl's intricate constructions of transcendental ego and intersubjective consciousness are very convincing. Perhaps it is time to move on, and to look for more than an object pole and a constructive act. Perhaps we should look at *each* experience as an act, an act with two poles, a subject and an object pole.

From the isolated objects of Descartes, to the object-givenness of Husserl, to a more accommodating view of appearance, that is the agenda I propose to explore. When we take anything that appears, as it appears, in our normal daily-life, we can see that each appearance corresponds to an experience, and that each appearance has a subject and an object pole.

In the ongoing stream of consciousness, moment-to-moment object-appearances are strung together to form a unitary 'object', and moment-

to-moment subject-appearances are strung together to form a unitary 'subject', and we have learned to identify ourselves with the latter. But when these type of identifications become clear to us, we can break the spell of the identification, and see experience and appearance in a new and fresh light. We can gain freedom from identification.

Notes

[1] Harvey, C.W. 1989, *Husserl's Phenomenology and the Foundations of Natural Science* [Athens: Ohio University Press], p. 233

[2] a reference to William James' *Radical Empiricism*

[3] Husserl's Ideen, end of section 24, p. 43

[4] Husserl's Ideen, end of section 78, p. 151

[5] Ingarden, R. 1968, *Briefe an Roman Ingarden* [Den Hagg: Martinus Nijhoff], p. 74.

[6] Husserl, E. 1970, *The Crisis of European Sciences* [Evanston: Northwestern Univ. Pr.], p. 166

Part V. DAILY REALITY

21. Sense

The world consists of more than things scattered in space and time. There is a dimension of sense that is just as fundamental as space and time, or matter and energy. Take a physical object, such as a pen. It can be seen through its facticity, as a piece of material, or through its functionality, as something to write with. Both aspects of the pen are present, in and as the 'same' object, as we normally say, when we focus on the location of the object in space and time. But when we include its 'location' in a 'sense dimension', there is a gap between the two objects, the piece of plastic metal, and the instrument to write with.

This dimension of sense is an integral part of our every-day life. But somehow we are not accustomed to treat is explicitly as such. We do not normally talk about it, the way we talk about space and time. Still, it is equally fundamental and equally close at hand. We can travel in it, move in it, as we can do in space and time.

We can move in space, in the three-dimensional world we live in. We all move in time, from the past toward the future. And with respect to memories and expectations, we are free to move in time in either direction. But in addition we have the freedom to move in the direction of sense [1]

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Let us take a very ordinary situation. When we read the newspaper, we don't pay any attention to the paper and ink in front of us. What we see, what we are directly aware of, are the stories we are reading, and the photographs that go with them. But when a page is torn, or smudged and

difficult to read, we can fall back from the functionality of the stories into the facticity of the printed paper.

If we want to experiment, we can consciously look at the front page of a newspaper as a piece of greyish paper speckled all over with funny patterns of ink. However, that way of looking is not part of the natural attitude we have towards a newspaper. Normally, the paper and ink have completely dropped away, are simply 'not there' as far as we are concerned, as little as the ticking of a clock.

There are other layers of sense that we can discern while looking at a page of the newspaper. We may encounter a long sentence that we have to read twice in order for it to make sense. If the sentence is poorly written, like a confusing headline, it might actually have two possible meanings, and we have a choice of sense making ('squad helps dog bite victim'). In such a situation, as long as we ponder the meaning of the sentence, we have descended from the level of the story to the level of the sentences the story is constructed with.

Similarly, if we come across a word of specialist jargon that we are not familiar with, we may want to look it up in the dictionary. In such a situation, we have dropped from the level of the story, through the level of the sentences, down to the level of the words. And then again, a misprint or a single smudged letter may pull our attention to the level of individual letters, or even to the strokes that combine to form a single letter.

Clearly, there are a number of different levels of sense simultaneously present in 'one and the same' piece of material at the same place at the same time. We can travel in sense, as well as in space and time. There are differences, of course, between shifting locations in space and in sense, just as there are differences between shifting locations in space and in time. To bring out those differences, let us take a closer look at space and time. This, in turn, can help us to see how sense can relate to both.

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What is space? If we would meet somebody from another culture in which there would be no word for space, how would we be able to describe

our concept of space? Each specific description would even strike ourselves as being too primitive. We could try to point to space as something that is present everywhere, as that what remains behind after taking away all objects. But we would immediately realize how such an attempt would be almost certainly misunderstood. It would invite a view of space as a type of all-pervading substance, like air or ether. And while both can be used to some extent as metaphors, neither captures the notion of space.

What is time? This is an even more difficult question. Let us imagine that we meet someone who has a working knowledge of space, and shares the way we talk about space, but somehow is not familiar with the notion of time. Perhaps that person has had a stroke or car accident, resulting in a form of selective amnesia. How would you begin to teach such a person what it means for us, to live in a world of space and time, rather than just in a world of space?

As in the case of space, we would be hard put to capture the notion of time in a purely verbal description. It would seem to make more sense to try to use a more action-based approach. We could use a polaroid camera and take a series of snapshots of a street scene, say. We could put those pictures on a table, and point out that each picture shows the same space, but at different times.

Our 'space man', who had somehow lost the notion of time, might have the following reaction. Let us say that he recognizes a house in each of the snapshots. We then tell him that it is the same house that he is seeing in each picture, that he has to identify all these houses with each other. And what about that cloud, which has slightly different positions in each picture? These, two, all have to be identified with each other, as all pertaining to one and the same cloud.

In short, each object is really a summary notion for a whole series of objects, as seen through the stack of pictures. And where does time come in? Can our space man get a clue from the fact that the cloud is occupying slightly different positions in each photograph? Yes indeed, we tell him, there is a significant difference between the house and the cloud. The house does not move; it has no motion. The cloud has some motion.

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The conversation with the space man could then continue according to the following dialogue. He would be puzzled by the notion of motion, and ask:

So time is the same as motion?

No. Time is what makes motion possible.

But clearly, the cloud has more 'time' than the house. The house is the same in all pictures. I can understand that from a purely space-based picture. No need to introduce this mysterious notion of 'time'.

No, there is as much time in the cloud as in the house. In fact, time is not located anywhere. It is equally present everywhere.

Like space! So, after all, space and time are exactly the same.

No, not at all. I understand that it is hard to imagine, and indeed space and time could both be said to be everywhere, in some sense. Still, they are completely different.

Hmm. Hard to imagine indeed. And what about that middle picture? It contains a car, one that is not present in any of the other pictures. Surely, that must be a measurement error of some sort.

No, it simply means that the car went by so fast that it did not register in the other 'nearby' snapshots. It had a greater amount of motion, but that does not make it more or less real.

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Clearly, even with a stack of snapshots, it would not be easy to get the idea of time across. And of course, this whole process of explanation would unroll in time. It could never happen in the first place if you were dealing with a purely space-based being, one that did not partake in time at all. And this brings us back to sense. If we would lack any understanding of the world around us, in other words if nothing would make sense, we would not have any understanding of either space or time. But since the world does make sense to us, we can explore what it means, this notion of sense.

First of all, in our exploration of sense, there is no way to walk out of sense, as little as we can walk out of space or out of time. Still, we have to learn to see this, to see what such a statement may mean, experientially. In that respect we are initially in a situation very much like the space man trying to find time. Using this analogy, we could conjecture that sense is 'everywhere', just as space and time are.

More accurately, space is 'everywhere', time is 'everywhen', and sense is 'in every which sense'. Space is also there where there are no objects present. Time is also there where there are no specific events to be located. And sense, then, could be postulated to exist also there where no specific information would be at hand.

This idea, that we live in a world of sense, and that we can move around in sense, may sound strange. But as we have seen from many angles in previous chapters, it seems clear that sense pervades our lived world. It seems hard to escape the conclusion that everything we know, as we know it, is what we know it to be through the way it makes sense to us. In this light, even nonsense is yet another form of sense.

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When Husserl interprets the effects of his epoche, he considers it to reveal the world as it is given in pure consciousness. However, there are several problems with such an interpretation. First of all, it smacks of traces of a solipsistic subjectivism. And secondly, consciousness might be seen as a subtle form of substance (akin to the *hule* of earlier Husserlian thought).

It seems more accurate, I feel, to interpret the epoche as offering us a world of sense. If we extend the epoche in the most radical way (see Chapter twenty-three), we have neither object nor subject to fall back upon. We are simply left with appearance. And certainly not with a chaotic or random form of appearance. In appearance, the world continues. The show goes on, *as* appearance. And what remains, in appearance is precisely *sense*. In this way then, we could say that the most radical form of epoche unveils the world of experience as a world of sense.

Our world, then, is a web of meaning, a web of sense. And we are not a spider sitting on top of our world, in the center, on a special cushion, elevated about the sense of the world. We ourselves are part of the sense. More accurately, we, as we see ourselves and understand ourselves to be, are part of the world of sense.

Our usual polarization into subject and object is one particular way to make sense out of experience, and certainly not the only way. Although a subject-object structure is the familiar backdrop we set up for our reflections about ourselves and the world, we don't really need to identify ourselves with a central detached player, a supervisor or spider on top of the web. We don't have to play the role of an isolated wave crest, raising above the world. If we identify ourselves with the water, rather than with the limited wave shape, we can find ourselves to be an equal partner equally sharing in a world of sense.

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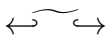
Once we catch on to the 'sense' of sense, once we get a real 'sense' of what it can mean to find ourselves living in a world of sense, perception can shift remarkably. We can get an almost literal sense of a new depth dimension in experience. When we talk about the depths and heights of experience, such metaphors may turn out to be accurate than we usual consider them to be. But all of this falls in the realm of poetry and lyric prose. It would seem hard to quantify or formalize anything along the lines of a 'sense' dimension of experience.

However, such a conclusion might just be a limitation of our imagination. Let us return to the encounter between Gian-Carlo Rota and Stan Ulam, which we reported on in Chapter fifteen. After Ulam has asked Rota "Look at that bridge over there. It was built following logical principles. Suppose that a contradiction were to be found in a set theory. Do you honestly believe that the bridge might then fall down?" Rota asks another question.

> Do you then propose that we give up mathematical logic? said I, in fake amazement.

> Quite the opposite. Logic formalizes only very few of the processes by which we actually think. The time has come to enrich formal logic by adding to it some other fundamental notions. What is it that you see when you see? You see an object *as* a key, you see a man in a car *as* a passenger, you see some sheets of paper *as* a book. It is the word "as" that must be mathematically formalized, on a par with the connectives "and," "or", "implies" and "not" that have already been accepted into a formal logic.[2]

It is this 'as' that is pointing to the sense dimension of the world, the world of experience.



Notes

[1] In developing the notion of sense as a type of independent dimension of reality, I have been inspired by the book 'Time, Space, Knowledge', by Tarthang Tulku [1977, Berkeley: Dharma Publ.], as well as by the unpublished lecture notes 'The End of Objectivity', by Gian-Carlo Rota, for the undergraduate classes on phenomenology taught by him at M.I.T. over the last twenty years.

[2] Rota, G.-C. 1986, In Memoriam of Stan Ulam: The Barrier of Meaning, *Physica* **22D**, 1-3.

22. Reflection and Preflection

Each object is connected with an action. This is one of the main results of our explorations in Part II. And in Part III we saw more explicitly how each object can be analyzed as arising in experience as the result of a construction. Whether or not we choose to believe in the independent existence of an objective world, the fact is that all that we know about the world is given to us *through* our experience *in* our experience. The only directly empirical way to deal with objects is to deal with them in their

immediate givenness: as members of object-action pairs, or noun-verb pairs for short.

The fundamental correlation between objects and their constituting actions was first brought out explicitly by the philosophical school of phenomenology, around the turn of the centure, and among them most clearly by Husserl. What we have called the object-action structure Husserl refers to as the noetic-noematic structure of experience. The noematic pole of a conscious experience forms what is meant, namely the object, while the noetic pole forms the meaning, the meaning-bestowing action.

Phenomenologists like to state that 'every consciousness is a consciousness of something', a property of consciousness that is know by the technical word of *intentionality*. Consciousness is intentional. When we see, we always see something. We see a sight, we hear a sound, we think a thought, we feel an emotion. Each act of consciousness is directed toward something, has an 'intention' (note that this piece of technical jargon does *not* imply the volitional notion that we usually associate with the word intention, and is therefore not a very happy choice of term).

Thus, *starting* from an act of consciousness, we always find an object it is directed towards, where the notion of 'object' should be taken in the widest possible sense. An emotion, a color, a shade of meaning, a mathematical theorem, all of these are examples of objects. And reversely, *starting* from an object, we can always find the act through which it is given.

To put it succinctly: consciousness is always consciousness of something, and each thing is always given as a thing in consciousness. Note that we are here simply summarizing standard phenomenology lore, in Husserlian fashion. As was briefly noted in the later part of the previous chapter, there are some serious problems of interpretation connected to the notion of consciousness. But for now, let us continue with our brief summary of (some of) Husserl's views.

As a consequence of the innate intentionality of consciousness, each object points back to its projecting act. And when we find a single object with more than one act of construction, more than one 'handle' attached, we

know that we are actually dealing with a multitude of objects that we had projected on top of each other. It was through the unmasking of this type of confusion of sense that we started off our journey in Part II. There we started to pry loose the several objects hidden inside what first appeared to us as a single physical object. In terms of the previous chapter, we learned how to travel in the direction of sense, while staying put in space. Our journey, in other words, has been an exploration of the sense dimension of experience.

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To illustrate the intentional structure of consciousness, we could use the image of light shining into a somewhat dusty attic on a sunny day. In such a situation we can clearly see the beams of light through the dust particles that are dancing in the beams. Without the dust tracing out the beams, we would only see the sunlight on the floor and on the walls. But by the addition of dust, we can trace out the path of sunlight through the space inside the room.

In this illustration, the sunlight stands for the noetic aspect of experience, while the walls and floor stand for the noematic aspect. In a clean room, the noetic aspect is invisible but essential in order to let the noematic aspect show up. After the addition of dust, the noetic aspect in turn becomes visible as well. But when this happens, the noetic aspect has been objectified, and has been effectively transformed into a new noematic object. Yes, we can use dust to trace out the sunlight. But no, what we see is the lit-up dust, and not the sunlight itself as pure light.

In a somewhat similar way, we can use reflection to bring out the noetic aspects of experience, tracing out the verbs behind the nouns in our consciousness. What we have done in Chapters seven and nine, for example, has been exactly that. We switched from a pen as an every-day object to a study of the way in which a pen appears to us. But doing so, we effectively got twice removed from our natural attitude with which we normally handle pens.

At the very beginning of our investigation of a pen, we started off from a situation which was already once removed from the every-day world.

Normally we don't stare at a pen, and we don't think many thoughts about it. We simply use it as an object, as a specific tool to perform specific functions. In fact, the pen as such is not even something we are consciously aware of when we are writing with it. What we are aware of is *what* we are writing, not *how* we write it. Only in a breakdown situation do we deflect our attention from the 'what' to the 'how', or more accurately to the 'how not' and the 'why not', in order to find out what is wrong with the pen, that it refuses to write.

When the pen interferes with our writing project [1], this action of insubordination lifts it up from among the crowd of unthematized elements of our experience. With a normally functioning pen, our attention is only directed to what we write. The pen itself effectively disappears, as the sunlight that falls through a clean room only to become visible through the light 'written' on the walls. A break-down brings out the pen, like the dust that 'traces out' the beams of sunlight.

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Let us now turn to a more experiential discussion of the noetic-noematic structure of experience. The epoche can be a very effective tool in bringing out the noetic aspect behind each object. The epoche invites us to set aside our usual interpretation, of dealing with a world 'out there' as opposed to our presence 'in here', having taken up residence in our body or more specifically in our head. Suddenly we see everything as actively arising, given afresh in experience, moment to moment. Nothing is stale and boring anymore. Instead, a most vivid multi-media show is being performed each split-second, and we are part of the performance.

It is difficult to give an accurate description of the type of shift in awareness that can come with an epoche well-done. It is as if we had been walking on a thick carpet, without realizing what is was that gave the soft and warm and resilient characteristics to the carpet. We might have looked at the surface of the carpet, only to see the very tip of each strand of wool, without realizing the presence of the wool strands backing up each tip. But sooner or later, a continued investigation and a closer look at the wool would have unmasked the mistaken identification of the collection of tips as

being the whole thing. As in the fables in Chapter four, we would recognize the tips as derived, and the wool as more fundamental.

I strongly urge the reader to try out this way of dealing with experience. If nothing else, just out of curiosity, to see how the world can come alive, when we shift from a noun-filled world to a verb-given world. Seeing and feeling everything as actively given, as appearing, rather than just 'sitting there', can drastically alter our sense of affinity with the world around us. And we don't need to invest any time in such an exploration. Rather than setting aside special 'lab' time, we can just use our every-day experience, trying to see it in a new light.

For example, while taking a shower, one sees and feels the water. Rather than focusing on the water as one thing, as simply 'the water', we can let it become two things, by separately focusing on the seeing end and the feeling end — and of course the hearing end and the smelling end as well. It may feel a bit strange at first, starting off intellectually to pluck one 'thing' apart this way. But when we realize that this one 'thing', the water, appears to us as such only *after* our identification of the separate sense impressions, we can try to let go of this identification, to have a peek of the world of impressions prior to this act of identification. This amounts to an actual, experimental switch from the 'what' to the 'how'.

As in physics, unless one actually performs some experiments, a purely theoretical discussion is likely to go completely astray. And not only that, one has to be patient in experimentation, taking one's time. In experimental physics, there would be no point in giving up if the first reading of an instrument or the first attempt at an experimental setup does not work out satisfactorily. Similarly, in experimental philosophy, a bit of patience is not a bad thing. But if we make it a regular practice to try our hand at the epoche (or its extensions, such as described in the next chapter), we are likely to receive a very significant pay-off. For one thing, we may read Husserl with far deeper understanding, were we so inclined. But more importantly, our world can come alive in what could perhaps be most accurately described in terms of fairy tale imagery.

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The epoche is a form of reflection. Socrates has told us that the unexamined life is not worth living. We could translate this by saying that life without reflection is not worth living. Without reflection, we live in the natural attitude, in which we take things for granted. Through reflection we step aside, off the beaten track, into a different dimension of sense. Rather than taking the world for granted, we watch with fascination *how* the world arises, how it is 'granted' to us, in its full noetic dimension.

Normally, when we watch a flower, we are aware of the flower, but we do not reflect upon the process of seeing that brings out the flower. In contrast to a conscious reflection, we might call the usual way of dealing with an object a 'flection'. The literal meaning of the word re-flection is 'bending-back'. Reflection is thus a returning of the attention in the backwards direction, not to the object but to the way the object is experienced. The literal meaning of a 'flection' is then simply a bending, as in de-flection, which literally means bending-down.

When we reflect upon *how* a flower is given to us, the *seeing* of the flower shows up. When we see a flower the way we usually do, we are not specifically aware of the process of seeing. However, we *are* keenly aware of the separation between subject and object, between me and flower. Reflection brings out the way this separation is built up, but flection (normal viewing) already brings out the separation, as a 'fact of life'. Somehow, experience is already bent, 'flected', into a separation. We have already stepped out of the world, to become spectators of our own experience, having taking up residence on top of the web, as a lonely praying spider, watching whatever triggers the lines of tension through which we grab hold of the world.

There is a third way of watching a flower, one that I would call a 'preflection'. This is a way of looking that is prior to subject-object separation, prior to any bending of experience into identification and classification. More akin to the experience of artists or mystics, preflection lives in experience. There no longer is a 'flower as-distinct-from me'. Any attempt to explain or describe such an experience is doomed to bend something, to introduce some type of flection already in the very process of reporting.

For example, we could say that a preflection brings a feeling as if one

'falls into' the flower. That might be an sensible evocative description all right, but the problem is that such a description starts off already with a *person* who then 'falls into', 'gets re-united with' the flower. And the 're' in re-united is precisely what is too much. And where is the *person* coming from, anyway? Certainly not from within the preflection — there is no person to be found in there.

The problem with language is this. Having broken something apart, we may wonder why it is so hard to stitch it together, and we may doubt that there ever was a seemless wholeness. But if we can catch the experience of a preflection, such concerns drop away, and we realize that we have not re-united anything. Rather we have just succeeded to refrain from separation through discrimination — a discrimination that gives rise to our usual way of dealing with the world in terms of dichotomies, through 'flection'.

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To sum up: preflection could be seen as a point; flection as a line with two poles, subject and object; and reflection as a figure-T. The top line of the T forms the whole flection line, now grasped in its totality as a new object of reflection, for which the bottom point is the new subject point. The vertical line is the new way of pulling the subject apart from experience, making the old subject part of an objectifying investigation.

In preflection, experience shows up as a single point, without any detachable parts. In flection, there is the semblance of separability, from the fact that the subject and object pole appear separately. They can be named separately, and they can be pointed at separately. And indeed, we tend to treat objects as really detachable from subjects, as we already discussed in Chapter four. And herein lies much of our problem. Both poles *remain* equally undetachable, no matter what stories we tell ourselves, and no matter whether the poles are seen in preflection or in flection. Alas, our usual stories don't take this undetachability into account. And as a result, our habitual identification with only one pole causes us grief to no end.

Paradoxically, it is the process of reflection that can help us to realize our mistake. By stepping back one step further from direct (pre-reflective)

experience, we attain a vantage point from which to view our usual 'flective' activity of distortion. Caught up in the top line of the T, we can easily lose perspective, but descending to the bottom, we can view both subject and object *as well as the experience connecting them*. This, then, can bring out the undetachability of subject and object poles, at all levels of flection, reflection, rereflection, and so on.

There are many examples of stepping back in order to get a better view. To gain an feel for life in a four-dimensional world, it is very helpful to first go back to a two-dimensional world, in order to imagine how two-dimensional beings might try to picture our three-dimensional world. From the trouble they will have, and the solutions they may come up with, we can learn how to deal with the next dimension up, the one that is inaccessible to *our* imagination.

Another example is that of someone learning to draw. Instead of trying to draw straightaway by copying from an example, there is an interesting exercise that a beginner can do in order to gain a fresh perspective. The trick is to put the example picture upside down, in order to learn to draw what is directly there, given in experience. Putting the example picture upside down frees us to some extent from our normal misconceptions and prejudices as to what *we think* the world looks like. Instead, we can open up more for what the world *really* looks like — we can return to appearance in its direct givenness [2].

In all these cases, stepping back helps us to 'fall in', to get a more lived sense. The epoche, too, can be an effective way to scale the barrier between subject and object, through an initial move in the opposite direction.

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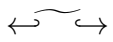
I wonder to what extend Husserl saw his epoche in the terms I have just used to describe my own experience of working with the epoche. I do get a strong sense that for him the epoche was a very powerful tool to get in touch with experience, and thereby with the whole lived world. He actually uses terms such as 'lived' and 'alive' frequently when discussing the epoche. But I also get the impression that his interpretation was lagging behind his

experience. When he describes how the epoche brings out everything as it is constituted in our consciousness, he seems to single out the self, or ego as he calls it, as a special part of experience that thereby somehow receives an elevated status. In contrast, I feel that we can stay closer to actual experience if we describe experience in terms of a more complete *symmetry* between the subject and object pole.

Descartes could be said to have 'discovered' consciousness, by dealing with it directly in such a radical way as to bring out how consciousness could be said to construct the world. However, after having done so, Descartes immediately falls back into a world of things, using his notion of God to provide a stamp of authority. Husserl, in contrast, manages to stay in a world of both things and actions. He realizes that we can never cut off the object pole from the corresponding action that gives rise to the appearance of the object pole in the first place. But Husserl has great trouble in dealing with the subject.

In my view, the logical next step is to see the world in its triadic aspect, through subject-act-object, or to use another word, through subject-experience-object. And of those three, I see *experience* as the more fundamental, with object and subject each appearing as a limiting case of experience, as a result of a projection of experience onto one pole or the other. And just as the Cartesian doubt was extended by the Husserlian epoche, by 'bracketing' the object, I sense that we can in turn extend the epoche to include a 'bracketing' of the subject. This will be the topic of the next chapter.



Notes

[1] A Heideggerian notion

[2] From: Drawing on the Right Side of the Brain

23. Extending the Epoche to the Subject

Let us illustrate the conclusions of the previous chapter with an striking example. If we hit ourselves on our thumb, a sharp pain appears. If this painful experience is really pain-ful, it may be too full to admit a separate concern for a suffering subject and an objectification of the pain pointing towards an object. In that case, a pre-flective pain is felt, without any question about who feels what. There is just pain. More accurately, there is simply 'ouch!', probably followed by a few more strongly worded expressions.

After the surprise of the first sharp pain, we typically fall back from the pre-flective state into our usual 'flective' state, in which we consider ourselves to be a limited subject in a larger world full of objects. During the moment of intense pain, 'ouch' filled the universe and so did we, as 'ouch'. There was nothing impersonal or objective or separate in the 'ouch', and neither did we consciously consider it to be subjective. 'Ouch' simply was, *as* 'ouch.'

When we later reflect on what happened, perhaps in telling the story to someone else, we look back on our experience of the pain, and we can talk about ourselves and the pain we felt as separately existing. We are now twice removed from the originally, intimately felt experience. And this process of removal can be extended further. We can reflect upon the story we have told, or we can tell someone else how we told the story. Both of these form a re-reflection upon our original pain. And so on.

In brief: in reflection we focus on the 'how', on how we feel pain; in flection we focus on the 'what', on what this pain is; and in preflection we focus on the 'is', on the presence of the pain, in the intimacy of appearance.

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If we could easily drop all our identifications, at the snap of a finger, we could freely move between preflection, flection, and reflection. However, this type of freedom does not seem to be easily accessible. As an alternative, we can use tricks, such as Husserl's epoche. And we can in turn extend Husserl's epoche, just as Husserl has extended Descartes' doubt.

In the Middle Ages, the world was seen as a creation, and we were part of the creation. Descartes saw the world as a realm of objectivity, separated from the realm of the mind. Husserl saw the world as a realm of consciousness, with the ego playing a somewhat uncomfortable role hovering over and embracing all of consciousness.

Perhaps we can go one step further. Let us set aside all questions about a Creator, about objectivity, and about consciousness. Let us go back to experience, in a repeated attempt to go back to the 'things themselves', but to an 'earlier' stage, before they have even arisen as 'things'. Let us go back to experience itself.

When we use the word 'experience', we generally take it in our usual, 'flective' way, as something that connects subject and object. We feel that we, as subjects, 'have' experience. But if we turn this around, we could say that experience 'has' a subject-pole, and an object-pole as well. This 'preflective' way of viewing experience is more authentic, more honestly empirical, staying closer to what is directly given, underneath our later accumulation of accrusted conceptual dealings with the experience.

There is a problem of confusion of terminology here, though. If we normally speak about a subject having experience, we might want to use another expression instead of 'experience', after we (re-)turn the tables. To avoid confusion, a more appropriate expression might simply be 'appearance'.

Starting from a preflective level, there is only appearance. Appearance is. We can stop here.

Or, if we want to say more, we can say: there simply is the presence of appearance. Appearance appears, it is presented as such. We can appreciate the presence of appearance as a presentation. A presentation by whom or by what? Not by subjects or objects, they themselves appear as appearances, they appear as part of appearance. If we want to say anything, we could try to point to 'what is', without there being a 'what'. So we have to point to 'is'. In other words, we point to Being. We could then phrase our challenge to freedom from identification as follows: "appreciate the presence of appearance as a presentation by Being."

But what is Being? Alas, from an explanatory point of view, we have worked ourselves into a corner, a corner of our verbal universe. Only non-verbal answers apply here. But that does not mean that we have to remain silent. We can use evocative rather than explanatory language, using either poetry or evocative prose, based more upon analogy and resonance than upon logical inference or 'clear and distinct ideas' [1].

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Let us begin to explore experientially what it could mean, to extend the epoche to include the subject.

The epoche unveils the role that consciousness plays in presenting objects to our awareness. It is a way of bringing out the stars, by eclipsing the sun. And as with a solar eclipse, it may feel a bit eerie at first. Birds (and some analytical philosophers) may react by closing their eyes and going to sleep. But if we resist that temptation, and familiarize ourselves with the tempered light of the epoche, we can look at the world in a new light.

The one remaining problem is: how do we look at ourselves? After we have put the whole world of objects in brackets, so to speak, can we go on from there and 'bracket' ourselves as well? This is a question that has occupied much of Husserl's research, and much of that of his later commentators as well. It would be tempting at this point to go into a detailed theoretical discussion, expanding beyond the remarks made above and at the end of the last chapter, and including a thorough historical inventory of who said what about the epoche. Interesting as that might be in itself, it does not appear to be the most pressing concern. It might be more interesting to leave that for a later time, and to focus instead on a more direct approach. So let us drop theory for the moment, and let us ask ourselves *how* it is exactly that we deal with the subject, in daily experience.

This is a hard question. As soon as we talk about the subject at all, we find ourselves with an object in our hands, an object called 'the subject'. How to deal with the subject without objectifying it in the very dealing with it?

Here is a suggestion. Let us try to turn the tables on the whole object-subject problem, and let us see whether we can switch roles between subject and object. Let us see to what extent we can succeed in an attempt to occupy the object pole, rather than the subject pole of experience.

Concretely, let us do the following extension of the epoche. Take an object, any object. At first, it might be easiest to take a manageable physical object, such as a cup or a vase or chair. For a while, simply watch the object, and notice how you are present as the subject, doing the watching, and how the object is present as the object that is being watched. After a while, you can try to reverse the situation. Instead of you watching the object, let the object watch you. Do not try to interpret the situation, but just keep watching, and see what happens. It will pay to be patient. A few minutes is about the minimum amount of time to spent on this experiment, and ten or twenty minutes are likely to 'pay off' more. Having done this, how has the situation changed? Has any shift taken place in experience, in the way you and the world appear?

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This type of experimental instruction may sound strange. And indeed, if we take it literally, we might object that the vase or the chair does not have eyes. How can it see me, instead of me seeing it? But let us see whether we can step over such a hasty reaction. For example, we can take a fairy tale or a children's story in which animals and even inanimate objects play human roles. One reason that such stories are so appealing is that they bring a sense of life and affinity back into our world, a sense that has been largely lost with the adoption of a spectator posture. But if we can set aside our usual objectivistic rational view, why not allow ourselves to return back into the world — the world we collectively stepped out of, several hundred years ago, during the early Renaissance?

There are other suggestions we can use to make it plausible to somehow try to turn the tables of subject and object. For example, in chapter nine we have used the analogy of a dream. During a dream it seems natural to identify ourselves with our (dream) body, but after we wake up and look back at the dream, we have a very different view of ourselves. We then

identify the whole dream with a product of our mind. The identification with our (dream) body is then seen as an appropriate role *within* the play of the dream, but as completely arbitrary as seen from a point of view *outside* the dream. In retrospect, we could have equally well identified ourselves with a table or a candle.

None of these remarks are intended as explanations or directions for performing the role reversal between subject and object. Rather, they are meant to counter some of the usual reactions against attempting such a reversal. It may be better to simply do the experiment, and to put theory (and prejudice!) on hold, for the time being. That way we avoid bias, as a good experimenter should. It is only through actual experimentation that a reversal of subject and object pays off, in opening up a different way of dealing with appearance.

And here, again, it is important to exercise some patience. In physics, setting up and trying out a new experiment takes some time. In philosophy, the situation is not different. But the investment of time and energy is worthwhile. This simple reversal of subject and object roles, for example, can be an effective tool for gaining some degree of freedom from identification, as something concretely felt.

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This particular type of experiment was borrowed from the book 'Space, Time, Knowledge' [2], by Tarthang Tulku, a Tibetan Lama who has lived in the United States for the last twenty-five years. While spending much of his time and energy on Tibetan Buddhist projects and teachings, he has also written a series of books that are unrelated to his particular background and religion. In these books, no mention is made of ritual, nor of prayer or meditation, devotion or belief system. Instead, a vision is presented that could be called philosophical, in a broad sense of the word. The approach is thoroughly experimental, an invitation to active personal questioning that I have found to be extremely interesting and effective in my quest for freedom from identification.

Another, much simpler approach to freedom from identification with our usual self-image is given in the slim book 'On Having No Head' [3], by

Douglas Harding, a British architect. In only a few pages, he points out how narrow-minded our typical views of ourselves are. Effectively, we take up residence in a location somewhere in the middle of our head, in between our ears, a few inches behind our eyes. We seem to represent the world around this central vantage point. Far away things cannot be clearly discerned, but nearby at least we feel that we have a pretty accurate view of our world. However, closer inspection shows that we have a three-dimensional type of blind spot, right at the center of our coordinate system. If we would have a *really* accurate view of our surroundings from our vantage point somewhere in the middle of our head, we would see ... only grey matter, our very own brain! The fact that we don't shows that we have created a completely open space, right here in the center, for objects around us to enter, in our construction of the world. Douglas Harding then invites us to drop all identification with brain or head or body or whatever, and rather to identify ourselves with this open emptiness that allows everything else to appear.

Many other approaches have been offered along similar lines, most of them from within a particular religious tradition, although some of them hardly mention that background other than by specifying the historical motivation for their particular quest. A beautiful example is the book 'I am That' [4] by Nisargadatta, an Indian merchant without any scholarly training or background, other than his own personal experience. The matter-of-fact way in which the deepest insights are narrated is stunning. The book presents a series of dialogues between Nisargadatta and various other people. There is no need to read the book in any order. In fact, a random page can be read separately and is guaranteed to provide inspiration for a personal exploration of experimental philosophy.

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Each of the three books above can provide ample inspiration for extending Husserl's epoche in a number of directions. And none of these books require any prior background knowledge. There are, of course, many other sources that contain valuable suggestions for a quest towards freedom from identification. Most of those are couched within a particular religious

or psychological or philosophical tradition, and may therefore be less accessible to a reader without any preparation in that particular tradition. In addition, there is always the danger of falling into new identifications with new ideologies or religious notions, just as one was about to free oneself from one's old identifications. In contrast, the above three books, diverse as they are, all manage to avoid even a trace of new identifications.

Whatever approach one experiments with at any given moment, there is one piece of advice that I have found more valuable than anything else. It is this: be open for unexpected shifts in perspective. While pondering the nature of reality, or while engaged in philosophical experimentation, or while doing the dishes or putting out the trash — whatever it is you are doing, try to keep an alert attention for shifts in awareness. If we look carefully, each moment there is a change in atmosphere, in perspective, in short in the whole slew of identifications we are involved in. And once we learn to recognize the identifications in the ongoing process of being set up and being reinforced, we have a good chance to see through them and to drop them — or not drop them, as we please, but at least to drop our unquestioned addiction to them.

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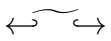
Whether we experiment with subject-object reversal, with the notion of 'having no head', with the sense of 'I am that', or with any other approach, we can extend Husserl's epoche in many different ways. We can point to some of those in the following simplified summary. When we look around, we first see a world chock-full of things. After applying the Husserlian epoche, we recognize everything as appearing in our own consciousness. This is a great step towards freedom from identification, but the notion of consciousness, as it has been used by Husserl, is problematic. For example, the fact that many objects appear in other people's consciousness as well gives rise to the problem of intersubjectivity, one of the major problems that Husserl struggled with.

Therefore, we need to make another step, beyond the epoche. We need to drop *both* the notion of objectivity and that of consciousness. When we see every-thing in its aspect of emptiness, we have more of a chance to

gain freedom from identification. When we see through all role playing, whether the roles are that of objects or of consciousness, of subject or of object, we can keep up with a playing of the play, but we are no longer caught by it. Or more realistically: we are less caught by it. Having spent most of our lives learning to live out the propaganda we grew up with, it is not surprising that it requires quite a bit of time and patience to learn to see through the web of meaning, the web of sense woven through multiple layers of role playing.

How does it feel, to look around, and first recognize things as physical objects; then to switch to viewing them as consciousness; and then to make another shift to view them as emptiness — as open forms of appearance? It does not have to be a full realization, or either an affirmation or denial. Even a few minutes of time applied to this form of 'muscle flexing' may provide a crack in the wall of our normal structure of elaborate identifications. I suggest you simply try it, to see for yourself.



Notes

[1] Tarthang, Tulku 1977, *Time, Space, and Knowledge* [Berkeley: Dharma Publ.], Ch. 16.

[2] Tarthang, Tulku 1977, *Time, Space, and Knowledge* [Berkeley: Dharma Publ.], p. 258. Two other books in the same series, by the same author and from the same publisher, are: 1987, *Love of Knowledge* and 1989, *Knowledge of Space and Time*

[3] Harding, Douglas E. 1961, 1988 *On Having No Head* [London: Arkana]

[4] Nisargadatta, Maharaj 1983, *I am That* [Durham, N.C.: The Acorn Press]

24. Freedom in Identification

Each of us lives in his or her own world. This is not quite correct. But to say that we all live in the same world is even less correct. Here is a better expression than each of the previous two: each of us is his or her own world.

Each of these three expression contain part of the truth. Usually, we take the objective view point which tells us that there is one world with many individuals therein, all of them trying to interact with the world and with each other as well they can, in the process trying not to collide too much and too often with each other.

When we honestly look at our own experience, however, how ludicrously limited does this 'objective' view appear! Clearly, I live in my world. If I fall seriously ill, or if I am overjoyed, or deeply worried, the whole world changes. This is simply a fact of observation. One of the most basic facts of our experience. Yes, the whole world changes *for me*. But are not all my experiences always experiences *for me*?

Why do we generally consider the latter view to be 'merely' subjective, and somehow less real than the objective view? Do we need others to verify whether indeed the whole worlds smiles when we smile? Do we have to depend on other's views to check whether we find room for self-esteem, courage, peace of mind? Do we have to gauge our own creativity and sense of freedom by the standards of others?

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If we observe ourselves, our attitudes and orientation, we find ourselves switching to and from these two world views, the objective and the subjective. For a moment we live in the world, and we are a very small part of it, perhaps a passenger paying the bus fare. A moment later we sit down in the bus, and we are all 'wrapped up' in our own preoccupation. We look out the window, and see our own world. What has happened? Does the objective world 'reflect back' our own mood? Have we subjectively 'papered over' the objective world in our own way? These are some of the conventional explanations we grow up with.

We may well wonder why we tend to offer such interpretations, carving up 'our world' in subjective and objective bits. And well may we wonder, also, why we have fallen in the trap of considering our subjective world to be second-class, a limited counterfeit to the real thing, the objective world. Why do we consider our whole world of experience, *all that we have*, as something limited in which we are 'wrapped up'; as something that has 'papered over' a postulated objective world, out of reach but somehow considered to be more real, nay, the only real world? That we short-change ourselves, at least psychologically, is all too clear.

The alternative that we have been exploring is a more balanced view of reality. We can take both the subjective and the objective world, and consider them to be equiprimordial, not translatable or reducible, one to the order. The reduction of the outer world to the inner can lead to the fallacy of solipsism. And the reduction of the inner world to the outer can lead to the fallacy of a purely materialistic world view. Both views are useful, in a practical sense, each for their own application, but neither are ultimately true, in the sense of excluding the other, as we have discussed in Chapter four.

The many advantages of an equal acceptance of both views are many. To mention one, we have the question of the value of human life, and of human rights. We can view an individual in a reductionist way, as a complex organism of flesh and blood, a tiny speck in the universe, struggling perhaps to find happiness and avoid what is unpleasant. But we can also view an individual not only as a living body, but as representing a whole world, a unique world.

When going for a walk, how about looking at passers-by from a different angle than we usually do. How about trying to view them in their their world-aspect rather than their only-a-few-cubic-feet aspect. When we take this idea seriously, it can be a profound experience. Standing on a market square, we can survey this bundle of universes, intersecting, overlapping, and yet so remotely extending in all kind of different directions. So many people, so many worlds – so crowded and yet so solitary.

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So far we have used the usual dichotomy of the terms subjective and objective, outer and inner. At the same time we have considered ourselves to always inhabit a world, either *the* or *our* world. But perhaps we should consider a third possibility: that we are our world, rather than living in it.

We have used the analogy of a dream already a few times before. When I dream, I dream myself to be a central, but limited, part of my dream world. But when I wake up, I realize that the whole dream world was, in some sense, me. Not only did I play my own role of being me in my dream, I also played the role of everyone else whom I encountered in my dream, and in addition I played the role of all the props on the stage as well — quite a *tour de force*.

While waking, when I see an object, it has a color which may be vibrant, warm, carrying a meaning, for example by reminding me of some other situation, perhaps long ago, in which I saw a similar color. But objectively, what constitutes a color? When we want to give a purely objective description, we have to characterize colors in terms of wavelengths of electromagnetic radiation. All else is added by the subject. So all we see is what we paint in ourselves. From moment to moment, our whole world of perception is constructed anew, in a manner which has deep similarities with dreaming, or more accurately, with hallucinating, as we discussed in Chapter eight.

Of course, what we see is not random. The difference with a hallucination is precisely the fact that perception is tied to the objective world, and is in fact the only way we have access to that objective world. So what do we conclude? Our world, as we perceive it, and in perceiving it, every little element of it, has the status of something far from being purely objective, and far from from being purely subjective. Perhaps a better expression is the one that Husserl preferred, namely that we experience an intersubjective world.

But what does it mean to be citizens of intersubjective worlds? Let us again focus on the third view mentioned at the beginning, that each of us *is* his or her own world. Rather than living in our world, we live as our world. Rather than being 'wrapped up in', or 'papering over' something preexisting, would it not be more economic to describe at least the experi-

ential aspect of living in an intersubjective world by saying that we are our world?

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Let us put our objections on hold for the moment, to look at the advantages of such a view. Isn't it much more intimate to look at a tree as part of myself, rather than as an object outside me? And if I look at a cloud, to find myself drifting through the open expanse of the sky? Who is to tell me that such ways of experiencing 'reality' are 'only' poetic, fairy tale like renderings of a more 'real' objective world? What is the point of such separation?

The point is, the objectivist might say, that all our separate worlds are not disconnected, in splendid isolation. That the connectivity of the intersubjectivity points to the 'reality' of an underlying objective world. Here, a subjectivist might object that we are born alone in our own world, and that we will die alone in our own world, that fundamentally, deep down, we are always alone with ourselves, that no one else can feel our pain and our joy directly, that sharing is at most a reflecting, a resonating. How to reconcile these two views? Each one makes a clear point, but as arguments they are like two ships passing at night, missing each other by miles.

Why do we want to reconcile these two views? What does it mean to reconcile? Is that not simply an attempt to reduction, of one view in terms of the other? "At most one view can be correct, and therefore at least one should be derivable from another, more fundamental view". Why this prejudice? An attempt to escape from uncertainty, a fear of having to live without a firm foundation in some sort of alleged absolute certainty? But what certainty can a prejudice give us?

When we squarely face these questions, it seems to make much more sense to admit a plurality of views, without one being more or less 'real' in any meaningful sense than the others.

So far, we have only just begun our exploration. We have taken a fresh look at our everyday world. And we have realized that it may make lots of sense to say that we ourselves are our world. What does that imply for our

own existence? Our sense of self? Our sense of identity and continuity?

These are all deep questions, age-old, and the only way to face them honestly is to continue our spring cleaning of concepts, in which we throw out whatever shows up as unwarranted prejudices. Let us start to have a clear look at what we mean with 'existence'.

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But wait, before facing the problem of what it means for us to 'exist' as the one we (think we) are, let us take a closer look at subjectivity. Objectivity we are familiar with, the idea that we all are inhabitants of the same given 'out there' world. But subjectivity is something we tend to pass over quickly, experiencing but not analyzing it. Let us again consider the view that we each are living in our own world, right in the center of it, but as a visitor, having somehow entered this world of ours (before we realize the intimate connection of ourselves and our world being somehow given to be part of the same fabric).

We have seen that at first it seems that each individual inhabits a world of his/her own. But a closer look shows that each of us actually inhabits a bewildering variety of worlds. We can live in the world of our family, of our work, of a variety of circle of friends, etc. Strictly speaking, there is a world associated with each role we play, whether we buy stamps at the post office, stroll along a lake, or make a phone call at work.

How do all these roles and corresponding 'worlds' fit together? Who ordered such a bewildering variety of surroundings, and how do we manage to navigate in this universe of worlds? Plurality seems to get out of hand, as soon as we try to attempt any type of completeness in a mental bookkeeping.

Paradoxically, we live with a set of contrasting views of ourselves. On the one hand we view ourselves as having a solid core, with an unchanging identity, the central rock to which we attach praise and blame and feelings of success and failure. But at the same time we also maintain an image of ourselves that is very fluid and constantly changing. At any given time we find ourselves in one or more worlds, and we succeed to a more or less

succesfull degree to play appropriate roles in each of them. How does this connect with our sense of continuity and identity that we carry over from world to world, and that in a sense, we could say, is what carries us along?

These notions of identity and continuity form an even stronger motivation to believe in the priority of an objective world, which we all share. We have seen before that the postulate of an objective world acts as a convenient and efficient stage to tie down all our intersubjective agreements. But now a more important role is assigned to the objective world. If forms the anchor which grounds us in the stormy sea of ever-changing surface patterns of the manifold worlds we all inhabit.

Realizing this, we can begin to ask the question: is this anchoring role of the objective world simply something given to us as part of our existence? Or is it perhaps a psychological defense mechanism against the uncertainty of living out our life in a bottomless layering of stage plays within stage plays within ... in which the actors play that they are actors who play that they are actors ... without 'anybody home' behind the roles?

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To approach this question, let us first look at the sense of self we have, at our own self image. To carry out a honest exploration of the image we have of ourselves is not an easy thing to do, precisely because our self image is so close to us, so close that we tend to *identify* with our self image. When we 'get' angry, we 'feel' angry, and soon we find that we 'are' angry. Instead of considering the more realistic perspective from which we could say that we 'have' anger, we identify with the emotion.

What does it mean, to question this automatic identification with our self image? Does it mean that we have to deny our emotions, that we have to sever ourselves from them? Of course not. That would be another identification with another self image, this one being even further removed from direct experience. No, the more reasonable way would seem to go *into* the emotion, to explore it, to feel it, and at the same time: to resist the temptation to identify the messenger with the message. Our feeling-angry, and the conceptual content of the anger ("how he mistreated me! Come

to think of it, he did something similar yesterday as well! And even worse, . . . ") are two things we tend to blend together. If we simply stay with the feeling of anger, it may soon dissipate. But if we keep fueling it through an ongoing inner dialogue, we treat it as a wind-up toy, maintaining and increasing the blaze.

What is this mysterious sense of unity, at the core of our being? Isn't it obvious, when we honestly look, how different our thoughts, feelings, hopes, fears, coloration of memories, etc., are in different moments, traversing different worlds of ours? Who or what is there at the center, sitting silently on the central throne? Or is that already a completely misleading image? What would it mean for somebody or something to take center stage in seemingly atemporal, somewhat aloof sense? But if there is nobody home to whom we can assign any definite identity, that what do we do with our everyday experience, our everyday sense of 'I'? Isn't that one the most definite and concrete and real part of our experience? To Put it in the form of concrete questions: who is the one who hears? Who sees? who speaks, decides, acts, suffers, enjoys, gets bored, gets scared, etc.? Or most simply; who am I? How to focus on this 'I'?

Perhaps it is helpful at this stage to move again to our third, and most authentic view, the view that we are our world. But in the light of the enormous multiplicity of worlds we seem to 'inhabit', what do we conclude? Do we now say that we are each world separately and together, in their coming and going? What does this imply for the question "who am I"?

Perhaps we should focus less on the 'I' and more on the 'am' in "who am I". This brings us full circle back to the question of existence. Perhaps the sense of 'I' is intimately determined by the way in which I 'am'.

So how to proceed? Sooner or later we will have to start our own personal investigation, our own exploration, using our own awareness as a laboratory. And doing so, we can dissolve our addiction to identification. This does not mean that we give up identification. Our life will go on and the world will keep spinning. But seeing through identification, we can find freedom *in* identification.

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The simple question 'who am I' is as relevant a challenge for us as it was for Socrates. And we can extent it into any situation. Let's say that I am tired. Okay, so I am tired. What does that mean, being tired? Is that something absolute or relative? Can I change my focus of attention, and does that result in feeling more tired or less tired? Are there certain memories or fantasies, or fears or desires which affect the degree to which I feel tired? Is tiredness something that I 'have', or something that I 'am'? Can I set it aside momentarily? Who or what is the 'I' anyway, who either is or owns being-tired?

And so forth, and so on. The beauty of questioning is that it truly is an all-purpose engine. It runs happily on any type of fuel! Doubts and distractions, you name it, just submit it to questioning: who doubts, who is distracted? Why do we doubt? Can we find a hidden fear, which prompts us to doubt, to prevent us from going further in our exploration? Do we feel threatened by the lack of 'solid ground' under our feet? What does it mean, to feel threatened? Can we analyze the emotional responses, or at least simply observe them? Can we focus on the emotion itself, the feel of it, apart from the particular content, the particular message it seems to carry?

Questioning all obstacles can lead us to take a very playful and liberating stance. At the same time, following the trails of questioning requires a deep seriousness. Like any play, the play of questioning requires an utmost seriousness in order to be really playful.

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25. Openness and Emptiness

What is this world we are living in, and who are we? In order to come to terms with such questions, we have switched from our inquiry as to 'what' to a more revealing inquiry as to 'how'. How does this whole world arise in the way it does, in the way it appears to us? And how does our notion of who we are arise in that same experience in which the world appears as well?

Asking such questions, we have found a tentative answer to what it means to say that something 'is'. There 'is' a cup, there 'is' joy, there 'is' form and function and value. Whatever appears, it has to make some form of sense to us, in order to qualify as something that 'is'. Even utter chaos or non-sense presents a form of sense (namely: chaos, nonsense). So, for us, 'what is' is the result of identifications we have made, not unlike the identifications made by true believers in ideologies.

In a very real sense, the world we find ourselves in as well as what we believe ourselves to be are the result of ideologies, of identifications that are highly questionable. This is not to say that there is not a practical value to our usual interpretations. Of course there is. Of course we need a large amount of knowledge about the world in order to be able to function in it. It is only when we forget the role-play character of all that we consider to be 'real' that we get into trouble.

If and when we can resist the temptation of utter identification with the roles that are being played, the answer to the question of 'what is' retains its multi-layered character. At each moment, the question of 'what is' can be answered from within the play in which something takes significance, as well as from within a larger play that embraces the framework of the more specialized 'play within the play', or an even larger play, and so on.

For example, a pawn within a game of chess has to obey certain strict rules and consequently is caught in a situation with severe limitations. But when seen as just a piece of wood, it literally can be moved anywhere on the board at any time, or even be moved off the another board altogether. And as a piece of wood, it can be again be viewed in many ways. If it were carved in an unusually intricate way, it could be deemed worthy to be

exhibited as a piece of art. Or it could be seen as 'just a piece of wood' and perhaps thrown in the fire as a consequence of being denigrated to a piece of firewood. Clearly, the question of 'what is' is highly contextual.

Stated in the most radical way, each subject or object, human or physical object or abstract idea or whatever, is playing a role. And what we identify as playing the role is itself playing a role. We are part of a great drama of role playing, with roles within roles within roles — without anybody or anything 'home' underneath; without any stable and final foundation to bolt things down upon.

Freedom from identification is the immediate result of seeing through the propaganda attached to the role playing, the propaganda that suggests that the roles are 'real', more than relative to their contextual situations. Freed from the massiveness of a given outside reality, the whole question of what 'ought to be' can then be seen in a new light. In a very practical way, questions of change can be dealt with in a fluid way. From a contextual viewpoint, we can be responsive to the situation at hand, without the need to recite ideological or religious scriptures or other codified systems of problem solving.

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At any time, we can view anything in its 'being' aspect, as the role that is being played, as that 'what it is'. But we can equally well view it in its 'non-being' aspect, in its aspect of openness or emptiness. From the point of view of the play, the player underneath the role being played is simply not there. In a drama, there 'is' a king. The actor 'is not' within the rules of the play. Within the play the actor steps aside, disappears, to let the king show through. But when we step outside the play, the king has vanished, has completely lost its base, its foundation of existence. We then see that, at bottom, the 'king' has been an empty notion all along. something being played but not ultimately 'real' in any sense.

This emptiness is what allows anything to appear in the first place. The notion of emptiness is truly the most positive notion we can come up with, the one notion that is least notion-like, if we can resist the temptation

to conceptualize it. Only emptiness can provide full openness. And this openness is fully accessible as soon as we look through the layers of role playing that tend to obscure the underlying openness.

The funny thing is, though, that the obscuration has never happened in the first place. Within a play a king can be a powerful person, but once we look from a vantage point outside the play, what is left of the power of the king? Even if we would try to strip the king of its power, to rebel against him in order to overthrow him, we would not find any handle. There would be nothing to fight against. Emptiness and openness do not offer a place for a sword to cut into.

Freedom from identification is something extremely paradoxical. Each time we gain an extra measure of authentic freedom, we realize that we have been free all along, that we have not found anything new at all. In Chapter two we looked at the example of a moth flying around a lamp. Physically, the insect is completely free to fly away, any moment it wants. But the problem is, it doesn't want to. And while we may consider moths to be programmed biologically, we cannot maintain the same excuse for ourselves. From within the play (of being obsessed with flying in circles), there is no freedom. From outside the play, there never have been any prison walls.

And this is not just a fancy form of wishful thinking. It applies to any type of daily life. And in Chapter three we have seen how it can apply even to life in a concentration camp. Once we wake up to the tentativeness of the world, and to the contingency of being, the massiveness of the world can drop away, gradually or suddenly. A lightness of Being can make itself felt, in the marrow of our bones. And as we saw in Chapter twenty-three, we can live in this lightness if we learn to appreciate the presence of appearance as a presentation by Being.

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