

VOLITION
and Allied Causal
Concepts

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ABSTRACT.

Volition and Allied Causal Concepts is a work of aetiology and metapsychology. Aetiology is the branch of philosophy and logic devoted to the study of causality (the cause-effect relation) in all its forms; and metapsychology is the study of the basic concepts common to all psychological discourse, most of which are causal.

Volition (or free will) is to be distinguished from causation and natural spontaneity. The latter categories, i.e. deterministic causality and its negation, have been treated in a separate work, *The Logic of Causation*. Volition may be characterized as personal causality, a relation between an agent (the self or soul) and his actions (acts of will). Unlike causation, this relation cannot be entirely defined using conditional (if-then) propositions. Although we can say that the agent is a sine qua non of his actions, we cannot say that the agent is invariably (in all or specific circumstances) followed by his actions. It appears that both an act of will and its negation remain possible to a soul in any given set of circumstances. This defines freedom of the will, and implies the responsibility of the agent for his actions. Introspection provides knowledge of particular acts of will.

The existence of freewill implies a distinction between necessary causation (determinism independent of volition) and inertial causation (determinism, except when some contrary will interferes). An act of will occurs on a spiritual plane. It may have natural (mental or physical) consequences; those that inevitably follow it may be regarded as directly willed, whereas those that vary according to circumstances must be considered indirectly willed. Volition presupposes some degree of consciousness. So-called involuntary acts of will involve a minimum of attention, whereas mindful acts are fully conscious. Even pure whim involves intention. Most volitions moreover involve valuation, some sort of projection of goals, deliberation on means, choice and decision. To judge responsibility, various distinctions are called for, like that between intentional, incidental and accidental consequences.

Volitional action can be affected through the terms and conditions of the world surrounding its agent, but also more intimately through the **influence** of concrete or abstract aspects of that world that the subject has cognized. The causal concept of influence, and its implication of cognition (of inner or outer information, including emotions), are crucial to measuring the effort involved in volition. Influences make willing easier or harder, yet do not curtail its essential freedom. All the causal concepts used in psychological explanation – affections, appetites, instincts, habits, obsessions, compulsions, urges and impulses – can be elucidated thanks to this important finding. Much of human

(and animal) behavior can thus be both acknowledged as volitional and as variously influenced.

Volition and Allied Causal Concepts is a work of ambitious scope, intent on finally resolving philosophical and logical issues that have always impeded progress in psychology. It clarifies the structure and workings of the psyche, facilitating hygienic and therapeutic endeavors. The relation between volition and physical laws is discussed, as is the place of volition in biology. Concepts used in biology, analogous to that of purpose, are incidentally analyzed. Theological issues are also dealt with, as are some topics in ethics and law.

And the Lord said to Qayin [Cain]:

*Why art thou angry? and why art thou crestfallen?
If thou doest well, shalt thou not be accepted?
and if thou doest not well, sin crouches at the door,
and to thee shall be his desire.*

*Yet thou mayest rule over him.**

*Genesis 4:6-7. The Jerusalem Bible (Jerusalem: Koren, 1992).

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1. BASIC CAUSAL RELATIONS

1. Causation and volition

By the term *Causality*, we refer to the relation between a *cause* and an *effect*. Without attempting from the outset to define the causal relation, which we apparently all have some sort of insight into, we may nevertheless notionally distinguish two primary and radically different expressions of it, or genera, which we shall call Causation and Volition. The study of these matters may be labeled ‘aetiology’.

Causality is, note well, *a relation* of some sort between two or more individual things or kinds of things¹. If two things are not related by causation or volition, they are said to be ‘not causally related’ – without intention to exclude the possibility that each might have one or the other causal relation to certain other things. The notion of Spontaneity, which refers to events thought to be uncaused by *anything* else, will be considered later.

¹ The Latin root *causa* refers to a purpose or motive, but I am not sure what its deeper etymology might be. A related Latin term is *causari*, meaning quarrel or dispute. Related terms in French are *une cause* (a court case), *causer* (to converse) and maybe *chose* (thing); in a legal context, the thing that causes, i.e. the cause, is sought through discussion about it. The etymological issue is just one aspect of the history of *the concept* of cause in all its guises, which has yet to be written.

‘Causation’ is the term that we shall apply to *deterministic causality*, which may be loosely described as the causal relation between ‘natural’ things, qualities or events, which ‘makes’ them, individually or collectively, behave with certain regularities of conjunction or separation. A cause in causation may be called a ‘causative’.

This *natural* form of causality is definable with relative ease, *with reference to conditional propositions* of various types and forms. We tacitly understand the different forms of natural, temporal, extensional and logical conditioning as being expressions of an underlying ‘bond’, which we label causality, or more specifically causation. The patterns of behavior of things are empirically, and then inductively or deductively, identifiable²; the underlying causal ‘bond’ is a widespread intuitive assumption which requires much philosophical work to elucidate and validate.

The idea of causation may be viewed as arising from the three ‘laws of thought’, insofar as the latter establish the fundamental “if–then” relations, as in “if X, then X” (identity), “if X, then not notX” (non-contradiction) and “if not X, then notX” (exclusion of a middle), which mean “X and notX together are impossible” and “not X and not notX together are impossible”. For, once such relations are found to exist in the world and in discourse, i.e. in all the modes of modality, with regard to any term X and its negation notX, it becomes conceivable that similar relations may be observed to exist *in less obvious* cases, between certain other pairs of terms, like X and Y.

² See my work *Future Logic*, parts III and IV, for a thorough analysis of conditioning.

‘Volition’ is the term we shall apply to *indeterministic causality*, which may be loosely described as the causal relation between an agent and any action thereof, i.e. between a ‘person’ (be it God³, a human being or an animal) and his⁴

³ Some readers may find my occasional references to God in this work, as in my others, as misplaced. In this day and age, any reference to God is considered by many as necessarily apologetic and prejudiced. But I insist, the present is *a secular and rational work of philosophy*. I simply refuse to be intimidated by ignorant pseudo-philosophers, who tell the masses that atheism is an established fact of ‘science’. I consider myself a philosopher in the ancient and high tradition, which admits of no such fashionable dogma. In this context, *theology* is admitted as a legitimate and noble field of open philosophical debate, in which theism and atheism are both given voice and must both argue their case rationally, though both may remain forever equally speculative. In my view, people who claim that atheism is scientific are as epistemologically contemptible as those who claim knowledge of the Divine by ordinary experience and reasoning. The role of philosophy here is merely to eliminate certain incoherent ideas, and so limit the field to a more limited number of respectable ones. Beyond that, all beliefs (including the atheistic) are personal faiths.

⁴ I will use the pronoun ‘he’, for the sake of brevity and readability, in a general sense, meaning He (God), he/she (a human being) or it (an animal) – i.e. any ‘person’, any entity capable of being an agent, who has the power of will. I do not by this terminology intend to express an opinion as to whether all animals have ‘personality’; perhaps only the higher animals do, but not insects or bacteria. I only wish to make allowance for the possibility, not exclude it offhand. Likewise, with regard to God – I do not, by mentioning Him, intend to express religious views. Even in the case of humans, no doctrine is intended here that all their actions are volitional. (Animists, by the way, would regard even stones as having some measure of will; some 19th Cent. German philosophers spoke romantically of the Will as a sort of general force of Nature.) Our essential object of study, here, is the abstract

will (be it a personal attitude or a mental or physical motion of some sort). Note well that in volition *per se*, the ‘cause’ is the one who wills (at the precise time of willing), an entity called the agent or actor or doer, and the ‘effect’ is a specific act of will by that agent immediately, or thereafter more remotely any product thereof (which may or not have been intended).

This *personal* form of causality is far less easy to define. The simplest approach is by negation – to affirm that there is a causal ‘bond’ of some sort, while denying that it takes the form of natural, temporal, extensional or logical conditioning. Thus, volition refers to behavior which does not display fixed patterns, but in which we all nevertheless intuit a punctual causality. Indeed, we ought to say that the notion of a ‘bond’ is primarily due to the inner sense of will; it is then by analogy broadened, to include the ‘bonds’ between events external to the will. This seems true for the individual, and presumably in the history of thought⁵.

fact of volition or agency, and not so much its particular (real or assumed) concretizations. All this will become clear later when we discuss the natural limits of volition.

⁵ It does seem – though much research would be needed to establish it indubitably as historical fact – that mankind initially explained (as of when it sought explanations) all natural motions anthropomorphically with reference to volition rather than causation. That seems to be one thrust of animist belief, which projects local spirits, genies or gods into rivers, the soil, fire, the sky and other objects (including abstract ones, by the way – e.g. assigning a spirit to the tribe) to explain their movements. Magic and ritual were used to tame or at least deflect these ‘forces of nature’. Modern philosophers, of course, are trying to do the opposite, i.e. to somehow explain volition with reference to causation or some similarly impersonal process. Nevertheless,

The development of this fundamental, common notion of causal bond from the will to natural events proceeds as follows: whatever remains evidently unaffected by our efforts, no matter what anyone wills, is regarded as naturally 'stuck together' or 'connected'. Thus, whereas volition may be defined in part by denial of the forms of natural causality (conditioning), causation is in turn defined in part by denial of the power of personal causality.⁶

Natural or deterministic causality displays patterns, accessible directly or indirectly by empirical means (they proceed from concrete perceptions, which are then generalized; or inferences from such), but its underlying bonding aspect is known only by analogy, as a conceptual development. Personal or indeterministic causality, on the other hand, is grasped first empirically (in the way of an intuited abstraction, through an inner 'sense' of oneself willing), and then formally distinguished by denial of ultimate invariability.

Note again that causality is essentially *a relation*. Since we do not perceive the relation but only at best its terms, it is not

traces of underlying 'naturism' unconsciously subsist in the common reference, even in scientific discourse, to a personified Nature that 'does' things as if it has 'ends' and that makes 'laws'. This can also be viewed as a sort of secularized theism, which masks its identity by seeming to de-personify God. Of course, even the concepts of spirit and will are not innate; they must have a long and complex history, within and before mankind. Since their emergence probably antedates oral or written works of religion, philosophy or literature, we must examine archeological evidence (such as prehistoric funerary practices or ritual objects) to guess when and how they may have developed.

⁶ Pitting Nature and Persons against each other, as it were: if the former wins, we have causation; if the latter, we have volition.

phenomenal; i.e. it has no material sensible qualities or mental equivalents of such. It is apprehended by us, as already suggested, through intuition during acts of volition, and inferred by analogy (a conceptual act) to exist similarly in causation. It is thus better characterized as an abstraction.

The statistical aspect of causation – and, by negation, that in volition – is secondary, though also a relational aspect. The latter is ontologically a mere expression of the relation, and epistemologically a way for us to discern and classify the causality. Whether the underlying relation is, or ought to be believed to be, a real ‘substance’, or whether it is a convenient projection of the imagination, is a moot question. But pragmatically speaking it is not very important, if at all possible, to find the answer.

An interesting distinction between deterministic and indeterministic causality is that individual connections are known in the former case solely *by virtue of* general connections, whereas in the latter case they are known *per se*.

- That is to say, causation involves natural laws or uniformities⁷: it is from our knowledge that one *kind of* thing causes another *kind of* thing that we know that an

⁷ The insight that causation concerns kinds rather than instances may be attributed to Hart and Honoré; at least, I learned it from their work. It explains why the reasoning “*post hoc, ergo propter hoc*” (after this, therefore because of this) is fallacious: it is just *too hasty*. We do infer (inductively, by generalization) kinds from instances, before inferring (deductively, syllogistically) instances from kinds – but we must always remain aware of possible exceptions (inductive evidence for particularization).

instance of the first kind of thing has caused an *instance* of the second kind of thing.⁸

- In contrast, in volition we cannot refer to induced or deduced generalities of that sort to establish a causal connection between agent and will, since by definition such connection is always *singular and unpredictable*.⁹

As with any other concept, the concept of will ought not be regarded as devoid of terms and conditions (“terms” here referring to the ontological identities of the surrounding

⁸ It would be erroneous to infer that every individual causative relation presupposes a universal one: the proposition “this X causes Y” seems superficially singular; but in practice, it means that the individual entity X always causes the *kind of event* Y (when it encounters some unstated *kind of entity or circumstance, Z*); for this reason, this singular form need not imply the broader “all X cause Y”. But that just confirms that truly ‘singular causation’ is a doubtful concept. At first sight, quantity is not the essential issue in causation; if a ‘universal’ (or kind) has but one instance, then its causation of something else might also be singular! But the issue is: how would we know about it? Are propositions of the form “if this singular event, then that other singular event; if *not* this singular event, then *not* that singular event” knowable? All we would have, surely, is an observation of the presence of this and that together, preceded and followed by an observation of the absence of both. Such conjunctions would not suffice to construct conditional propositions, which refer to *negations of conjunctions*! (For logicians, I would add: material implications are unknowable except through strict implications.)

⁹ For this reason, the argument “*post hoc, ergo propter hoc*” is often used with apparent legitimacy in the field of volition (as against causation). In such cases, the underlying logic is in fact *adductive*, rather than deductive. The singular cause is assumed hypothetically, so long as it seems to fit available data – though such judgment may be reversed if new data puts it in doubt.

entities, and “conditions” to their current temporal and spatial alignments, and their states and motions). The indeterminism of volition is always bound and circumscribed by the determinism of certain terms and conditions, i.e. by causative factors. A power of volition does not mean omnipotence, total power to do just anything; it is an allowance for a limited range of two or more possible effects, whose cause is not a causative but an agent. The oft-used expression “causes and conditions” is usually intended to mean “volitions and causations”, i.e. volitional causes and surrounding causative conditions.

Volition seems closely allied to consciousness. The range of an organism’s volitional powers apparently depends on the range of its powers of cognition. Animals with simple organs of sensation have simple organs of movement. More complex sensory systems allow for proportionately more complex motor systems.

Evidently, each entity has its own ‘nature’, its own naturally given facilities and constraints, to be actualized directly or indirectly. For each entity, some things are ‘willable’, but some are not. Some things can be willed in certain circumstances, but not in others. Some things are easily willed at a given time, while at other times only with great difficulty.

Different species have different ranges in relation to each activity. Man can do things flies cannot, like invent a rocket to the moon. Flies can do things men cannot, like fly around without machines. Similarly, within each species, individuals vary in their range. I can do things you cannot do, however much you try, and vice-versa; though we also have many

abilities in common. Yet even these common powers may differ slightly: you can perhaps run faster than I, etc.

2. Causality and modality

‘Modality’ refers to attributes of relations such as: necessarily, possibly, actually, actually-not, possibly-not, impossibly, contingently, probably, improbably, which describe various degrees of being or knowing. These attributes are all interrelated in various ways; for example, impossibility is the negation of possibility. They are also all found in different contexts, known as types or ‘modes’ of modality.¹⁰

The concept of causation is closely related to that of modality. To each type of modality, there corresponds a *mode of causation*. We can distinguish three major modes: the logical, the extensional and the natural, if under the latter head we include the spatial and temporal modes as special cases. The *logical* mode is concerned with the reasons or explanations of theses; or with inductive or deductive arguments, i.e. the inferential processes from premises to conclusions. The *extensional* mode concerns subsumption between experiential data and concepts or between different concepts, or between the relationships among them. The *natural* mode deals with the phenomenal or abstract causes or effects of physical or mental events, or kinds of events.¹¹

¹⁰ For a thorough study of this topic, see my work *Future Logic*.

¹¹ Note: some propositions apparently mix modes of modality; but we are able to sort them out.

Volition is, to be precise, to be contrasted to natural causation, rather than to logical or extensional causation. Volition is of course involved in the rational processes through which logical inference and classification occur, but we cannot will such truths or relationships into being. We can identify them, or attempt or claim to, but no amount of will can make ‘true’ or ‘included’ what is not so in fact. Volition may thus be viewed as an exception to the operation of natural causation, specifically. The mode of modality or causality applicable to volition may be called the *personal* mode.

Some terminological conventions are worth making here, to avoid equivocations. Possibility in the natural mode may be called *potentiality*, and we can use the verb *can* in such contexts (the corresponding verb in the extensional mode would be *may*, and in the logical mode it would be *might*). In the personal mode, we may reserve the word *ability* for possibility and use the verb *is able to*; other terms we commonly use in volitional contexts are capability, capacity, potency, power. (By the way, in the ethical mode, which is a derivative of volition, we speak of *permissibility* and again use the verb *may*.¹²) Similarly for the other modalities (necessity, actuality, etc.), but no need to go into detail here.

The difference between potentiality (natural possibility) and ability (personal possibility) encapsulates the difference between causation and volition. Potentiality is actualized by natural causation, whereas ability is actualized by volition.

¹² See my *Judaic Logic*, chapter 13, for the elements of ethical logic (deontology).

Ability is a rather vague and ambiguous term, from a logician's point of view, because there are many levels of *readiness* for volitional acts and the term ability does not specify which one is meant. I may be able to do something in principle if I take certain steps, and yet be far from able to do it right now, without further ado. Ability understood broadly is mere empowerment in principle; it merely means that *some* way(s) exists for volition to arrive at the result concerned, without specifying the way(s). But ready ability, depending on the wording used, may signify that we have approached the result considerably; maybe so much that it is at hand, available to us at will.

3. Spontaneity

Before going further in this analysis, let us look briefly at the antithetical notion of spontaneity. In its primary sense, note well, the term 'non-causality' is a *limited* reference to the lack of connection between two *individual or specific* things, without implying that each of these specified things is not connected to *yet other* unspecified things. Two things may be completely unrelated – we commonly believe this occurs in the world, so the concept of non-causality must in any case be admitted as meaningful. 'Spontaneity' is a more radical variation on this conceptual theme, referring to things with a *general* lack of connection to anything else whatsoever.

Spontaneity should be contrasted to natural causation, specifically. We do not regard the logical or the extensional modes as involving spontaneity. It might be argued that 'axioms' and 'experiences', the apparent irreducible primaries of knowledge, are logically spontaneous – but this

would be a misuse of the term, because no variation occurs in these givens: they just are, forever factual irrespective of when they entered our knowledge. On the other hand, the concept of natural spontaneity ought not be limited physical events, but may equally be applied to mental ones.

Most people credit the idea that some things are connected together, while others are not – though they may in turn be connected to other things. Some people deny the existence of spontaneity, i.e. claim that everything is interconnected with at least some other things, whether by causation (only, for extreme determinists) or by volition. But it should be clear that the concept of spontaneity is not unthinkable: it just refers to a general denial of causal relations. Spontaneity may be regarded as occurring in *limited domains or pockets* of the world, without denying causality to exist in other levels or parts of it. Some lay people and philosophers go so far as to claim that *everything* is spontaneous, nothing is connected to anything else; but belief in spontaneity need not be taken to such nihilistic extreme.

In any case, to discuss the issue at all, we must admit of both the notions of causality and of spontaneity, to begin with. It is logically conceivable that some things are connected to *some* others, but some things are not connected to *any* others. We do not have to admit spontaneity for all things if we admit it for some. Also, it should be clear that if spontaneity is indeed possible for some particular thing in some particular region of the world, it does not follow that *just anything* may arise in that context. There may be only a certain *range* of possible spontaneous events, and nothing beyond that range. This can be understood with reference to disjunctions.

It is conceivable that “**A must be either B or C or D, but cannot be E or F, etc.**” and that “**there is no thing X such that ‘if X occurs, A is necessarily B’ or ‘if X occurs, A is necessarily C’ or ‘if X occurs, A is necessarily D’**”. In such case, we can predict that *one of* B, C, or D is bound to emerge in A (to the exclusion of other thinkable alternatives E, F, etc.), and yet be unable to predict *which* one, because no causative X exists for any of them. The modalities ‘must’ and ‘cannot’ in the above propositions indicate some measure of determinism; while the expression ‘or’ signifies that there are alternatives and the absence of any causation for them implies some indeterminism. Thus, determinism and indeterminism may coexist; and spontaneity may be very circumscribed, and need not be unlimited.

Nowadays, the possibility of spontaneity in matter is taken very seriously. I refer to the Uncertainty Principle of Werner Heisenberg (1927), according to which the position and momentum of a subatomic particle cannot both be measured with precision. This has been interpreted as an indeterminacy principle, i.e. as having not merely epistemological but ontological significance, notably by Niels Bohr¹³. Since this

¹³ This is known as the Copenhagen interpretation. It should be clear that this is a case of Positivistic thinking, which could be expressed as ‘let us suppose that things are only as they seem on the surface – i.e. that there is nothing deeper down them to know’. Such reasoning is used, for instance, in the Relativity theory, where no absolute rest is conceived to underlie the various relative motions we perceive. I am not rejecting such an approach here; but it should be pointed out that its intellectual respectability in modern history is rather recent, dating from the late 19th Cent. An equivalent approach with regard to the phenomena of visual perspective would say: when bodies look smaller at a distance

physics discovery, which is apparently here to stay, we must admit that not all natural events are subject to causation; some are seemingly governed by a less extreme, merely probabilistic, form of law. This scenario must of course henceforth be taken into consideration in our philosophical and logical analysis of causality.

But keep in mind that just because we can *imagine* things popping in and out of existence without rhyme or reason, as in a Walt Disney cartoon, it does not follow that such things are in fact possible. The question may also be asked: is a universe composed of only singular happenings, devoid of any regularity whatsoever, unconnected to each other in any way, *fundamentally* different from one in which Natural Law, or God's Will, reigns? It is far from clear. Spontaneity in the sense of pure chance, or ultimate anarchy, is extremely difficult to define precisely; i.e. it is not certain that it is fully conceivable!

We could say that *chaos* is the limit at infinity of 'complexity of law'. Chaos implies frequent crises in regularity, sudden and repeated changes of order. As order decreases, the mathematical formulae that are capable of expressing it increase in complexity. Perfect order is ultimately monism; the pluralism of the world implies various degrees of order. Chaos may thus imply extremely complex order, as well as no order at all. In other words, the concepts of chaos and order ultimately converge!

Moreover, spontaneity, in the sense of chance, is in a way a form of 'determinism', insofar as *what happens by 'luck' is*

than when they are closer to us, they really are smaller – it is not just an optical illusion.

*not under the control of any volitional agent*¹⁴! As far as we are concerned, such events are as much out of our power as events governed by natural law – in fact more so, since the latter can at least be relied on and used, whereas the former are unpredictable (or at best probabilistic). In a world of chance, *we are even more passive* than in one of natural law. In other words, the concepts of causation and natural spontaneity intertwine and ultimately tend to a common – *mechanistic* – reading of the world.

There is even a strong element of spontaneity in indeterministic causality, in that the will is somehow, to some degree (indeed, to varying degrees), free and unpredictable. Thus, in some respects spontaneity is akin to causation, and in other respects it is akin to volition.

We may also, at a deeper level, claim everything as ‘spontaneous’ in the sense of mere happenstance. For even causative relations, as themselves objects or events in the universe, ultimately ‘just are’ – they are irreducible givens. We cannot conceive of an infinity of *layers* of causation; the buck has to stop somewhere – a First Cause or Prime Mover. We can only speculate as to whether the primary ‘event’ is Natural Law or God’s Will or Chance Happening.

Another possible modern application of spontaneity is the Big Bang theory of Stephen Hawking. Whereas the previous application concerned the very small (quantum mechanics), this one concerns astronomical events: the beginning of existence. It is supposed that the universe – including matter, motion, space and time – started out of nothing some 15 billion years ago (give or take some). This thesis implies

¹⁴

Except, perhaps, God.

spontaneity in an even more radical sense. If physicists make such claims, then philosophers and logicians must of course give them plenty of attention.

The wise position, then, at least *ab initio*, would seem to be to accept all these concepts at face value and avoid extremist or generalizing doctrines. The mechanical realm, or causation in a wider sense, may well range from pure spontaneity, through various degrees of individual or collective probability, to 100% connection. The latter cover apparently the majority of Nature, or at least most events we encounter in our daily experience.

4. Relative vs. absolute contingency

The concept of causation, or natural/deterministic causality, ultimately implies *necessity*. This means that when we come across a causative relation that is seemingly unnecessary, it seems so only due to our failure to uncover or to specify of all the partial causes making up the complete cause. In this context, everything is in principle predictable. Such contingency may be characterized as *relative*. This is how we ordinarily conceive 'nature' to operate, i.e. the world not counting 'persons'.

On the other hand, the concept of volition, or personal/indeterministic causality, ultimately implies *contingency*. Here, contingency is meant as *absolute*. Such causal relations are punctual, singularities not being subsumed to generalities. Nevertheless, volition has its limits. As discussed further on, volition refers primarily to direct volition; indirect volition is a derivative concept, which considers the interplay of natural and personal causality. The

latter explains why some acts of will do not necessarily have the desired result, without weakening the power of direct volition. As we shall also see, influence is another causal concept serving to realistically delimit volition: volition operates in an informational context, which can be modified by natural or volitional means. Though such context does not determine a person's choices, it yet plays some role in their genesis, making them easier or more difficult.

Our view of nature has in fact lately become more complicated, since physics (as earlier mentioned) has come to accept real indeterminacy in subatomic mechanics and truly *ex nihilo* emergence of the universe. Thus, we cannot as just attempted, distinguish nature and volition simply by saying that the former implies necessity while the latter implies contingency. We must also draw a distinction between mechanical spontaneity and personal spontaneity, though they are both classifiable as absolute contingencies. We can, at least superficially, do this with reference to 'agency', saying that natural spontaneity has no apparent agent, whereas volition has one – a conscious agent.

2. INTERACTIONS BETWEEN VOLITION AND CAUSATION

Pursuing the analysis of causation and volition, we must consider intermediate or allied relationships which relate together these two domains of causality. For deeper description of causation, the reader is referred to my *The Logic of Causation*¹⁵.

1. Necessity and inertia in causation

In natural causality or determinism, we must distinguish between *necessary causation* and *inertial causation*.

Our understanding of the term ‘nature’ refers primarily to *necessary* relations, such that no matter what else happens in the world, that particular sequence of two things is bound to happen, i.e. once the one arises, the other is bound to also arise. The specifics may vary from case to case, with regard to time (the sequence may be simultaneous or at a set time after or some time later), place (here, there) and other respects; but the correlation is inflexible. Most of the causative events in the world proceed thus, relentlessly, as

¹⁵ The reader ought to read that book first, to fully understand the present work. At least, the summary chapters (10 and 16) should be looked at.

inevitable and invariable courses of events that no other natural event and all the more no volition (or at least no human or animal volition) can prevent or in any way deviate. For example, the Sun's evolution and trajectory are de facto out of our power to interfere with.

On the other hand, it seems, some causative sequences are avoidable or subject to volitional manipulation. Such natural courses of events may be characterized as *inertial*. They are strictly speaking *conditional* causation, i.e. sequences that are bound to occur *provided no* volitional (human or animal – or eventually Divine) intervention occurs. For example, the river Nile would have continued to flood over yearly, had people not built a dam at Aswan. Or again, closer to home, my breath continues rhythmically, if I do not willfully hold it or change its rhythm.

Thus, whereas the concept of necessary nature concerns causation alone, the concept of inertial nature refers to an interface between causation and volition. When volition does intervene in the course of nature, we say that an *artificial* event has replaced the inertial event. The artificial event is of course 'natural' in a larger sense – a natural potential; but it is a potential that will never actualize without volitional intervention. For example, a piece of clay will never become a pot by mere erosion.

We would express causation in formal terms as (in its strongest determination): **“If X occurs, then Y occurs; and if X does not occur, then Y does not occur”**¹⁶. Weaker relations are definable with

¹⁶ The negative aspect of this definition is as important as the positive, note well. David Hume's reference to the “constant

reference to compounds, replacing ‘X’ by ‘X1 and X2 and X3...’ and ‘Y’ by ‘Y1 or Y2 or Y3...’ as the case may be.¹⁷

When volition *interferes*, simply one of the causal factors – be it the whole ‘X’ (as rarely happens) or a part ‘X1’ – refers to the volitional act, and the rest ‘X2’, ‘X3’, etc. (if any) constitutes natural ingredients and forces¹⁸, and the effect is an artificial event ‘Y’. In such cases, the conditional “if X, then Y” or “if X1, plus X2 etc., then Y” is operative.

When volition *abstains*, the preceding volitional causal factor is negated, i.e. ‘not X’ or ‘not X1’ is true, and natural causal factors come to the fore, i.e. ‘X2’ etc., resulting in an inertial event, ‘not Y’. In such case, the conditional “if not X, then not Y” or “if notX1, plus X2 etc., then not Y” is operative.

Thus, there is nothing antinomian about causative relations involving volition at some stage. The event willed, *once willed, acts like any other* causative, complete or partial,

conjunction” between cause and effect is not by itself sufficient: absence of cause and absence of effect must also be found conjoined (in the strongest case). For a full critique of Hume’s views, see my *Phenomenology*, chapter II-5.

¹⁷ But see my *The Logic of Causation* for precise description of all possible cases. The strongest determination is complete-necessary causation. But in addition to that, there are weaker determinations, namely complete-contingent, partial-necessary, and partial-contingent causations. Volition can be fit into any one of these as a complete or partial cause, whether necessary or contingent.

¹⁸ In the case “if X, then Y”, we may consider ‘nature’ as expressed in the if–then connection between X and Y. In the case “if X1 and X2 etc., then Y”, the role of ‘nature’ is implied in both the other partial causes (X2, etc) and the connection.

necessary or contingent, within the causative complex concerned. The only difference being that this causative did not emerge from natural processes, but from volition.

It should be noted that *volition, unlike causation, is not (or rather, not entirely¹⁹) formally definable with reference to conditional propositions*. That is the main difficulty in the concept of volition, which has baffled so many philosophers.

It is true that if you ask someone to demonstrate to you he has freewill, he will likely answer: “see, if I but will to move my arm, it moves; and if I decide not to, it does not”. But such arguments *ad libitum* (‘at his pleasure’) have little weight, since the antecedents *are* the volitional events we are trying to define or at least prove, and the consequents are merely effects of them (as it happens, in this example, indirect effects, dependent on bodily conditions – but the same can be said of indirect mental effects and even of direct effects within the soul itself). Therefore, one may well object to the tested person: “what made you will to move or not move your arm?” Even if the latter attempts to preempt such objection by saying: “whatever I predict I shall will (or not-will), or you tell me to will (or not-will), I can do so”, or better still: “whatever a machine randomly tells me to will (or not-will), I shall do it”, one may still suppose that the instruction given by the human respondent or by the machine becomes a determining causative, rather than a mere suggestion, in the mind of the tested

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See next chapter.

person. In that case, the apparent act of volition would only be a mechanical effect of such instruction.

Thus, conditional propositions cannot be used to define or even prove volition, without tautology or circularity or infinite regression or paradox. This does *not* however logically imply that volition does not exist²⁰. There may well be other ways to define or at least prove it. We can still minimally each refer to his intuitive experience of personal will, as source and confirmation of the concept.

Note that *the dividing line between necessity and inertia may shift over time*. Some feats are de facto out of our power one day, and later become feasible (for example, walking on the moon was until recently in fact impossible). Or the opposite may occur: something at first possible to us becomes impossible at a later time (for example, certain damages to the brain make the victim lose many cognitive and motor powers). Necessity may be permanent or temporary, acquired or lost; and so with inertia.

The '*not yet possible*' is so due to time-constraints: there may be physical, psychological or cognitive/intellectual impediments to overcome before the necessary factors can be lined up; once it occurs or is brought about, we admit it as having always been possible 'in principle' though not immediately. The '*no longer possible*' is so due to the irreversible destruction of some faculty or the erection of some impassable barrier, or to lost opportunity; what was previously possible, since the beginning of or during the

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Contrary to the claims of philosophers such as Gilbert Ryle.

existence of the entity or entities concerned, has become impossible. Thus, what is causative necessity at one time may be mere inertia at another, and vice versa.

Also, of course, the powers of different individuals of a given species, or of different species, differ. Consequently, what is necessity *relative to* one individual or species, is mere inertia to another; and vice versa. Nevertheless, at any given time and place, we can state as absolute principle either that no human or animal is in fact capable of affecting a certain natural course of events (so that that course is necessary), or that some specified individuals of some specified group have the volitional power to do so if they so choose (so that the course is inertial). The same distinction between necessity and inertia can be used to harmonize our assumptions of God's all-powerful volition and of causation in nature (see below).

With regard to the epistemological underpinning of the above ontological statements, it should be stressed that our knowledge of causation is *inductively* acquired.

The proposition "If X is followed by Y, then X causes Y" may logically be assumed to be true, especially if the X+Y combination is repeatedly found to occur, until and unless it is found that X is sometimes *not* followed by Y. In other words, the movement of thought known as *post hoc, ergo propter hoc* (meaning "after this, therefore because of this"), though deductively a fallacy, is not fallacious in itself but only in view of a larger context. The observed sequence "X is followed by Y", like any empirical datum, may be regarded as a basis for generalization, provided it is understood that the generality "X causes Y" may require eventual

particularization if further experience suggests it²¹. Gradual adjustment of such generalizations allows us to identify more complex conditions and more variable causal relations.

The relationship between necessary and inertial causation is thus one of generality and (relative) particularity, respectively. They are two levels of generalization, differing only in degree. The first is an optimistic upward thrust to the extreme, yielding an apparent absolute; the second is a downward correction of that to a more relative status, in view of evident volitional access. They are both inductive; but one has remained unconditional, whereas the other has been judged conditional upon non-exercise of volition.

2. Direct and indirect volition

Another interface between the domains of volition and causation is brought out with reference to the distinction between *direct volition* and *indirect volition*. At this stage, we need only treat these terms superficially; they will be further clarified further on.

In direct volition, whether immediate or far-reaching, the effect is inevitable; i.e. that which is willed occurs irrespective of surrounding circumstances. In indirect volition, the effect is a later product of direct volition, dependent on the appropriate circumstances being present.

²¹ In terms of factorial analysis: "X causes Y" is the strongest factor of "X is followed by Y", though we may have to downgrade in the face of new evidence. Symbolically: $I \rightarrow A_n$ until if ever O appears. See my *Future Logic*, part VI. Contra Hume's allegations, this principle is undeniable, since any such denial would perforce be making use of it.

Something directly willed may be attributed exclusively the agent, because causation is not involved in it at all; or if it is involved, it has the strongest determination, i.e. it is complete and necessary causation. Something indirectly willed has mixed parentage: although the motion in that direction is initiated by the agent, its exact course thereafter may vary according the terms and conditions it encounters in its onward journey; i.e. partial and/or contingent causation is involved somewhere along the line.

The causal relation between an agent and what he wills is, strictly speaking, direct, if what he wills automatically and invariably follows his willing it (whether immediately in time or not): the consequence is inevitable, whatever happens in nature thereafter and whatever anyone does in an attempt to interfere. Indirect volition refers to a weaker bond, which is actually a sequence of two causal events: (a) a direct volition, followed by (b) a conditional causation. In such case, the thing willed does not invariably or automatically follow the willing of it, for the simple reason that subsequent natural events or other volitions may in the meantime interfere and prevent the full realization that the volition was directed at.

As the formal notation for volition, we may use “**A wills W**”, to mean “agent A wills action W”, so as to abide by the familiar subject-copula-predicate schema. This is not mere convention, but serves to imply that the relationship itself (‘willing’) is uniform in all its occurrences, and that what gives every specific act of will its particularity is the agent doing it (A) and the direction or result of the action (W).

Note that although the word ‘wills’ is used, to explicitly indicate the involvement of will, in practice other words are of course used, in which the fact of will is tacit. The words

‘do’ or ‘make’ or ‘produce’, for instances, are common; but they are ambiguous in that they are not always indicative of volition. Mostly, rather than the two words “wills W”, we would have a specific one-word verb in the form “*Ws*”; for examples, ‘walks’, ‘sings’, ‘thinks’ or ‘hopes’, rather than ‘wills walking’, ‘wills hoping’, etc.

We may distinguish between acts of will proper, and the absence of such acts. In more formal terms, this refers to a distinction between “**A wills notW**” and “**A does not will W**”, although sometimes in practice the dividing line is moot (depending as it does on the degree of consciousness involved). These – willing and not-willing – are two significant subclasses of will in the larger sense, which we may label positive and negative will, or activity and passivity, respectively. It should be obvious that not-willing may often be viewed as an act of will of sorts, at least when our inclination is very much to act and we have to *restrain* ourselves from doing so. For this reason, logical considerations relative to will should also be applied *mutadis mutandis* to non-will – for any creature endowed with the power of volition concerned.

To say that A can will W does not necessarily mean that A can will W *at will*, i.e. directly and immediately; it may be that A can only arrive at W indirectly and over time, *through a process*, by stages, first willing W1 in certain specific circumstances, then willing W2 in other appropriate circumstances, and so forth... till W occurs. That is, ability in principle does not signify ability without submission to terms

and conditions²². The distinction between direct and indirect volition can then be formally expressed as follows.

- Direct volition: **“If A wills W, then W occurs”**.
- Indirect volition: **“If A wills W, and conditions X, Y, Z... (or the like) occur in conjunction, naturally or volitionally, then W occurs; but if A wills W and appropriate conditions do not also occur, then W does not occur”**.

Thus, in the case of direct volition, that which the will aims at is identical with the outcome of the will (‘W’ in both cases). Whereas, in the case of indirect volition, the will’s aim (whatever makes one call it a will of ‘W’) is not always identical with the produced effect, call it ‘V’, because the will put forth is by itself insufficient to guarantee the emergence of ‘W’ but does so only when and if certain surrounding factors (X, Y, Z...) are duly lined up. Whenever will stirs, it is sure to produce *some* minimal effect V (if only within the agent of it, possibly in the mental or even material surrounds); but that effect (V) may correspond to the will’s aim (V=W) or may not do so (V<>W): if it necessarily does so, the volition may be classified as direct, otherwise it is indirect.²³

²² We, of course, exist in a real world, with specific bounds and rules. Wishing something to be ‘so’ does not make it so; thinking otherwise is madness.

²³ Note that the term ‘V’ can be replaced by the disjunction ‘V1 or V2 or V3...’ in cases of indirect volition where the effect varies according to unknown or unspecified surrounding factors, i.e. when the factors X, Y, Z... mentioned in the antecedent do not cover all possible causations.

Thus, to repeat, a number of partial causes give rise to W. One of those is the willing of (aimed at) W, in itself a direct volition by the agent. If this happens to find appropriate partial causes as its surrounds (X, Y, Z, ... or the like), it will have indirectly produced W. Otherwise, it will produce something else that is not W. The agent may of course be able to arrive at the same goal by means of different direct volitional acts even on the same platform of conditions (and all the more so as conditions vary). For instance, one may travel from point P to point Q in a number of ways.

The required conditions may be natural factors like a functioning nervous and muscular system, or physical or mental factors (like a machine or a guidebook) caused by other acts of will by the same agent or others. So long as they affect the course of events, they are relevant to the volition and its classification as direct or indirect. The conditions may of course be necessary or contingent; i.e. there may be only one set of circumstances that make possible the result in question, or there may be many possible alternatives.

Although we often in practice regard a volition as *effectively* 'direct' if normal conditions (like a healthy body and mind, etc.) are present, *because those inanimate conditions could not without such a will produce such an effect*, strictly speaking it is of course not so if a change of conditions would obstruct or divert it in any way. The intent here is to stress the fundamental distinction between the *activity* of volition and the relative *passivity* of its preconditions.

3. Matter-mind and spirit

The compatibility of causation and volition (and likewise natural spontaneity) is undeniable. Nothing precludes that a bit of each exists in our world, in the way of adjacent and interacting domains. Volition is to causation like the holes in Swiss cheese. Causation may apply in most processes, with the exception of a few where volition is applicable.

The distinction between a mechanical ‘agent’ and an ‘agent’ in the sense intended within the concept of volition must be clarified. Volition is essentially active, while causation is essentially passive. When we say that an agent of volition does, acts, makes or produces something – we attach special significance to these terms based on introspection. When we use similar terms with reference to causation (e.g. to a machine), their connotation is much diluted, since in this domain everything occurs in the way of automatic reaction.

When we say of a machine, or even a plant, that it does or causes something, we mean that some quality or motion of it gives rise to some other quality or motion of it (or of something else, possibly building up a new entity thereby). But we do not literally mean that the machine or plant *itself*, even presuming some spontaneity in the coming-to-be of its qualities or motions, has achieved the result. On the other hand, in the case of volition, the person (God, human or animal) *as a unitary whole* somehow from a *static* posture initiates/originates some *change or motion* in his immediate environment, and in some cases from thence further out. It is in this sense that we will here understand the term ‘agent’: with the underlying concept of *responsibility*.

Whereas in causation cause and effect may be spatially and temporally, as well as conceptually, separate — in volition, the immediate act of will must be considered as occurring within or emanating out of the actor (his self, soul or spirit), and not beyond him in the surrounding mind or brain or wider nervous system or body: such eventual *consequences* of it are not entirely within the power and responsibility of the actor, but depend on other factors, as already explained.

Thus, whereas causation may be viewed as concerned essentially with sequences of events (in the large sense) within the material/physical, mental/imaginative and psychosomatic world, volition should be viewed as concerning the spiritual world and its interface or interaction with that world of causation or nature. Once volition has injected its choices into the course of nature, it (i.e. nature) carries on – but on a new course; volition thus deviates the flow of causation from another (higher or deeper) plane.

Inertias and conditions are therefore two aspects of the interaction of soul and nature. **Inertias are the way nature goes if volition does not interfere; conditions are the factors of nature that come into play when volition does interfere.** The ones occur in the absence of volition, the others in its presence. Some things (indeed most) are beyond the power of volition to affect – they are classed as within the realm of natural necessity (and possibly, in some cases, as natural spontaneity).

All of which brings us to the causal relation of *Influence*. Under this important concept, we shall (further on) more closely study the ways the agent of will may be affected by natural events or by other agents of will.

4. Conceiving Divine volition

If we conceive God as existent and omnipotent, we must regard *all natural necessities as mere inertias relative to Him*, with the exception of logical necessities (i.e. that facts are facts, that contradictions are impossible, that there is no middle ground between existence and non-existence – and other such self-evident truths, whose contradictories are self-contradictory).

Such a premise does not hinder scientific knowledge, since all our knowledge of natural laws is ultimately based on generalizations from empirical particulars, anyway! To say that God can, if He so chooses, interfere with any natural law, does not imply that God will ever choose to do so. We can argue that it was His will to institute such laws in the first place, even though He left Himself the possibility of exceptional interference²⁴. Thus, all natural necessities relative to all us lesser beings may be considered as effectively necessities, even if we admit that they are strictly

²⁴ Believers in Divine interference may distinguish between (a) *miracles*, or manifest interference, those rare cases when interference is specifically known to us (or thought to be), and (b) *providence*, or hidden interference, the presumed more frequent interference “behind the scenes”, i.e. without our specific knowledge (though note that the two words are sometimes intended more generically, one including the other or both the same). But even when God does not interfere, He retains the power to do so; so, in such cases, He exercises restraint. Note that Judaism celebrates both open and concealed Divine interference, respectively at the festivals Pessach (for instance – see book of Exodus) and at Purim (see book of Esther).

speaking inertias that could in principle be abrogated by God's will.

This position must be differentiated from the so-called Occasionalism of philosophers like Al-Ghazali (1059-1111): the latter deny natural causation in favor of universal Divine volition, whereas our position here is to reconcile the two. We do not here claim God to be the direct cause of everything that happens in the world, but only conceive Him as having the power to interfere at will although in the great majority of cases He abstains from its exercise. Al-Ghazali, a Moslem, remains commendable in having repudiated the idea of Avicenna (or Ibn Sina, 980-1037), based on Greek philosophy, that the material world was a *necessary consequence* of God, insisting instead that it was a product of God's *will*. Al-Ghazali thought he had to resort to denial of all natural causation to achieve that refutation; but as shown here, it was an excessive measure.²⁵

Many thinkers have turned away from the ideas of Divine creation of and intervention in nature, by the assumption that these ideas logically implied Divine responsibility for all events in the world, denial of natural law and conflict with human freewill. However, a consistent hypothesis is possible, if we well understand the difference between natural necessity and inertia, as well as that between a direct and an indirect cause. In respect of the latter, it is worth quoting verbatim a passage of my *Buddhist Illogic*²⁶:

²⁵ In any case, Al-Ghazali's position is not the same as David Hume's (1711-76), to whom he is often compared; the latter aims to deny all causality.

²⁶ See chapter 10 there. Bold italics added here for emphasis.

“It should be pointed out here that ‘creation’ does not simply mean causality by God of (the rest of) the universe. The presumed type of causality involved is volition, a free act of will, rather than causation. Furthermore, God is not conceived as the direct cause of everything in the universe, but merely as First Cause and Prime Mover, i.e. as the cause of its initial contents and their initial movement, as well as of the ‘laws of nature’ governing them. This might be taken to mean, in a modern perspective, the core matter subject to the Big Bang, the ignition of that explosion and the programming of the evolution of nature thereafter, including appearance of elementary particles, atoms of increasing complexity, stars and planets, molecules, living cells, evolution of life forms, organisms with consciousness and will, and so forth (creationism need not be considered tied to a literal Biblical scenario).

Once God has willed (i.e. created) inchoate nature, it continues on its course in accordance with causation, with perhaps room for spontaneous events (as quantum mechanics suggests) and for localized acts of volition (by people, and perhaps higher animals, when they appear on the scene). As already mentioned, there are degrees of causation; and when something causes some second thing that in turn causes some third thing, it does not follow that the first thing is a cause of the third, and even in cases where it is (thus indirectly) a cause, the degree of causation involved may be diminished in comparison with the preceding link in the chain (dampening). Similarly with volition, *the cause of a cause may be a lesser cause or not a*

cause at all. It is therefore inaccurate to regard a First Cause, such as God is conceived to be relative to nature, as being 'cause of everything' lumped together irrespective of process. The succession of causal events and the varieties of causal relations involved, have to be taken into consideration.

Spontaneity of physical events and freedom of individual (human or animal) volition are not in logical conflict with creation, because they still occur in an existence context created by God. God may well be the indirect cause of spontaneous or individually willed events, in the sense of making them possible, without being their direct cause, in the sense of making them necessary or actualizing them. Furthermore, to affirm creation does not logically require that we regard, as did some Greek philosophers, God as thereafter *forced to* let Nature follow its set course unhindered. It is conceivable that He chooses not to interfere at all; but it is equally conceivable that He chooses to interfere punctually, occasionally changing the course of things (this would be what we call 'miracle', or more broadly 'providence'), or even at some future time arresting the world altogether. His being the world's initiator need not incapacitate Him thereafter from getting further involved.

All that I have just described is *conceivable*, i.e. a consistent theory of creation, but this does not mean that it is definitely *proven*, i.e. deductively self-evident or inductively the only acceptable vision of things in the context of all available empirical data.

Note well that I am not trying to give unconditional support to religious dogmas of any sort. Rather, I am reacting to the pretensions of many so-called scientists today, who (based on very simplistic ideas of causality and causal logic) claim that they have definitely *disproved* creation, or who like Nagarjuna claim that it is logically *not even thinkable*. Such dogmas are not genuine philosophy. One should never let oneself be intimidated by either priestly or academic prestige, but always remain open-minded and consider facts and arguments impartially and fairly.”

5. The study of volition

To summarize our progress thus far: **aetiology** may be defined as the study of all that pertains to causality, including all sorts of cause-effect relations and their negations, mainly those above listed. Aetiology is a branch of ontology, insofar as it theoretically clarifies and defines fundamental concepts common to all the special sciences – whether physical or mental (in the natural mode), concerned with volition (the spiritual realm), or cognitive and intellectual (in the logical mode). Aetiology is also an aspect of epistemology, insofar as its other major task is to describe and validate our acquisition of such concepts.

Aetiology is thus intended both to demystify causal concepts in general and tell us how to correctly apply them and justify them in particular cases. It is a philosophical and logical science, rather than a special science, in that it is not concerned with specific terms except as data samples and

didactic examples. We do not have separate terms for the studies of causation and volition, no doubt because they are rather tightly interwoven discussions.

The study of causality is necessary to our judgments in daily life and affairs, in the family and in society, in law and justice, in economics and politics, in science and history²⁷. And in most domains of interest to humanity, causal judgments concern both causation and volition. Psychology and sociology are not only concerned with volition; and agriculture and technology are not only concerned with causation. Also, even though (as earlier mentioned) causation is usually associated with generalities and volition with particulars, the studies of both forms of causality require attention to particulars and aim for generalities.

When focused on volition, aetiology quickly becomes what may be labeled ‘**meta-psychology**’, a study of the fundamentals of consciousness including volition. For it unfolds as an elucidation of the causal terms most commonly used in psychology – like habit, compulsion, obsession, inhibition, etc. Psychology, as a special science, will ask what specific things have an influence on what specific choices, and so forth. But first, we must delve into the underlying concepts: that is the task of meta-psychology.

²⁷ Most causality theories ignore this wide application of causal judgment, concentrating on understanding the general causative propositions (such as “the kind X causes the kind Y”), which science pursues and from which particulars are supposedly obtained by subsumption. But, as Hart and Honoré have pointed out, this is often useless in practice, since we frequently in fact proceed in the opposite direction, by generalization from particular causal judgments (i.e. “this individual thing, which happens to be of kind X, caused that thing, which happens to be Y”).

Sometimes, the dividing line between these levels of abstraction is fuzzy, and meta-psychology may spill over into psychology or vice versa.

Meta-psychology, note, like all philosophical/logical inquiries, has two interrelated aspects – one ontological (describing and classifying the object studied) and the other epistemological (how do we know it, or at least of it?).

It should be stressed that the logician's interest in and approach to psychological concepts here is theoretical and formal, rather than pragmatic and medical. We are, for instance, interested in intentional concepts like desire, aversion, love, hate, indifference – with a view to capture forms of discourse like “I feel like doing X” or “I think I should do X” and working out their interrelationships and the inferences that can be drawn from them. These are basic concepts common to all particular theories of psychology.

Our purpose here is not therapeutic psychology. Nevertheless, just as epistemology, though primarily descriptive rather than prescriptive, improves our thinking, since it includes detailed study of logical arguments, so can we expect our present systematization of psychological concepts to have a beneficial, hygienic effect.

We humans (and other animals too, no doubt) are constantly bombarded by a mass of more or less conscious, changing desires and aversions, loves and hates, hopes and fears, certainties and doubts, and esthetic responses to beauty and ugliness, which pull and push us hither and thither to varying degrees, in often contradictory ways. We are also indifferent to many things, at any given time. We usually act under the influence of these our drives, though often we resist them

with reference to broader or longer-term values. The study of volition is an attempt by reason to clarify and sort the data out, and bring order and consistency to them.

3. FURTHER ANALYSIS OF VOLITION

1. Knowledge of volition

There is little mystery left as to how to theoretically define causation and how we get to establish it in practice. A mixture of epistemological and ontological issues is involved, which are resolved with relative ease. Causation in general may be expressed in terms of conditional propositions, or more profoundly with reference to matricial analysis. And particular causative relations can be established inductively, by observation of conjunctions and separations of events and their negations, and appropriate generalizations and particularizations.

Not so easy for volition. Many philosophers and psychologists are discouraged by the difficulties surrounding the concept of volition (or will). How is it known? How can it be defined in general? How are particular acts of will apprehended? How can we prove they belong to the agent, are his responsibility? How to conceive freedom of the will, let alone prove it? And so forth. But a thinker should not despair too early. We can gradually build up our reflection on the subject, and hope to clarify issues.

As earlier suggested, volition – unlike causation – cannot entirely be defined by means of hypothetical (if–then) propositions. However, we can *partially* delimit volition that way, as follows.

First, we focus on volition as the presumed ‘causal’ relation between an agent (soul) and certain events in or around him (called events of will), whatever be the exact form of that relation. That relation may intuitively be assumed to be *other than* causation, though some causation may be involved in it. A general causative statement “without an agent, there would be no volition” can be invoked to show partial involvement of causation.

Second, we point out that without that *particular* agent, those particular events would not – indeed could not – occur; they are reserved for that soul, it is irreplaceable in their genesis. This may be expressed as a conditional proposition: “**if not this particular soul, then not those particular events**”. The latter just means that the agent concerned (as an individual, and not just as an instance of a kind) is a *sine qua non* of the particular events (presumed ‘of will’) under scrutiny.

However, while the soul is thus a necessary causative of the events, it does not causatively necessitate them, i.e. it is not a *complete* causative of them. For it is clear that, in what we call volition, the soul is not invariably followed by those events (the presumed events of will), but remains at all times – till they do occur – also compatible with their negations. That is to say, with regard to causation, the compound

conditional proposition “**if this soul, not-then these events and not-then their negations**” is true²⁸.

However – and therein lies the mystery of volition – we intuit that the agent *alone* does somehow ‘make necessary’ or ‘completely cause’ the events concerned *when they do occur*. At that time, the proposition “if this soul, then these events” becomes effectively true, although such a change of ‘natural law’ is not possible under the relation called causation. Therefore, some other category of causality must be involved in such cases, which we call volition.

That is about as far as we can get into a definition by means of ordinary conditional propositions. We can delimit the concept of volition to a large extent, and clearly distinguish it from causation, but that is still not enough to fully specify its formal structure. We can, however, go further by other means, step by step, as we shall see by and by.

Certain epistemological questions can be answered readily. To begin with, as I have argued in *Phenomenology*, the raw data for the concept of volition has to be personal ‘intuitions’ – in the sense of direct experience, self-knowledge – of one’s own particular acts of will.

Will has no phenomenal qualities: it should not be confused with its phenomenal products in the mental or material domains; volition cannot therefore be an abstraction from material or mental experiences. We evidently know

²⁸ The “if-not-then” form of hypothetical, I remind the reader, is the exact contradictory of the “if-then” form. It simply means that the consequent “*does not follow*” the antecedent.

introspectively – at least in some cases, when we make the effort of honest introspection – when we have willed, and what we have willed, and even the effort involved, i.e. to what degree we have willed. Such *particular* intuitions of will in the present tense give rise to the abstraction of will, i.e. the concept of volition.

Thus, the conception of volition is an ordinary inductive process, except that its experienced instances are not phenomenal percepts but intuitions. This of course does not tell us the definition of volition as a causal relation. But it does tell us that there is something to discuss and define, as in the above initial attempt.

But of course, we do not only assign volition to ourselves, but we assume it in other people (some of us assume it further in other animals²⁹, and also in God). Here, the thought involved is more intricate. A person knows from his own

²⁹ As I write, it is mid-February, and almost every day, as I drink my morning coffee, I watch a pair of magpies not ten meters away, enacting a ritual. Each in turn tears a twig off the tree they are perched on, and places it precariously on the same branch for a moment, letting it eventually fall. They are, evidently, not yet trying to build a nest; rather, they seem to be making common plans, coming to an agreement as to where they intend to do it when the time is ripe. I even once saw them rehearsing feeding, with one bird pretending to put a small nut into the other's beak. They, supposedly the same birds, actually started building their nest in late March. What I thought was rehearsal of feeding may have been that of cementing, because I saw that they bring each other what seems to be mud pellets that are stuffed between twigs. Anyone observing animals cannot but suppose they are able to imagine goals and to pursue them, as well as communicate (at least by such physical demonstrations) and cooperate (effectively sharing duties).

experience which externally visible actions of his are due to will (and which are not) – for example, moving one’s arm (as distinct from having it moved by someone or something). Having recorded the descriptions and conditions of willed (and unwilled) externally visible actions, we can by generalization assume that, when we see the same external behavior in others, we can infer a similar internal behavior in them.

In other words, whereas with regard to ourselves, we know the cause first and thereafter observe its effects, with regard to other agents, we infer the cause from the observed effect, by analogy.

Of course, none of this implies omniscience, either of our own acts, and much less of others’ acts. Sometimes, we have difficulties discerning our will – for instance, what we really wanted, or whether we acted voluntarily or involuntarily. Introspection is not always successful, especially if one has the habit of keeping one’s inner life murky and inaccessible to scrutiny. Sometimes, even if one is sincere and transparent, contradictory subliminal forces are at play, causing confusion in us. All the more so, with respect to other people: we may not have all the evidence at hand allowing us to draw a conclusion. What we observe of their behavior may be only a partial picture, leaving us uncertain as to their intentions. And so forth; no need to go into detail at this stage.

Thus, it should be understood that in this field of knowledge, as in all others, our conclusions are ultimately inductive rather than deductive. We have a certain database – consisting of our own self-observations and all other information – and we use it, and our powers of imagination, to formulate and test hypotheses. The logic involved is

similar to that in the natural sciences. The only difference is the nature and source of some of the data used: it is non-phenomenal and personally intuited. This is of course a significant ontological and epistemological difference, but once realized the issues are much simplified.

2. Freedom of the will

With regard to the concept of *freedom* of the will, the following can be said at the outset.

We can roughly define freedom of the will by saying that **“agent A is ‘free’ to will or not will something (say, W) in a given set of circumstances, if neither W nor notW is inevitable in those circumstances”**. This of course does not define ‘will’ for us; but granting the term willing (or doing, in the sense of volition) understood, its freedom is relatively definable. Note that strictly speaking it is the agent who is free, not his will.

This definition is rough, in that it does not tell us how we are to know that under *the exact same* conditions, either event W or notW is potential – since conditions are *in fact never* identical again. However, this is an epistemological issue regarding the degree of empiricism of our knowledge of freedom. We can suggest that we have intimate knowledge (intuition) of our freedom as well as of our volition; or we may propose that freedom is known more hypothetically, by way of extrapolation from *approximately* similar conditions, i.e. by adduction. The former would be direct, particular knowledge; the latter, indirect, general knowledge.

A way to distinguish causation and volition is with reference to *identity*. In causation, the cause is viewed as being ‘caused to cause’ the effects it causes, by virtue of the underlying natural characteristics or essences of the entities involved; whereas in volition, the cause is ‘free’ – its nature or identity does not allow a hundred percent prediction of all its actions. In comparison to a deterministic entity, what distinguishes a volitional agent is such lack of definite identity.

Even the agent of volition cannot till he acts definitely predict his own acts, for he may at the last moment ‘change his mind’ for some reason (or even, perhaps, for no ‘reason’ – in which case we characterize the will as pure *whim* or caprice). The agent of volition is distinguished by creating (some of) his own identity as he proceeds. His ‘identity’ at any given moment is the sum of previous such creations, but they do not fully determine his next creations, his later identity. The agent of volition has a distinctively ‘open-ended’ nature.

A way to express the freedom of (direct) volition is by reference to *autonomy* – that is, own (auto) lawmaking (nomy)³⁰. Whereas natural objects are effectively subject to law, the agent of volition (to some extent, within certain natural boundaries) makes up his own laws for himself as he proceeds. These ‘laws’ may be ad hoc or they may have some regularity, of course. For the agent may choose to will on a *singular* basis, or may act by instituting personal *rules*, i.e.

³⁰ The free agent is ‘autonomous’ – this term is of course not to be confused with ‘autonomic’ motor system, which means the opposite, referring to the functioning of certain organs without recourse to will. Descartes’ term for autonomy is ‘self-determination’.

intended longer term patterns – predictable or repetitive behavior, plans, habits, etc.

We may, in the latter case, fashionably speak of self-programming. Such temporally stretched intentions may require a discipline of will to fulfill; often, however, by presetting personal conduct, we achieve an economy of effort, as comparatively less attention may be needed to perform. Many of the rules people adopt are of course collective, interpersonal promises. Some are imposed on them; still, most are ultimately self-imposed. Even when one fails to keep such personal or social promises, they may have considerable influence on action.

Perseverance of will (in the face of difficulty of some sort, over time) may be due to a series of punctual wills, or have some real continuity. Whether punctual or persistent, acts of will vary in the intensity of awareness and reflection they invest – some are the fruit of long and careful consideration (emotional or rational), others are seemingly impetuous (though often in fact merely the end product of a long gestation of more or less conscious thought).

The distinction of the freedom inherent in volition from that of chance must be stressed. Though there is an element of spontaneity in volition, it is not the blind spontaneity of chance. On the contrary, volition is in a way even more ‘deterministic’ than natural law, in the sense that the causal entity (agent) does not merely react into producing some effect (whatever is willed), but specifically chooses it out of two or more possibilities. Some awareness and intention is involved in all choice. At its most focused, choice is very conscious, with a clear goal in mind; the volitional act is normally purposive, it has an ‘end’ or, in Aristotelian

language, a 'final cause'. Notwithstanding, we should not at the outset exclude the possibility of truly purposeless acts of volition, with a strict minimum of awareness.

Volition may be influenced in some direction rather than another by the agent's right or wrong view of the world in which he acts. But that influence is not determining: this is what we mean by freedom. You may coerce a man into doing what you want by threatening him with violence or other punishments, but even so, as experience shows, he can still disregard such threats, and even act in a suicidal manner. You may dangle great rewards under his nose, but he may still act seemingly against his own interests. Acts of will may equally well be rational or irrational, intelligent or stupid; they may be explicable by self-interest or altruism, or be quite whimsical. Their 'logic' may be sound or faulty; i.e. logic does not definitely determine them.

Another important concept is that of *degrees of freedom*. Freedom of the will is not absolute, except perhaps for God. And even in that case, He is supposedly limited by the laws of logic, and cannot create things without identity, or that both are and are-not, or that neither are nor are-not. In the case of humans, freedom of the will varies; from time to time in any individual, and from one individual to another, according to the health and structure of his or her many faculties.

Likewise, the freedom of our will is broader than the freedom of will of other animal species in some respects, and admittedly narrower in other respects. To affirm that animals have some volition does not imply that one has to regard them as having powers of choice equal to those of humans. Each animal species has specific volitional powers, some of

which may be found in other species and some not. Similarly, we suppose by extrapolation, God's will is the broadest possible of all.

But furthermore, one may have the freedom to do or not do something, and yet not have the freedom to do or not to do some *other* thing. One may have the freedom to do something conditionally, lacking it if certain conditions are not met. Some people (laymen or philosophers) are confused by the term 'freedom', thinking that freedom can only be total and unconditional! Freedom need not be viewed as limitless. We are quite able to develop a logical discourse about freewill, such that each specific freedom is predicated specifically to a given individual subject, at a given time or in given circumstances. We can then inductively generalize, and describe ranges of freedom applicable to classes of individuals, as the case may be.

Some people tend to deny volition to animals, because they confuse the issues and think volition has only one measure. Indeed, some deny volition even to humans, thinking that the concept requires absolute freedom. Not so. Each agent, according to his natural constitution, has or lacks freedom in relation to each kind of action. A duck can apparently choose to fly off or not, as you approach it; some do, some don't. But a duck cannot apparently choose to add five and six together, nor can an elephant flap its ears and fly. Likewise, humans are favored in some respects and deficient in others.

Many, or perhaps all, freedoms are also conditional. One may be free to run or stay, except in cases of extreme fear, or under hypnosis, which might exceptionally 'force' one to behave mechanically (like a zombie). Emotions normally play a role in volition as influences, but in some more

extreme circumstances, they might become determining factors that paralyze freedom of the will altogether or generate automatic reactions. Likewise, one may temporarily lose certain freedoms, as when one cannot move because one is physically tied up or sick; or more permanently, as when one is deprived of a limb. In such cases, volition is temporarily or permanently lost and causation takes over.

To construct a realistic logic of volitional causality one must take all such variations into consideration; i.e. consider its intertwining with causation. Each agent has specific powers and limits, which may vary in time and according to surrounding conditions for any given individual, and which may vary from individual to individual of a species and from species to species.

3. Decision and choice

The precise relationship between consciousness and volition, or between the status of being a Subject and that of being an Agent, needs elucidation. Empirically, the two seem tied together, though it is not clear just why. Conceptually, at first sight at least, one can imagine a Subject, floating in the universe as a pure observer, unable to do anything; and likewise, perhaps, an Agent that simply wills certain things without awareness. Maybe such entities exist somewhere, but we have not encountered any.

In any case, we must keep in mind that consciousness varies in intensity or scope. An insect's consciousness (which we infer from its sense-organs and its responses to stimuli) is seemingly weak and limited; that of a bird is somewhat more elaborate; and so forth. The powers of volition of different

organisms seem proportionate to their powers of consciousness.

However, some intelligent people seem weak-willed (perhaps through indecision) and some stupid people seem strong-willed (perhaps through inability to conceive alternatives). It may not be merely an issue of character flaws; there may be an issue of uneven biological development of faculties.

In humans, at least (and perhaps, though to a much lesser extent, in higher animals), acts of will are usually preceded by some thought (in the largest sense, not necessarily meaning verbal deliberation; possibly merely an imaging).

There is usually a *decision* (which may be wordless, to repeat), followed by a choice of one course rather than another (or than no choice). But it should be stressed that some acts of will seem virtually devoid of decision-making (this is one more sense of the concept of spontaneity); however, a minimal level of consciousness may be involved even in such cases ('without conscious decision' may simply mean without very-conscious decision).

Also, decisions do not necessarily result in corresponding acts of will. The issue, here, is not whether an effort of will is successful in producing some intended result, but what we call *will-power*, arousing one's faculty of will. Sometimes, of course, hesitation or paralysis is due to indecision, when the pros and cons of a course of action seem balanced or too full of uncertainties.

A decision may be punctual or large, specific or general. A punctual decision relates to a single act of will; but a decision may be large, in the sense of an indefinite general resolve to pursue some goal over time, through numerous acts of will

yet to be intellectually determined as events unfold. For this reason, the concept of decision is distinct from that of will.

An example of such general policy is what we call ‘good will’, the resolve to do whatever happens to seem like the right thing at any time, and avoid doing what seems wrong; good will implies a certain openness or eagerness, which facilitates many actions. The contrary attitude is that of ‘bad will’, a tendency to resist doing what one is supposed to, if not to perversely prefer doing what one is not supposed to; this often makes things more difficult.³¹

What we call *choice* is the logical aspect of a decision – two or more alternative courses of action are open to the agent, though possibly to different degrees, i.e. requiring different expenditures of effort, and one of them is ‘taken’ or ‘opted for’. The alternatives may simply, of course, be to do or not-do one thing; or there may literally be several contrary or combinable alternatives.

Another important aspect of decision is *intention* – the pursuit by the agent of some *goal or purpose*. Without intention, the agent has no ‘reason’ to do anything. This is why Aristotle regarded ‘final causes’ (intentions) as causes of motion. Intention, note, implies memory and anticipation,

³¹ Note how the attitude tends to influence results. Good will gives us moral credit for trying, even if we do not succeed; and bad will tends to discredit us, even if we do succeed. Of course, often we role-play good will, to give ourselves a good conscience, or to look good in other people’s eyes. Also, of course, as the saying goes: “hell is paved with good intentions”, and good will cannot be taken as the sole basis of moral judgments – contrary to Kant’s doctrine that the intention (to act as duty dictates) is the overriding consideration.

both of which imply consciousness. We project an image of the kind of thing we wish to attain.

In volition, purposeless motion seems virtually impossible. The purpose may just be to keep moving, or to exercise one's faculties, or to discover or demonstrate one's abilities, or to prove one can will without motive, but there seems to be need of some purpose. 'Art for art's sake' or 'spontaneous art' also have a goal of sorts, be it self-expression, beauty or humor, money or sex. Of course, the result of one's action may not be what one intended.

Non-willing entities remain essentially passive objects, even when they are causes (within the domain of causation), or the result or theater of spontaneous events (in an apparently causeless domain, one governed by chance). Whereas willing entities are truly active: they are more than objects, they are subjects and agents.

Influence is the interface between these two kinds of entity: objects impinging on subjects; or in some cases, subjects producing objects that impinge on subjects. The impact may be to stimulate, inhibit, or direct hither rather than thither, some event of will.

4. Goals and means

What we have just said about volition requiring intention shows the interdependence between meta-psychology and ethical and legal studies. In formal logic, aetiology leads to *teleology*: "**To obtain Y, X is required**" is based on "If not X, then not Y". Philosophically, consideration of intention naturally raises the question: what ought we intend – what

goals or ends shall we pursue? Thereafter, the question arises: by what *means* may such goals be reached, i.e. what is needed or required to attain them?

Goals may be broad and long-term, or narrow and immediate. They may be consciously ordered in a consistent hierarchy, or may be a confused mix of unrelated or even contradictory directions. They may in either case, for any individual, change over time, or be doggedly adhered to. Some may be very consciously developed, others very instinctive. Our goals may be reduced to a limited number of basic goals, or standards or norms.

Means also vary greatly. They may be appropriate or inappropriate to one's goals. They must be timely, to be effective. There may be many possible means to the same goal, of which some are known and some not (or not yet). Some may be easier, some harder. Means may take time to identify, and the identification, as said, may be correct or incorrect. All these details will emerge in the course of formal analysis.

It is a common error to think that logic has nothing to say in the setting of standards for ethics or politics. The anarchist premise that 'anything goes' in these fields is logically untenable. The anarchist cannot plead against legalism, since by virtue of his advocacy of general unlimited freedom he allows for legalism; but the legalist can in all fairness frown on the anarchist without inconsistency. Thus, whereas anarchism paradoxically allows for its logical opposite, legalism – the latter logically excludes the former. It follows that anarchism is a self-inconsistent and so false thesis, while legalism is a coherent and true thesis. That is, we can in

principle aspire to justifying some ‘objective’ norms of behavior.

Note well *the form of norm-setting argument*; it is essentially dilemmatic: **“If X, then Y, and if not X, then Y; therefore, in any case, Y”**.

In this way, we can argue, for instance, that *the use of logic* (meaning: any epistemological ways and means that are demonstrably effective in increasing or improving knowledge of reality) is an absolute imperative. No matter what our norms or standards of value be, whatever the goals we pursue – to find out the means that indeed result in these desired results, we need to know reality; it follows that all aspects of scientific methodology are imperative, since they are the way the truth gets to be known, i.e. the way any intellectual issues encountered are resolved. Thus, science (in this broad, open sense) is a means common to all goals, a fundamental and general imperative.

From a biological point of view, of course, the ultimate (minimal) goal of all volitional action is or should be *survival* of the individual living organism, or at least of its descendents, or its other family or larger group members, or the species it belongs to, or life itself on earth and perhaps beyond. That is because survival is the necessary precondition, the *sine qua non* of all other pursuits.³²

³²

In more artificial perspectives (viz. certain religious, political or behavioral doctrines, like sadomasochism), survival is not essential; however, the founding arguments of such doctrines are logically very debatable.

It is a minimum need; but of course, maximum health and wellbeing is preferable; and this implies realizing one's full potential, psychologically and spiritually as well as physically. In other words, our cognitive and volitional nature must be taken into account in our understanding of what we mean by 'life'.

For ethics in general, then: life, cognition and volition are three natural norms, insofar as nothing that a particular ethics might recommend can be done without these three basic values. Being relative to no norm in particular, these values are absolute for all in general.

Intention presupposes *imagination*: one imagines something not yet there and proceeds to bring it about. Such imagination of a goal presupposes an informational context, which may be realistic or unrealistic, i.e. based on knowledge or mere belief. Even if the subject's ideas on what it is possible for him to have and how it is possible for him to get it are illusory, they are influential; and they may even be efficacious! Realistic ideas are, of course, likewise influential; and in principle, and statistically, no doubt more efficacious, but they do not always or necessarily lead to success.

The *motive* of an action is the thought of its goal, or perhaps more precisely, the pressure or attraction one feels towards that goal. This is stated to clarify that it is not really or directly 'the goal' that influences one's action; logically, the goal cannot do anything since it lies in the future! So rather we must refer to the *present thought of* that intended end; and even that mental image has little power, except insofar as it stirs a desire within the agent. Thus, the relation of the goal to our striving activity must be specified with reference to a

motive (analogous to a force, a motor), a present influence by a mental image and the stirring it produces in us to get into action.

Note in passing that having a certain motive, and being aware of having it, and publicly admitting to having it – are three different things. Often, we conceal our real motive from ourselves or from others, and replace it with a more acceptable *pretext*. Such *rationalization* is made possible by the fact that our actions often have incidental or even accidental consequences, in addition to the goals they intended to pursue. We pretend these side effects are our ‘motive’, to divert attention from our effective motive, and give ourselves a good conscience or a virtuous facade.³³

The most fundamental faculties of the soul are, in that order, cognition, volition and valuation. Cognition refers to consciousness, volition to actions, and valuation to affections and appetites. The soul has three corresponding and interdependent roles, as subject, agent and evaluator. Volition implies, and is impossible without, cognition. Valuation implies, and is impossible without, cognition and volition. With regard to goals and means: the goal is the value sought (seeking implies consciousness anticipating, note) by act(s) of will; the means is identified (rightly or wrongly) by consciousness, and is executed by the act(s) of will.

³³

The problem with such distortions of reality is that they eventually boomerang psychologically and socially. Deceiving ourselves, we lose track of the truth; deceiving others, we lose their trust.

4. CONSCIOUSNESS AND RESPONSIBILITY

1. The consciousness in volition

Volition as an inner effort of the soul requires some degree of consciousness – else it would not be volition but mechanical movement. But the question arises: ‘consciousness’ of what? There are several answers.

Firstly, every act of will requires some minimum amount of awareness to be at all performed. To produce a volitional act, some attention to one’s inner faculties of volition has to be invested.

If all we invest is only just enough attention to perform the act in the most perfunctory manner, we call the act effectively *unconscious* or inattentive or mindless or involuntary, because as volitions go it is *almost* so. Note well that the negative terms used in this context are not meant as full negations, but as hyperbolic. Such conduct may be reproved as essentially lazy; for example, one may wash the dishes barely aware of what one is doing, while thinking of one hundred other things. Often, such actions are gauche and fail, because one was ‘absent minded’, one’s ‘heart was not in it’.

As we deliver more and more consciousness to our volitional faculty, the act becomes increasingly *mindful* or conscious, attentive or voluntary, till a peak of awareness is attained. In this case, contrary to the preceding, we are fully focused and

concentrated on what we are doing; our mind is empty of extraneous thoughts, our action is pure and uncluttered. Everything we think or do is relevant to the job at hand; there is little hesitation, decisions are efficiently made, timely action proceeds. For example, a good fighter has this consciousness; whoso has experienced it knows its magic.

Note that the terms here used are sometimes mixed up in practice – so that mindful action may be called ‘unconscious’, meaning unconscious of irrelevant matters; we are not attaching to words but to their intended meanings. Also note, the expression ‘self-conscious’ is sometimes used to mean ‘mindful’, whereas at other times it is meant pejoratively, with reference to an interference of ego. In the latter case, we are conscious of other people looking at us, and careful to appear at our best so as to impress them; this implies a lack of self-sufficiency or self-confidence, and more important, turns our attention from the job at hand, so that we in fact lose our ‘presence of mind’.

Between unconsciousness and mindfulness, as above defined, there are many degrees of awareness. Just as cognition may involve different intensities of awareness, so does volition. This distinction explains why movements requiring will may nevertheless seem almost automatic or ‘involuntary’ to us: it is because they have no more than the minimum awareness in them, the agent being distracted by many other things, almost absent. In the case of ‘voluntary’ will, the agent is by virtue of his greater presence more of a volunteer, who will therefore more readily acknowledge the action as his own.

The possibility of minimal awareness helps explain *self-programming*: once a choice of freewill is launched, its continuation has a momentum of its own, hard to stop

without special dedication; this means that *more effort of consciousness and will is needed to stop it than to continue it.*

A component of what we have called mindfulness is ***awareness of the influential context.*** This refers to consciousness to some degree of all the influences impinging, or seeming to impinge or possibly impinging on one's current volitional act – including attitudes, concerns, motives, goals, feelings, moods, emotions, mental images, memories, imaginations, anticipations, thoughts, arguments, bodily aches and pains, physical sights and sounds perceived, that disturb or please, distractions, obstacles, and so forth. One should also mention awareness of one's level of awareness. To the extent that one is conscious of all eventually influential factors, one's volition is lucid and efficient.

Such consciousness is of course momentary and peripheral to the volition. It serves to minimize or even dissolve negative influences, and maximize or empower influences in the direction of our will. It makes the will as free as possible, or at least freer than when unconscious. It is a preparatory act, making ready for volition, aligning its resources, helping to focus and concentrate it. But if we exaggerate it and linger on it too long, we miss the point: instead of facilitating our volition, it confuses and interferes with our action. So, one has to know the right balance. Awareness of influences does not consist in weighing volition down with irrelevant thoughts, but on the contrary in emptying the mind of extraneous material.

In yoga meditation, by the way, this is known as *pratyahara*. We just calmly observe internal or external disturbances. As we do so, they either cease to exist or to appear, or they at least cease to disturb

us. In this way, our consciousness can settle and become more intense.

A second important aspect of consciousness in volition is its intentionality, the direction of its aim. If agent A specifically wills W, then W is what A ‘has in mind’ as his aim as he stirs his volition into action, i.e. W is indeed what A ‘wanted to do’. In such case, we say that A *intentionally* or *purposefully* willed W; and W is called the *object* or *purpose* of his will. If however A wills something else, of which W is a mere side effect, then we say that W was *unintended*. In the latter case, W is not the object or purpose of A’s act of volition, although it is a *de facto* product of will; we label this an *incidental consequence* of will.

Note that the ‘intention’ of the will resides primarily in the agent, as the intelligence of his act; thereafter only, is the term applicable to the act of will or to its object. The agent is conscious of the object-to-be, and exercises will towards it.

A third way consciousness is involved in volition is through deliberation, which serves to aim will in some appropriate direction. This may be a quick, almost instantaneous thought and decision, or it may require a long process of thought, involving complex research and difficult choices, gradually ‘making up one’s mind’. A *deliberate* act is thus filled with intelligence, in contrast to an *inadvertent* or haphazard act. Deliberation also implies adjusting action as one proceeds, to make sure one gets it right on target.

Volition may consist of a simple act of will or a series of such acts. The degree of attention, effort and appropriateness involved in either case is a measure of the *endeavor* in willing, how hard we try. That A intends W does not

guarantee that his endeavor is bound to result in W; he may *succeed* or *fail* to achieve his purpose. W may be an necessary consequence of A's act of will, in which case success is *inevitable*; or W may be a contingent consequence of A's act of will, in which case failure is *possible*.

If A's intention to achieve W is strong enough, A will do all in his power to increase the chances of success and reduce those of failure. If A's endeavor is half-hearted, as we say, the chances are proportionately small. Agent A may also make no attempt to will for W, but merely *wish* for it to occur somehow; a wish may be a nice thought, but it is not will. If agent A pursues some goal W, and does not take the necessary and sufficient *precautions* to ensure success, then when failure occurs he may be said to have been *negligent*. Note that, in the case of more complex goals, success or failure may be partial; i.e. they both may result, and more or less of the one than the other.

In some cases, although A intends W, but (whether due to insufficient endeavor or circumstances beyond his control) fails to achieve it, W *happens anyway* through other causes (as an incident of some other will by A, or due to another agent's volition, or through natural causes). From the perspective of A's said intention of W, the latter cannot be regarded as success, but at best as 'lucking out'.

A fourth measure of consciousness in volition relates to knowledge of conditions and consequences.

Agent A may intend W by his will, and yet fail *to foresee* whether W will inevitably follow upon his act of will or merely follow 'if all goes well'. For example, he may aim an arrow in the general direction of a target, yet not be in full

control of the resultant trajectory; his imperfect skill, or the bow breaking, or a sudden wind, or some unexpected obstacle, may yet impede a bull's eye hit. Thus, intention does not exclude unforeseen circumstances, nor therefore by itself guarantee success. All the more so, if W is an incidental consequence of A's will, it may be foreseen or unforeseen. In the former case, it occurs *knowingly*; in the latter case, it is called an *accident*.

The concepts of incidental (or unintended) and accidental (or unforeseen) consequence can further be clarified with reference to *causative chains*, as follows. Suppose P is a complete causative of Q (i.e. "if P, then Q" is true), either in all circumstances or in some given circumstances. Then, when A wills P (i.e. when A wills away with P as his intention, and indeed achieves P), Q will necessarily also follow. So, A will have *effectively* willed Q. However, if A had no interest in willing Q or even preferred to avoid Q, then Q is only an incidental consequence of A's will, not an intention of his. A may have known Q to be a necessary consequent of P; or he may not have known it, or even may have thought notQ to be a necessary consequent of P; or he may not have thought about the issue at all. In the latter cases of ignorance, Q is just an accidental consequence of A's will.³⁴

We should also distinguish between *foreseeable* and unforeseeable consequences (be they intentional or not). In the former case, agent A could have foreseen the

³⁴ Often, in political discourse, people accuse their opponents of bad intentions based on unintended consequences of their opponents' actions; or they credit themselves with good intentions they never in fact had.

consequence if he had made appropriate preliminary investigations; in the latter, not. Foreseeable consequences may be inevitable or avoidable (if avoidance should be needed). If some undesired consequence of will was foreseeable and avoidable, then its *not* having been foreseen and avoided is indicative of some failure or weakness of will, i.e. not enough effort was expended to achieve the intended result or to prevent some unintended result.

There are, of course, many degrees of *expectation*, depending on the factual probability or improbability of the anticipated event in the circumstances considered. An unexpected event has either been unforeseen or foreseen not to happen. Whether factual expectation is great or small, or nil, it is based on belief. That is, it may be demonstrable knowledge, or it may just be more or less justifiable opinion. The latter refers to the epistemological likelihood of the event, the former to its ontological likelihood.

2. The factors of responsibility

Volition implies responsibility, which is estimated with reference to various factors and their measurements. The concept of responsibility is of course primarily aetiological. The concepts of moral and legal responsibility are more specific, since they refer to specific ethical norms or to legislation.

The important distinctions we made above, concerning consciousness, intention, deliberation, knowledge and expectation in volition, allow us to specify the measure of *responsibility* of the agent, the degree to which the action may be attributed to its doer, whether for moral or legal

praise or blame, or (in the case of no responsibility at all) exoneration. In the case of crimes, with or without a victim, note the terms guilty or innocent used for responsibility and non-responsibility, respectively.

Agent A is *fully* responsible for event W, if W was his object of conscious will, his purpose or goal, his intention in willing, *and* a foreseeable and inevitable outcome of his actions. A is only, in one sense or another, *partly* responsible for W, in all other cases, to various degrees.

As we shall see in later chapters, influences on volition that are considered psychological, such as desires and fears, obsessions and compulsions, urges and impulses, whether operative on a conscious or subconscious level, do not ultimately diminish or remove an agent's freedom of will and so remain his responsibility.³⁵

We commonly also appeal to *extenuating* or *aggravating circumstances* in estimating responsibility (whether for good or bad acts), considering the former to somewhat diminish responsibility and the latter to increase it. This concept may be understood in two ways³⁶:

- (a) It may refer to *terms and conditions*, which objectively affect³⁷ the course of events, either before or after volition, but not through cognition. For example, if a man stole bread in a society *refusing him* both work and

³⁵ This is said to stress opposition to certain psychological theories, which seek to remove guilt by denying responsibility.

³⁶ Note that the examples given concern blame for wrongdoing; but we could of course equally cite cases of praise for good deeds.

³⁷ In the limit, if the terms and condition leave one no choice, i.e. if no volition is possible, responsibility is eliminated.

charity, he would have an objective extenuating circumstance, granting survival is a right. By way of contrast, if a man stole bread to save money, the fact that he did so *although rich enough* to buy bread, would be an objective aggravating circumstance, since he had no need to steal.

- (b) Or it may refer to *influences*, which subjectively affect³⁸ volition, through cognition. For example, if a man witnessed a crime, but did not report it to the police because his child was threatened with retaliation if he did, he would also be able to appeal to ‘extenuating circumstances’. He had a difficult choice to make between his duty to society and that to his family, and since both are generally acknowledged values, the choice he made (under the influence of the criminal’s threat of violence) is understandable. On the other hand, if did not report the crime but also actively concealed it so as to avoid eventual blame for not reporting it, he would be regarded as having ‘aggravating circumstances’. Here, the man not only failed as a citizen, but (influenced by some inexcusable laziness or antisocial feelings) he committed the additional crime of making the witnessed crime more difficult to discover and punish.

All the preceding factors refer to *direct* responsibility, of an agent for *his own* actions.

An agent may also have *a share of direct* responsibility in some resultant of the actions undertaken by two or more

³⁸ Since influences, whether positive or negative, never abolish freedom of the will, responsibility is certainly never annulled by them.

agents. If each of the individual agent's action has an identifiable portion of the resultant, it may be said to have a proportional *partial individual* responsibility for the resultant. But if the resultant is a collective outcome of all the individual contributions, such that it cannot be arithmetically divided among them, we may speak of *collective* responsibility. The latter is more difficult to apportion, though we can do so with reference to causative considerations. In practice, the distinction is sometimes moot, or both aspects may be involved. In any case, further clarification is possible with reference to individual intentions, common purposes, cooperation or confluence, degree of coordination of actions, and the like.

For example: if we refer to shares in a financial venture, the total capital is the sum of the parts, so each part-owner is responsible for that portion of the whole in the company's environmental damage, say. If capital reduction by withdrawal without replacement of one of the partners would result in proportionately less damage to the environment, then that partner may be considered to have a 'partial individual' share of responsibility. But of course, in practice, the company is not just about money input, but involves the effort, skills and intelligence of numerous people, who collectively do the work. If this or that worker or manager is removed, the others may not be able to do their job; or what they do may not result in a finished product; or operations may after a while come to a standstill. In the latter case, we have to regard each shareholder, manager and employee as

having a greater or smaller part of the collective responsibility in the joint project.³⁹

An agent may also have *indirect* responsibility in another's actions, if the former knowing of the latter was possibly able to prevent it, alone or with others, but did not try to do so, or tried to but did not make a sufficient effort to. Such responsibility is necessarily partial, implying passivity and tacit acquiescence. In most cases, this is just ordinary non-interference or tolerance, 'minding one's own business'; but in some cases, this would be called criminal negligence⁴⁰. Note that if there is any show of dissent or disapproval, or other incipient effort of protest or opposition, one's indirect responsibility is proportionately diminished; and one may claim a share of direct responsibility in the opposite direction.

³⁹ How exactly to quantify the relative weights of the partial causes making up a complete cause is a moot question. Certainly, common sense supports the notion of such quantification. In principle, we could proceed as in the physical sciences, postulating an algebraic formula linking the variables and repeatedly testing it empirically. In situations involving humans – which are less easy to reproduce identically – such an approach is not always practical. For this reason, our judgments in this issue are often tentative and approximate.

⁴⁰ One special case to consider (at least for theists) is God's indirect responsibility. According to the Judaic theory of volition, God gave humans volition by a voluntary act of withdrawal (*tsimtsum*). He chose to abstain from exercising His omnipotence, so as to make possible small pockets of individual freewill. Nevertheless, this did not annul His infinite power: He retains the capacity to overwhelm any creature's will. In that case, we may well wonder why He does not prevent horrible willful crimes, not to mention murderous natural events. Why does He not limit human powers within certain more gentle bounds, to the exclusion on principle of the most heinous deeds?

Inversely, if there is any show of consent or approval, and all the more so in the case of explicit encouragement or other active involvement, then one is not merely indirectly in part responsible, but acquires a direct share.

Thus, for example, during the Holocaust, history's greatest crime, the responsibility of the German population varied greatly. A very few heroically made efforts to actively or passively resist the Nazi persecution of Jews and others; these were not responsible for the genocide. Most had indirect responsibility, at least because they knowingly acquiesced. Many of the latter were additionally conscious though passive beneficiaries of the spoils. But much worse, a great many people had various degrees of direct individual or collective responsibility, having participated in the horror as conquering army, appointed mass killers, efficient bureaucrats, railway workers, death camp planners and personnel, slave-labor exploiters, poison manufacturers, etc.⁴¹

I should mention here the Buddhist principle that at the root of all evil attitudes and acts is a fundamental ignorance of the true nature of reality. Although rather convincing, this principle should be regarded critically. It is true that at the base of our selfish indifference or hatred towards others, disregarding or enjoying their sufferings, there is a stupid blindness to the common nature, source and destiny of all sentient beings. However, to refer only to this fundamental ignorance is to effectively exonerate those guilty of crimes. For the term 'ignorance' refers to a failure of knowledge

⁴¹ See for instance Paul Johnson: "The German people knew about and acquiesced in the genocide" (p. 498). Of course, not just Germans, but many other European peoples (he mentions notably the Austrians and Romanians), were actively involved; some did not collaborate but did nothing to help Jews, some resisted and did what they could to help.

or understanding, a paucity of consciousness – and does not include reference to volition. Yet, it is precisely through our will, our choices, that we may be held responsible and subject to moral judgment. Of course, ignorance mitigates responsibility, if we have sincerely sought wisdom. But insofar as our will is misguided by inadequate cognitive practices, we remain responsible for it.

3. Judging, and misjudging, people

What we have said thus far concerning responsibility provides some guidelines for making just judgments about people. But such judgments are no simple matter, and we all very often err in making them. Even knowing in general terms, ontologically, what constitutes responsibility, it does not follow that we are fully armed, epistemologically, against misjudgment. We shall here, in passing⁴², attempt to describe some of the methods and pitfalls involved, without claiming to exhaust this vast subject.

Above all, it should be stressed that judging responsibility is a category of *factual* judgment. It is not in itself moral judgment, though evaluations may subsequently be based on it; that is, it involves no standard of value. The question posed by judgment about responsibility is “whodunit?” (who did so and so, and to what extent is he or she the doer), rather than “was the thing done good or bad?” (which is a separate issue). Of course, judging responsibly is a moral imperative – an absolute one, since whatever our norms, logic dictates we apply them realistically, and to do so we must know the truth.

The object of judgment may be oneself or other person(s). Indeed, judgment about responsibility is relevant to both the inner life and

⁴² This section is not directly relevant to our analysis of volition at the present stage, but is nevertheless inserted as a continuation to the discussion of responsibility, dealing with some of the epistemological issues relative to that topic.

to social life. We may also use such judgment to philosophically judge God's responsibility in world events, or to determine whether one's dog or cat ate the cheese – i.e. it relates to any presumed volitional agent. However, here we shall concentrate on humans.

Assessments of responsibility depend on three factors: the facts of the case as we see them, our skill or wisdom at determining responsibility on the basis of such data, and our capacity for objectivity or fairness. Judging one's own responsibility differs from judging that of others in two important respects.

Firstly, *the empirical data* at our disposal is greater in the case of self-assessment, since we have direct cognition of our subjective states and actions, as well as perception of their mental and physical consequences. Such introspection is not infallible, since it depends on the degree and clarity of one's awareness of internal events as they occur, and on the durability of one's memory of those facts. In the case of assessing others, our database consists essentially of externally perceivable data (physical words and deeds), from which we infer (spiritual or mental) internal events by means of analogies to one's own experiences.

Secondly, although in principle *given certain data, the conclusions we draw from them are dependent on our conceptual framework*, and so likely to be about the same whether the object of judgment is self or any other, in practice the identity of the person judged and our *predisposition* or partiality towards that person affects our judgment considerably. For instance, if we are well disposed or sympathetic to the latter, we will make more effort to find extenuating circumstances; whereas, if badly disposed or antipathetic, our efforts will be directed at condemnation. One usually judges oneself and one's loved ones favorably, and those one dislikes as unfavorably as possible; although, to be sure, some people have masochistic tendencies, and some people do make an effort at objectivity or impartiality.

The function of self-judgment is generally attributed to a faculty called *conscience*. In truth, this concept is a mere abstract construct, though a useful one. One's conscience is not a structure separate from oneself – it is a part of one's soul (in time, rather than place) acting as judge in relation some other part of one's soul. If one is judging sincerely, with objectivity and honesty, one 'has conscience' – if our judgments are not in earnest or non-existent, one 'lacks conscience'. By judging conscientiously, one effectively gives oneself a 'conscience'. The concept extends to one's judgment of others, insofar as we are responsible for the supervision of our own intellectual faculties, including those involved in our judgments about other people.

Introspection aims at identifying subjective, mental and physical data. Subjective data includes: (a) one's volitions, velleities, or inactions; (b) one's knowledge or ignorance of something; and/or (c) one's attitudes towards someone or something, including affections and appetites, hopes, fears, and so forth. Mental data includes: one's memories, fantasies, expectations, whether expressed as phenomenal qualities (sights, sounds, etc.) or verbally, indeed all our mental projections, emotions and thoughts. Physical data here refers to sensations and sentiments appearing in the body, such as feelings of sexual arousal or indifference, or feelings of love or hate.

Subjective data is known *intuitively*, i.e. it is a direct self-knowledge, not based on phenomenal (mental or physical) data, although it may be confirmed and reinforced by such data. In practice, subjective events are not always perspicuous, so that what we assume them to be must be regarded as an inductive construct. That is, based on fleeting, vague and partial intuitions, one proceeds *by trial and error* to a firmer, clearer and fuller estimate of one's volition, knowledge or evaluation. The elements of doubt in successive intuitions are attenuated by repeated experience.

Although the database is composed of direct experiences, judgment is still involved in comparing and contrasting such experiences and distilling a considered summary of them.

Additionally, we may and do infer such deeper, more subjective events (when they are not evident by intuition) from mental and physical data, on the basis of past conjunctions in experience (i.e. apparent causations). In this context, we often reason according to the format *post hoc, ergo propter hoc* (sequence, therefore consequence), proposing an adductive construct (“this sort of mental or physical phenomena seem to imply that kind of event in the soul”), which we repeatedly test with reference to all direct and indirect experiences and reasoning, maintaining our assumption so long as it seems plausible to us, and abandoning it if ever it ceases to do so.

Mental data, i.e. sights, sounds and other phenomenal qualities projected by memory or imagination or anticipation within one’s mind, are known by inner perception. Physical data, is known by sensory perception, i.e. through the organs of sensation deployed in one’s body, whether these organs have been stimulated by psychosomatic events (occurring in the body, due to mental causatives; e.g. anxiety feelings), physiological events (in the body, due to bodily causes; e.g. indigestion), or external events (bodies around one’s own, impinging on it).

It should be stressed that these distinctions between soul, mind, body and beyond, are somewhat conventional, in that in practice events in these four domains are very tightly intertwined, and we may only assign an event to the one or the other after considerable reflection. The resultant classification of the event concerned is therefore not purely

empirical data, but itself a product of conception and inductive judgment.

Judgment of others is both extroverted and introspective. It is extroverted, insofar as based on information we have directly or indirectly ‘perceived’ concerning the person to be judged. And it is introspective, insofar as that data is *necessarily interpreted according to one’s own inner experience and its customary relation in oneself to similar externally perceivable events*. Scientific data, based on the objective observation of the behavior of many people under similar circumstances may be brought to bear, as a third factor of judgment; but such data, note well, itself also logically falls under the preceding two categories, namely ‘externally perceivable data concerning others’ and ‘the interpretation thereof based on one’s own inner life’.

With regard to the external ‘perceptions’ involved – this refers to (a) the things *oneself* actually sees or hears the person judged do or say, and (b) the things that *someone else* has actually seen or heard that person do or say. The former (a) is *direct evidence*, and refers to any data (prior to any interpretation) available to one’s own senses, which cannot be distorted or faked by third parties. If such data can in principle be manipulated, it should be considered with due caution, and of course regarded as open to revision. The latter (b) refers to *hearsay evidence*, which depends on the reliability of the alleged witness, who may intentionally lie for a variety of personal motives, or be too emotionally involved to distinguish fact from fantasy, or merely be a very incompetent observer.

Note that direct evidence includes *concrete evidence* of any sort, i.e. physical traces or leftovers of the past events under scrutiny, which may be considered as emanations of the person judged, still available for perception by the one judging. *Circumstantial evidence* – concerning time, place, opportunity, possible motive, and the like – can be similarly considered, although more abstract or speculative.

Also note, hearsay evidence may be *first-hand* testimony by a participant in the events, reporting his or her *own* thoughts, words and deeds; or second-hand testimony about the words and deeds (but not the thoughts) of someone else. The latter witness may be a participant testifying about *another* participant, or a bystander (a non-participant who observed without affecting events).

Obviously, the person judged may intentionally project a fictional representation of his or her external actions or inner workings; for example, a murderer may wipe off his fingerprints from the weapon used or loudly proclaim his innocence in court. This too must be taken into account when estimating data.

With regard to witnesses, obviously, the more there are of them, the more reliable their common testimony. If their testimonies converge, they corroborate each other, though conspiracies are of course possible. If their testimonies diverge, the judge would want to know why. Perhaps some partial common ground is found between them; perhaps some of the witnesses are more reliable than others.

Obviously too, even when one bases one's judgment on one's own perceptions, one must be attentive to one's competence as an observer, emotional involvement and personal interests (including financial and other advantages) in the affair; i.e. one should clearly distinguish between raw data and subsequent interpretation – no easy task!

The insight that interpreting the actions or words of others depends largely on one's own inner life and behavior patterns is very important. It means that when we judge others, we are to some extent exposing and judging ourselves. Criminals actualize certain potentials; by doing so, they reveal to all of us what we, as humans, are probably equally capable of (if not actually guilty of); for this reason, by the way, every crime is doubly so, in that it further diminishes one's self-trust and trust in others, fragmenting society. Conversely, when we project presumed motives or

behaviors onto suspects, we are extrapolating these from motives or behaviors we suppose potential (if not actual) within ourselves; i.e. we are also saying something about ourselves. Thus, judgment is a two-edged sword, to be handled with care.

Judgments about responsibility are a heavy responsibility, which few manage to discharge equitably in all cases. A person may unfairly judge himself or herself, claiming undeserved credit or discredit. People may misjudge each other in the family, the workplace, the community at large, the media, and of course the courthouse. Such injustices may befall groups (e.g. religious, racial or national groups), as well as individuals. The legal principles “a person must be presumed innocent until proven guilty” and “guilt must be established beyond a reasonable doubt before condemning” are often ignored in the courtroom, and more often still outside it.

Many people lack intelligence and intellectual rigor in their everyday life and dealings, so it is not surprising to find them exercising the same stupidity and laxity when they are required to judge people. Such people liberally mentally project their delusions, fantasies and fears on those around them, lacking the training to distinguish fact from fiction. Many people (men, women and children) take pleasure in slander and talebearing, thinking that by bringing shame and disrepute on others they enhance their own status. In fact, all they do is reveal their own foolish thoughts and their hatred: Judaism rightly compares such people to murderers, and wisely commands: “thou shalt not bear false witness against thy neighbour”⁴³.

Nowadays, with the advent of mass media, gossip, slander and talebearing have become an institution, a full-time livelihood! Here, certain thought patterns should be pointed out, which promote prejudice.

⁴³ See for instance Talmud: *Arachin* 15b. Quotation is from Torah: *Exodus* 20:13.

One is the very human tendency of *generalizing* – we take the behavior of some people in certain circumstances and assume the same behavior for other people in similar circumstances. Generalization is a legitimate process, provided it is subjected to checks and balances. The need for repeated testing and, when appropriate, particularization is true for all natural objects – but all the more so with regard to volitional agents, and in particular people. The latter, by definition, do not act in a uniform manner in the same circumstances – so in their case, generalization should be indulged in very carefully. Especially in view of the disastrous consequences of wrong judgments in this field, one cannot allow oneself to generalize *at first sight*, without due research and verification of hypotheses.

Another common tendency is that of *stereotyping* – trying to fit all human behavior in a limited number of pre-established categories. Here again, there is some epistemological basis to the process: the human mind naturally pursues categorizations, as neat summaries of information. This is an aspect of conceptualization: seeking out patterns in data, by comparing and contrasting cases. The problem lies in the need to keep an open mind and continue this process all the time, whereas people tend to get lazy and stop it when they have one, two or three such stereotypes in mind. Thereafter, all natural flexibility is lost, and the mind tries to force-fit new cases into the few, rough and ready, prior patterns, instead of modifying categories or generating new ones as and when necessary. Many people misjudge, simply because they constantly refer back to clichés that have little to do with the persons or situations under scrutiny.⁴⁴

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It should be pointed out that people who judge others by stereotypes tend to adapt even their own behavior to stereotypes! They absorb a number of behavior patterns from TV, movies and novels – which are often artificial concoctions in the first place, based on the fiction writer's superficial understanding of the human psyche. When faced with a real life situation, rather than draw out

Erroneous generalizing and stereotyping are related, the former concerning propositions and the latter concerning terms. Both are due to the failure to practice the logical virtues of open-mindedness and empiricism, careful adaptation, clarity and precision. If one is satisfied with approximation and fixation, one is bound to judge wrongly sooner or later. Another major pitfall is, of course, emotiveness. Under the weight of an intense emotion, a real effort is required to judge correctly. And, of course, emotions are most stirred precisely when people are involved – the very circumstances when cool judgment is called for. In such situations, one must consciously remind oneself to be objective and impartial. Note lastly that reasoning about responsibility is not just concerned with volition, but often has more to do with causation. Arguments involving if-then statements are often crucial to determinations of responsibility, or the share of it. For example, the premises “if A + B, then E” and “if A + not B, then not E” suggest the conclusion that, given A (which may in turn refer to a conjunction of causes, C + D +... etc.), B causes E and not B causes not E. By such means, we would determine that agent B, rather than potential agent(s) A, is currently responsible for effect E (although to get the full picture, we would have to also check out what happens in the absence of A)⁴⁵.

A more thorough analysis of reasoning about responsibility is outside the scope of this book. A volume on this topic, with

an appropriate response from within their own soul, they simply apply one of the formulas they have been fed by the media. They play set roles: the rebellious protester, the macho politician, etc. Even the dialogues are standardized. The sum total of available roles and dialogues is called ‘a culture’.

⁴⁵ See my *The Logic of Causation* for a full treatment of such arguments.

emphasis on legal issues, which I have found very interesting and recommend, is that of Hart and Honoré.

5. INFLUENCE AND FREEDOM

1. Influence occurs via consciousness

An important and complex concept in causal logic, and specifically in the logic of volition, is that of *influence*. This refers to the impact on one's volitional act, before or while it occurs, of some cognized natural event(s) and/or other volition(s) by oneself or other agent(s). Note well, the agent of volition concerned must have cognized the natural event(s) and/or other volition(s) in question, for the latter to count as 'influences'. The distinguishing characteristic of influence, compared to other 'conditions' surrounding volition, is *the intermediary of consciousness*.

The philosophical importance of this concept is due to the confusion of most people relative to the concept of freedom of the will. On the one hand, most people in practice believe the will is free somehow; on the other hand, they realize it is varyingly affected by surrounding natural events and persons. These givens seem theoretically irreconcilable because the latter is mistaken for conditioning or partial causation, whereas it is influence, a different, subtler sort of causality.

For example: a man's muscles are *conditions* affecting his volitions, in that he can *in fact* lift a certain weight with them and also in that he cannot lift more weight than they physically make possible; these same muscles however become *influences* on his volitions, only when *thinking* of

their supposed limited strength he chooses another course than he would if they seemed stronger or weaker. Note well the subtle difference. Conditions and influences both *affect* actions, but not in comparable ways.

Influence is a *special kind of conditioning*, differing from an ordinary condition in that it operates specifically through the medium of consciousness, i.e. of *any kind of cognitive process*. The *influencing object* is one that has been sensed or imagined, perceived or conceived, remembered or projected, found evident or inferred, induced or deduced, or in any way thought about. *What it influences*, strictly speaking, is the Subject of such cognitions or thoughts, i.e. the eventual Agent of volition. When the agent finally 'makes up his mind' and wills something, he does so either in the direction of or against the *tendency* implied by the influence at hand.

Thus, influences imply positive or negative tendencies, temptations or spurs to voluntary action. If such tendency was in the direction of the eventual will, the will was facilitated by it; if such tendency was against the eventual will, the will had to overcome it. The agent is always free to accept or refuse to 'follow' a given influence, i.e. to 'yield' to its weight or 'resist' it.

The concept of *effort* refers to a degree of will. Volition is not an either-or proposition, something one switches on or off; it has degrees. Powerful will is required to overcome strong opposing influences; a weak agent is easily influenced to go against his will. Thus, we may speak of *amount of effort* involved in an act of will. If influences are favorable, the effort required to complete them is comparatively minimal. If influences are counteractive, the agent must pump proportionately more effort to get his way.

We may also view effort as a measure of the agent's responsibility, his causal contribution or ownership of the action and its outcomes. The more effort he requires, the more wholly 'his own' they are. The less effort he requires, the greater the part played in them by surrounding influences.

The *postulate of freedom of the will* is that an influence is never alone sufficient to produce some effect, irrespective of the will of the agent concerned. Granting surrounding conditions allow the power of will in a given case, the agent always has 'final say' to resist the tendency implied by the influence, though such resistance might require a maximum of effort. As of when conditioning occurs via consciousness, i.e. in the way of influence, *necessity does not apply*, though the effort required to overcome influence may be daunting. Wherever necessity *does* apply, one cannot say that there was possibility of will, *nor therefore* speak of influence. The subject was simply overwhelmed, proving in this case to be not an agent but a mere patient. He may have been an observer of the events, but he was in this case a passive recipient of natural forces.

If this postulate is correct, it means that consciousness of an object cannot by itself move a spiritual entity (soul, subject) to action, by way of complete causation. Though such consciousness may play a major causative part in the action, approaching one hundred percent, still the action cannot effectively occur without the final approval and participation of the spiritual entity concerned. If necessity is indeed observed occurring, then the conditioning involved was not via consciousness of the object but directly due to the object.

Note that not only an influence cannot by itself ever move an agent into action, but also – granting the possibility of pure

whim – the agent can well move himself in the absence of any influences. Therefore, influence is neither sufficient nor necessary for volition.

Thus, note well, we are not here involved in verbal manipulations. Freedom of the will is a thesis, a hypothesis, concerning the causal relations possible in the domain of the spirit. Consciousness may well occur in cases where there is no volition, i.e. where causation (necessity) takes over; but when this happens, consciousness has played no part in the effect. Consciousness becomes a condition only as of when causation recedes, and a space is leftover for volition to intervene; in that event, consciousness (or its objects, through it) becomes influential, and the will remains free (to at least some extent).

All volition seems subject to some influences to some degree. This seems evident of human volition, which usually occurs in response to an apparent mental and material context, though it could be argued to be at times indifferent to all influences. Other animals, likewise, and perhaps much more so, have powers of volition subject to influence.

With regard to God, our theoretical conception of Him by extrapolation to extremes suggests we should consider God as the quintessential ‘unmoved mover’, i.e. His volitions as always entirely independent of influences. That need not be taken to mean He acts without regard to anything, but rather that His power of will is so superior to influences severally or collectively that the latter are effectively negligible. A tiny drop of water cannot affect the ocean!

As for the relation between God and lower volitional beings, we should consider that just as God retains the power to interfere in causative processes (i.e. to Him all natural laws are inertial rather than necessary, as earlier discussed), He retains the power to ‘*overwhelm*’ the willpower of any creature’s soul. Thus, the power of will of any limited creature is in principle always conditional upon the infinite God’s continued tolerance. However, the Divine power to dominate or overwhelm lesser wills seems unused in practice (judging by our religious documents, at least⁴⁶). Rather, God seems to *condition and/or influence* lesser wills – giving agents life or prematurely killing them, or affecting their bodily, mental or external environments, or again making items appear that (strongly or to some extent) influence them in some way. This Divine preference is assumed to stem from an ethical motive, to sustain freedom of the will and therefore personal responsibility⁴⁷.

⁴⁶ I make no claim to special knowledge of the Divine, of course. As a philosopher, I merely conceive possibilities, cogent hypotheses, concerning God. Here, I note that while ‘overwhelming of lesser wills’ would seem doctrinally consistent with the idea of God’s omnipotence, it is not a doctrine stressed within Judaism and similar religions.

⁴⁷ Clearly, the problems of theodicy remain whether we assume God’s action to include overpowering wills, or to be limited to conditioning and influencing. It would have mattered little to victims of the Holocaust whether God saved them by overwhelming Hitler’s hate-filled will, or by killing or otherwise neutralizing him early enough.

2. Knowledge of effort, influence and freedom

Effort and influence are, clearly, derivative concepts of cognition and volition. The empirical basis of our knowledge of them is therefore the same as for cognition and volition, primarily introspection or subjective apprehension. This direct self-knowledge, which I call intuition (or apperception), concerns objects that do not *per se* have inner or outer phenomenal qualities – i.e. no shape, shading or color, no sound, no smell or taste, no touch qualities – although they may produce perceptible objects.

Just as we intuit our own will, so we intuit the amount of effort we have put into it. Colloquially, we say that effort is ‘felt’. ‘Physical effort’ is experienced as a sensation in the body; but ‘mental effort’, or more precisely ‘spiritual effort’, is a more subtle experience, which may or not give rise to discernable phenomena. Measurement of effort is therefore, of course, not exact and absolute, but rough and comparative. It depends not only on the immediate intuition, but also on personal memory of past intuitions for purposes of calibration.

If estimate of effort is inexact with regard to oneself, it is all the more so with reference to the effort of others. We can only guess it, by analogy to one’s own experience and by observation of indirect indices, like (in the case of physical effects of it) the sweat on someone’s brow or his facial expressions or bodily postures. Thus, as for will, knowledge of effort is generally based on adductive arguments.

It is not inconceivable that one day soon biologists succeed in measuring effort more objectively and scientifically, by means of physical instruments. Quantification of effort would then become more precise and verifiable. Such practices will of course involve adductive reasoning, an initial hypothesis that such and such detectable physiological or neurological phenomena may be interpreted as proportional to the effort of will. But in the meantime, we do have a rough yardstick in our personal experience.

Influence is a more abstract concept, not experienced or measurable directly, but constructed with reference to amounts of effort involved in willful action (making it easier or harder). An object is said to influence one's action if *its appearance* to oneself directly or indirectly affects or conditions the action, in contradistinction to an object affecting or conditioning action by *mere existence*. Note well the phenomenological differentia.

If the influence occurs only by perception of the object, it is simple, direct. If it occurs after considerable mental processing of the image of the object, it is proportionately complex, oblique. Since thought about an object perceived may have many pathways, of varying intricacy, the influence by one and the same object may be multiple, involving many theses and layers, some of which may well be conflicting. Even at the perceptual level, the various sense organs yield different aspects of the (presumably same) object. Thus, *one and the same object may give rise to many, variant influences*. We must keep this insight in mind, to avoid oversimplification in our understanding of influence and volition.

Another epistemological issue concerns our estimates of *the relative weights* of different simultaneous influences. Such estimates are based in part on generalization of personal observations (when data on conjunction and separation is available); but in large part, they are hypotheses, adhered to so long as they continue to be confirmed by our experiences of effort. Knowledge of one's own psyche is very often as tentative as that of nature, or of other people's or animals' psyches. People often think that they have 'direct insight' into, or at least 'deductive knowledge' of, inner events or relations, when in fact all they have is inductive knowledge. What is important is to realize that the latter is pretty good, quite enough.

Knowledge of freedom of the will is partly introspective, but mainly adductive. Our inner sense of freedom of will provides the occasion for the theoretical search for supporting data and postulates. We may have faith in freewill as a working hypothesis, but are still called upon to develop over the long term convincing definitions of it and arguments in its favor. The formula above proposed for freedom of the will is, I think, a good start.

The doctrine of freewill is important psychologically and socially, the foundation of morality and law. The doctrine declares our responsibility for our actions, however many and strong the forces impinging upon us may seem. Thus, a criminal cannot disclaim responsibility for his crimes, arguing he was 'driven' against his will.

We should note the doctrine's own influence on human action, by the power of suggestion: if one believes he *can* do or avoid something he is more likely to be able to do so, than if he thinks that he cannot do so no matter how much he tries.

Thus, belief in freedom of the will increases one's 'freedom', and disbelief in it is an added obstacle.

3. Formal analysis of influence

It is empirically evident that the Agents of will are all conscious beings: they are Subjects. This observation suggests a fundamental feature of volition, that it is allied to and inconceivable without consciousness. Given that insight, we can better understand the mechanics of influence.

We have seen that a natural event or another agent can influence an agent in his will, by presenting to the latter *an idea* which, though it does not definitely determine or control his subsequent will, constitutes a more or less important parameter in its exercise. Note that the idea presented may be illusory, just as well as real; but insofar as it is aroused by something or someone, the latter is influential. Note also that the 'other agent' influencing one may be an earlier moment of one's own existence (as e.g., in the case of habits).

Influence is a causal relation of sorts, though a weak one since it is never determining due to the essential freedom of the willing soul. Our linguistic practices are evidence that we do consider influence to be a form of causality. We often use verbs suggesting it, e.g. 'he *caused me to do it*' or 'he *made me do it*'. Influence involves causation, in that some object or appearance (if only partially and contingently) gives rise to some cognition or idea. We may also consider as causation the relation between the appearance, or its cognitive effect, and *the fact that* the eventual volition, if any, is 'made easier' or 'made harder' by it. But influence in itself, as a relation between the object cognized or its cognition, on the one hand,

and the outcome of volition, cannot be classified as causation, nor for that matter as volition. It is another category of causality, mediating those two.

We might express influence formally as follows: let **A** be an agent, and **W** be his will at a given time. Let object **Y** be some event *naturally occurring, or willed to occur* by some agent(s) **B** (which **B** may include agent **A** at a previous time). Let content of consciousness **X** be some belief, opinion or knowledge *aroused in A by Y* (**X** may of course simply be **Y** as cognized by **A**, or **X** may have some more complicated cognitive relation to **Y**).

Then, we can say “**X influences A to will W**”, *provided* “**A with awareness of X requires less effort to will W, than A without awareness of X**” – that is, provided **X** inclines *towards* **W**, the will of **A**. If, alternatively, **X** inclined *away from* **W**, then **A** would need *more* effort to will **W** with **X** than without it, and we would say that “**X influences A not-to will W**”.

These forms define positive and negative influence, both of which may be referred as simply ‘influence’, leaving the direction of influence (for or against) indefinite. If the effort requirement is exactly equal either way, there is effectively *no* influence. The amounts of effort involved are known in various ways, as earlier discussed. Note that in everyday discourse the implied forms “**X inclines to W**” and “**X inclines away from W**” are sometimes be taken as equivalent to the forms of influence, because it is tacitly understood that **X** was cognized by **A** and **A** willed **W**.

We can of course, *mutadis mutandis*, similarly clarify various forms of influence involving notX and/or notW as terms, such as “notX influences A to will notW”.

In practice, we would consider that whatever gives rise to an influence is itself an influence. That is, the occasion of X that we have labeled Y, or its natural causatives or its volitional agent B – can all be called influences once X is so established. But, *note well*, whether that practice is strictly speaking valid needs to be discussed. The issue is a logical one, concerning causal chaining or syllogism. It is left open for now.

Thus, to review the process of influence in sequence:

- a. Something (Y) natural occurs, or is made to occur through the will of some agent or agents (B, which may be or include A).
- b. That occurrence (Y) comes to the attention of a subject (A), or causatively produces some physical, mental or spiritual affect in him that he becomes aware of, and possibly thinks about further (X).
- c. This subject (A) then engages in some act of will (W), whether a direct volition or an indirect one.
- d. And it so happens that such will (W) involved less effort for that agent (A) in the presence of that thought (X) than in its absence.
- e. Then the thought (X) can be said to have positively influenced the agent (A) in so willing (W).

Note that Y and X may be one or two. If A is directly aware of Y, then it is the term of reference. If, however, A is not aware of Y, but of some effect of it labeled X, then X is the

influential term. The influential term is whatever is the object of cognition, i.e. some appearance, be it real or illusory, faint or intense, far or near. The cognition involved may be sensation (then X is a physical phenomenon) or introspective perception (then X is a mental phenomenon), or even intuition. In the latter case, A is aware of prior reactions of his own soul (so X is a spiritual event). Objects of sensory perception include things observed outside or within one's body, including visceral emotions. Mental objects include⁴⁸ memories, imaginations, and possibly mental emotions. The object of awareness may also be an abstraction (then X is a conceptual object, a term within a more or less complex thought). Usually, all these means of cognition are involved, in various combinations.

It should be remarked that the causation by Y of X is a principle to be separately established, but which need not be known to A to be operative. More interesting is the question concerning the comparison of amount of effort, involved for A to will W in the presence or absence of X. For A might well be aware of his effort while he wills W in the presence of X; but that does not tell him what effort he would feel in the absence of X! The answer is that *one does not need to be aware of the influence of something for such influence to be operative*. Consciousness is crucial, but it is the consciousness by A of X, not the consciousness by A of his effort with or without X or of the influence of X. The agent need not at all take notice of the effort expended, though his attention is likely to grow with the effort expended.

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One could here also include telepathic communications, if we suppose that telepathy exists.

Indeed, the agent may positively think or claim to think that something has no influence which in fact has some influence, or inversely that something which in fact has no influence has some! In such cases, note, the thought or claim must be considered as a separate, superimposed item, which may or not have a degree of influence of its own, quite apart from the fact.

The above formula is relevant only to the logician, or to whoever wishes to establish the existence of a causal relation of influence between something (X) and an agent (A) engaged in a volition (W). Just as the relation of causation, for instance between Y and X at this moment, cannot be established with one observation, but only through repeated observation over time – so with influence. We cannot say for sure that X influences A to will W with reference to any one observation, like the amount of effort in the presence of X. We must refer also to other events, such as the effort in the absence of X.

And indeed, here as with induction of causation in general, certainty is proportional to the frequency of such observations. The more often we have observed the conjunction, the more confident of a causal relation we become. *Knowledge of influence is empirical and inductive.*

Notice the relation between the object X (as cognized by A) and the amount of effort (say E, for A to will W) – it is a standard causative relation. It consists of two if-then propositions (natural hypotheticals), “if X, then effort E(X)” and “if notX, then effort E(notX)”, and a comparative proposition “effort E(X) is less than effort E(notX)”. Nothing special – the procedures for such knowledge are commonplace. This refers to the case of positive influence by

X. In the case of negative influence by X, $E(X)$ would be greater than $E(\text{not}X)$; and in the case of no influence, the effort needed would be the same either way.

Of course, any calculation of effort must take into account not just one influence, but all influences currently active for or against the intended will. The total effort requirement call it E , would be the effort requirement if the will was uninfluenced by anything (E_0), plus all the additional efforts required to overcome negative influences (E_-), minus all the reduced efforts made possible by positive influences (E_+). That is, $E = E_0 + E_- - E_+$.

Effort is something the volitional agent must call forth out of himself or put forward, as a precondition to his succeeding in doing his will. Effort is known to us by inner experience; but the agent need not be conscious of his effort every time he exercises it. Nevertheless, in our definition of influence we have assumed that some effort is always involved in volition, and that its quantity varies, being greater in some circumstances than in others. Whether or not it is focused on, effort is there wherever volition occurs. Volition implies effort.

Also remember, effort is relative. The quantities of effort required for each action vary from individual to individual, and even within the lifetime of a given individual. I may find a job easier to do today than yesterday, for a variety of reasons (e.g. I no longer have a cold); and some other person may find the same job more difficult any day (being less muscular or brainy than me, say).

4. Incitement

We have distinguished influence from ordinary conditioning, with reference to the consciousness that mediates the cause and effect in the case of influence. We have pointed out that influences may equally be natural events or events brought about by volition or both, provided in any case the one influenced has cognized these events. Let us now consider more closely the possible interactions of different volitional agents.

One or more volitional agent(s) may impact on another in the way of ordinary conditioning, i.e. by causation. For example, a man while knocked out is tied up by others; as he awakens, he tries unsuccessfully to move his arms and legs, before becoming conscious that he is tied up. His attempt to move are acts of will, whose limited scope is not due to influence but to causation, since he did not notice the rope before trying (but rather became aware of his predicament by trying). If the man happens to be Samson or Superman, he might break the ropes on first trial: his will has overcome the man-made obstacle they present. On the other hand, if the man feels or sees the rope before trying to move, his will is then braced against the resistance of the ropes – and in that case, it is appropriate to say that influence is involved.

A subsidiary concept of influence, by one or more volitional agent(s) of another, is incitement – which may be defined as *intentional influence*. In the case of *unintentional* or *accidental* influence the influencing agent(s) will something with certain purposes in mind, which do not include the goal of influencing the other agent in a certain direction; yet that

other agent is indeed influenced, since he cognized that previous will or its outcomes and acted in the same direction, or against it, in relation to such cognition. We have incitement, by contrast, if the one of the goals of the influencing agent(s) was in fact to influence the other agent a certain way, interfering with his life, presenting him with some enticement or obstacle.

We may formalize incitement by means of propositions like “**X incites A to will W**”. This is a specialized form of “X influences A to will W”, which it implies, where X is something willed by some agent(s) B, *who intend(s)* agent A to will W. (Thus for the positive form; similarly, *mutadis mutandis* for the negative form and for forms with negative terms.)

Here, the will X of B could be any perceivable physical activity or product thereof, such as a push or pull, a punch or arm-lock, a gesture or speech, a written text, or whatever. Such will, note well, has to have as one of its goals the orientation of A in a certain sense. The mere awareness by B that A *might perchance* be so led does not qualify as intention; B has to *want* that result. Though A must cognize X (and that before willing W), he does *not* have to cognize any of the intentions of B. But X must in fact influence A to will W, i.e. reduce the effort needed for A to will W and thus the likelihood of his doing so. Influence without intention and intention without influence are equally inadequate to qualify for incitement. And of course, just as influence does not eliminate freedom of the will, so incitement does not.

Thus, whereas influence refers to the consciousness of the influenced agent, incitement refers to both that and the consciousness of the influencing agent(s). The concept of

incitement has gray areas, with regard to who and what (and where and when) the intentions involved are aimed at. We must distinguish *specificities* of intention, ranging from general intentions to more and more defined ones. The former intend a kind of result, whereas the latter focus on a designated agent performing a precisely specified action. For example, advertisers want to sell a product to as many people as possible; but it would not be accurate to say that they incited Mr. Smith in particular to buy a particular sample of it (even on a given date in a given shop).

The most obvious case of incitement is *physical* coercion or intimidation. This may involve actual blows or incarceration, to someone or to others that this person cares for, or merely the threat of such direct or indirect physical suffering, with a view to get the victim to do or not-do something. The legal authorities may resort to such measures to protect society. Or thugs of all kinds may use them for their own selfish ends. Depending on one's courage, training and motivation, one may often resist such attempts at domination. Sometimes, individuals try to and fail; sometimes, yielding to fear of pain, they do not try at all. People usually manage to defend themselves collectively, if not individually.

Intimidation, involving the threat of force to someone or the use of it against his loved ones, is of course a *psychological* rather than physical means of incitement. Indeed, most incitement is psychological, ranging from promises of some advantage or reward to threats of some disadvantage or punishment. The promise or threat is often very tacit and vague, though sometimes explicit and defined; it may in either case be true or false. Its content may fall under any

existential category: it may be physical, psychological, spiritual, economic, social, political, or whatever.

Incitement by means of *language* in any form (gestures and sounds, speech in words, written language) is considered as special enough to be named distinctively, say as ‘persuasion’⁴⁹. We may make further distinctions with reference to the interrelation involved: ‘ordering’ (by an authority or superior), ‘entreating’ (by an equal or inferior), ‘instructing’ (by a teacher), ‘example giving’ or ‘emotionally inspiring’ (by a role model), ‘advising’ (by a friend), and so forth. Often, pressure is applied by seemingly merely giving information (true, false or uncertain), without specifying what it is in aid of; an idea is imbedded in a mind, with the likelihood that it will lead to certain desired conclusions and actions. A promised reward for a certain course of action is an ‘incentive’; a promised penalty is a ‘disincentive’. If an incentive turns out to have been a false promise, it was probably intended as ‘bait’.

Note that in relationships of influence between two or more volitional agents, the interaction of wills may be competitive or cooperative. We should not necessarily view the influencer(s) as active and the influenced agent as passive. The agents may have conflicting or shared purposes, with or without intention to do so. They may work at cross-purposes or together, struggling or in harmony, in a variety of relations – for examples, as commercial partners or political opponents, as equal co-workers or as boss and employee or as master and slave, as parents and children or as teacher and student.

⁴⁹ I use the term very broadly, including both fair persuasion and persuasion by distortion.

All such relations can in principle be defined by analyzing the intentions of the players involved. Some interactions are *de facto*, some are contractual, mutual agreements by word of mouth or in writing; some are more or less enforceable, some not. We see here how the whole range of human or animal social life becomes an object of aetiological study.

An important issue in this context is that of parsing *responsibility*. Volitional acts are primarily the responsibility of their agent, no matter how much they are influenced by external factors or persons, since he has free will. Nevertheless, in a more nuanced sense of the term, his responsibility may be mitigated with reference to the influences impinging on him. If something good was very easy to do, the praise in doing it is less marked than if it was difficult. If something bad was very hard to do, the blame in doing it is more marked than if it was easy. Our concern may be moral or legal.

When we consider human influences, and especially intentional ones, sharing the praise or blame is necessary, since more than one agent is involved in the result. Obviously, unintentional influence implies a lesser share of responsibility for the influencer than intentional influence (i.e. incitement). In some cases, the scenario relates to an association between two or more persons who perform some deed in common. We might then ask, who played what role, and what their mutual relationships were, to determine the hierarchies of responsibility involved. Such judgments are not based on exact science (to date). Many virtues are needed to arrive at a fair judgment, among them respect for facts,

attention to detail, impartiality, the sense of justice, a pure spirit, wisdom.⁵⁰

⁵⁰ I particularly recommend in this context the already mentioned work of Hart and Honoré.

6. FURTHER ANALYSIS OF INFLUENCE

1. Some features of influence

We defined influence as the relationship, to the action of a volitional agent, of contents of consciousness that make his exercise of will easier or harder. To 'make easier or harder' means that: in the presence of these objects, provided one is minimally aware of them just before acting, the effort of will needed for some purpose is increased or decreased *by comparison to* that needed in their absence. If they are not contents of consciousness, they are effectively absent as influences, whether present or absent as facts.

The contents of consciousness involved may be experienced material, mental or even intuitive objects. That is, they may be concrete environmental or physiological factors or conditions, or phenomenal contents of mind (memories, imaginations, verbal thoughts, emotions, whatever), or again acts or attitudes within the agent himself. The operative contents of consciousness may also include abstractions from any such experiences (that is, concepts, inferences, any intellectual considerations). The degree of consciousness involved may be intense ('conscious'), peripheral ('subconscious') or virtually nil ('unconscious'); this may or not affect the degree of influence.

But in any case, the medium of consciousness is essential to characterization of something as an influence. If something

has an effect on an agent's actions independent of consciousness, i.e. (as we say) 'objectively', we may speak of ordinary conditioning, but not of influence. Thus, for instance, a person's natural constitution (such as brain makeup or bodily structure, in comparison to other individuals of the same species or to other species) certainly affect his actions, but not in the way of influence. These may well yet be influences – if their apprehension plays a role in his actions. For example, if a man seeing his poor physical appearance in a mirror is discouraged from pursuing a woman – his ugliness ceases to be a mere condition and becomes an influence (on his own volition⁵¹).

Influences are not sufficient conditions for will, but are 'efficient' in the sense that without them or others like them the willed act would be improbable, though still possible somehow. Positive influences make things more readily accessible (facilitate); negative influences make things more difficult (hinder). It depends which way one is headed.

A simple way to represent these tendencies is to visualize someone moving an object up or down a hill: the hillside (or the force of gravity) is analogous to a positive influence on a person moving the object down, but analogous to a negative influence on a person moving it up. The degree of influence may be illustrated by the inclination of the hillside. If it is steep, influence is great, pro or con. If it is not steep, the influence is small, pro or con. If the inclination is strong in a favorable direction (downhill), little effort is needed to

⁵¹ Of course, regarding the woman's volition, it may be influenced by the man's appearance in her sight, whether such appearance is a mere condition or an influence relative to his volition.

achieve the desired end; but if it is unfavorably strong (uphill), much effort is required. If the inclination is not strong, comparatively more effort will be needed for positive goals (down) and comparatively less effort for negative ones (up) – comparatively to a stronger inclination, that is.

For this reason, we often speak of people's proclivities or inclinations. The term inclination carries a useful image, suggesting a landscape with valleys or canals symbolizing the easy (more inertial) paths, and hills or other obstacles as requiring special (more volitional) effort to go over or overcome. We can imagine a marble (one's will) traveling over such variable landscape, subject to alternative developments and the conditions of transition at different times from one to the other. The landscape idea allows us to view effort not merely in terms of modifying the paths of a marble (going with little effort on the easy courses, or with more effort on the harder ones), but also more radically in terms of remodeling the landscape itself⁵².

To influence the course of events is to make them *tend* to go a certain way rather than any other. To clarify this, we might refer to effort, since effort is diminished or increased according as it goes with or against tendencies. But we should not confuse a heuristic formula with a description or an explanation. Our impression is that influences stimulate or stagnate our responses, i.e. increase or decrease our will. This

⁵² For example, in a physiological context, we might refer to the general health and tonus of one's body as the underlying landscape. Every action occurring within a favorable bodily context is easier, so in the long run it is best to keep fit without having to predict what one will eventually undertake. Similarly, with regard to the mind and soul.

aspect of influence can perhaps best be expressed with reference to the *likelihood* of a certain response.

It seems that the *more* effort an act of will requires, the *less* likely is the agent to provide it; the *less* effort it requires, the *more* likely will he do so. The agent is naturally lazy or economical: if things are made easy for him, he will probably go for it; if difficult, probably not. This is said 'all things considered', i.e. taking into account all the influences involved, and not just focusing on some and ignoring others. It does not exclude that the agent may indeed invest more effort, and overcome some great resistance, especially if motivated accordingly by some other influence (for instance, a moral principle or a vain self-image).

A tendency may be viewed as a 'force', which goes in the same direction as the 'force' of one's will, reducing the amount of effort needed and increasing the likelihood of such will, or in the opposite direction, making more effort necessary and the will less likely. The advantage of this concept of 'force' is to provide a common measure between tendencies and will, although they are very different in nature, making a calculus (additions and subtractions) possible.

Note that here, when we speak of probabilities (more or less likelihood), we mean something radically different from the statistics intended in causation, in that it does *not* signify that, under certain unknown or unspecified conditions, the likelihood becomes a necessity. We here just report that that the greater the effort required the less likely it is to be provided; and the less effort required, the more likely provided. That effort and likelihood are thus inversely proportional may be viewed as a sort of *principle of inertia*

observed in the spiritual realm. But such analogy is not meant to imply inevitable behavior patterns.

As we have pointed out, the assumption of freedom of the will is that irrespective of all influences, where volition occurs it is nevertheless ‘freewill’⁵³. Perhaps an inner sense of freedom is involved, which allows us to think that, even if we have always behaved in a certain way in certain circumstances, we are still free to behave otherwise in similar circumstances. Nevertheless, we are inwardly aware that had the influential circumstance been different, we might well have behaved differently. In other words, the influential factor played a role in our decision, though not a determining one.

A person is said to have a (relatively) ‘strong will’, if over time his conduct is less readily influenced – especially by other people’s wills, but also more broadly by any circumstances. A person with ‘weak will’ is often (comparatively) driven or thwarted in his will, i.e. his effort is rarely equal to his intentions. Note that these two concepts are relative: they may compare different periods in the life of the same person, as well as the behavior patterns of different people.

The influence of something on one’s will is essentially subjective, since it depends on a cognitive act. Nevertheless, the influence as such is objective enough, in the sense that its increase or decrease of the effort requirement for a given

⁵³ Influence may therefore be likened to natural spontaneity in that its results are only probabilistic, never determining. See chapter 1.3.

volition in given circumstances may be considered as a 'natural law'.

One's cognitive assessment of a situation may be true or false, objectively justifiable or unjustifiable; the influence of something 'perceived', or assumed to be a fact, does not depend on its being a fact in fact. It suffices that one *believe* something to be a fact, or to be likely enough, for it to have considerable influence. Whether such belief is based on experience, reason, emotion, wisdom, intelligence, stupidity, faith, guesswork, confusion or self-delusion is irrelevant, so long as it is operative.

It follows that a molehill may seem like a mountain, and vice versa. Thus, one man may be brought to a standstill by the prospect of resistances that were in fact minimal, while another may heroically overcome enormous odds because the challenge seemed puny to him. Neurotic doubts may ignore all evidence, and artificially inhibit volition, bringing on defeat. Shining faith may ignore all rational objections, and fire volition to triumph.

It should be made clear that influences on our actions are rarely singular and simple. Just as a mass of ordinary conditions underlie them, so influences are multiple and complicated.

To give an example: suppose I lift a heavy load. The lifting is objectively difficult because of the great weight of the load and the inadequacy of my muscles, or the wetness of my hands, or my having insufficiently eaten lately, or my feeling drowsy. But there are also mental factors, like my self-confidence, or my fear of dropping the load and making a noise, or my being in a hurry, which affect things more subtly

and obliquely, in the way of influence. My considering myself strong encourages me, my fear of falling upsets my concentration, my feeling rushed spurs me. All these factors play a role in shaping my physical movements.

At any given moment, with regard to any pending act of will, there may be a multitude of influences. We may view them collectively as making one resultant influence. But it is more accurate to view them severally and analytically. Some point in one direction, others in the opposite direction; the resultant is the net influence, which may be positive, negative or balanced. Moreover, while volition is still undecided, there may be a range of options; each of these has its own resultant influences, so that the options may be ranked, ordered according to the degree and polarity of influence concerning them.

Furthermore, influences should not be considered as isolated forces, because they often mutually affect each other in some way. Causal chains and structures may interrelate them. This may mean 'mutual reinforcement', such that one gives rise to or increases another, and then the latter generating some more of the former, till both reach a certain stable level. Or it may mean 'mutual counteraction', such that one decreases or eliminates another or vice versa.

Thus, a detailed calculus of influences is theoretically possible, and needed to fully clarify each situation of will. In practice, such calculations are very tentative and approximate, since we do not have sure and precise data. We should also note the difference between identifying and estimating influences before the fact, i.e. as an aid to choice and decision, and doing so after the fact, i.e. as an aid to judgment about a completed volition. In the latter case, we

are taking stock, to reward or punish ourselves by rating, or to learn lessons for the future.

2. Processes of influence

Natural objects or events influence an agent when appearing before him, as objects of consciousness (through his perceptual faculties, outer or inner, or, more broadly, through his conceptual faculties). Such cognitions may generate emotions, imaginations and deliberations in him, as well as consequent actions: these all involve or are influenced acts of will. Emotion involves evaluation, an act of will; imagination is largely willed projection of mental images; deliberation is thought, also largely willed; and of course, action means will.

Also, subjects normally influence other subjects via such natural objects or events. Thus, for instance, a woman may attract a man by walking or dancing in front of him (light), by speaking or singing (sound), by her odors or perfume (smell), by physical contact (touch), by her cooking (taste), or more abstractly by her beliefs and values made evident through the preceding sense data. These external items may generate emotions, imaginations and deliberations in the man, which eventually influence him into appropriate action.

Various subdivisions of influence need to be considered. One may be influenced by *information*, which may be perceptual givens or conceptual insights, whether in the material world or in the mental matrix, arising naturally or through research or by the suggestion of other people (through oral, written or visual means). The information need not be true; it suffices that it is believed. Our individual beliefs evidently influence

our individual actions; moreover, our belief systems give rise to behavior patterns⁵⁴.

One may also or alternately be influenced by *emotions*: felt in the body or in the head, concretely or abstractly. Emotions, of course, often arise in the face of information (be it true or false). Though information may influence via emotions, it may also influence without intervening emotions. Some emotions are apparently ‘spontaneous’, arising without clear relation to any new information; we experience an emotional charge in us, but cannot offhand interpret its origin. This is quite normal; but if it happens too often without rational explanation, it may become a source of anxiety and pathology.

Some people believe, rightly or wrongly, in the possibility of direct ‘spiritual’ influence. In this view, one may transmit ideas to another by mysterious pathways, or even will one’s will on another’s will. In such cases, if influence need not happen through natural objects or events (i.e. mainly via matter), are the mechanics of influence more complicated than normally conceived? In the case of telepathy, this possibility changes nothing essentially; the label ‘influence’ remains accurate⁵⁵. In the case of takeover

⁵⁴ One might add that, conversely, our behavior patterns sometimes affect our belief systems.

⁵⁵ If telepathy exists, it would mean that the thoughts of one person could receive information originating in the thoughts of another. The latter might be an already influential person (a guru, a parent, a teacher, a lover, a friend), but possibly even an unknown person. This could occur in waking hours, or equally well in the course of dreams. It is difficult to account for all dreams with reference only to subconscious volition of scenarios, coupled with

of will or domination, we may simply refer to an effective annulment of the power of will of one subject by another: such overpowering is not ‘influence’ in a strict sense, but more precisely a far-reaching volition⁵⁶, effectively a ‘conditioning’.

As earlier stated, information may influence actions in a roundabout way, as well as directly. The following is a more detailed analysis of such oblique influence in the case of emotions, for instance (similar analysis is possible for all information).

We can, by the way, distinguish three types of ‘emotions’ – visceral ‘feelings’ in the body, some of which are products of physical sensation (e.g. a pleasure during massage or a pain upon burning) and some of which seem of psychosomatic origin (e.g. a person wakes up in the morning with a cloud of anxiety in the stomach area or bubbles of joy in the upper chest⁵⁷ or throat), and purely mental emotions whose phenomenal qualities are very subtle if at all discernable.

It should be stressed that an emotion may be present and felt – but *unadmitted*. In such case, it is said to be ‘subconsciously’ cognized, because one is aware of it with a

‘spontaneous’ eruptions of content from the brain. Dreams occasionally contain totally unexpected scenes, seeming beyond one’s usual creative abilities and too complex for chance. Is the explanation for them perhaps that they occurred by intermingling of two or more minds? Do all minds meet in some ‘collective unconscious’, maybe?

⁵⁶ A sort of telekinesis of among spiritual entities. This would be another hard to prove thesis of ‘parapsychology’.

⁵⁷ I suppose that until modern times people believed the seat of the soul to be in the heart due to the experience of certain feelings in that region.

low or minimal degree of consciousness. This is in contrast to ‘conscious’ emotion, which is more explicitly recognized, which means that *one identifies with it* to some extent, at least enough to consider and deal with it. We may also distinguish between awareness *of* an emotion, and awareness *that it is* emotion; the latter classifies the former, implying an additional cognitive act.

When an emotion occurs, our usual response is to try to explain it, so as to (a) quash it, or at least diminish it, if it is negative, or (b) continue it, if not intensify it, if it is positive. We naturally prefer the positive to the negative (unless we are masochistic, but then the desired positive emotion is further down the line, more tortuous), and cling to what we desire and escape from our objects of aversion.

This response of ‘trying to explain’, is a search for the cause(s) of the emotion or for its exact meaning (besides its being pleasant or unpleasant) – and the important thing to understand is that the interpretations we (or others) suggest are merely hypotheses, which may be right or wrong. In fact, they are very often mere conjectures, i.e. probably wrong, in that the more complex particular emotions usually have multiple causes, and it is hard to establish which of these are the dominant ones even when we manage to list them all.⁵⁸

⁵⁸ Whether emotions are necessarily ‘intentional’, i.e. aim in the direction of some object, is an issue. I think some do and some do not. The latter may just be bodily or mental phenomena without significance. In that case, no interpretation will be found for them. Another question we might then ask is whether all emotions are perceived at some level or they can exist without being ever felt. Again, I suspect the latter may be true.

Thus, emotions influence actions in two ways: simple/direct or complex/roundabout. First, the emotion itself may affect conduct, by easing or obstructing certain actions (e.g. a light-hearted child skips around; whereas a person with a headache avoids movement). Second, the emotion supplies the data around which we construct hypotheses about its causes, and these explanations in turn affect our actions (e.g. thinking I feel good or bad because someone said something to me, I pursue or avoid that person).

Psychologists study *specific* influences, which group together various combinations of the above-mentioned genera of influences. For example, the various categories of influence on one's life might be listed, including one's parents and other family members, one's school teachers, other friends and acquaintances, certain books read (novels, religious documents, histories, philosophies, scientific treatises), the other media (movies, TV and radio programs, etc.), and so forth. Then for each category, the nature of the influence would be ascertained – e.g. *what* did one's father or mother influence? Perhaps one's moral inclinations, one's manners, one's choice of spouse, or one's political beliefs. And *how* did such transmission occur? Perhaps by example, by preaching, or through some shared experience. A nexus of information and emotions is involved.

3. Instincts in relation to freewill

With regard to the statement made that all volition is freewill, we have to answer a question concerning *instincts*, i.e. seemingly inherited (or at least individually innate) environmental information and behavioral responses that are

not mere reflexes. How are certain surprising observed behaviors to be explained? How come all members of a species behave in the same way in the same circumstances? Can some cognitive data be genetically stored and passed on? Can some volitions be controlled by genetic factors?

For a start, we should avoid confusion between intentional acts and acts with certain incidental consequences. In both cases, there is will, indeed free will – but the former are consciously aimed at some goal, whereas the latter *only seem* to have a certain direction to an ex post facto observer. The *intention* of instinctive acts is obscure, vague and internal; it is not to be confused with the biological *utility* of such acts identified by scientists. The instinctive act responds to an inner urge, in a way that calms or gains relief from that urge. The soul's consciousness is focused on that urge, and the will's aim is to answer that pressing demand anyway it can (whether the 'how' is immediately evident, or has to be discovered or learned). The soul is not told 'why' it has to do it, i.e. need not know what the life-sustaining value of its instinctive response might be. The *urge* to so act, on the other hand, may well be viewed as 'programmed' by nature (i.e. a product of evolutionary selection).

Consider for example a baby sucking at its mother's bosom. The action as a set of mouth muscle movements is one we would consider volitional, yet we would not seriously suggest he has consciously directed his muscles for feeding purposes. The baby's volition is surely influenced by hunger and perhaps by the smell of its mother's milk. In such cognitive context, there may be a number of reactions the baby's volition may choose from, including sucking, crying, waving arms, say. In this sense, the baby *has choice*. But it just so

happens that sucking movements are the primary choice, the most likely choice, i.e. *the easiest* option in the range of available options.

Thus, the event involved is equivalent to trial and error learning, except that *the first choice volition is influenced to take* is the 'right' one. The other options are therefore not tried.⁵⁹

Thus, 'instinct' is a legitimate and definable concept: it may be fully assimilated to our concept of influence. The volition involved in instinctive acts is not exempt from freedom and responsibility. We can therefore side with the proposition that genes do not transmit foreknowledge of the environment or complex living skills. Technically, the influence of instinct functions exactly like any other influential item. ***Simply, an instinct is an innate influence, which may or may not be partly affected by environmental circumstances or their cognition; and this influence happens to be the most powerful of other innate or acquired influences.***

Influences are not all equal: this is true in all contexts, as we have seen, and not just with reference to instinct. Influences

⁵⁹ Similarly for animals. For instance, in the case of a baby turtle rushing to the sea before predators get it, after its egg hatches on the seashore. How did the poor beast know the danger and where and how to escape it? I have not studied the matter; but may suggest possibilities. It may well be born with a nervous urge to run immediately, a sort of angst it gains relief from by running; the issue is then what makes it run in the specific direction of the sea? Perhaps the smell of the sea, the breeze, the light or the temperature influence it. In any case, we need not assume some mysterious source of innate knowledge on its part. It suffices to say that the influences, whatever they be, are such as to favor that behavior rather than other possible alternatives.

are of varying effect on volition; some influences are strong, some are weak; they may be ranked. Influences are all operative simultaneously on the soul about to will; but the soul is most likely to will in the easiest direction, i.e. the one in favor of which the influence is strongest, loudest, most manifest. That this direction is consistently taken by a baby or a lower animal does not imply that other options are in fact absent; they are indeed present as potentials in the background of the volition, only being less influential they are less likely to be felt or acted upon.

For a more mature or more spiritually developed soul, the easiest option is not always the one taken; the soul has discovered its own volitional power, and can therefore choose less obvious directions. Note that even an animal may swerve (or be influenced to swerve) from its instinctive path; for example, a dog trainer can get a dog to resist its hunting instinct and obey the injunction to walk on when it comes across some prey.

In formal terms, we may refer to a disjunctive proposition, where “P or Q or R...” are the alternatives open to volition in given circumstances and influences. However, P may be more likely than Q, and Q more likely than R, etc. In such case, the agent will ‘instinctively’ opt for P, the most obvious and influential choice, although he may eventually discover his capacity to opt for Q or even R, notwithstanding their being less manifest and influential.⁶⁰

⁶⁰ Note that I use a similar schema of ordered disjuncts in my work *Future Logic*, with regard to ‘factorial induction’ (see part VI).

4. Liberation from unwanted influences

When we meditate on our internal workings, we can easily see the force of inertia existing in us. It is very evident that though we may to some extent have freewill, it is not always and everywhere immediately operative. Thoughts, imaginings, memories, emotions, faces, musical tunes, words – may go on and on for hours, without our being able to stop them or channel them for more than a few seconds, if that. It may however be possible to control such dull mental activity in the long run, thanks to disciplined spiritual exercises like meditation. Thus, freewill seems to exist, not in all things ‘at will’, but often only by ‘working on oneself’ over time, i.e. going through a time-consuming process.

This is how the yearning for inner *liberation* may first arise. Once we have witnessed our own incapacity to concentrate our will over a period of time, we are appalled and become anxious to remedy this weakness of the will. Some philosophers think the solution to be asceticism, considering that most of the force that drags us down into such endless chatter of the mind is the body’s innate desire for food and drink, physical comfort, sex, and so forth. Others argue that more pondered methods must be used to overcome mental scattering and sluggishness.

Many people are not even at the level where they are concerned with the ongoing obsession and anarchy inside their minds, but are rather frightened by some of their compulsive external behavior patterns, such as anti-social anger and violence, or self-destructive and socially dangerous lust, for examples. Such actions may be viewed in religious

terms as sins, and fought by prayer and other pious deeds; or they may be confronted in a more secular perspective. But what concerns us here is their relationship to freedom of the will.

Every punctual or sustained attempt to gain ascendancy over such subtle or coarse tendencies is an expression and affirmation of freewill. Self-mastery is possible, if we do not 'identify with' the influences on our will, i.e. if we do not say or think of them 'this is me' or 'this is part of me'.

But in addition to the influences already within us, in the way of thoughts and feelings, we may need to look further out and consider the way nature and other people condition and influence our mental and physical actions. I will have different life-support issues to face if I live in a hot country or in a cold country. If someone imprisons me, or creates a totalitarian society around me, it affects the things I need to think about and what I may do or not do. The contents of my thoughts are affected by my environment.

Anything that affects our subjective world, or objectively broadens or narrows the choices open to us in our life, anything to be taken into consideration in the exercise of volition, is an influence. If it is considered good, it facilitates our pursuits; if bad, it makes things more difficult for us. We logically prefer the former, and so far as possible oppose the latter.

Volition is capable of being influenced, but is also capable of overcoming influences or diminishing their impact. This is made possible through a policy of awareness, or mindfulness – 'working on oneself'.

5. Propositions about the future

Volition is expressed through propositions of the form “A wills W”, which may be called ‘volitional propositions’. Although the simple present tense is needed to discuss volition as it occurs (whether in categorical or conditional propositions), mostly we use such form in the past or future tenses. Usually, except for introspective reports, we only know after the fact that “A wills W” was true: i.e. such a proposition is derived from the past form “A **willed W**”. The future form “A **will will W**”⁶¹ has always been of especial interest to logicians and philosophers, because it seems to claim as a fact something that depends on free will and therefore cannot strictly be predicted with absolute certainty.

Many propositions less explicitly involve prediction of free will, yet depend for their truth on the will of someone or those of many people. For example: “the sea battle will take place tomorrow”. It should be noted that *such propositions about future will(s) are not only about volition, but also about the amount of influence on volition*. In our example (it is actually Aristotle’s), the likelihood that the prediction come true is very high (though not absolute), because all the people involved are so entangled in their war that it would be very difficult (though not inconceivable) for them to make peace overnight. Thus, propositions about influences involved are tacitly implied.

⁶¹ It is no accident that the same word “will” is used both for volition and for the future tense. It has the same etymology in either sense [O.E. *willa*].

All forms concerning the relation of influence may be called 'influential propositions'. This includes positive forms, like "X influences A to will W", and their negations, like "X does not influence A to will W". Also, as we have seen, the extreme terms may be replaced by their negations – X by notX and W by notW. As for the middle term, A, there is no point considering its replacement by its negation, notA, since that would not refer to an agent; we can only substitute another agent, say B or C. A subspecies of influential forms are the forms of incitement, such as "X incites A to will W" and its derivatives.

One common form relating to both volition and influences thereon is "**When/if X occurs, then A will do W**" - where (i) X is any influential event, i.e. a natural (deterministic or otherwise) occurrence and/or a volition by self and/or other(s), which agent A is aware of or falsely believes to be true prior to acting, and (ii) agent A is any person or group of persons or other volitional entity or entities, and (iii) W refers to some act(s) of will by agent A (individually, in parallel or collectively), which act(s) of will may simply be a decision taken but not yet carried out, or a partly sustained process, or a process sustained to its conclusion, successfully or not.

Such forms may be referred to as 'personal conditionals' in that they resemble logical, natural and other types of conditional propositions. However, they are different in important respects. The antecedent here is an event that has not only to occur but be perceived to do so, or alternatively it may even just be wrongly thought to occur - by the agent(s) concerned. The consequent is connected to the antecedent not through some logical or natural necessity, but through the personal *resolve* of the agent(s) concerned, which may be of

varying strength - which means that though the consequent uses the copula "will do" it is at best probable but never certain that the agent(s) will bring it about. The proposition as a whole can of course nevertheless be declared true or false, according as all its intended conditions are fulfilled or not.

Note that the proposition "When/if X occurs, then A will do W" does not strictly tell us what A will do when or if X does not occur; we should perhaps rather state more clearly "Only if X occurs, A will do W" to distinguish this from "Whether X occurs or not, A will do W". We may classify personal conditionals as a category of *de re* propositions, different from natural, temporal and extensional conditionals; they are not, however, to be confused with logical conditionals, and in particular not with material implication (which is a subcategory of *de dicta* proposition, and not at all *de re* as its name might lead one to suppose).

Detailed formal study of these and other such forms is beyond the scope of this book, but the job needs eventually to be done by someone.⁶²

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But see **Appendix 1** for some additional comments on this topic.

7. THE WORKINGS OF VOLITION

1. Cultural context and epistemological considerations

My purpose here is to propose a theory of volition; or more precisely, a theory of the locations and sequences of its operation, because at this stage a formal definition of volition as a causal relation is still not ripe. It is always useful to at least broadly conceive a scenario, even if some crucial details may be missing. It need not even be immediately sufficiently clear to be decisively tested.

My approach in this research ought to be clarified. The issue of volition is an ages-old philosophical problem. It is so, not through the invention of philosophers, but because philosophers understood the need to reconcile two givens: one being the inner certainty most people have that they possess some powers of choice and responsibility for their actions, and the other given being the extreme difficulty in putting this concept of will into words and justifying it somehow. Furthermore, the issue of volition is not idly speculative, but has enormous practical consequences – psychological, moral, spiritual, social, legal and political ones – for every human being.

Over time, many solutions to the problem have been proposed, ranging from outright denial of volition (mechanism, behaviorism), through very pessimistic and very

optimistic lyrical appraisals of human potential which made various claims without addressing the formal issues, to metaphysical and mystical beliefs that could perhaps be accused of overkill.

My own approach to philosophical problems has always been to try my best to justify ordinary beliefs, but in a critical manner, without naivety. As a product of the 20th Century, I am inclined to pay due respect to science and avoid metaphysical flights of fancy. Nevertheless, I am far from being a pure materialist, and keep an open mind with regard to mystical traditions. My philosophical policy is to try to include rather than exclude, to find the common ground of opposite doctrines so far as possible, to remain moderate and down to earth.

To ensure a mature and sane approach, we must first and always be attentive to methodological issues: *never to claim an item of knowledge without at the same time considering how such claim itself is to be justified*. I favor a phenomenological approach, which is at all times aware of the amount and nature of experiential content in any conceptual construct. This must be backed up by repeated logical review, based on inductive as well as deductive principles, including the said reflexive self-revaluation.

Thus, with regard to the problem of volition, we must first try and formulate a minimalist thesis, as close as possible to the belief system of ordinary people and to the materialistic science culture of the day, before opting for more far-fetched theoretical constructs. It is a principle of abduction that the simple is always preferable to the complex. The primary issue in volition is just *to conceive* some coherent, plausible theory. Just to imagine some scenario, pictorially and in

words, is hard enough. Secondly, of course, such conceivable thesis must be empirically tested so as to gradually reduce its speculative status.

With regard to methodological standards, it should first be pointed out that all concepts, however speculative, are based on some experience. Without some sort of experience, however subtle and frail, no conception or conceptualization is at all possible. Under the heading of ‘experience’, we must however include not only physical experiences (sensory data of any sort), but any phenomenological content – including mental projections (images, sounds, memories, imaginations, anticipations) and last but not least intuitive introspections (personal cognitions, valuations, volitions, intentions, meanings). To limit admitted evidence to physical sensations, arbitrarily omitting all introspective data, is misleading.

Secondly, it is important to realize that every theory, however confirmed in experience, is still to some extent speculative. Those who claim that only their extreme materialism is scientifically acceptable, and who accuse all mental or spiritual doctrines of being mere speculation, are just pretentious. What gives a theory ‘scientific status’ (in the large, correct sense) is its adherence to all known and cogent rules of inductive and deductive logic. What makes a theory preferred at any time is not its materialistic content, but its being the most consistent and confirmed available hypothesis. Science is not a prejudice, or the reserve of some modern equivalent of an established priestly caste. It is open, flexible and democratic, in the power of those most experiential and logical in their approach to knowledge at a given time.

As we shall see, a common error in aetiology today is to confuse the concept of *natural* causation with the narrower concept of *physical* causation. Logical analysis of the concept of causation makes it a purely formal issue of presences and absences of possible things in conjunction and separation. Thus, the paradigm of natural causation, its strongest determination, is definable as “if X, then Y; and if notX, then notY” (or “X and notY is impossible; and notX and Y is impossible”) – where X, Y, notX and notY are each potential things⁶³. The “things” involved need not specifically be concrete physical objects, but may be abstracts from such, or again mental phenomena and their abstracts, or even things intuited within oneself. *This form has no intrinsic limitation to physical terms*, note well. So, there is no logical basis for the insistence by some that natural causation is exclusive to physical events, and refers to a physical law.

All the defensive remarks above are addressed preemptively to certain categories of philosophers. As we proceed with our theory of volition, the reader will see that our approach is balanced and fair. We will try to satisfy all legitimate concerns of the modern mind, while however allowing whatever concepts are necessary (mind, soul) to avoid throwing the baby (volition) out with the bathwater (metaphysics). We will try to be transparent, and evaluate the justification of any idea presented, but keep in mind that in

⁶³ Thusly, in the natural mode of causation. But we may also count as “natural” in a larger sense similar relations with extensional modality, although the latter are in some respects also akin to logical causation. See my *Future Logic* and *The Logic of Causation* for full presentation of these concepts. I shall keep things simple here.

some cases a scenario has to be laid out before its validity can be discussed.

2. Theoretical context

I must, to start with, remind the reader of certain aspects of my world-view and terminology, developed in previous works⁶⁴.

I acknowledge three domains of existence, called the physical (or material), the mental (or imaginary) and the spiritual domain (or soul sphere). These correspond to three categories of experience, namely sensory perceptions (through ‘bodily’ sense organs, including visceral emotions), corresponding mental projections (images and sounds perceived ‘in one’s mind’, including memories, dreams and daytime fancies, and anticipations), and intuitions of self (inner knowledge of events without phenomenal attributes, such as one’s cognitions, valuations, volitions). Conception refers to abstraction from such data, involving comparisons of measurement. And conceptualization, proposition, inference, thought are further derivatives of all the preceding.

All these items of experience and conceptual knowledge are to be regarded phenomenologically to start with. That is, they need merely be taken as neutral appearances, leaving aside definite judgment as to their reality or illusion till a thorough process of logical evaluation has been carried out. More precisely, appearances are to be considered real, until and unless reason is found to consider them illusory; for the

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Notably, my *Phenomenology*.

concepts of reality and illusion have no meaning other than with reference to appearance.

Colloquial use of the term “mind”, note, would include within it both the individual soul and mental content, because most people have not made a clear distinction between inner perceptions and intuitions. I prefer using the term “psyche” to refer to this soul-mind complex. Also note, to most people the term “spiritual” connotes disembodied ghosts, or mystical out-of-this-world chimeras. But in my writing these terms are more limited: when I use the term “spiritual”, I just mean “pertaining to the soul” and when I use the term “mind” I usually mean “the sum total of mental phenomena”. “Subjective” is another term I usually use very specifically, to mean “in or of the subject”, i.e. with reference to the soul. Note this well to avoid confusion.

My understanding of the “soul” is that it corresponds to the self, the entity apparently at the center of all cognitions (soul as subject) and volitions (soul as agent), as well as valuations (which involve both cognitions and volitions, and also mediate between them). Its substance seems distinct from that of material and mental phenomena, so it is distinctively labeled as spiritual. This appellation, spirit, also serves to stress the experiential difference of soul and its said functions, namely that it has per se no phenomenal qualities (color, brightness, shape, sounds, etc.), so that it cannot be perceived but only intuited. All phenomenal qualities seemingly in it are to be distinguished as projections in the mental domain, note. Even so, the soul cannot logically be a mere abstraction from physical and/or mental events perceived, because that would not explain how individual

events within it are known (i.e. what I am now experiencing, believing, preferring, doing, etc.).

We may ask the question: Do consciousness and will exist? The answer to that is: *Both consciousness and will are self-evident in the question being asked and understood.* Without them, there would be no research and no meaning to its results.

Granting they exist, the next question concerning them would be: What are they? *Since we cannot perceive them, either in matter or in mind, they have no phenomenal qualities; they must therefore either be intuited or conceived, or both.* They are certainly conceivable: we may logically construct hypotheses as to what they might be, and see how such theories work out in the long run in the light of all experience. The theory that seems inductively most fitting is that they might be events or *relations, between subject and object, agent and act.*

The role of subject/agent is not to be filled by matter/body or by mental-stuff/mind, because the latter are too varied and changing. A postulate of soul, as an entity of some third substance called spirit, allied with mind and body, is therefore put forward, instead, to fill that role. However, conception is not enough, because it only yields general abstractions, and cannot explain our common daily experience of *particular* events of consciousness and will. The latter can only be explained by supposing non-perceptual experiences, i.e. intuitions.

From one's own soul (the center of cognition and volition), and its apparent interrelations with one's own body (the closest segment of matter), and the existence of other similar, bodies with comparable behavior, one may infer the existence of other souls by analogy. The simplest theory of soul is that it is an "epiphenomenon" of matter – i.e. when matter comes together in certain specific combinations (organic molecules, living cells, animal organisms of some complexity) a soul is generated over and above such matter; the justification of this theory being that such soul needs be assumed to explain certain observations. This is the interpretation of soul most acceptable to modern predispositions, the closest to materialism, and we may here accept it as a working hypothesis.

There are other theories of soul worth mentioning. The religions of Judaism, Christianity and Islam, considerably influenced by Neoplatonism, seem to favor an idea of soul as an individual entity temporarily residing in, or associated with, a material body and its mental prolongations, but potentially surviving physical death and capable of disembodied existence for spans of time. Religions originating in India wax more mystical, and conceive of a universal soul of which all particular souls are fractions (*atman*, in Hinduism), or at least of a universal ground of being or mind from which individuated selves crystallize by a trick of illusion (*anatman*, in Buddhism). But in fact, the present analysis of volition does not require us to opt for any particular doctrine of soul.

With regard to the identification of the self with an illusion of consciousness, which is found in some Buddhist texts and becoming more popular in the

West today, it seems to me that a misuse of the term ‘consciousness’ is involved. Consciousness is not, as they seem to suggest, a sort of stuff, which can become ‘delusive’. The substance of ‘mind’ (in a large sense, i.e. all of the psyche) is two-fold, in my view, comprising the stuff of soul (spirit) and that of mental projections (memories, imaginations, and the like – the ‘mind’ in a more restricted sense). As for consciousness, it is *a relation*, between two terms, one called the subject (any soul) and the other called the object (be it spirit, mind or matter).

Consciousness has no consciousness of its own. The relation it constitutes is unequal, involving at one end something cognized and at the other end something cognizing. The former exists at least as appearance; the latter ‘apprehends’ or ‘comprehends’ this appearance as an ‘experience’ or an ‘abstraction from experience’. Consciousness is never the subject of the relation of consciousness; it is usually the relation, and occasionally (in the case ‘self-consciousness’, which is a misnomer⁶⁵) additionally the object. Consciousness or awareness is a function of the soul (subject), and not identical with it. Consciousness may have as its object contents of mind, but that does not make the two the same.

Buddhist philosophers and their modern imitators tend to blur the distinction between the three terms: soul, consciousness and mind. This tacit equation or

⁶⁵ Because it is the soul that is conscious of its consciousness; i.e. one instance of consciousness by the soul turned on another instance of consciousness by the soul.

ambiguity serves to give certain of their pronouncements a semblance of psychological and philosophical depth and consistency. For it allows us to assume one meaning or the other as convenient to the context, without having to systematically harmonize the different meanings⁶⁶. Such a ‘fuzzy logic’ approach is lazy (if not dishonest), and in the long run obstructs knowledge development in this field. We must admit that three terms are used because we are dealing with three distinct objects. It is not arbitrary hair-splitting, but objective precision.

Although I tend to draw it as a circle in explanatory diagrams (as in the figure further on), the soul should not be confused with such material or mental images standing in for it. It is important to remain aware that since the soul is intuited and not perceived, it has no concrete phenomenal qualities – and therefore *no shape, no size, no extension, no location* in material or mental space. If our body and mind seem to be the habitat of our soul (and we have the impression that our soul is centered behind our eyes though coterminous with all our body), it is due to the fact that our experiences *of body and mind* are the most proximate in our perspective, and not due to our soul being experienced in a place. The soul may however have time limitations, since these are not phenomenal per se. Once we grasp that the soul is without phenomenal boundaries, the various views about it mentioned above seem more easily reconciled.

⁶⁶ From a formal logic point of view, this is a common expedient to conceal *a breach of syllogistic rules* – in particular the ‘fallacy of four terms’. Thanks to an ambiguity, predicates applicable to one subject are illicitly passed over to another.

Another preliminary clarification worth making concerns the relation of souls, mind and matter. It is conceivable that mental projections occur directly from soul, but I tend to assume – so as to remain as materialist-friendly as possible – the minimalist thesis that mental projections always occur via matter. That is to say, the soul signals to its underlying brain what it wants it to mentally project, and the brain cells more or less obediently do the job of projection, after which the soul “sees (or hears)” with its “mind’s eye (or ear)” the projection. The advantage of this assumption is that we can explain why mental projections are not always quite voluntary or exactly as we wanted them. The brain seemingly can and often does make mental projections of its own.

Nevertheless, we can remain in principle open to the idea of *telepathy*. Without wishing to definitely advocate it, I must at least consider its conceivability, since I sometimes seem to experience it. We could minimally claim that telepathy occurs through some yet undiscovered material medium, perhaps electromagnetic waves; and thus that telepathy operates through the nervous system like any other object of sensation. Or we could more radically suppose that souls can project images into each other’s mental domains; this would imply that mental domains stretch across or transcend space. Or we could more radically still opt for a spiritual explanation, adhering to the metaphysics that all souls are ultimately one. This is said in passing, to be exhaustive, without intending to definitely affirm any doctrine.

I tend to anyway think that mental phenomena are a peculiar product of, if not kind of, matter, since the phenomenal qualities composing both are the same (or at least all those of the mental domain are to be found in the material domain, though it may be that some in the material domain are absent in the mental domain). What seems evident is that the sights and sounds we mentally project are recombinations of sights and sounds earlier absorbed through our physical senses.

Furthermore, the mental and material domains seem to share space (unlike soul) as well as time. Mental projections are usually thought of as occurring in an inner space; but if we consider hallucination (e.g. seeing your glasses on your nose after you have taken them off), it is clear that they can seemingly extend into the outer space that matter inhabits. Indeed, this power of apparent outward projection of mental images is a fundamental cognitive tool, making it possible for us to “mentally” dissect and bound phenomena for the purpose of selecting discrete percepts from which concepts are constructed.

Considering all this, it is often more appropriate to treat mind as matter, in an enlarged sense of the latter term. Certainly, the “laws of thought” (identity, non-contradiction, and exclusion of the middle) apply in the mental domain as in all others. We may well imagine both “a thing” and “its contradictory” coexisting in the same field, but in truth the two items mentally co-existing are distinct images or verbal symbols intended to refer to the former. As regards the latter phenomena as such, each of them is indeed *present and not absent* in a certain time and place, in perfect accord with the said laws.

But even so, we should note that mental phenomena do not seem to interact among themselves as material ones do. It does not seem like mental phenomena directly produce other mental phenomena. Rather, if two or more mental phenomena display constancies of conjunction or separation, we tend to regard the superficial causation as more deeply due to the soul's repeated choices, or to physical laws operating in the brain making it project such regularity. We do not consider mental projections as having the necessary continuous existence, much as we would not consider the light and sound events in a movie as really having any causative relation to each other.

The explanation of the peculiarity of the mental domain should not however be viewed as due to a flaw in our formal definition of causation, as in the preceding suggestion that regularities may be "only superficial". There are two reasons we believe that causative relations may be discounted in the domain of imagination even when temporary and local regularities appear. One reason is our lifetime experience of the great variety of imagination: *anything can be imagined in combination with anything else* (e.g. a 'giraffe' shape may have the shape of 'wings' added to its back and be blue all over); this does not offend the laws of thought, as already explained. The other reason is our personal intuition that we have some degree of control over mental phenomena: *in this domain, if we will some image, it appears; and if we will its absence, it disappears*.

Because mental phenomena are not as heavily "substantial" as material ones, we tend to associate them more with the soul. Such association is reinforced due to mental projections seeming directly accessible to perception by the soul, and

seeming for the most part under the soul's power to manipulate. Furthermore, at least thus far in human history, mental phenomena are a private spectacle to a given soul, not something publicly accessible. In those respects, mind is regarded as an aspect, or at least a property, of soul. To conclude, it is very doubtful that the mental domain can exist apart from soul and body.

It is worth focusing for a moment on the *utility* of the mental domain. The soul (the subject of cognition and agent of volition) and the brain (the presumed physical apparatus underlying thought and action) both use the mind or mental 'matrix', let us call it, as a screen on which to project visual and auditory images (and possibly 'images' in the other phenomenal modalities: smell, taste, touch, emotions).

People use their mind as a *medium of communication* with themselves, first and foremost; more broadly, with other people or animals, alive or dead, and even with God (the latter practices, when they go beyond mere rehearsal of future material dialogue, imply a belief in telepathy of sorts, i.e. in the ability to send thoughts across space and time). Monologue is thus dialogue, and dialogue is often monologue. The mind serves as a sort of versatile, erasable drawing and sounding board, facilitating speculation, imagination of alternatives, and so forth.

The mind is also used as a medium of 'communication' between soul and brain. When the soul, via the brain, projects images, the brain incidentally records (in machine language, as it were) what has been projected. I see no reason to locate memory storage anywhere but in the brain; memories are not kept in the soul or mind. Moreover, the brain provides information for cognition by the soul through the mental

matrix. This may be mere recall (memory of past sensations, emotions, imaginations, verbal thoughts), or it may be reshuffled memory that signals present sensations or emotions by associations and symbols.

That is to say, what appears in the mental matrix is not necessarily voluntarily produced by the soul, but may come in part or in whole from the body via the brain. And in the latter case, the brain does not simply bring up relevant or irrelevant data from its memory stores as is; it often ‘manipulates’ this data, supposedly as a way of informing the soul. Dreams are often so understood; but the same applies to daytime fantasies. In meditation, one sees how much of such involuntary chatter and fictional image projection is going on, of which we are ordinarily barely aware but which has considerable influence on us.

3. Stages in the process of volition

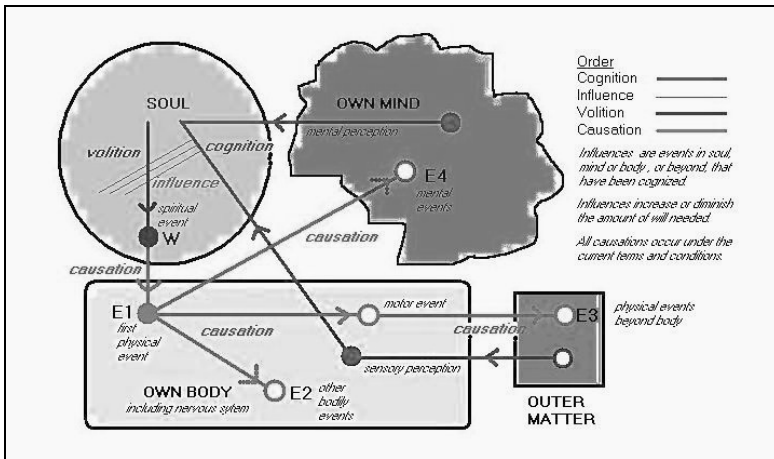
Our present proposal is *to locate the act of volition proper entirely within the soul performing such act*. The reader is now referred to Figure 1, below, which is a schematic presentation or map of the process of volition.

a. It is proposed, then, that the soul spontaneously generates within itself some modification labeled W. The primary event W does not spontaneously arise in the sense of a chance natural event – it is ‘produced by’ and the ‘responsibility of’ the soul concerned (i.e. the agent), these terms being here understood intuitively and with reference to our various clarifications of volition thus far and further on. The event W is thus, note well, a purely spiritual event (the term spiritual being intended to mean ‘pertaining to the soul’,

conceived as having a distinctive substance labeled ‘spiritual’). Note that the event W may be supposed transient – it need not permanently mark the soul.

Once it has so emerged from the act of volition proper, *the spiritual event, W, in turn causatively gives rise to some first physical event, E1, which may in turn causatively give rise to other physical or mental events, E2, E3, E4, etc.*

Figure 1. Mapping the process of volition



Note well that, strictly speaking, in this theory, the first physical event is not a product of volition *but of causation*. It is nevertheless an exceptional causative transaction, in that it has a spiritual event as cause and a physical event as effect. Still, as we have earlier explained, the causative relation as we have formally defined it (as conjunction or separation of certain presences or absences) does not specify *what*

'*substance*' the terms related may have. Nothing a priori excludes the spiritual, mental and physical domains from interacting causatively every which way. For example, as we shall suggest further on, a physical event may cause a mental one.

The position that will as such occurs entirely within the soul is here taken in an attempt to mitigate the concept of volition in the eyes of materialist critics, by relegating the issues involved to a distinct domain, that of the spirit. Such isolation allows physicists to continue going about their business, formulating principles concerning natural causations and natural spontaneities, without having to reflect on the problem of volition.

However, note that we could equally well consider that the first act of volition has the first physical event (E1) as its *direct* result. The advantage of this position would be to eliminate the spiritual event (W), which could be construed as contradicting the essential *unity of the soul*, which seems necessary to personalize it (the soul). However, such a doctrine of extreme uniformity or homogeneity of the soul is (in my opinion) impracticable, because we have to suppose that all sorts of complicated events do happen within the soul, in cognition, valuation and volition.

It suffices, I think, to consider the soul as not permanently marked by its will or other episodes (influences or conditions); it remains essentially itself come what may, it retains its original purity and identity. I tend to visualize spiritual events (like W) as creases or more dynamically as undulations in the soul – i.e. I take the term '*stirring*' we often use in volitional contexts literally. Spiritual events are particular, temporary stirrings in or of the soul.

But anyway, it could be argued that the said alternative position, placing the first effect of volition outside the soul, would not greatly affect our view of nature. For we must admit that the first physical event, whether it in fact arises from volition indirectly or directly, will appear to an observer of the material domain alone as a causeless event – i.e. as naturally spontaneous – since such observer would be unable to discern any *physical causative* for the event. Our theory here is, however, that such first physical events, if we could pinpoint just where to look for them, are not truly causeless, but caused either directly or indirectly by volition. Thus, the theoretical issue as to how soon the first physical event arises can be left open.

With regard to *the location of the first physical event* after volition, we can safely predict that it occurs in *specialized* neural cells or combinations of cells⁶⁷, most probably in the brain (though perhaps sometimes in the rest of nervous system). For we may readily assume that *telekinesis*, the volition of physical events at a distance, is impossible. Most people (myself included) make no claim to telekinesis and have no incontrovertible vicarious experience of it. Some parapsychologists do claim evidence for it, but their experiments so far are (to my knowledge) regarded as technically flawed by the majority of scientists⁶⁸. Thus, it

⁶⁷ Such cells might be referred to as physical ‘receptors’ of volition. They have to form part of a living organism, needless to say.

⁶⁸ If such assumption against telekinesis turns out to be empirically wrong, we can readily adapt our theory of volition accordingly. It is not a central issue in the present discussion. I make a reasonable assumption, based on my knowledge context.

seems likely that volition cannot act on the world beyond our own body except causatively through that body; and even within our own body, volition cannot act directly on all organs, but only on some, after which causation takes over.

Concerning *mental* phenomena, it is suggested in our above diagram that they emerge from physical ones, whether the latter had their source in volition or emerged entirely from physical causatives. While it is not unthinkable that soul can will mental events directly, without passing through physical events, I tend to favor the more materialist position on the basis of arguments already put forward.

Thus, the phenomenal aspects of thought (which involves imagination of visual and auditory phenomena, including inner words) and speech (producing outer words – gestures, sounds or writings, symbolizing meanings), as well as perceptible action (other physical products, which may impact on nature or on other souls, or even reflexively on one's own soul), are all products of will external to the soul, occurring via physical events (in the central and peripheral nervous system, including the motor system). But the intentions of thoughts, speeches and actions lie in the soul, influencing the latter to will them into being.

In the light of the present presentation of volitional processes, we could distinguish four levels of volition, involving a progressively diminishing personal control of events. The deepest level is volition within the soul: that is pure volition, which is free. The second level is volition of the 'first physical event': this already involves causation, if only in

My method is to stick close to generally accepted fact, and not engage in speculations that might seem like flights of fancy.

that the terms and conditions must be right for such event (e.g. a functioning brain). The third level is volition of further mental and bodily events: here, the admixture of causation is much larger (as more and more terms and conditions have to be appropriate). The fourth level is volition of external physical events and social events that ensue: here the measure of personal control of events is least.

b. Let us now consider *the issue of influence*, with reference to our earlier definition of this causal relation. The *area of operation of influence*, i.e. where influences influence, the place in the volitional process where influence is operative, is between the source of the volitional act within the soul (agent) and the primary result of the volitional act (event W, in our scenario). Within this ‘space’ in the soul, influence either makes it possible for the agent’s will to succeed with relatively less effort (positive influence) or increases the internal resistance his willpower must overcome by increased effort (negative influence). We can picture this space of influence as analogous to a field of force.

But this area of operation of influence is only the last stage in the process of influence. As we have seen, the things that are influential may be internal to the soul (spiritual events, such as prior attitudes) or external to it, being mental events (such as memories or imaginations) or bodily events (such as sensations or visceral emotions) or events occurring beyond the body’s boundaries (be they natural or artificial). Whatever their nature, these things must be *cognized* to be influential – whether such cognition be perceptual (of mental or material phenomena) intuitive (subjective) or conceptual (abstract).

Thus, to trace the whole process of influence, we must consider the cognition that gave rise to the internal forces aiding or opposing volition, and prior to that the objects of that cognition. It is important to emphasize that the power of influence depends on *belief* only. It does not matter whether a volition is based on true knowledge or false opinion; it suffices that we believe what we have cognized is real enough. Superstitions may be as influential as scientific facts; indeed more so, since the former unlike the latter will not be readily abandoned if experientially or logically refuted.

Thus, the cognition involved may be realistic or illusory, logical or irrational, correct or incorrect, knowledge or opinion, certain or unsure – its epistemological status is irrelevant to its force of influence, so long as it is believed in. But additionally, the *degree* of belief obviously plays a role (e.g. if I am unsure about the efficacy of a certain course of action, my will is likely to wobble). Inversely, objects that are not cognized cannot be counted as influences.

Influences, then, subjectively produce a sort of field of force in the soul, emanating from the place of their cognition into the space where volition erupts, facilitating or hindering the latter's aimed at result.

With regard to *effort*, certain clarifications are worth making, here. The emotion of effort, perceived during physical or intellectual work, should not be confused with the more abstract concept of 'effort' we have introduced in relation to our analysis of volition and influence. The latter is only called effort by analogy⁶⁹, referring more precisely to degree

⁶⁹ In the same way, Isaac Newton developed the mechanics concepts of force and work by analogy to the emotion of effort

or intensity of will applied in the presence of positive or negative influences. Emotions of effort are concrete phenomena, felt in the body or inside the head. Being perceived, they may and do *influence* volition; but they are not the same as the subsequent ‘effort’ in will. The latter is non-phenomenal, known intuitively by the self, and occurring within the soul; it is an aspect of a spiritual event, viz. willing.

c. Closer inspection reveals that there are often *preliminaries to volition*, in the way of subjective self-positioning. Volition might be supposed to sometimes occur without particular motive or intention, as pure whim; but even then, the agent may not be totally blind to context, and aim his whim in a particular direction, leaving it indefinite only in some respects. In any case, normally some preparation is involved before launching one’s principal act of will. This may be quick and easy or require much time and effort. Furthermore, an act of volition may be temporarily interrupted while some unanticipated side issues are resolved.

There is a prior activity of *reconnaissance*, researching and gathering data of potential relevance to action. This newly-cognized or recalled data (be it practical or theoretical) will of course influence the direction and intensity of volition. But the way it does so is not so direct: an *evaluation* is needed first. The latter is itself no simple act, but involves *conceiving alternative scenarios*, which implies mental projection. Once the possible or anticipated courses of events have been visualized, and comparatively evaluated, a *choice* is made as to which one of them will be pursued.

attending pushing and pulling, lifting and lowering, and environmental changes they cause.

Moreover, having clarified the *purposes or goals* of one's action, one will *investigate and deliberate on the means* to achieve them. This stage is itself complex and gradual, as more information may need to be sought and experiments may need to be made, with tentative steps and repeated adjustments all along. Finally, a *decision* is made, and *effort* begins to be applied in the direction intended. As such effort encounters the help or obstruction of influences, it is reduced or intensified. Unless a new decision intervenes, the will is repeatedly reaffirmed and reoriented, until the intended result is achieved.

Preparation and execution of volition may be *variously efficient*. One may be reluctant or lazy to act, or eager and energetic. One may be always alert and proactive, or forget some things and fail to anticipate others. One may take the unexpected in stride, or allow oneself to be perturbed by every little obstacle. One may be quick to adapt to changing conditions, or negligent in taking appropriate action. All these betray one's attitudes – whether one is in earnest or half-hearted about one's will – and they of course affect one's performance.

Each stage in a volitional process may involve *subsidiary acts of will*. Will is often 'empirical', a trial and error process, since we are neither omniscient nor omnipotent. Attempts are made, which may fail. With perseverance, other attempts replace them, which may succeed. The way is never absolutely certain, except in very limited segments of will. The (direct or indirect) volition of an external (physical or mental) event is usually the end-result of a great many *subjective* acts of volition, of which we are conscious to varying degrees. But moreover, a given externally oriented

volition may have to be preceded by numerous *other external* volitions.

The concept of influence is designed to account for *the residues in consciousness* of all such prior inner and outer volitions, in a given volition. That is, the field of influence as it were stores the significant history of the volitional process, comprising all that has cumulatively informed the agent into certain directions of will necessitating certain donations of effort.

d. Concerning the role of *emotion* in volition, it should not be overestimated. Within the soul itself, there is a basic function called valuation. This is an inner expression of self, necessary for an entity with freewill, which must choose between alternative potential courses of action. Valuation is thus a primary inner act of volition. Emotion, on the other hand, usually (except when it is confused with valuation) refers to something passive, occurring in the physical and/or mental domains. Valuation is a spiritual (i.e. in the soul) event known by intuition, self-knowledge; whereas emotion is a concrete physical and/or mental phenomenon, known by sensory or 'mind's eye' perception. Included under this heading are not just pleasure and pain, but the full range of possible nuances in feeling.

Emotions have various degrees of effect on volition, but in fact can never determine it. Being essentially 'external objects' relative to the soul, they cannot condition it, except in the way of influences. That is, emotions are perceived and such perception in turn makes volition easier or harder for the soul. Emotions, of course, are often consequences of volitional acts; not directly, but through causation by the 'first physical event' emerging from volition. For this reason,

our emotions are often eventual outcomes of our valuations; and this is why we equate them. But such equation is not always justified, for a given emotion is not inevitably and invariably indicative of a certain valuation, since physical intermediaries must be taken into account.

It follows that people who generally identify themselves with their emotions are wrong to do so; their judgment is often distorted. This applies to *feelings* of desire, aversion, love, hatred, hope, fear, certainty, doubt, it is beautiful, it is ugly, etc., as distinct from the *valuations* with the same names. That may sound like a rather cold doctrine to some people, but it seems consistent with all our observations and theorizing in the present work. Its intent is not to dehumanize, but to strengthen people. It is the feelings that are 'objective' (i.e. objects outside the soul) and the valuations that are 'subjective' (i.e. acts of the soul), rather than the other way around as people believe!

In practice, of course, people have so much going on inside them, in the way of both inputs and outputs, that it is no wonder the fine distinctions we have drawn here, such as that between soul and phenomenal personality, and in particular between valuation and emotion, are remote and laughable to them. They are too busy, too weighed down. It is only through meditation, when one steps back and lets things calm down considerably, that one can begin to sort things out and observe their order.

4. The scope of freewill

Concerning *freedom of the will*, our pictorial representation provides some further clarifications. But let me first stress that when looking at the diagram above, the reader should not take it too literally. The soul is not extended, with cognition and volition happening in different places, and influence as something in between, that volition flows through, ending in an event. All these things happen together, in the same spot and simultaneously. They have been separated schematically, for purposes of analysis; but they are in fact *all one* event. It is one and the same self that cognizes, is influenced by cognition, and wills something, all together, in one and the same movement.

It is obvious that even the first physical event emerging from volition is *subject to natural terms and conditions*. We have suggested specialized organs in the nervous system are probably necessary for such events⁷⁰; and such organs would naturally depend on neurological, biological, chemical and physical laws⁷¹. If such organs are absent or damaged, or when inappropriate conditions prevail in them, they are inoperative. *The soul is not free to will whatever it wants wherever it wants to into its physical environment*, but only

⁷⁰ This concerns humans and animals. With regard to the will of God, we would have to suppose such a restriction to be inapplicable. Obviously, the Creator of matter must have a will independent of matter. It follows that His providential acts in the ongoing life of the universe do not require special material receptors.

⁷¹ Signals within the nervous system are electrical and chemical.

certain possibilities ‘allowed’ by natural law. This *principle of due process* is the philosophical assumption of most people, except perhaps lunatics ⁷²

On the other hand, the soul has considerable freedom of will *within itself*. It can manifestly (as introspection and internal experiment shows) do a lot ‘at will’ there, though much of what we call ‘will’ is not immediate will but a cumulative result of smaller immediate wills that *adapt to changing conditions* (adaptation implying consciousness, note). Thus, volition is not unaffected, but influenced by cognized external as well as internal events. This influence (which is finally something internal) *can never generate or block will*, but only accelerate or decelerate a particular direction of will, because will (the inner movement of soul) is a function of the agent only. Cognitions cannot in themselves move soul or stop it from moving.

All the more so, *external conditions* be they mental or physical, be they natural or artificial products of the will of some other soul(s), which might be construed to impinge upon the agent directly (i.e. not as influences, via his cognition of them), are apparently incapable of doing so. We may at least postulate such incapacity, as a further principle of freewill. This position is quite conceivable, if we express it as an *independence of the spiritual domain from the mental and physical domains*. It is conceivable that whereas the physical and mental domains can be modified, directly or indirectly, *within specific terms and conditions*, by the spiritual domain (in our context, through certain acts of

⁷² Even believers in shamanism and magical powers allow for ‘due process’. Only, the processes they regard as possible seem obscure or ineffective to the rest of us.

volition by souls), the reverse is not possible. It is not inconceivable that Nature includes this limitation, this one-way street between its domains.⁷³

It is worth noting that causal pathways between the mental domain and the spiritual and physical ones seem to have precise directions. According to our theory here, the soul projects mental phenomena only indirectly via its volition of physical events in the nervous system (so that memory in the brain of a mental projection *precedes* the actual appearance to the soul of the imaginations projected by it). Also, whereas the physical domain can after volition, or even without prior volition, affect the mental domain, the reverse is not true. The mental domain does not seem to directly affect the physical domain, but does so only through its cognition by the soul, which thereafter affects the physical domain under influence of such cognition.

To repeat our freewill thesis: the physical and mental domains condition the spiritual domain through consciousness of their contents (this is influence); but they do not condition it directly, without consciousness (in the way of ordinary conditioning). This concerns the internal workings of soul, implying one aspect of freedom of the will.

⁷³ It does not follow that the spiritual cannot control the spiritual. Thus, we may assume that God can dominate the human or animal soul anytime He chooses to. This would be a theological limitation to our freewill. It is a privilege however that God mostly chooses not to exercise, since it is His will that humans and to a lesser extent animals have freewill. He gracefully relinquishes some of his power, *de facto* though not *de jure*, so that we may exist "in His image and after His likeness" (to quote *Genesis* 1:26).

On the other hand, soul has the privilege of being able to make changes in the physical or mental domains. However, this capacity is *not infinite, but subject to natural law*. This restriction is especially evident in the physical domain, which sets finite terms and conditions to the volitions of the soul on it. Thus, volition may not operate just anywhere in it, but only in circumscribed locations (such as special living cells, probably). Subsequent limitations may occur in the body (e.g. a man's muscles may be too weak for some job); or further out, beyond the body (e.g. he may be imprisoned by impassable walls).

Once a volitional act has inscribed its 'first physical event', material nature takes its course. Some physical reactions may follow inevitably, some conditionally, and some may be impossible come what may. Reactions may occur in the body (e.g. a man's arm and hand move), or onward outside it (e.g. he may break down a wall). In these senses only, i.e. with reference to all *physical limitations and reactions* to volition, volition may be said to be liable to ordinary conditioning. But all that occurs outside the soul, note well, and so does not essentially qualify its freedom of volition as such⁷⁴.

Cognition, volition and valuation are not only distinctive functions of soul; they are presumably its only ways to function. The soul's cognition is not to be confused with the computer-style operations of the nervous system serving as

⁷⁴ If we are precise in our thinking about volition, we can avoid doctrines that put freedom in doubt. Thus, for example, if a boxer gets knocked-out, his soul's freedom of will is not affected, but the temporary blockage of his sensory and motor faculties make the assertion of his will in his body impossible, as well as deprive him of information needed to usefully direct such will, for a while.

its accessory. The soul's volition is not to be confused with physical or mental preliminaries or consequences. The soul's mode of operation is volition, i.e. freewill; that is presumably its *only* modus operandi: it is not subject to any causation from nature (the physical and mental domains), though it may be affected by nature through cognition. But of course, its freewill is operative only during the soul's existence; for the soul may be generated or destroyed by natural causatives (birth or death of a body)⁷⁵.

⁷⁵ Believers in God would of course add that it is He who controls birth and death.

8. VOLITION AND THE SPECIAL SCIENCES

1. Volition and the laws of physics

As already stated, the agent in volition is distinctively *a static cause of change*. Any eventual full definition of volition is sure to include this fact among others, as a striking differentia compared to causation and natural spontaneity. In causation, change can only be caused by previous change; and in mechanical spontaneity, change is uncaused.

It might be supposed that causation of movement by something at rest is formally conceivable, with reference to propositions like the following: “if X is Y, then it does Z; and if X is not Y, then it does not do Z”, where the antecedents are static predications whereas one of the consequents (*viz.* X doing Z) involves motion. But this would be a wrong reading of the causation eventually involved; if causation there indeed be, the if–then propositions would implicitly intend that *change* from X being Y to not being Y brings about *change* from X doing Z to not doing Z, or vice versa.

Anyway, the if–then propositions used here, granting X to be a volitional agent and that ‘does’ here means ‘wills’, are not intended to refer to causation, but to influence: X does or does not do Z, not because it is forced to by virtue of being Y

or not being Y, but by way of freewill. This is a weaker form of consequence, due to the causality known as influence.⁷⁶

Though we do say of machines that they ‘do’ things, we do not consider that they ever produce change from rest. Only the volitional agent can rightly be supposed to do that⁷⁷. He is an ‘unmoved mover’, though he may be influenced by static and dynamic factors. But (except eventually for God) that does not imply the agent to have infinite powers, or to be a creator who produces matter *ex nihilo*. Nevertheless, he is evidently able to affect the world around him, by diverting Nature from the inertial course she seemingly would have taken without him.

Since volition involves an agent (a soul), usually a purpose (mentally projected), and sometimes a physical receptor (such as our brain), it implies a spirit-mind-matter interface. This remains a phenomenologically justified proposition, whether we regard the spirit-mind-matter distinction as real (as in Western common-sense philosophy) or as illusory (as in certain Oriental philosophies). Some consider only matter to exist (e.g. behaviorists), some only mind (e.g. Berkeley); I

⁷⁶ Note that logicians have yet to work out the logic of such milder if–then propositions in detail. It is an important and urgent task for us to take up.

⁷⁷ I do not mean to exclude offhand the remote possibility that we might one day produce ‘machines’ of such complexity (effectively, artificial organisms) that they have souls, consciousness and freewill. To me, these are natural, biological characteristics; the soul being an epiphenomenon of complex matter with powers of cognition and volition. But the fact is, machines as we now understand the term do not have these characteristics, although many people (computer programmers, for instance) speak of them as if they do.

think spirit (soul), mind (the stuff of ideas) and matter all exist in some way⁷⁸.

As we have seen, volition may be conceived as a spiritual event that may have physical consequences under specific conditions. It was suggested that the bridge between the spiritual and physical domains in such cases could be construed as causative. This would mean that some event W in the soul arising out of volition has a causative relation to some physical event E1 in a specialized organ of the nervous system. That is, under certain conditions or invariably, "if W, then E1, and if not W, then not E1" is true.

This is formally quite conceivable, as already argued, because nothing in the relation of causation as normally formally defined specifies that antecedent and consequent must have the same 'substance'. From a purely formal point of view, the proposition that causation by a spiritual event of a physical event is impossible would have to be specifically justified, as a special exception. It is an additional proposition, not an implied one.

The justification is readily put forward by exclusive materialists: such intervention in physical processes by a non-physical cause would contravene a basic law of physics, namely the law of conservation of energy. For it is argued, every physical change (motion, chemical change, whatever)

⁷⁸ I leave open the question as to whether one of these substances is dominant (i.e. the ultimate constituent of the others). My own conviction is that they are all three modifications of one common substratum: different sorts of vibrations (perhaps different dimensional manifestations) of the common stuff we may call "existence".

requires energy input, and such energy cannot come from outside the closed system constituted by matter.

Before we debate this objection, let us consider how volition might physically intervene.

Let us imagine that the act of volition simply causes a sudden *release of physical energy* in some one direction, presumably within the brain. We do not say that the energy was created *ex nihilo* by the soul, or that it emerged from a metamorphosis of spirit into matter, because that would raise difficulties with regard to the law of conservation of energy. We suppose instead that the energy was stored within the brain in some form, and merely released by the volition⁷⁹. The volition just ‘opened the vane’; it triggered the mechanism allowing the energy to be transferred, generating certain physical processes.

Our thesis is then less radical than at first appears. It does not frontally assault the law to the extent of claiming the energy comes from the volition or its agent. It more modestly claims that the *triggering* of energy release itself require *no energy* input to occur. All the energy involved is already present, trapped; it is merely let go in some direction. Since causation as such is not about energy transfers, it is conceivable that under very specific terms and conditions such an event (pulling the trigger, as it were) would cost nothing energetically.

⁷⁹ I gather that the minimum possible is a quantum of energy, nothing less being detectable or thinkable under quantum mechanics theory. I gather also that this could suffice to produce larger phenomena, by a sort of avalanche effect.

I am here obviously inspired by the image of ‘Maxwell’s Demon’. In this thought-experiment devised by James Clerk Maxwell, an agent stands at the trapdoor between two boxes, containing particles of matter in motion. The agent opens and closes the trapdoor at will, letting the particles gradually pass in a desired direction, so that they end up all in the same box, or with the hotter ones in one box and the colder ones in the other. Thus, the entropy (disorder) in this imaginary natural system is decreased, contrary the second law of thermodynamics.

Physicists point out that this fantasy does not presage an exception to that law, because it does not take into account the entropy increase in the functioning of the ‘demon’, his observation of the particles and his opening and closing of the trapdoor, not to mention energy expenditures.

But we might reply that such argument is *circular*, i.e. it assumes in advance, without actual experiment or calculations, that the ‘demon’ would be subject to these physical laws and thus predicts entropy would be increased and energy expended. In my view, we do not have to be bound by these laws in the present context for several reasons.

Firstly, because in the last analysis the physical principles we circumvent are, or are derived from, generalizations from experience. As such, it is ultimately logically permissible to particularize them, if the need arise. It is true that the laws in question are fundamental hypotheses of physical science; they have proven extremely durable in the face of all physical experience and for that reason support the whole edifice of our physics theorizing. But just as physics has come to admit the possibility of natural spontaneity in the field of quantum

mechanics and with reference to the Big Bang, so *it may be that in certain very complex biological-neurological systems certain laws find exception*. That is, whereas matter in simpler systems follows established physical laws, when it comes together in certain especially complex systems it may not. Since these laws have to date *not* been tested in these complex systems, we may well consider such possibility.

Secondly, knowledge is not built by rigid adherence to some pre-ordained non-logical principles; it adapts creatively to the information and issues at hand. We *must* make some sort of allowance for volition in our world-view. It is not an arbitrary posture: we have too much in the way of inner experience to explain by that means; we cannot just ignore our inner life. Thus, while *a particular* proposal of how volition might function (such as ours here) is always open to eventual criticism, the fact that *some* proposal is necessary is not really debatable. To ignore something is not to explain it; to explain it away is not to explain it, either. We should not yield to the extreme materialist dogma without overwhelming *ad hoc* evidence and argument. The onus is on the proponents of that dogma to justify their case in the specific situation at hand, giving a credible detailed account of why they think what seems like will is not so.

Thus, our present argumentum is twofold. We propose, firstly, an ontological concept, that *the whole may be more than sum of the parts*. We claim that when inorganic matter coagulates into organic molecules, then living cells, and the latter in turn coagulate into plant and animal organisms, new *collective* phenomena arise for such composites – namely life, consciousness and volition – which are radically different and unpredictable from the phenomena applicable to

the components severally. Such ‘collectivism’ is admittedly contrary to modern ‘reductionism’, according to which the behavior of composite bodies is ultimately to be explained by the laws applicable to their components.

Secondly, we propose an epistemological objection, namely that such reductionism is the issue at hand and cannot be used as an argument without circularity. The physical laws in question are hypotheses supported by adduction; these are admittedly credible, but they have been tested only in the field of inorganic matter. Their extrapolation into the field of living matter, and in particular of animal and human life, is a mere act of faith on the part of materialists. So long as they have not come forth with *precise experiments and mathematical formulas* that specifically predict and explain the phenomena we call life, cognition and volition, they may not lay claim to a more ‘scientific’ status. Such status is not attached to particular doctrines or dogmas, but to any effort of cognition that seems the most open and fair-minded, and rigorous in its methodology.

Returning to our scenario: following Maxwell’s schema, we can imagine the soul (agent), by his volition, flicking a sort of weightless switch to release energy. Presumably, he knows instinctively just how to do that. This movement of will costs him nothing in terms of physical energy. It is primarily a spiritual event, but it induces (by causation) a change on the physical level, the release of stored physical energy. Such energy release may be punctual or sustained. It is neither the end result of a physical process nor spontaneous in the mechanical sense. It may be attributed to no one but the agent, whatever the surrounding influences. The direction of energy release, rather than any other potential directions, is

the manifestation of the agent's 'intention' in willing. Observed after the fact, it reveals the intention. Volition is not a chance, mindless event – it involves consciousness.

Thus, we here claim exception to certain physical laws within the *very circumscribed* regions where the spiritual, mental and material domains intersect. The domain of volition as such is not material (and thus subject to physical laws), but mental (i.e. in the mental stuff of memories and imaginations, at least with regard to projected goals) and spiritual (i.e. in the soul of the agent). On a physical level, physical events caused by volition appear as spontaneous, because their cause is in a non-physical domain. *It is not inconceivable that experimental detection of such events might one day be devised.*

It is important for this purpose to distinguish between the *first* physical movement caused by the spiritual will, and all *subsequent* physical events. The first movement occurs somewhere in the nervous system (the brain, and maybe the spine or nerves). This may start a chain of events, culminating in a visible (or otherwise experienced) physical event (e.g. the movement of a hand or the throwing of a stone). The chain reaction is not necessarily inevitable, given the initial volition. It depends on physiological and environmental factors (e.g. the health of one's body, the availability of a stone to throw). The latter domains are where the laws of physics and biology operate normally. Only the initial physical movement caused by will is exceptional.

2. Volition and biology

It is interesting to note, to start with, that biology textbooks may refer to voluntary and involuntary processes without ever admitting volition or asking questions about it. Yet (I would say), volition is central to many issues in biology.

a. We have here suggested that *consciousness and volition occur in tandem*. On an abstract level, the following propositions concerning them seem reasonable. Consciousness is, of course, the prior of the two, and conceivable without volition (since we are sometimes aware of things without reacting to them). But all volition requires some consciousness, and cannot occur without it. This is even true of whim, and all the more of volition with a purpose. Volition is distinguishable from a spontaneous mechanical event by the involvement in it of consciousness. Volition is free will; there is no such thing as non-free volition. Nevertheless, the degree and range of freewill may vary enormously. The power of will is proportional to the power of consciousness.

Consciousness would be without practical utility to an organism if not complemented by volition. By informing volition, cognition becomes meaningful as a tool of survival. Furthermore, most of our cognitive processes depend on acts of volition. At the sensory level, for instance, opening or focusing our eyes is volition. At the mental level, recalling a memory or imagining is often volitional. In thought, volition is needed to direct our attention hither and thither and to intensify it as appropriate. *Our consciousness, not being infinite, would not get us very far without volition.* The

conjunction of volition and consciousness in organisms is thus no accident of nature, but necessary.

These propositions are based on observation of living beings, but also may serve as postulates for biology. *Consciousness and volition are found wherever nervous systems are found.* In humans and higher animals, the latter include a central nervous system (brain and spinal cord), and a peripheral one, with sensory and motor capabilities. In lower animals, such as insects or worms, the physiological apparatus for consciousness and volition is much less elaborate, but identifiable nonetheless. In plant life, and (I presume offhand) in single cell animal life, no organs for consciousness and volition have been identified.

Movement following sensation does not necessarily indicate volitional reaction; response to stimuli may be reflex. All the same, at least for higher forms of animal life, volition to some extent comparable to ours may be assumed, in view of their observable *behavior*. Such assumption seems further justified by the major *morphological* and *genetic* similarities between them and us, suggesting our evolution from common life forms. It remains true that human cognitive and volitional capabilities, including speech and reasoning⁸⁰, are significantly superior, suggesting a quantum leap in evolution. But we can point to notable differences in brain

⁸⁰ But there is no doubt that at least the higher animals 'speak' through facial and bodily expressions, as well as uttered sounds; and we can observe them 'reasoning' to some extent, judging situations and selecting responses to them. The differences are differences of degree rather than essence. Also, we should not forget that certain species close to human have existed and are now extinct.

structure and size to explain this; it does not ignore or contradict any law of biology.

Also noteworthy are the observable facts of social interaction among animals and/or humans, and in particular the emergence of culture in human groups. These are indicative of consciousness and volition. They make possible the transmission, between contemporaries and from generation to generation, of living skills (e.g. hunting techniques) and, in the case of human culture, historical and abstract knowledge, as well as possessions and technology.

In sum, the distinction between ‘lower’ and ‘higher’ animals might be made by saying that the former are more sensory and reflexive, responding immediately to present stimuli in standardized ways, while the latter increasingly function through the medium of *a mind*, i.e. with reference to memory (storing and recalling past sensations), imagination (reshuffling memories, dreaming) and anticipation (considering alternatives, making choices), which makes possible their powers of cognition, volition and valuation stretched over time. Among the latter, humans apparently excel, probably mainly due to their development of language, in thought and speech (probably concurrently).

Biologists today are content to *describe* rather than explain physical processes in living organisms, using apparently neutral terms like “doing” or “organization”, which avoid mention of volition or even consciousness, let alone soul. But to sidestep certain issues is not to resolve them. However, it is up to biologists to find some credible bridge between the philosophy of soul and their material concerns and findings. There is no hurry, and no justification for offhand rejection. If philosophers are right in postulating soul, biologists will

eventually come around, and no doubt then greatly enrich the concept.

b. As we have argued, consciousness and volition imply a soul, serving respectively as subject and agent in them. Soul is logically needed to explain both them and our knowledge of them. Soul of course implies belief in some sort of '*vitalism*' (here understood as the belief that animal organisms, including humans, have a 'soul')⁸¹, as against '*mechanism*' (the belief that beasts at least, if not also humans, are merely very complex machines). However, vitalism need not be understood simplistically, as the traditional assumption of a 'ghost in the machine' of human and animal organisms. For, as we have explained, *soul has no phenomenal qualities, not even spatial extension or position*. Thus, any imagination of the soul as a transparent cloud animating the body is misconstrued, and any attack on the soul that assumes such a symbol literally is an unfair criticism.

The vitalist-mechanist dispute is of course far from academic, but scientifically, ethically and politically extremely charged. It is paradoxical that the mechanistic doctrine, which is touted as empirical and positivistic, emerged as a pillar of modern thought some 400 years ago, thanks to René Descartes. For all his intelligence in many other respects, he was nevertheless very much an 'ivory tower' philosopher, and his assumption that unlike humans, (the other) animals

⁸¹ Though strictly the term vitalism is also applied to vegetables as well as animals. A more appropriate term would be spiritualism (compare to materialism and mentalism), though this is generally associated with mystical *séances* aimed at communicating with the spirits of the dead (also called 'spiritism').

have no soul was based on no observation or scientific process. Yet, as often in the history of philosophy, his prestige sufficed to give respectability, credence and momentum to the idea.

The horrendous practical consequences of mechanism are today increasingly evident all around us. Many people do not look upon animals (other than their pets, perhaps) as living beings who can suffer, but as ‘things’ that utter cries and make faces because they are so programmed to do by ‘nature’. Therefore, industrial agriculture subjects animals to brutal living and dying conditions, and daily sacrifices millions of them, under the pretense that the masses can only be fed that way. Animals are cruelly tortured daily in laboratories, under the pretext that the needs of ‘life science’ justify such ‘experiments’. And now, we witness the coming of genetic engineering, the ultimate in disregard for the difference between living organisms and inanimate matter, driven by the utmost greed, endangering major species⁸². Altogether, it is an orgy of unconsciousness and moral ignorance.

The Nazis used similar degradation to justify and make possible the Holocaust of Jews in 1933-45. As Paul Johnson writes: “Rather as the medieval anti-Semite saw the Jew as non-human, a devil or a sort of animal (hence the *Judensau*), the Nazi extremist

⁸² For instance, in the case of genetically modified fish, the engineered specimens are bigger and more sexually active than their wild relatives. As the former inevitably escape into the natural environment, they are so bound to gradually genetically displace the latter. But being, very probably, physiologically weaker organisms, the GMO are themselves non-viable in nature in the long run.

absorbed Hitler's sub-scientific phraseology and came to regard Jews as bacilli or a particularly dangerous kind of vermin"⁸³. Mechanism degrades animals to the level of mere objects; racial and similar hatreds degrade humans to the level of animals, and therefore (by way of a syllogism) of 'things'.

Mechanism is not innocuous; it promotes such heartless mentality. One may well consider it as a dogma *designed* to conveniently rationalize inhumane treatment, against beasts and eventually humans. Surely, its advocates, and their practicing disciples, should be in prison, or at the very least in lunatic asylums, considering the harm they have done, are doing and are about to do on this planet; instead of which, our society honors them and enriches them.

The success of physics does not justify mechanism in biology. Mechanism cannot in reason claim the benefit of the doubt normally accorded to an untested scientific hypothesis, in view of its deadly practical consequences. As already stated, until its proponents actually come forward with mathematical formulas that *exactly predict* all the actions of animals, or even humans, they cannot pretend to defend scientific truth.

c. With regard to the theory of *evolution*, to which I subscribe, the following can simply be said. We can conceive that when inorganic matter (itself star dust, the end result of a long history of astronomical events) coalesced in certain sufficiently complex structures, it became living matter (single cells). These structures evolved into still more

⁸³ *Op. cit.* p. 473. Similar arguments are often used as pretexts for individual or mass murders.

complex structures, viz. plants and lower animals; then the latter further evolved into higher animals, including humans. In this latest stage, at least, nature has allowed for living organisms with souls to appear, having considerable special powers of cognition, volition and valuation. There is nothing inconceivable in that from the point of view of evolutionary theory.

These special characteristics appeared in nature, and have so far been more or less compatible with the environment. They have seemed, at first, like particularly good adaptations. They could well, however, over a longer term prove incompatible. Indeed, it seems more and more likely, in view of mankind's current propensity to destroy other species and the biosphere itself. Our own demise is perhaps even, for all we know, already now inevitable within the next few decades. So, if only on planet Earth, these special characteristics, in the degree found in the human species at least, may well turn out to have been self-destructive – an unsuccessful, overambitious experiment of nature. But for now, they are here.

More will be said on biological issues in a later chapter.

3. Therapeutic psychology

The special sciences aimed at the study of human (and more broadly animal) behavior, notably psychology and sociology, are of course, implicitly if not explicitly, closely tied up with the concept of volition and its allies. All too often, students of behavior ignore or conceal this basic truth, and develop their analyses without explicit reference to it, thinking by such omission to appear more 'scientific'. They appeal to

chemicals and statistics, without formally analyzing what logically underlies their discourse. This is foolish, if not dishonest. My hope is that the present work will help to overcome such distortion.

A few comments are worth making here regarding mental disease and its cure, without claiming any clinical knowledge. The concept of mental disease is presumably derived by analogy from that of bodily disease. We refer by it to any state of affairs in our mental life that is experienced as chronically uncomfortable, or as seriously damaging our efficacy in dealing with our everyday life, whether intellectually, emotionally, existentially, socially or otherwise. Hopefully, such dysfunction is curable; although we may not ourselves now know how to cure it.

Some psychologists imagine 'the mind' (or psyche) as a kind of cupboard, with the top shelf containing conscious mental items, the middle shelf subconscious ones and the bottom shelf unconscious ones. The trouble with this viewpoint is that it implies the mind to be some kind of entity, made of 'mental stuff', suspended somewhere in our heads, with a structure of some sort such that, by analogy to diseases of the human body, parts of it may be wrongly constructed or be misplaced or missing or extraneous or inappropriately moved about.

Furthermore, the contents of this cupboard (the said 'mental items') are identified principally with 'ideas', a catchall term including units of information, intentional events and bits of emotion, which are themselves viewed as 'entities' of mental substance. The motions of these entities, within a shelf and from shelf to shelf, make up the inner life of the psyche. It is not made clear how these entities arise, change, move and

depart – whether spontaneously (inexplicably), by interaction with each other (like billiard balls, subject to causation), and/or by the will of some additional entity (a person, a who) placed adjacent to the cupboard.

Also, we might ask: what makes an informative idea cognized, an intentional idea willed or an emotional idea valued? Where is the self in this account? These peculiar qualities are left unexplained. This currently popular model of the mind (in origin partly Cartesian, partly Freudian⁸⁴) is obviously simplistic. It fragments and reifies excessively. It fails to explain mental events convincingly, and indeed considerably obstructs explanation, being essentially *mechanistic*.

Additionally, it leaves the relation of the mind to the brain (and thence body) as a mystery, since it suggests a duplication of functions between mind and brain – an inexplicable redundancy (called ‘parallelism’). Substituting for it a purely materialistic equivalent (a 100% ‘neurological’ model), as many try today, is no solution – for though the substance is changed, the structural and causal problems remain.

My own analysis of the psyche, in the present work and elsewhere, acknowledges no such scenarios. I refer to a material body including a nervous system, a mental ‘matrix’

⁸⁴ The historical question deserves extensive study, of course. The Freudian model is perhaps more abstract, fragmenting the ‘psychic structure’ into ego, id and superego, or again into conscious, subconscious and unconscious, and referring to ‘energy charged elements’; but it comes to the same mechanistic portrayal of the psyche, which is aetiologically misleading and sterile.

on which cognitive items are *temporarily* displayed (memories, imaginations, mental feelings), and a soul in which *events of cognition, volition and valuation properly occur*. This means that *there is no storage of mental items as such, either in the mental matrix or in the soul*. Whatever occurs in our ‘mental life’ that requires storage can only be stored on a material plane, supposedly in the brain.

In the latter perspective, mental disease cannot be located in the mental matrix, since everything occurring there is a mere fleeting projection of images or sounds or other phenomenal chimera. It might be located in the brain, as stored data items of questionable accuracy or value, and/or as neurological or physiological dysfunctions. Or it might be located in the soul, but not as something stored or structural or mechanical, only as repeated personal choices of a certain kind in the face of certain recurring influences and terms and conditions.

The ‘conscious’ and the ‘subconscious’ are both volitional, i.e. actions or states of the soul – some of which have mental and/or physical outcomes, but not all of them. The subconscious differs from the conscious only in degree: ‘involuntary will’ involves minimal, ad hoc awareness, while ‘voluntary will’ involves broader, more comprehensive attention. The psyche is thus essentially *not a mechanical system*, though some mechanical forces (physical and mental conditions) may affect it, and though the soul may be influenced by mental and physical objects of consciousness.

The ‘unconscious’ is not part of the mind, but in its *material* infrastructure, the nervous system. Strictly unconscious actions or states are not volitional, but mindless; they are generated by the nervous system, like the autonomic motor system functions (automatic breathing, heartbeat, etc.). The

psyche is not occupied by ‘entities’ other than the soul and images flashing in the mind – the other components are not entities, but intentions, actions and states of the soul, as well as movements and changes caused by the soul or the brain of mental images.

It is wise, therefore, to avoid ontologically misleading terminology. Epistemologically, note well, conscious and subconscious thoughts, intentions, emotions or drives are ultimately *observable* by introspection – the former more easily and clearly so than the latter. On the other hand, ‘unconscious’ thoughts, intentions, emotions or drives are necessarily *inferred*, i.e. things we assume by implication from things observed, by adductive logic. For instance, if we speak of ‘a conflict’, we need not mean something actual and concretely expressed, but may refer to something abstractly known to potentially occur.

For example, if agent A at once believes (or wants) something X and its opposite notX (as often happens) – we can characterize this situation as a potential conflict, even though the agent A may not have become aware of it or yet experienced any unpleasant consequences from it. There is an implicit, objective conflict that we can logically infer from the two beliefs (or wants), knowing that if A should ever try to realize them both together he would be bound to fail, since X and notX are incompatible.

In this view, then, the concept of mental disease proper, as something not chosen, should be referred to the brain – while what concerns the soul cannot strictly speaking be so characterized, being an issue of freewill, but should be regarded as the domain of morality, ethics or ‘spiritual path’. Even so, as shown further on, the essentially free soul can

still get entangled in some pretty confusing situations, like bad habits, obsessions and compulsions, so we may use the term ‘mental disease’ loosely with reference to such hard to untangle situations. As we shall explain further on, too, personality disorders are rooted in our ego construction.

With regard to ‘curing’ such mental diseases, the following generalities are worth adding. A cause is some behavior or character of the soul, which generates, sustains or amplifies that which we consider as a disease. A cure is something that will prevent, remove or attenuate the disease. The cure does not necessarily pass through knowledge of the cause, though such knowledge is often useful and sometimes essential⁸⁵. Once the cause has produced its undesirable effect, the cause may no longer be the issue, except insofar as it may be repeated⁸⁶. If the cause keeps recurring, the effect may recur successively with about the same intensity, or it may snowball. The cure may sometimes be aimed at neutralizing the cause, and thence indirectly the effect. Or it may be aimed at neutralizing the effect, directly. It is in any case wise to look out for eventual unforeseen side effects.

⁸⁵ However, excessive ‘psychologizing’ throws doubts gratuitously and feeds baseless conjectures, producing identity problems. The ensuing mental destabilization provides intellectual pretext for what are essentially (futile if not harmful) ego-building activities.

⁸⁶ Although reviewing a person’s history, including interrelations with other people, can help clarify and modify current behavior and emotions, the causal relations are far from determining, since humans are essentially volitional beings. The patient is thus made to vainly cling to certain ideas, instead of being freed of them.

To take some examples of mental dysfunction: suppose a person has abnormally strong, unwanted, disturbing or uncomfortable, recurrent or persistent, thoughts, dreams, inner images or sounds, hallucinations, feelings or emotions. As exposed in the present work, such events may have volitional roots or be more or less involuntary products of the brain. The precise diagnosis will vary from case to case, and guide treatment efforts.

To the extent that the brain is considered the issue, chemical, surgical or other physiological remedies might be sought. However, these can only be stopgap measures, to the extent that malfunctions of the will are involved. That is, in such cases, medicines can only mask the problem, not solve it. Moreover, they may in the long run be damaging, or at least become an obstruction to proper treatment.

For if the problem is at root volitional, ‘psychoanalysis’⁸⁷ may be needed. That is, an effort to logically sort out errors of thought and behavior – whether by the subject himself (who may need to engage in theoretical studies), or with the help of a professional or capable friend. This may, of course, in turn call on behavioral changes, personal or interpersonal, such as the practice of meditation or the performance of kindly acts.

⁸⁷ N.B. by using this term, I do not mean to endorse any particular doctrine of psychoanalysis.

9. WILL, VELLEITY AND WHIM

1. Cognition, volition and valuation

Our ‘soul’ is the core of our selfhood and of all our personal ‘life’. From an ontological perspective, the soul has a variety of abilities of activity, or *functions*, which may be classified into three broad groups: cognition, volition and valuation.

Epistemologically, it may be that we become aware of soul as a distinct ‘entity’ by imagining it at the apparent common center of all cognitive, volitional and evaluative experiences (a process that might be called ‘intrapolation’)⁸⁸, and by conceptual suppositions. But we must also admit that our soul has direct self-awareness, as well as direct awareness of these most intimate experiences (*viz.* cognitions, volitions and valuations). For only the admission of such direct evidence of the self and its functions, which we have labeled ‘intuition’, can explain our ability to discern *particular* acts of cognition, volition or valuation, even when such acts have no manifest phenomenal outcomes.

The soul, in this view, is a distinctive entity, having per se no phenomenal aspects, unlike mental and material entities; whence we may suppose it to consist of a special substance (say, ‘spirit’). This intuited inner self is, as we have seen, to be distinguished from its surrounds, namely: the mental

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For examples, we seem to look out and see from behind our eyes or to enjoy touch sensations from within our body.

phenomena it perceives, the physical phenomena it perceives in its own body and beyond it (the latter including, as well as the apparent physical world, some supposed perceivable effects of other souls).

Thus, we have *four theaters of experience* to consider: the innermost (in the sense of ‘in the soul itself’), the mental (for that soul), the bodily (for that soul) and the external (beyond one’s own body)⁸⁹. The different ‘distances’ implied by these terms are of course relative to the soul, and are based on the varying powers of cognition, volition and valuation the soul has in them.

The basic functions of *cognition, volition and valuation are operative in each of these four regions* (the inner, mental, bodily and external). Their *primary* theater is, however, the soul.

Cognition refers primarily to an event in the soul, the event of *being conscious of some specific thing*, whether that object be within the soul itself, or a mental or physical phenomenon beyond it. Cognition is what happens on the soul’s side of the consciousness relation between subject and object. It is the ‘business end’ of all cognitive processes – where things ‘click’. Sensation, imagination and reasoning are not *per se* acts of cognition, but processes that present some concrete or abstract data to the soul for cognition. The physical organs and signals of sensation do not in themselves constitute perception, but at best make it possible. When memories or inventions are displayed in the mind, it is not the mind that

⁸⁹ Although the latter three regions are all ‘outer’ relative to the soul, the mental and bodily domains may be considered relatively internal with reference to matter beyond the body, with the mental being regarded as closer to the soul than the bodily.

perceives them, but the soul. When a concept is built, or a relation is proposed or an inference is drawn, it is the soul alone that understands.

In like manner, *volition* refers primarily to an event in the soul, when it directly wills something specific *within itself*, for all apparent volitions beyond the soul are only direct or indirect consequences of such inner action. Similarly, *valuation* is something spiritual (i.e. in the soul) before anything else. Only within the soul can the three functions be sometimes clearly distinguished, because in most cases they are very tightly intertwined. This is evident when we consider in some detail their interrelations in the four theaters of experience.⁹⁰

- a. *Cognition* (in a large sense, including all cognitive pursuits) uses volition as a tool in various ways.
 - This is true often even within the soul. For instances: the intentions of words and other symbols are acts of will; it takes will to direct and intensify attention, whether directed inward or outward.
 - At the mental level, the projection of mental images is often volitional. Cognition uses such projection for the fundamental acts of intelligence and reason, namely:

⁹⁰ One of the relations between volition and consciousness is well brought out by José Ortega y Gasset in an essay entitled 'Aspects and the Entirety'. Volition is needed by a limited consciousness to focus on different aspects of the object. Every appearance of the object is its response to the subject's questioning regard: the eyes move about the object (as we approach or distance ourselves from or circle past it), 'viewing' different 'aspects' of it. *An 'integral' consciousness would have no need of volition, but a limited one cannot do without it.*

mentally pointing at something, delimiting and segregating percepts, negating experience, as well as in abstraction and classification, formulation of hypotheses and alternative scenarios, making logical inferences, and of course use of language.

- At the bodily physical level, we use volition to prepare for and pursue cognitive objects. For instances: opening one's eyes and looking out, or turning one's head to face something, or pointing with one's finger, or reaching out with our hand to touch something, or moving one's whole body in space to change perspective.
 - At the external physical level, we use volition to set up experiments, manipulating objects and moving them about, placing them in certain relations to each other, controlling their precise relative conditions.
- b. *Volition* (in a large sense, including all outer consequences of volition) involves and requires cognition in various ways.
- Within the soul, although some volitions may be goal-less, volition is usually preceded by cognitions that identify ends and means for some larger volition, and so set the intention of the punctual volition concerned. Even in the case of whims, some exploratory cognition of inner and outer conditions may be involved.
 - At the mental and physical levels, volition uses cognition not only to identify general goals and means, but also to reconnoiter the current environment and thus obtain the feedback from it that allows particular volitions to be tested and if need be corrected or more precisely pinpointed, which increases chances of ultimate success.

- c. *Valuation* involves and is involved in cognition and volition in various ways.
- Valuation within the soul is itself, as a particular event, both a cognitive act and an act of volition. To evaluate something is to purport to identify its value in relation some norm, i.e. within a comparative scale – this is a cognitive act. Valuation then assigns a corresponding positive or negative intention to subsequent volition – this is a volitional act.
 - Clearly, valuation does not occur in a vacuum, but in relation to a particular subject and environment – which have to be cognized, whether they are so rightly or wrongly. The subject may be the soul proper (e.g. in religious pursuits), or an erroneous identification of mental and bodily phenomena as the self (an ego), or the mind or body (e.g. in secular pursuit of psychological or physiological health), or supposed external souls or egos, or their supposed minds and bodies. The environment concerned in valuation is the apparent or assumed sphere of action and reaction of that particular subject.
 - Valuation also occurs relative to cognitive acts – considering whether such act leads to truth or falsehood. In its primitive form, such evaluation of cognitions as such occurs ad hoc, with varying degrees of clarity and validity (or ‘truth-value’). In more advanced form, this is what the sciences of logic and methodology purport to do: to find out exactly under what conditions in general, items of knowledge and processes of inferences may be judged valid or invalid.

- Valuation is involved in all, or most, volitional acts, since the latter are generally (except apparently for whims) oriented towards things seemingly of value and away from things judged non-valuable.

Note that all three functions of soul may involve verbal commentary, but do not have to. *Words* obtain their meanings by the soul's intention; they are also produced by volition, as mental projections of sights or sounds, or as physically spoken or written symbols. Words are sometimes useful; but sometimes they can be confusing.

- In cognitive contexts, words help us to record, order and communicate a lot of information, to an extent impossible without words. But words become counter-productive when they stop us from referring to fresh experience, and when we become locked into their symbolic patterns.
- In volitional contexts, words may be useful as learning or teaching tools, to transmit information or instructions from one person to the next. But they can also preoccupy our attention and hinder concentration on the job at hand⁹¹.
- In valuation, one may occasionally use adjectives like good or bad to express one's intentions, but these words can become misleading if one forgets the essentially intuitive nature of valuation.

⁹¹ This is for instance evident in Tai Chi practice. As a novice, one uses verbal instructions as guides to movement ("turn left, advance foot, throw punch, etc."). But eventually, the movements become automatic, and any verbal remark becomes a hindrance to their performance.

In particular, we should analyze the processes of *reading and writing*, consisting of complex series of both physical and mental acts of cognition and volition.

- Reading a text⁹², one observes⁹³ letter after letter and then mentally compares these to shapes and sounds (which, incidentally, one may express mentally or orally) one has learned, and groups them into words one has previously encountered, whose meanings one has memorized (if such correspondences are lacking in one, one must of course research them).
- Writing implies first drawing from one's memory banks the shapes of the letters that form the words one wants put down (which one may, again, simultaneously utter mentally or orally), then moving one's arms, hands and fingers in the appropriate ways to draw (or simply type out) those shapes.

We can observe the intertwining of cognition, volition and valuation even *in meditation*, which may from the outside seem much more static than it is to the practitioner.

- The cognitive aspects are of course central to meditation: looking at some external object, or watching one's body breathing, or an emotional charge, or mental images and conversations, or inner reactions and attitudes – and

⁹² Preliminaries to reading a text may include movements of one's body (bringing it to the bookcase or desk), movements of one's arms and hands (opening the book, turning pages), movements of one's head and eyes (opening, orientating and focusing them).

⁹³ This visual act if for a blind person replaced by an act of touch.

ultimately, experiencing effects such as inner silence and stillness, and hopefully ultimately ‘enlightenment’.

- The volitional aspects are numerous, too: physically sitting down and adopting an appropriate posture, keeping the pose and correcting it as and when necessary; attempting to suppress or reduce mental sights, sounds and thoughts, or at least to observe them with some inner distance; making an effort to have the right attitudes; focusing one’s attention on some object, whether it be external (e.g. a candle), or bodily (e.g. one’s spine or breathing), or mental (e.g. when reciting a *mantra* or visualizing a *mandala*, although these objects may appear automatically after a while), or non-phenomenal (i.e. intuited self or some function thereof).
- Valuation is also involved. Although it is ultimately incorrect to have a goal in meditation, people get into meditation with goals in mind, whether the grand goal of enlightenment-liberation or fusion with God, or more prosaic goals like reducing stress or finding inner peace and such. Moreover, as meditation proceeds, many valuations occur, helping to prepare, direct, generate and regulate one’s cognitive and volitional faculties.

Evidently, then, cognition, volition and valuation are tightly knit together in most situations, although we can distinguish them in very simple situations within the soul. In view of that, it is worth noting that *influences* may impinge on all three. Although the concept of influence primarily relates to volition, it also concerns cognition and valuation.

- As regards cognition, although it per se is free of influence, we may well be influenced as to what we look

out for, what we allow ourselves to see or not see, the directions of our research, and so forth. This affects the scope, though not the content, of our experience. We may also be recipients of conceptual information and methodology (which may be right or wrong), from our teachers or other sources. Naturally, all that will tailor our database in some respects, i.e. the knowledge context we refer to in our judgments will be affected; additionally, our manner of interpreting such data may be affected.

- As for valuation, being essentially an act of will, it can be directly influenced. Our valuations do noticeably vary across time, and according to our situation. If we are attentive, we can spot the influences that cause their variations. Consider for instance a new car model: at first sight one may find it ugly, and then in time – possibly because of the ‘lifestyle’ advertising one is subjected to – one may find it on the contrary very attractive!

The innermost ‘thoughts’ and ‘actions’ of the soul are primarily wordless intentions, beyond all mental images or sounds. The latter are mere accessories of the thoughts of the soul, and all the more so are the physical productions that accompany mental events (speech, writing, symbolic gestures, facial and bodily expressions). Our study of causality appears finally as one of phenomenology, when we consider where it is thought and action originate, and distinguish that from their more superficial displays.

For this reason, in meditation we try to look into ourselves, more and more inwardly, contemplating *the roots* of our thoughts and actions. By sitting immobile and quiet, we gradually still all mental and physical noise, and can thus hope to apperceive the more subtle aspects of our inner life.

That is, when the environment becomes less loud and the body becomes less manifest, and the mental matrix becomes sufficiently blank and calm, the arising of wordless intentions in our non-phenomenal soul may begin to be discerned. The ‘still, small voice’ inside us might be heard.

2. Velleity

A ‘velleity’ is an incipient act of volition. In a larger sense, velleity refers to a small but insufficient act of volition – i.e. one that was not brought to completion. Thus, velleity may suggest hesitation, to which we would contrast determination (‘getting the job done’, or resolve, resoluteness). But sometimes, velleity is intentional, in the sense that the volition is intentionally incomplete; we intend our will to be no more than inchoate, tentative. We may thereafter further develop it or interrupt it, or slightly shift its direction.

Thus, postures like willingness (a general openness) or readiness (a more immediate preparedness) to do something, are velleities that for the moment we do not necessarily wish to develop into full-blown volitions. However, note, such velleity is more than mere ability; it does imply a minimal movement of the will.⁹⁴

Velleity can be detected by the agent through introspection (intuitive self-knowledge). If the act of volition concerned has already progressed beyond the confines of the soul, into the physical and/or mental domains, it may be detected by

⁹⁴ ‘Eagerness’ is another velleity. This brings to mind a dog pulling on its leash. The will is more than just willing or ready; it is held back from springing forth, till an appropriate opportunity appears.

perception of some its phenomenal outcomes. In such case, the agent, or occasionally other observers, may then infer a velleity from outer events.

Many psychological concepts can only be defined and explained with reference to velleity. For example, the presentation of an ordinarily desirable object can only properly be called ‘interesting’ or ‘tempting’ to that agent at that time, if he manifests some velleity (if not a full volition) to go for it; otherwise, neither he nor we would know he desires it. A distinction is worth making in this context between a velleity *to do* something and one *not to do* something. For example, ‘laziness’ sometimes refers to a mere velleity not to work (thusly, if it is overridden by a more determinate act of will to work – else, it becomes a volition).

The concept of velleity is also important because it helps us to understand the co-existence of conflicting values. Although one cannot simultaneously fully will one value and will its negation, one can indeed have a double velleity – i.e. velleities for contradictory items. One may also have a mix of velleity for something and volition for its opposite: the latter dominates, of course, but that does not erase the fact of velleity. All this is also true for not-willing, of course. Thus, if one wants to introspect with great precision, one should remain aware of velleities as well as of outright volitions.

Velleities are an important tool for inner communications with oneself. It is mostly through velleity rather than volition that we register our intentions, the directions of our attention. We speak to ourselves through velleities, before we ever do so through words. Thus, I may verbally ask myself “shall I do so and so?” – and the term ‘doing so and so’ has meaning for

me, not because I actually will so and so now, but because I just slightly lean in the direction of such a will (velleity). To intend “not-doing so and so”, I would generate a velleity of so and so, followed by a willful arrest of further such volition. Thus, velleities provide the soul with a *wordless language* concerning inner volitions. This is occasionally extended out by symbolic artifices.

An important case in point, which is fundamental epistemologically, is the so-called “mental” act of *negation*. That act is only partly mental, in the sense of referring to projection of a mental image. It is in large part a spiritual (i.e. in-the-soul) act, an act of intention – an act of velleity. When we speak of having *observed* the “absence” of some phenomenal object (say, a visual detail in the physical or mental domain), we are only partly referring to perception. We of course never in perception see absences; we only see presences. We can report that something is absent only by *comparing* the visual field tested to an imagination (wherein the object sought for is visualized). Only if we find *nothing resembling* the object imagined in the tested visual field, do we say: “it is absent”. To “negate” something thus involves mental projection, but also a velleity of “putting” that mentally projected object in the visual field under scrutiny and then a velleity of “removing” it to signal the failure of the test. Only thus do we get an inner understanding of what negation means.

Another important case in point is the act of *abstraction*, through which concepts are formed. This consists in focusing on some common aspect(s) of two or more experiences or concepts, while disregarding their differences. A selective ‘blinking out’ of contents of consciousness is involved, a

negative intention achieved by velleity; we pretend some of what we observe is not there, so as to emphasize the observed similarities.

Another interesting example, also requiring careful awareness to observe, of such use of velleity is the following. When we think of other people or animals, we usually imagine them in action to some extent, often in relation to ourselves. The imagination of their physical actions is simply done by mental projection of their image going through certain motions, as in a movie. To imagine them imagining, we need only ourselves imagine what we would them to imagine, and intend or say “ditto in their case”. But how do we ‘imagine’ their subjective dispositions or actions? Since these are not phenomenal, they cannot be mentally projected. Thus, we must enact them to some extent within our own soul. However, we usually would not want to enact them fully: for example, we would not ourselves actually hate Mr. Y just so as to imagine Mr. X hating Mr. Y. Instead, we would generate a velleity, just enough to point our cognition in the intended direction. And then we would of course add (verbally or tacitly): “ditto for Mr. X towards Mr. Y”.

3. Whim

We have analyzed volition as generally involving cognition of surrounding terms and conditions, and possible alternative courses of action, followed by evaluation, through which one selects one’s preferred goals and means. But it may be argued that such a description of volition is circular, since the cognition and valuation involved seem to imply prior acts of volition. Moreover, the imagination of goals and means

implies the projection of mental images, which is itself often an act of will. Thus, the concept of volition may seem logically incoherent, unless we preempt such objections.

We have just to acknowledge that *some* volitional acts are primary, so that they do not themselves require prior cognitive research, mental projection of goals and means, evaluation or deliberate choice. Such volitions may be classified as *whims* or caprices (without pejorative connotation); for theoretical coherence, we have to admit such ‘causeless acts’ or ‘initial impulses’. They bubble forth from within us, *ex nihilo*⁹⁵. What is spontaneous about them is that they are *uninfluenced*, they are not explicable with reference to any motive; but they still have a ‘cause’ in a larger sense: it is the acting soul. When we say “act of will” or speak about “freedom of the will”, we should always remember that we mean more precisely: “soul’s act of will”, “freedom of the soul to will”.

Whim is, in particular, required take action when one is in a quandary – when one values (or disvalues) a thing and its negation equally, or one is indifferent or uncertain either

⁹⁵ A whim or random act of will is in practice difficult to conjure. One may lack a useful end, but one’s end may be said to be the implicit will to whim. In some cases, one’s secret end may be the desire to seem whimsical to other people; i.e. one role-plays a whim. Still, supposing one clears our mind of such motives, the way a whim would work would be by attaching one’s will to some passing event, e.g. opting right (or left) without regard for consequences. But then, has one not told oneself “I will opt to the right”? It could be therefore be objected that such decision of principle sets an end, becoming the motive. But we may reply that the decision itself *is* the sought after whim. So real whim is conceivable – at least with reference to the decision as to which way to whim!

way. If whim did not exist, we would be paralyzed in such situations of even influence or non-influence in both directions. This specific case may be regarded as an additional argument in favor of the existence of whim, granting volition: if volition could not exist without some purpose in mind, it would often be blocked from proceeding. *A fortiori*, if freewill can go against the current of prevailing influences, one can will even more freely when influences are balanced, absent or unclear; the same power is involved in any case.

Some degree of consciousness is a *sine qua non* of volition. If no consciousness is involved in an act, it is not truly voluntary. So, whim should not be considered a blind, unconscious act. It suffices to define it as an irreducible primary. The first impulse to look into oneself or out at the world may thus be described as a dawning cognitive volition; it does not refer to prior research, though cognition accompanies it. The call-up of existing memories (information obtained in the past) may be similarly classed. Some imagination is involuntary, contributed by the brain without voluntary creativity: this can serve volition, without being volition. The act of valuation per se does not necessarily need to be influenced, although it may be.

Valuations must here clearly be distinguished from emotions; the former are voluntary positions or postures of the soul, the latter are reactions in the mind or body. Emotions do not necessarily or fully determine valuations. Emotions may cause later valuations to some extent, in the sense of influencing them. Indeed, they often do, insofar as most people consider their emotions as powerful arguments; they identify with them and are guided by them. But such

emotions are themselves effects of earlier valuations; they are mental and/or bodily consequences of volitions influenced by such valuations⁹⁶. Valuations are not necessarily rational, either. They may indeed be influenced by rational considerations; but however strong, such influence is never determining.

Thus, ultimately, all valuation is purely voluntary. Valuation gives or grants value. Things have value because the agent concerned has assigned value to them, period. Even when such act has objectives or objective justifications, claiming to be impartial evaluation, it is essentially arbitrary. This does not prove such valuations “false” – it just means they are intimate expressions of the self. Although one ought not identify with one’s emotions, one can well identify with one’s inmost valuations. So much for the issue of circularity in the concept of volition.

4. Inner divisions

How is it our right hand may not know what our left hand is doing, as the saying goes? What does it mean to say that we are often in conflict with our own self?

The self or soul is essentially one, but may partition itself in various ways. As we have seen, the soul is not an object of perception, but an object of apperception or self-intuition. Since it has none of the phenomenal qualities we associate with space (shape, size, location, etc.), but is a non-

⁹⁶ For this reason, incidentally, the attempts by some philosophers to build moral systems on hedonistic or aesthetic standards have little credibility. Such doctrines cannot guide valuation, because they refer to a consequence of it as the guide!

phenomenal appearance, it cannot strictly speaking, from an epistemological point of view, be regarded as spatially extended or as having an exact place. From an ontological point of view, however, we may either adhere to the same restriction (out of positivism) – or we may hypothetically project a spatial extension and position, if only as a convenient image (by convention).

It may be more accurate to regard the partitions of soul as occurring in time rather than in space. For the soul seems extended in time, which is an abstract concept even in relation to matter and mind, anyway. We presume that, although the soul is renewed every moment, it retains some unity and continuity across time throughout its life⁹⁷ – on the basis of which, we may acknowledge our personal responsibility for our past, present and future thoughts and actions. This thesis may be upheld, without going so far as to deny our ability to morally break with the past and change course in the present and future.

Although some instances of partitioning of self can be explained by pointing out that the conflicting volitions involved actually occurred successively in time, it remains true that some conflicting volitions seem to be simultaneous⁹⁸. It is the latter that we commonly map out as separate in space; although, strictly speaking, there is no reason to do so, i.e. we could equally well assume them as emerging from the same point of self.

The self or soul may be divided in a positive or negative manner. Such self-division is sometimes useful for purposes

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See discussion of this in chapter 16.2.

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See discussion of 'double velleities', higher up.

of self-regulation or self-control – as when we set up a ‘moral conscience’ to oversee our own compliance with certain higher standards, to ensure we are not swept away by the passions of the moment. Sometimes, the division is involuntary and unhealthy, causing self-damaging conflicts, reducing our ability to cope with life. Thus, division of the self is an issue of management – the manager in us must decide how much is needed and how much is too much.

We must distinguish in-soul conflicts (which occur in the self proper) and soul/mind-matter conflicts (which pit the self against its mental and material environment). One may *pressure* oneself to think or act in a certain way; this may be either in the sense of a will within the soul, or in the sense of a will pushing the mind and body in the direction concerned. Thoughts and deeds may be willfully *suppressed* for a variety of reasons: because they are sterile or foolish or painful or sickening, and so on.

Repression refers to an unhealthy situation, where segments of current or memorized apperception, perception, and conceptual thought are blocked from awareness, to a degree sufficient to ensure their (rightly or wrongly supposed) implications from being considered. *Oppression* refers to an uncomfortable situation, where the self at some level rejects an ideology – self-imposed under the influence of parents, society, religion, state, or other authorities – that is currently operative at another level. In the latter case, one’s autonomy is at stake – an issue of self-rule or self-determination – because one does not (or no longer does) identify with the ideology, yet one is (or continues to be) guided by it in thought and action.

More will be said on such psychological conflicts in the coming pages.

10. AFFECTIONS AND APPETITES

1. Valuation

Let us now look more closely at the main affections or appetites, which are among the *major influences on volition*. Our increased understanding of volition and influence can help us clarify concepts such as: liking and disliking (affections), desire and aversion (appetites), hope and despair, confidence and fear, certainty and doubt, and esthetic responses to beauty and ugliness. These can all be referred to as ‘values’ or ‘disvalues’, things one chooses to pursue or avoid. They are all causal concepts, in that they motivate and explain volitional action; they are ‘allied’ to volition.

Values are at least expressed through velleities, if not through full volitions.

Note first that each of these pairs of terms refers to opposite sides in a continuum, the middle point of which is labeled indifference. Thus, for instance, ‘desire’ refers to a *range* of positive responses, and ‘aversion’ (or desire-not) to the corresponding *range* of negative responses. Special terms may be used for the extremes. Thus, the more intense expressions of liking are called love; and those of disliking, hate. Indifference, as the word suggests, means ‘the object makes no difference to the subject’ – i.e. the latter is uninfluenced one way or the other by the former.

Note that *sometimes pleasure and pain are mixed*; i.e. the same object may arouse pleasure in some respects and pain in other respects. No contradiction is involved; it is a real possibility. *Sometimes, too, we are not sure whether what we feel is pleasant or painful*. This is different from mixed feelings or indifference, but refers to confusion; it is not an ontological position, but an epistemological one.

Although the term ‘affection’ refers primarily to likes and dislikes, and ‘appetite’ refers primarily to desires and aversions, they are also used more broadly for all valuations; presumably, because we are affected by them in our responses, and like hunger and thirst they involve some drive to certain actions by the agent concerned.

A drive may be said to have positive or negative polarity, or to be attractive or repulsive, according as its inclination is toward or away from the object; and the degree of the drive signifies its power to influence, how easy or hard it makes pursuit or avoidance of the object, how likely or unlikely it is for the agent to go that way. The same agent may at the same time have “contrary drives”, i.e. drives with incompatible objects.

One may at once desire X and desire notX; one may even also desire not to desire X and desire not to desire notX. That is all logically acceptable. But it remains true that if one desires X, one does not *not-desire* X: the law of non-contradiction applies if the presence and absence of one and the same drive is under discussion. Furthermore, one cannot hope to eventually realize both the incompatible objects at once: if the desire for X comes true, the desire for notX will not. Moreover, one is not forced to desire any one thing or its

opposite: one may remain indifferent. That is, I do not desire X and do not desire notX may both be true.

What we value today, we may disvalue or be indifferent to tomorrow. New cognitions, volitions or valuations can change our values. Our values are therefore often hypothetical, rather than categorical. We have more or less conscious *hierarchies* of values. Some values take precedence over others, come what may; others do so conditionally. Some values are basic and broadly influential, informing many of our actions over the long-term; others are ad hoc short-term responses to current opportunities. A drive may be strong, until its object is shown up to be incompatible with the object of some more important drive; in that event, the initial drive is considerably deflated and may even disappear completely. One drive may therefore be consciously used to resist or overcome another. Our values are thus in a sort of dynamic equilibrium, rather than statically set.

Emotions, of course, suggest valuations. The simplest emotions are physical pleasures and pains, sensations caused directly by external physical stimuli (e.g. a caress or a flame) or purely by physiological processes (e.g. satiety or hunger). More complex are psychosomatic emotions (sentiments), which are physical feelings with 'mental' causes; they are visceral, yet we know them to be due to events in the mind or evaluations in the soul. Bodily emotions are often a mixed bag of sensations and sentiments. More subtle are mental emotions, which seem to occur in the mental matrix rather than in the physical domain. Possibly, all bodily emotions are mental projections; possibly, apparently mental emotions are really physical – it is hard to say for sure.

In any case, note well, such classifications of emotions (as pleasures, pains; and as sensations, sentiments, mental emotions) should not cloud the fact that they vary greatly in quality and intensity. For instance, a pinprick is hardly comparable to a pang of hunger.

It is interesting to note that even physical pain may be variously experienced and influential, according to our perception and judgment of it. This is made evident in experiments using the ‘placebo effect’, where a patient’s pain is attenuated by fake pain reliever. Not only does the patient feel less pain, but also the fact is measurable through instruments attached to his brain. Note also the opposite, ‘nocebo effect’ – by which a misplaced belief gives rise to a physical, mental or emotional problem. Such ‘effects’ were cunningly used even in ancient times, by physicians and religious healers (to heal) and by witch doctors and the like (to heal or harm).

In any case, to repeat, all such concrete emotions are relatively superficial percepts and must not be confused with valuations, which occur and are intuited in the soul and are volitional acts. Their being willed does not mean such most inner values are artificial, affectations; quite the contrary, they come from the depths of self. Our knowledge of our valuations is self-knowledge. Concrete emotions and expressions of will give rise to various equivalent *abstract* notions of value, like good or bad. Valuations, note well, need not be verbal or even very conscious; indeed, they are usually wordlessly and subconsciously intended. We do not have to say, mentally or out loud, “this is good” or “this is bad” or “this is neutral”, to mean it.

Something valued is called a *value*. Positive values (values) are pleasures or pleasant (if emotion generating), or beneficial to one's self-interest, or good (using more abstract norms, eventually moral principles). Negative values (disvalues) are pains or painful, or harmful or bad. Indifferent things are neither valuable nor the opposite. 'Self-interest' here may be understood variously, as real or imaginary, probable or improbable, of interest to one's soul, mind, body, loved ones, possessions, or more abstract concerns.

The terms 'good' or 'bad' are here intended indefinitely, to mean 'valuable' or 'not valuable'; we use them because people do so. We acknowledge that people assign various contents to such general terms; we need not at this stage give them any objective status. Note that something may be neither good nor bad (indifferent); also, something may be good in some respects and bad in other respects (of mixed value). Therefore, though good and bad are ultimately meant as opposites, they are not logical contradictories.

2. The main valuations

There are many sorts of value concepts; below we try to define some of the more commonplace and so significant. Notice what they have in common: *they essentially are or involve cognition (some belief or consideration), and for this reason are able to influence our volitions*. Their repeated or constant influence on us explains our attachment to them, our immersion in pursuing or avoiding them. A value may be more or less long lasting. Our consistent valuations become our personal *attitudes* or dispositions.

One *likes* what one considers positive in some sense, in some way; one *dislikes* what one considers negative in some sense, in some way. One may like or dislike something without doing anything about it, although normally one makes some effort to go towards or away from it. Various terms distinguish varieties of likes and dislikes. For instance, *love* is a liking response of some high degree to people or animals (or even sometimes, though perhaps inappropriately, to inanimate objects like a house or a country); and *hate* is the opposite pole. Love and hate usually imply certain bundles of emotions and actions. Some people think they love someone, but are in fact only infatuated or sexually aroused. Hate, on the other hand, is rarely more superficial than it claims.

Desire signals an expectation of pleasure or some other benefit if some course is pursued; *aversion*, an expectation of pain or some other disservice if some course is pursued. The more feasible the required course to gain/keep or avoid/lose, the greater the impulse. If one realizes the object is unattainable, all the desire or aversion for it is lost. The desire or aversion for something usually includes the conation to have a certain kind of interrelation with it (e.g. desiring a woman, to make love to her or live with her).

Not all valuation is of the nature of desire or aversion, note well. What distinguishes them is that they usually lead to some sort of appropriate action or inaction, although they may on occasion be consciously ignored or resisted. Desire is expressed as grasping if we do not yet possess its object, and as clinging, if we already have it. An aversion is on the contrary a desire to steer clear of or get rid of the object.⁹⁹ If

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Some of these observations are gleaned from Buddhist psychology (see the twelve “*nidanas*”), which offers a very detailed

one succeeds in attaining the desired good, the desire is said to be fulfilled; if one fails, it is frustrated.

We of course often use specific terms for *specific* desires (or aversions), usually with reference to their object. Thus, for examples, thirst is desire for water or other liquids, hunger is for food (gluttony for excessive food), lust is for sexual gratification, greed for more wealth (money, possessions), vanity for admiration (including fame), power-lust for social dominance, curiosity for learning, and so forth. But many desires (or aversions) have not been given specific terms; we just say “the desire to ...”.

Satisfaction or *dissatisfaction* refer to our reaction upon fulfillment, or admission of failure to fulfill, a given desire or aversion. *Contentment* or *discontent* refer to our no longer having any, or still having some, outstanding desires and aversions; or at least to not-attaching, or attaching, undue importance (degree of value) to them. Thus, these latter concepts concern not one object of desire, but one’s relation to desire more generally (in life as a whole), or at least in some broad domain (e.g. at work or at home).

dissection of desire or aversion: they begin with a sensory stimulus (“contact”); this gives rise to pleasure or pain (an experience or evaluation); we tend to adhere to the pleasant or to be repelled by the unpleasant (“grasping”); this in turn impels us to act accordingly i.e. do what is necessary to gain and/or keep or to avoid and/or lose that which gave rise to the initial sensation (“clinging”). I have personally found this analysis of great practical utility to tame unwanted passions. *The series can be interrupted at any stage*: one can preempt the initial contact; or stoically ignore the pleasure or pain; or dismiss the tendencies to grasp and cling. If one opportunity is lost, the next one can still be used.

Hope and *despair* also involve the thought that good or bad may come; but they are more passive than desire and aversion. Hope is the conviction of the possibility that something considered good will occur or something considered bad will not occur. The ‘possibility’ may be correctly or incorrectly assessed, with reference to solid data and tight reasoning, or as a mere consideration of ‘conceivability’ or ‘possibility in principle’, or as an act of faith or as a deliberate self-delusion. Despair is, strictly speaking, the lack of hope; though, in practice, the term is used more loosely, if there is almost no hope.

Despair may also be defined with reference to the possibility that bad occurs or that good not occur. If the good or bad event under consideration seems impossible, it gives rise to neither hope nor despair. In view of the ambiguity in the assessment of ‘possibility’, the proverbial cup may be considered half full or half empty. In hope, the good or not-bad seems probable; in despair, the bad or not-good seems probable. Even if one holds all the cards, one can only hope to fulfill one’s desires, since one can never be sure to be alive a minute from now. Despair is rarely fully justified, because the unexpected may well happen.

In any case, note, hope and despair relate to future possibilities or probabilities that may be actualized either by one’s own will or forbearance – or due to forces beyond one’s control. One awaits the object of hope, but one does not necessarily act to attain it or even have to consider that one can do something about it. Hope may be a *wish* rather than a will for some future good. People often hope in God, or in the promises of some politician or potential benefactor, or in next week’s lottery draw. They may feel some present pleasure at

the thought that they may one day be blessed with this or that. Much fantasy is generated in this manner, keeping them entertained and superficially happy.

Trust and *distrust* are concepts in the same continuum as hope and despair. Whereas the latter concern the possibility of good or bad or their negations, the former concern moreover their *probability*. An event is not only considered, but moreover expected. Thus, trust is belief that good is likely to occur, or bad is unlikely to occur; while distrust is belief that bad will come or good not come. One may trust or distrust a person, oneself or someone else, with reference to future responses to events, usually basing the judgment on the evidence of past conduct.

Patience and *impatience* refer to our conduct relative to an expected event, according as one awaits it without worrying over it, or one wishes or tries to accelerate it. In the latter case, one not only desires or is averse to the object, but additionally concerned with its timing. The attitude of patience is based on the belief (right or wrong) that the external events or volitions concerned will play out in time and favorably, or at least in a manner one can adequately respond to, so one remains passive; whereas, in the case of impatience, one is doubtful of the outcome or timeliness and so one thinks interference is called for.

Confidence and *fear* both anticipate a more or less specific danger; they differ in the assessment of one's ability to deal with the dangerous entity or event. Both, then, foresee the possibility of some negative event. But confidence suggests potential strength or efficacy, fear potential weakness or inefficacy, relative to the perceived or assumed threat.

The degree of confidence or fear varies, according to the size of the danger and of one's expected strength or weakness. The assessments may be justified or not. The danger may be real or imagined, explicit or implied; the estimate of strength or weakness may be objectively accurate or not, admitted or not. Excessive confidence can be rash; excessive fear is timidity¹⁰⁰. Such excesses respectively underestimate or overestimate the danger, and/or overestimate or underestimate one's resources for dealing with it.

Confidence is sometimes due to foolishness and conceit, rather than to lucid assessments. The ego struts around, convinced of its adequacy on very superficial grounds. In some cases, this leads to success, because inner resistances are overcome or because other people are fooled by the show. But such egotism is ultimately brittle, and not true confidence. We may suspect secret fears to underlie it; these are best faced and dealt with, to secure genuine confidence.

Fear is compatible with hope, though often allied with despair. One may, note well, fear the inevitable – for instance, one's eventual death; or one may *resign* oneself to it. A fear may come and go, according to one's lingering on its object or one's estimates of the conditions and probabilities. Thus, one may for a moment fear the sudden approach of a black hole to our planet, and then forget all about it. Or one may fear an enemy, and then find him weaker or oneself stronger than previously assumed and regain confidence.

¹⁰⁰ Paranoia occurs when one unjustifiably regards oneself as personally persecuted, i.e. when one largely imagines that other volitional agents intend to obstruct or hurt one, and one feels inadequate to deal with such a threat.

Fear tests one's will. *Courage* is overcoming the negative influence of fear, i.e. retaining the ability to act more or less effectively despite a perceived threat; *cowardice* is the opposite attitude. Having courage does not mean making a macho spectacle of oneself; it consists in keeping a cool head, and making a fair assessment of the danger and one's resources, then acting as conceived necessary, doing the best one can. Bravery implies not being shaken when taking risks, because one can handle victory or defeat with equanimity.

Fear may give rise to an urge to flight (avoid or evade the object feared) or one to fight (parry or strike back at it). In combat, the most efficient way to deal with a threat is sometimes simply to bypass it altogether; it is sometimes wiser take a defensive stand, rather than allow the threat to grow; in some cases, counter-offensive measures are called for, to neutralize an aggressor; and in others still, preemptive attack, to make sure one is not surprised. The choice of means depends on one's assessment of the danger and one's resources.

Fear in itself is not an emotion. But fear may in some cases produce an emotion of *fright*, involving a hollow feeling in one's solar plexus or tightness in one's throat, as well as other symptoms, mental ones like stress and physical ones like tense neck and shoulders, faster and louder heartbeat, or skin sensations and hair raising. The exact reaction depends on the degree of danger relative to one's self-assessment. Fright may be a healthy reaction, or it may be neurotic. In the latter case, it gives rise to anxiety feelings, the object of which is not clearly known, i.e. only known at a subconscious level; false explanations may be proposed, so that the logic involved becomes tangled and confused.

Fear, especially in conjunction with fright, may also arouse *anger*, an impulse to incapacitate (violently harm or destroy) the dangerous person; anger also involves a vengeful motive, to punish the frightening person. ‘Cold’ anger is distinguished from ‘hot’, according to the degree of rational control outwardly maintained in performance. *Hatred* is an emotional response to a person or an animal that has hurt one in some way. If something feared has actualized, we may for that reason hate its assumed author. But one may also hate the latter for causing one fright or anger, insofar as these are also painful in themselves. Hatred may even turn on God, if He is regarded as the malicious controller of the events feared¹⁰¹.

One may fear oneself. If for instance one has in the past repeatedly betrayed some promise one has made to oneself, displaying lack of will that has had disastrous effects on one’s life or on loved ones, one may consider oneself untrustworthy. This may give rise to strong negative emotions, some of which may be chronic.

Certainty and *doubt* are also important valuations – which have a more epistemological context, signaling the degree of reliability or unreliability, or the completeness or incompleteness, of certain relevant data, concepts, propositions or inferences. One may also have certainty or doubt regarding how oneself or another person will react in

¹⁰¹ Needless to say, I am not suggesting or approving of such an attitude, but merely noting that it can and does occur. Fear of God need not make one rebellious, but may instead make one submissive. In Judaism, fear of God, in the sense of submissiveness and obedience, is regarded as the foundation of virtue.

such or such a situation of interest to one. Such evaluations of data or people are of course often very significant to our actions, determining which way we will go, or influencing us in taking preemptive measures. Certainty can be encouraging and energizing, but it may occasionally give misleading confidence. Doubt can make one hesitate or be demoralizing, but it may also occasionally stimulate creativity.

There are many other possible value judgments, of course, but the above are probably the most influential in our lives. Some attitudes have rather personal relevance (e.g. self-respect, pride, shame, guilt feelings); others are more directed at other people (e.g. admiration and contempt), or more relational (e.g. kindness or cruelty); though all may be involved in motivation to some degree and have social implications. Some of these valuations have some rationale; but many can be absurd. For instance, envy of another's external possessions (e.g. house or wife) is understandable although not commendable, but envy of another's qualities (e.g. youth or courage) is logically incomprehensible though common.

The esthetic responses towards *beauty* and *ugliness* are also worth mentioning, though more difficult to define. These appreciations of course often relate to our emotions. For examples, some rock music or contemporary paintings arouse great irritation in me; whereas in some other concerts or museums, I have been moved to tears by the beauty offered. But hearing a beautiful piece of music or seeing a beautiful painting does not always arouse a discernible response. Even so, the work of art somehow seems 'objectively' beautiful. Yet, we cannot honestly claim absolute objectivity, since different people have different responses; and even the same

person may vary in his or her response over time. So, this field has much mystery. Which is perhaps its attractiveness.

Our various passions (desires, aversions, etc.) have hierarchies relative to each other. These hierarchies can in time become changed; so that, a value that was originally subsidiary to another, eventually becomes an end in itself, or at least a subsidiary of some other value. For example, a man may struggle to become a sports champion, or some other public figure, not primarily out of desire for fame or fortune, but as a way to attract the attentions of girls! Later, he may get to love his profession for quite different motives: for the spiritual lift it gives him, or because it keeps him healthy, say.

3. Ethology

The study of valuation may be called ethology. Ethology differs from ethics, in that it sets no standards, but merely studies the ways values arise, combine, conflict, and pass away in people, treating valuation as a neutral object of study.

Looking at the above descriptions, we see the many factors each concept of valuation involves. Memories, abstract beliefs, anticipations, imaginations, emotions, all come into play. Everything is weighed in the balance. Attitudes are formed; policies established. There are velleities, in the sense of volitions about to happen. Obstructions and helpful aspects have their impact. Then action may burst forth and grind on. A series of consequences may follow, some of which may boomerang on the actor.

Many other concepts we commonly use in psychological discourse can similarly be clarified. We can thus gradually build up a more or less structured lexicon of psychological terms, with reference to the basic concepts of cognition, volition and valuation. The importance of all three functions should be stressed; many writers clumsily ignore or conceal the one or the other. Flowcharts can be drawn, highlighting relationships.

Values of various kinds with various objects are often intertwined in a complex *value system*. Values are in principle changeable; but some, being parts of such a system, have deep and lasting influence on a broad range of volitional acts.

The value system may include a bundle of attitudes that one possesses since as far back as one can remember, so that one may be deeply attached to them as the very expression of one's personal identity. Some values are pounded into us by parents or school. One may as a youth be influenced by the media (literature, movies) into thinking some attitude is valuable; and then discover when one meets certain people or faces certain challenges that the values transmitted to us were misrepresented. Some value systems, or parts of systems, are adopted by resolution, for ideological (ethical, religious, political) motives or to belong to some social group; these may remain firmly rooted once planted, or come and go. Many attitudes are acquired on the basis of life experience or personal reflection. Some people learn little from life; some evolve as they age.

The acquisition, maintenance or loss of values is rarely arbitrary, but usually modulated by life experience. One could draw an analogy between the induction of values (for

volition) and the induction of truths (for cognition). In cognition, something may be supposed to be true, but if it makes false predictions, we come to doubt and reject it. Similarly, in volition, something may be supposed to have value, but if it makes false promises, we come to doubt and reject it. However, I am not sure this is always a reliable yardstick; people are willing to suffer a lot, before admitting disillusionment.

Let us not have an overly arithmetical or mercantile approach to values. In practice, I have found true the adage: “virtue is its own reward, vice its own punishment”. This may, of course, be considered as an ethical statement, a moral judgment, in view of the words virtue and vice. But on closer inspection, one sees that the words in question refer to certain behavior patterns, so that the principle does not set specific standards or criteria, but is axiologically neutral.

It is one commonly intended sense of what we call ‘the law of causality’ – a statement that, with regard to human volition, just as in the realm of causation, **actions have consequences** (more or less predictable ones, in the short or long term). If one behaves in psychologically or existentially destructive ways, one will indeed likely eventually be accordingly destroyed; and inversely, if one thinks, speaks and acts in a healthy manner, one will naturally have (gain, keep) self-confidence, self-respect, serenity and contentment, and similar marks of mental health and spiritual dignity. Generally, we reap what we sow.

The ways of ‘virtue’ or ‘vice’ are known by experience, i.e. they are forms of conduct so classified because they have been found by lucid people over time to be conducive or antithetical to life. I would express virtue summarily as

dignity and decency – acting out of self-respect and respect of others, in the best senses of those terms. Vice is the opposite behavior, causing shame and guilt (even if one feigns indifference or pride) – to be avoided.

Of course, dignity and decency must be real and not pretended, and it takes effort and sensitivity to intuit them correctly. They are interactive, each affecting the other; so that both must be worked on to ensure their enhancement and stability. Virtue is not the means to some other goal and not the end of some other practice, but both the means and the end. The term “virtue” intends “it is the means” and the phrase “its own reward” intends “it is an end in itself”. Similarly, *mutadis mutandis*, for vice. These, then, are ways of being.

The virtuous stand straight; the vicious are twisted up inside. This is an ages-old ethological observation, which leaves the ethical choice to each one of us. It should be noted that it is only an approximation: it applies to the individual considered in abstraction from his social context. It refers to the inherent justice of our mental and spiritual makeup – but makes no claim to the existence of automatic social or natural justice, or of theodicy.

The reason why the principle applies to the human psyche, and not necessarily to human affairs, is due to the interaction of individuals in society. If everyone were virtuous, then virtue would perhaps be its own reward even in a social context. But since every society is a mix of virtuous and vicious elements, consistency requires the principle to break down in the larger context. The same consideration is applicable to the natural environment.

Thus, to take an extreme case, a wise and kindly person (indeed, an innocent babe) may well be harmed or killed by the likes of Hitler; and some such fools and criminals do observably end their days in material comfort and social immunity¹⁰². A natural disaster may sweep away nice and nasty people in the same wave. Similarly in more common situations – virtue does not guarantee material or social rewards, and vice does not guarantee material or social punishment. Social and natural forces and upheavals often pay little heed to the inner status of individuals.

Nevertheless, the virtuous person has spiritual or psychological riches that cannot be stolen or destroyed, and the vicious one has inner deficiencies that no external wealth or welfare can compensate. The former is a winner, the latter a loser, come what may on the outside. That fact provides consolation.

The Dhammapada, a 3rd Cent. BCE Buddhist text, puts it very nicely (v. 105)¹⁰³:

“...the greatest of victories is the victory over oneself; and neither the gods in heaven above nor the demons down below can turn into defeat the victory of such a man.”

In practice, the condition of being at peace with oneself and having **self-esteem** depends on a number of factors. If any of

¹⁰² To prevent which we have a judicial system.

¹⁰³ I do not know who is historically the earliest proponent of this truism. However, I personally finally become convinced of it when reading the aphorisms of Marcus Aurelius (121-80 CE – Roman emperor and Stoic philosopher), and I remember that it greatly affected my behavior thereafter.

these is lacking or insufficient, one is sooner or later bound to suffer proportionate degrees of inner conflict and self-contempt (or even, in extreme cases, self-hatred).

a. Self-esteem depends first on *integrity* or self-possession, i.e. doing what one values and abstaining from what one devalues. This refers principally to one's present behavior, but past behavior may impinge on one's present self-evaluation (though such impact may diminish with time and appropriate efforts). Clearly, if one lacks self-control, if one's actions are not in agreement with one's thoughts, one is bound to feel one is failing or betraying oneself and develop inner tensions. For example: if one has a 'bad' habit, one should 'logically' give it up to ensure one has a 'good' conscience.

b. It follows that the stability of self-esteem depends on the *reasonableness* of the demands one makes on oneself. If one makes impossible demands, one is on a neurotic course that inevitably shatters inner peace. If one sets one's standards too high, if one lacks composure and pressures oneself (e.g. through anger or whining) to act in unwise ways – one is behaving disrespectfully towards oneself. One can only realistically demand what is naturally possible and currently within reach of one's actual capacities – no more. Of course, one can seek to surpass one's current limits to some extent; what is possible or impossible in a given situation is open to some debate. For examples: it is reasonable (in most circumstances) to demand one go up to one's boss and ask for a raise; it is unreasonable (for most people) to demand one have the courage to climb Mt. Everest.

c. Self-esteem is primarily a function of *sincerely trying*; it does not ultimately depend on success. So long as one has in truth made all appropriate efforts in the direction of one's values, one is in reason free of blame for failure due to events beyond one's control. Of course, how much is truly one's best shot is open to debate. In the face of failure, one may try again, and again; perseverance is not excluded. But reality may still prevent ultimate success – and this should not in principle affect self-esteem. This is a corollary of the previous point. For example: a man tries to save someone from drowning and fails; if he tried his best, but the currents were too strong, his conscience is clear, and his self-esteem unaffected. If he feels dissatisfied with his performance, he may decide to train himself to swim better, for next time – but that is another story.

d. All the preceding points suggest that peace of mind and self-esteem are possible irrespective of the nature of one's values. But that is unrealistic; it is too relativistic a position. Balance is not a product of mere conventions, be they individual or collective. It is not just a function of one's belief system – it is also determined by objective circumstances. There is such a thing as 'human nature'; people are not infinitely pliable and adaptable. The psychology of self-esteem also depends to a considerable extent on the *constructiveness* of one's values – their healthiness, their life enhancing power.

One has to choose one's values intelligently. If one's values are contrary to human nature, they will sooner or later have a negative impact on one's inner harmony and self-esteem. Because the harmful effects of unnatural values may take time to come to fruition, one may in the short term be lulled into a false sense of serenity and efficacy, but later on –

sometimes suddenly and with a vengeance – one will discover the full force of one's errors. Examples of this abound, and are worth reflecting on.

Someone living in a society where certain beliefs and practices intentionally causing harm to other people are common might on the surface seem perfectly at ease within this framework (e.g. black magic or racism). Nevertheless, such behavior may well affect his or her psyche adversely, and in the long term cause deep doubts and insecurities. The mere fact of acceptance of the framework does not necessarily exempt a person from eventual objective effects. Moreover, the person experiencing consequent disturbances may remain unable to identify their cause.

The same is true of certain beliefs and practices not thought by their proponents to cause psychological or social harm (e.g. homosexuality or masturbation). Psychological health and wellbeing is not merely an issue of adjustment to arbitrary personal or social standards. If this were the case, as some propose, standards could be varied at will and be as weird as we choose, and there would never be untoward consequences. But, to repeat, humans have a specific nature. No one is immune to reality check. Beliefs can be incorrect and values objectively destructive.

So much with regard to the virtue of 'dignity' – it is being worthy of self-respect and respect by others, through healthy-minded behavior. As for the virtue of 'decency' – it consists in treating other people and living beings with due respect (at least). These are related conditions. Self-respecting people generally behave respectfully towards others, acknowledging their dignity, thus revealing and reinforcing their own worth. (Respect does not of course mean condoning or honoring

vice; it is rather a matter of poise: remaining noble even in the presence of ugliness, not stooping down to its level.) People without self-respect tend to exhibit disrespect towards others, thus revealing and reinforcing their own deficiency. Decency may range from a courteous hello or smile, to giving charity or saving a life; indecency may range from behavioral or verbal insult, to rape or torture.

11. COMPLICATIONS OF INFLUENCE

1. Habits

An apparent issue relative to freedom of the will is the force of habits, good or bad. If we have freewill, how come we have habits that are sometimes so very hard to break? Some habits once acquired remain with us all our life, becoming (what Aristotle has called) ‘second nature’ to us. Bad habits, like (for instance) smoking tobacco, are often seemingly more easily acquired and difficult to shake off than good habits, like (for instance) keeping one’s home clean and in order.

We can define as a *habit* any volitional type of behavior (response to stimulus), which *due to its repeated performance in the past* has become easier to do or more difficult to abstain from doing. The force of habit is, then (in our view), that of *influence* on volition, but this influence is special in that it is acquired and strengthened by repetition. The more often and thoughtlessly we allow ourselves to do something stupid (or not-do something intelligent), the more likely are we to do (or not-do) the same again. The more often and thoughtfully we encourage ourselves to do something intelligent (or not-do something stupid), the more likely are we to do (or not-do) the same again.

Habits appear to be due to the phenomenon of *reinforcement*. It seems to be a law of the psyche that *every volitional act*

increases the ease for a similar response in similar circumstances. Thus, a prior volition influences a later volition, for good or bad. Underlying habit formation is a snowball effect.

Thus, Every time one takes up a challenge, it becomes easier to take it up again the next time it is presented; inversely, the more often one demurs, the less likely does taking up the challenge become. Every time one gives in to a temptation, it becomes easier to yield to it again the next time around; inversely, the more often one resists, the less likely is it to overwhelm us. Note that these two formulas are two sides of the same coin.

This law details more precisely how habits are formed: every strong act (taking up a challenge or resisting a temptation) produces an influence for the next opportunity, making it a bit easier; every weak act (failing to take up a challenge or giving in to a temptation) produces an counter-influence for the next opportunity, making it that much more difficult. The exact measure of influence is not specified here, but it is never infinite – i.e. it never makes freewill impossible thenceforth.

The process of habit forming or habituation consists in repeatedly responding in a certain way to a certain kind of stimulus. Thus, the habitual or customary is a quasi-automatic reaction or routine that we have more or less voluntarily instituted over time, for good or bad. We acquire a ‘default’ behavior pattern, which can only be broken by a willful de-programming or a corrective program. Thus, for instance, repeated laziness can only be overcome by repeated energetic behavior.

We should mention, incidentally, the role of repetition in *learning*. Not all learning is based on repetition; most depends on trial and error and other methods. But once a decision is made (by or for the learner) to memorize certain ready-made information or skills, this is often achieved by repetition. One may, for instances, memorize a prayer or some martial arts movements. This form of learning applies to animals as well as humans; for example, a lion cub may repeatedly imitate its parents' hunting techniques.

We may distinguish between a habit of *activity* and a habit of *passivity*. In the former case, some positive will is involved in the behavior pattern concerned; for example, saying 'good morning' to people one meets. In the latter case, the habit consists in not-willing something that might have been willed in a given circumstance, so much so that the stimulus may be ignored; for example, one may get used to a noise and cease trying to smother it or escape it, and even stop noticing it.

Habits we approve of do not normally constitute a problem, though we may conceive situations where we desire to at least conceal them. It is habits we evaluate as self-destructive in some way that we wish to avoid. The best way to avoid bad habits is to steer clear of temptations, while the forces involved are still at a manageable level. Once habits are acquired, their influence may be so intense that punctual effort may not suffice to free ourselves of them; a certain course may then be called for, involving effort great enough over time to overcome the undesirable tendencies. The additional effort required may be just to remember that one has a habit to resist, or much more conscious planning, resolve and perseverance may be called for. A new, counter-habit may have to be instituted.

2. Obsessions and compulsions

If we advocate freewill, we have also to give a convincing account of the obsessions and compulsions that most people experience to some degree at some time in their lives. **Obsession** refers to any persistent or recurring thought or emotion, especially an unwanted one, which cannot be stopped at will. **Compulsion** refers to a seemingly irresistible impulse or urge to act in a certain way, especially an undesirable way¹⁰⁴.

Common examples of obsession: a man may have the image of a woman he is infatuated with displayed in his mind for hours at a time; or a woman may for days mentally replay a painful conversation she had with her boss at work; or a man may spend his life trying to ‘prove’ himself to someone long since dead who made a wounding critical remark once that keeps echoing in his ears.

Common examples of compulsion: a student may periodically drop whatever he is doing and masturbate, although seeing the self-destructive effects of his impulses he keeps promising himself to take control; or a wife cannot stop herself chattering to her husband all the time, even while knowing he dislikes it and it drives him further and further away

¹⁰⁴ We may include *inhibition* under this term, as a special case of compulsion, where the tendency involved is *abstain from* the exercise of will, as it were ‘against one’s will’ or contrary to one’s better judgment. In this perspective, not-willing is a sort of will.

from her; or a manager cannot help it, but he just loves manipulating and torturing his employees.

Many psychological theories have been built around such apparently involuntary events in our inner and outer life. Some are optimistic, believing that humans can overcome their weaknesses and improve themselves. Others are pessimistic, considering people as mostly sorry puppets in a show they did not write but only at best watch. It is significant that the former theories tend to encourage us to rise to the challenge, whereas the latter tend to promote our resignation. The former facilitate virtue; the latter, vice. For this reason, the issues must be dealt with.

Even when one sits and meditates, one is often completely submerged by ongoing thoughts – significant or insignificant mental images, meaningful sounds (words) and meaningless ones (e.g. a musical tune) – and even sometimes by the perception of bodily sensations and emotions, which may cause voluntary motor responses (e.g. fidgeting, scratching or getting up). One may have recently had an exciting experience, positive or negative, which stirs one up, churning one's mind and body, in reminiscence or anticipation.

Now, one's self or soul may try and recover control of the situation, wishing to find peace of mind, serenity, equanimity. One tries and tries, without success. Sometimes, one is so caught up that one even forgets to try! One is drawn in, sucked into the maelstrom. Occasionally, one becomes momentarily conscious of the situation, and valiantly tries for a moment to apply some voluntary meditation technique like breath awareness or stopping thoughts, or even just making one's agitation itself the object of meditation. But one cannot

sustain it; a moment later, one's attention is carried away by the strong currents of thought, like a leaf in a turbulent river.

Where is freewill in such cases, one may well wonder? Though the thoughts, emotions and movements involved are to some extent involuntary, in the sense of coming from the body, they are also surely to some degree produced by the self, with some measure of volition. Regarding the involuntary portion, we can compare the situation to that of a man tied to a chair and forced to hear an audio tape or see a video movie; even if this is against his will, he retains freewill but cannot exercise it. But, regarding the voluntary portion, *how can the self act against its own will?*

One might propose as an explanation of obsessions and compulsions that the soul is self-divisible, i.e. that it may split itself up into *conflicting parts*. What is voluntary to one fraction is involuntary to the other. One compartment may hide things from another. One part may make demands on the other, and be obeyed or ignored. And so forth. The splitting of soul would have to be regarded as an initially voluntary act or series of acts; these however could not be undone at will, but require a certain amount of voluntary inner work to reverse.

And I think that this proposition, that the soul may function at cross-purposes with itself, is largely assumed. It may sometimes be healthy. For instance, one's "moral conscience" may be considered as a reserved portion (of varying size!) of the soul, assigned by oneself with the permanent task of overseeing the remainder of one's soul, judging its actions and shouting foul when they deviate from certain norms. Often, it is pathological. Some people seem to

have deep chasms in their inner personality, which may last a lifetime and severely damage all their behavior.

This notion of compartmentalization could explain why meditators call the achievement of inner peace ‘Samadhi’, which I gather means ‘integration’ in Sanskrit, i.e. (in the present interpretation) unification of the soul. But, while I readily concede that the idea of soul division may be a useful metaphor, I would not grant it as literal truth that easily. We must first try to explain the data at hand in less assuming ways.

To understand the aetiology of obsessions and compulsions, in a manner consistent with freewill and without making any too radical additional assumptions, we have to examine such processes in more detail.

With regard to obsession, our above theory of freewill does not exclude that the brain may bombard the subject (cognizing soul) with manifold impressions. We have not suggested that all information used in volition has to be called forth voluntarily, but have at the outset recognized the mental domain as an intermediary between the physical and spiritual domains, such that the nervous system may provide the subject with uncalled-for data to consider (which may be relevant or irrelevant to will – it is up to the subject to judge). That the soul does not always have the power *to stop* such involuntary input at will does not therefore put freewill in doubt.

The uncontrollable arrival of data for cognition is not per se the problem of obsession, since volition is not involved in it. What *is* obsessive, and needs explanation, is when the soul *to some extent voluntarily* invites or sustains thoughts or

consequent emotions, *even while wishing to stop doing it or pretending not to be doing it willingly*. In such cases, volition is in fact involved in the apparition of cognitive data. In such cases, the problem of obsession is really a problem of compulsion. For this reason, we are justified in lumping both problems together as here, and treating them as one. The underlying cause of the one is the same as that of the other.

Let us therefore turn our attention to compulsive behavior: what is its nature, cause and cure? Consider for simplicity's sake some examples from my own meditations:

- One day, I notice I am very talkative, constantly commenting on everything around me, and verbally directing almost everything I do. Why such verbosity? In my case, it is perhaps due to being a writer of philosophy, who has to express things in words. This turns into a habit hard to shake off. Linguistic rehearsal is also involved, preparing phrases for writing. Or again, perhaps I am unconsciously trying to communicate with someone by telepathy.
- Another day, I notice I am planning a great deal. Not just planning ahead for something *about to* happen, which needs immediate choices and decisions; but planning *further ahead*, for things that will happen a few hours, days, weeks, months or years from now, as if I will be unable to make the appropriate choices and decisions at that time (although I will in fact have more precise data at hand then). And worse still, not just planning for what is *programmed to* happen (for example, I must contractually leave my apartment in a few months); but even planning for what *might possibly* happen, even if improbably (for example, what I would do if I was on an airplane hijacked

by terrorists, as in the TV movie I just saw). Why such orgy of planning, beyond all rational utility?

- On yet another day, I am fully absorbed by thoughts of petty conflicts I currently experience with people. This person said something that vexed me; the memory keeps returning and I consider the event from all possible angles: I wonder how I should respond, or debate if I should respond; I perhaps consider different scenarios, with responses and counter-responses. By association of ideas, I then move on to some other person, who I remember behaved in a similar fashion. I wonder what motivates such people, why they so lack ordinary decency or civility, where their moral or social education failed. Thus, my mind remains focused for long periods on events irrelevant to my present attempt to meditate – why?

Thankfully, my meditations are not always that troubled and confused¹⁰⁵; and when they are, my mind does eventually calm down. Also, compulsions are not always undesirable; for example, the compulsion to solve an intellectual problem is valuable at the right time and place. But the issue here is: what is the common character of such busyness, why is one unable to simply turn it off, how is compulsion of this sort compatible with claims to freedom of the will? The answer it seems to me is with reference to: *wanting* (here using the term in a specialized sense) – which implies lacking something, a negative condition, whether one positively

¹⁰⁵ Simple *tiredness* often plays a role in such effects; and that is significant, because it shows that they remain basically issues of influence rather than credible objections to freewill.

wants something or instead wants to avoid or evade something.

I may want to remind myself to say or do something; so, I keep repeating it mentally until I can act it out physically. I may have missed an opportunity, which does not present itself again (soon enough, if ever). I may know I will never in fact (at least, not so long as I am sitting in meditation!) get the chance to respond to some past event; so I am condemned to react to it in imagination, again and again. I may be tortured by an unanswered question, or some forgotten item of memory; so, I keep searching for an answer.

In all such cases, there is a 'hole' needing to be 'filled', an issue to resolve, a problem to solve, a task to be performed, some unfinished business to attend to. The situation is so constructed as to keep one 'suspended', almost powerless to untie oneself in the present context. Thus, what drives volition in such cases, is not a positive force, but rather something negative, a lack – a want.

If we now turn our attention to compulsive behavior on a more physical plane, we can discern a similar pattern. Volition is here too driven indirectly by negatives, rather than directly by positives. It is sucked in, rather than driven. That is what makes compulsions particularly insidious: they are not due to the presence of some temptation or obstacle, but to the absence of something. In ordinary desire or aversion, the object is relatively manifest and identifiable; in the 'wanting' involved in obsession or compulsion, the object is more concealed or deeply buried. Being absent, that thing is necessarily difficult to spot and be dealt with. There is a black hole, perceivable only by its effects. Thus, to overcome

a compulsion, it is imperative we uncover the hidden term in the equation.

Consider, for instance, *drug addiction*. A voluntary act is always involved, such as reaching out for a glass of liquor, or lighting a cigarette or joint, or using a needle, for instances¹⁰⁶. Such an act is usually preceded by a mental rehearsing of the act: one imagines oneself doing the act and enjoying its sequels. Perhaps a foretaste of things to come is feasible, like getting a whiff of smoke. One first mentally toys with the idea – then physically executes it.

The drug addict thinks or claims the drug will provide relief from physical, mental or ‘existential’ suffering. The drug is not intended or expected to cure anything, but only as ‘compensation’. The alleged suffering may take the form of insufficiency of pleasure or excessive pain. The relief the drug offers takes the form of an escape from suffering; the drug does not abolish the suffering, but only momentarily conceals it. For this reason, the drug is bound to be objectively harmful in some way over time; for if the suffering used as a pretext is objective, it remains untreated. The drug may additionally introduce its own physical, psychological or social damage in the equation; the addict may develop health, emotional and/or social difficulties.

¹⁰⁶ The psychological processes involved apply equally well to more metaphoric ‘drugs’, of course. The ‘drug’ may be food or sex, for instances. In such neurotic situations, of course, eating has little to do with bodily hunger, and sexual intercourse is no more than using someone as an aid to masturbation or at best mutual masturbation. The ‘drug’ may also be more masochistic, something negative rather than positive. In a way, all use of drugs may be considered masochistic, since it is self-destructive behavior.

Because of its ineffectiveness or counter-effectiveness¹⁰⁷, the drug's use tends to excess. After some time, the drug's effects thus come to 'justify' its use: a vicious circle is created.

The compulsion to resort to the drug is thus more than a mere habit based on repetition. There is an initial argumentum, which gives the addict a pretext; this may be false and misleading. The addict considers himself or herself as being disadvantaged in some way (emotionally, socially, whatever), and proposes to make up for such deficiency by means of the drug. Real problems, existing before the drug-addiction, are ignored; and real problems, due to the drug or the addiction, are produced; the latter also remaining unsolved. To free himself or herself from the addiction, the addict cannot merely make an effort of will at the time of the compulsive urge, but must first intellectually unravel the convolutions involved and then stay aware of them. Then only can willpower ("just say no!") do its blessed work over time.

The existence of compulsive behavior need not therefore be considered as putting freewill in doubt. Volition is indeed influenced, here as in all cases; but that which is really doing the influencing is relatively concealed. For this reason, it is particularly difficult for simple volition to overcome compulsive influences; often, mere strength of will does not do the job: what is needed is awareness and cunning.

The agent must first realize and admit he is entangled in some knot, then make the effort to unravel it. This means identifying the unresolved issue, the quandary, the missing

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For example, cigarette smoking makes one more, not less, nervous.

link, behind the compulsion; and neutralizing it, somehow. Mere revelation may well suffice in some instances – just seeing the absurdity or circularity of the compulsion dissolves it. In most cases, some priority must be set: i.e. *some illusory or lesser value must be abandoned in favor of some real or greater value*. If the dog lets go the bone, it can pick up the steak. Often, more long-term work on oneself is required, which may include theoretical studies, detailed observation, analysis and modification of one's patterns of thinking and doing, and (in my view, most important and effective) meditation.

Another example we can give, that is relevant to current social mores, is the psychology of *sexual hedonism*; this is very similar to drug addiction.

The facts of human nature, which everyone can verify by extrapolation from their own experience (though saying this is not an invitation to 'experiment' with such matters), are the following. Given free rein, the senses ultimately make no distinction regarding age, gender or species or any other issue of causation; all they care about is getting more pleasure and less pain. The senses devoid of rational guidance are only concerned with quality and intensity of sensations, without regard as to their sources or their consequences.

People who imagine that happiness is to be found in sensual experience pursue the latter relentlessly. After a while, they become more and more blasé to such experiences, and start looking for new experiences. The sensitivity of their sense organs having been diminished by repetition and excessive friction, they

desperately yearn for novelty that arouses other sensory receptors or the same receptors in other ways. They thus sink deeper and deeper into more and more depraved sexuality, in a sort of mad desperation.

The result is not happiness, but self-contempt and self-defeat (not to mention damage caused to others, used as tools or accidentally affected).

Desire is not proof of need; people can and do desire things that cause them (and others) much harm. People often use their reason to find pretexts for their sensuality, to rationalize it – but in such case, reason is subservient to emotion. To be free of sensuality, one must admit the independence and supremacy of reason over it.

Note also, concerning sexual orientation: in general, spiritually pure people find impurity repulsive, whereas the impure feel at home in the midst of it. The impure find the pure attractive, but only as an opportunity to spread impurity, only in order to soil the pure. The impure are most attracted by the equally impure, to express their impurity; or by the more impure, to increase in impurity. As impurity spreads in a society, tolerance for it proportionately increases; by and by, impurity becomes more demanding and aggressive.

3. The ego abhors a vacuum

It is interesting, finally, to compare our above conclusion concerning ‘wanting’ as the driver of obsessions and compulsions, and the Buddhist principle that ‘desire’ is at the root of all human action (creating karma and thence further ‘desire’, in a seemingly endless cycle). We have earlier seen

that volition usually has some goal (perhaps always so, if we discount apparent whims, granting them to have ends of sorts). In the present context, we have noted that sometimes the purpose involved in volition is particularly perverse because misleadingly eclipsed.

A very perspicacious observation of Buddhist psychology¹⁰⁸, which explains a lot in the present context, is that *the ego is constantly seeking stimulating experiences so as to reassert its existence and identity*. This is the basic ‘selfishness’ or ‘egoism’, and ‘vanity’ or ‘egotism’, of the ego or false self. By the ‘ego’¹⁰⁹, we may understand the (partly or even largely erroneous) self-image of the soul¹¹⁰. It is a mental projection,

¹⁰⁸ The following account is inspired by Buddhist doctrine, but I have adapted its terms. Thus, most schools of Buddhism deny existence of a “real (individual) self” (here called soul), admitting only an illusory “conventional self” (here called ego) and a substratum for all existence called “Buddha nature” or “original ground” (what we might call a universal soul). In my view, granting the existence of such an undifferentiated substratum, we would be hard put to understand how or why it would give rise to egos (false selves), if we did not assume that the universal whole is first in the interim apparently broken into individual fractions (real selves). Although Buddhist theorists enjoy provocative paradoxes, we must remain critical and logical.

¹⁰⁹ Note that our use of the term ‘ego’ here derives from its popular use, and is not to be confused with that in the psychology of Freud (which refers to a ‘realistic, practical’ segment of the psyche), though it may encompass aspects of the latter concept, as well as of the contrasting concepts of ‘id’ (an ‘emotive, impulsive’ segment) and ‘superego’ (an ‘idealistic, regulatory’ segment).

¹¹⁰ It is interesting to notice how we converse with ourselves, sometimes in the first person singular (I, my), sometimes in the second (you, your), and more rarely in the third person (saying ‘one’ or ‘we’, as here). One may also wordlessly project a physical

a set of notions and suppositions about itself, which the soul confuses with itself¹¹. The self-as-ego always needs buttressing one way or another. We may put it as: 'the ego abhors a vacuum'.

As I have explained in my *Phenomenology*, the 'ego' consists of aspects of one's body, mind and soul – some correctly experienced or inferred, some wrongly assumed, some fancifully projected – to which one (i.e. one's soul – the cognizing, willing, evaluating self) attaches to as one's very 'self'. It is a partly true, partly false self-image, weaved selectively and with fictional embellishments¹², to which one clings tenaciously in the belief that its loss or damage would be unbearable.

Being a cognitive construct of the soul (and not itself a soul), the ego has *no will of its own* (even though we sometimes speak of it as if it did). It is not a separate entity competing with the self – although we often present it as such, because that is a convenient image, a useful figure of speech. Every supposed voluntary action of the 'ego' is an act of the soul or self, for which the latter remains fully responsible.

image of oneself doing or having something. All such discourse may, together with other events, be added to the basket that constitutes the 'ego'.

¹¹¹ For this reason, the ego may be referred to as the prison of the soul, or more poetically (to use a metaphor dear to Jews) as its place of exile. The ego usually involves an inflated vision of our importance in the scheme of things, due to the maximum proximity of our body and mind in our perspective on the world; but the ego is also in fact an artificial limitation on the natural grandeur of our soul.

¹¹² This means, for instances, treating momentary appearances as established realities, or transient or occasional traits as lifelong characteristics.

Nevertheless, the ego-construct strongly *influences* most thoughts and deeds of the soul, sometimes for the good, often for the bad, acting like a veil to knowledge and an obstacle to volition, in the way of a filter.

Bodily sensations and sentiments are major constituents of the ego, which have a particularly powerful influence on identity and behavior, due to their enormous and insistent presence. But many other factors come into play, too, such as ongoing mental chatter.

A common affliction today (in men as well as women) is repeated gazing at one's image in the mirror. This is not just amusing narcissism, but an expression of the ego's deep insecurity and need for confirmation of existence and identity, as well as a preparation for social projection. A similar affliction is looking at photos or films of oneself, and showing them to other people.

Our ego is also 'relative' to other people, in that we project some of it (usually the more flattering aspects, though often also aspects that may excite pity and charity) to them as our social persona (partly as cunning construct and partly incidentally or accidentally). To the extent that one manages to convince others of the personality projected – through one's words and deeds, as well as physical appearance – one reinforces one's own conviction in the said self-image.¹¹³

Although ego building is possible in isolation from other people, it is (for good or bad) made easier in many respects in social contexts. The reason is that other people only know the

¹¹³ The relativity of ego is also, by the way, an insight drawn from Buddhist psychology. Truly, the East is a rich mine of human understanding.

individual through some phenomenal factors, whereas the individual also has intuitive (non-phenomenal) knowledge of self. With other people, we can selectively 'show and tell'; also, they linger on the past, instead of letting it stay in the past, since the image of us they memorize is accumulative and rather rigid.

The ego is essentially *restless and insecure*. It prefers pleasant experiences; but if such are unavailable, it will just as well seek painful ones rather than none at all. Fearing to face its own vacuity, it will seek sensations, thoughts, distractions and possibilities of self-identification (e.g. listen to heavy metal music on the radio or watch a scary movie on TV, or just go to sleep and dream, or play games with someone). It will invent artificial intellectual problems, so as to have something to think about and express itself through. It will create psychological, existential or social problems for itself, so as to have something to respond to and a role to play. That is, our problems are often not accidental, or even incidental, to our pursuits, but their very purpose.

In particular, the ego's need for stimuli helps explain why man is such a social animal. Of course, humans do objectively need each other: for common survival, for procreation, to bring up children. People care for each other, support and help each other, work together for the common good, enrich each other culturally. But modern novelists, journalists and psychologists have come to promote a great emotional dependence in people (which paradoxically breaks down human relations in the long run, because it is misleading). To correct this erroneous tendency, by showing up the subjectivity of many social bonds, is not 'cynicism', but lucidity and compassion.

Most people quickly feel lonely if they are alone. Although the said hunger for stimulation can be satisfied without resort to company (especially as one matures), the easiest way to satisfy it is through human exchanges. The advantage here is precisely the maximum give and take involved. One gets sensory input, and one has respondents in front of whom to project a social persona. One acts, one gets feedback, one reacts – one is almost never ‘bored’. With a companion – a family member, a friend, a lover, a colleague, even an enemy if need be – one is always kept busy and entertained. One prefers a nice, loving relationship; but one might settle for an argument or a fight, or just a walk in a crowded shopping center. If a human companion is unavailable, a pet will do.¹¹⁴

The motivation behind our constant grasping and clinging after objects of desire may be nothing more than a frantic, desperate attempt by the non-existent ego (i.e. to be precise, the self confusing itself with this imagined entity) *to assert itself* through stimulants and ‘ego games’. This would be (according to the said thesis) the mother of all compulsions, whether bad or good. Therefore, if we managed to abandon our delusive self-identification with this illusory self, we would be freed of all compulsions.

A further explanation given by Buddhism is that “existence is suffering”. The ego necessarily gives rise to suffering – being finite, it is inevitably subject to repeated vexation, frustration,

¹¹⁴ Of course, some people are loners against their will, because they cannot handle the challenges of relations. Hermits, on the contrary, avoid human or other contacts, so as to reduce unnecessary stimulation, and the artificial problems that come with it. They wish to simplify their life and experience to facilitate meditation. But some people manage to meditate in the midst of disturbances.

pain, fear, anger, hatred, despair, boredom, and so forth, whether due to the presence of objects of aversion or to the absence of objects of desire. This suffering is expressed emotionally, as a sort of background noise of negative feeling, underlying to some extent all one's experiences, even those that superficially appear positive. This negative substratum, of which we are sometimes acutely conscious and sometimes only vaguely aware, strongly *influences* our behavior, causing us to think and act non-stop, often in deviant ways (such as drug taking), in a blind and hopeless attempt to rid ourselves of the inexplicable unpleasant feeling.¹¹⁵

The Buddhist principle of desire is thus very general¹¹⁶: it refers to a sort of gluing¹¹⁷ of the self to all objects of

¹¹⁵ This is the first of the "Four Noble Truths" at the core of Buddhism. Note that one does not experience the emotion the French call "*le mal d'être*" all the time; one may be very happy for a long time, unaware of this substratum. But this happiness is inevitably temporary, i.e. it is dependent on causes and conditions like good health, a loving spouse, material plenty, etc. It is brittle, fragile; and at some level, we all know it and brace ourselves for the inevitable end.

¹¹⁶ This is worth comparing to the concept of an "evil impulse or inclination" (*yetser haraa*), proposed in Judaism. According to the Rabbis, all men and women, naturally, by the mere fact of being physically constituted, have such an inherent negative tendency. This is not, however, all bad. When people work against such resistance (the matter weighing them down, as it were) to achieve good, they acquire credit. But moreover, it is sometimes a good thing when they fail to overcome it. For example, yielding occasionally to sexual desire makes reproduction possible; if everyone was too saintly, there would be no one left.

¹¹⁷ See my essay *Ungluing the mind*, further on (chapter 16.1).

cognition and volition, called attachment or variously desire, grasping, clinging. However, such attachment is not easily shaken off. The opposite acts – viz. detachment, indifference, renunciation, letting go – are equally forms of attachment, insofar as they are intentional acts. Escape from or avoidance of attachment is impossible, if it is itself a pursuit of sorts. The whole difficulty of ‘liberation’ is that the latter circle must somehow be squared. Thus, Buddhism teaches more radically that there is compulsiveness of sorts in all our actions, which can only be eliminated in the ultimate ‘enlightenment’.

12. URGES AND IMPULSES

1. Physical urges and impulses

We all have *natural bodily urges*, which seemingly ‘force’ us to perform certain actions. But on closer analysis, they do not really leave us no choice at all, but present us with relatively little choice.

Our most manifest bodily urges relate to the **digestive** system. They are the urges to drink, to eat, to urinate and to defecate. Observing their course in detail, the following features are apparent in common to them all (at least in humans):

1. We experience a set of physical *sensations*¹¹⁸, which *triggers* the whole process. This may be called the *stimulus*. Thirst includes sensations of dry taste inside the mouth and throat. In hunger, the signal consists of distinctive pangs in the stomach (often with felt

¹¹⁸ Sensations are of course impossible to describe in words, being primary phenomena. All we can do is allude to them through familiar expressions and analogies. Furthermore, my descriptions here are probably incomplete: thirst and hunger may include oral sensations I cannot pinpoint. Also, in some cases, sensations vary in detail: for example, more liquid feces give a different sensation than more solid ones. Sensations are also registered as distinctive: e.g. hunger differs from pain due to indigestion or intestinal gripe; or the sensations relating to urination differ from those in sexual desire.

movements and audible sounds of the gastric juices). In urination, we have a recognizable feeling of liquid pressure in our sex organ. In defecation, feelings of bowel movement and overload inside the rectum are experienced. This sensation is normally a natural outcome of an objective state of affairs in the body: deficiency or excess of liquid or solid nourishment. However, it may also on occasion be aroused artificially, by mental images; for example, wondering whether one needs a pee before going to bed, one may begin to urgently feel like having one.

2. We may moreover discern, more subtly, a sensation of sorts, occurring somewhere in our motor system, consisting of *an impulse to act in a certain way*. This secondary physical sensation is probably not a reflex, but an unconscious first reaction of the central nervous system. It signals that the appropriate (or usually requisite) organs of action are prepared to act in response to the stimulus. The muscles of our legs and arms are poised to grab drink or food, and our mouth is already salivating; or we are ready to run to the toilet. The impulse is thus a velleity to act (a natural reaction or one based on past behavior). However, in our present perspective, it serves as information rather than as action. It is perhaps what we may most closely identify with the ‘sense of having an impulse’.¹¹⁹

¹¹⁹ I extrapolate this assumption from a common experience in my meditations: as I approach the last few minutes of my regular period of meditation, I often feel a strong impulse to get up. Such “okay, time’s up!” signal is worth resisting, by refusing to identify oneself with it, so as to get the full benefit of the sitting.

3. When these sensations of stimulus and impulse come to our attention, they are *evaluated* by us in various respects:
 - a. We assess a *discomfort* that needs to be gotten rid of. The more intense the discomfort felt, the stronger the urge.
 - b. The degree of *urgency* involved is estimated, i.e. how quickly we must respond as urged to. The essence of ‘urging’ seems to be the *time limitation* it imposes on us; we are, as it were, under pressure of time. The stronger the urge, the less time it leaves us.
 - c. We consider *expedients*, what might be done or not-done to deal with the matter at hand. Such evaluation depends not only on physiological considerations, but also on practical, psychological and social factors.

The practical issue might e.g. be: how easily or soon can we find nourishment, and what/where is it? Or how close is the nearest toilet? The psychological issue might, for instances, be: are we on a diet or a fast for some reason? Or: are the toilets here too smelly or dirty? The social issue might be: can we do it in public, is it ridiculous, approved, allowed or forbidden?

4. Such various considerations in making a value judgment involve mental images – invoking memories, projecting possibilities, anticipating consequences. Finally, choices are sorted out and a decision is made by us. Our will is stirred into action, actualizing our present response.

- a. This may consist in *retarding* execution, by *resisting* our impulses – willfully not seeking nourishment or not going to the toilet.
- b. Or it may consist in *responding*, at the earliest or last possible opportunity, to obtain appropriate *relief* from the sensations, in a more or less convenient time, place and manner.
- c. Or we may hesitate or abdicate, letting nature eventually determine the course of events: progressively weakening us till we die of thirst or starve to death prematurely, or incontinently releasing our urine or feces in what may be the wrong time and place and eventually damaging some organ.

In the case of imminent danger to life, limb or health, we are *instinctively extremely unlikely* to do nothing about it: this improbability being what we commonly call ‘**the will to live**’.

5. These different possibilities of response are, note well, all *volitional*. Whether we retard, preempt or abandon things to nature, we have made a choice, though one involving different effort inputs. Whatever it is, this is *our* response. However, any of these choices, and the above mentioned thought process leading to it, may be made *with varying degrees of consciousness*. It may be effectively ‘involuntary’ (i.e. involve a very minimum of consciousness) or more and more voluntary. Also note, the relevant events that preceded our volition, i.e. both (a) the cognitions of sensations and (b) the value judgments

and the other considerations that went into them, are all *influences* on our will.

6. An essential feature of these natural processes is that they are *inertial*, i.e. inevitable if not interfered with. If we do not respond appropriately to the signals our body sends us (thirst or hunger, or the urges to urinate or defecate), certain negative events eventually occur against our will: we may get sick and die, or soil ourselves. First, however, we may experience a *mounting pressure* of stimuli and impulses¹²⁰. We may be able to prevent the natural event by application of will for quite a while. Then at some time, that choice is no longer given us, and we have to either promptly respond by an act of will that relieves the pressure, or face the inevitable natural event (whether weakness and death, or incontinence and sickness).
7. It is the latter *prospect* of some untoward events that influences us to take preventive measures, at the first, or (at least) at the last, opportunity. That is, some *mental* images are the immediate cause of our eventual action, rather than the pure sensations that initially start the whole urge process. The closer the event feared gets, the more our mind is occupied by it, calling for relief. Although very physiologically centered, the essential theatre of such urge complexes is mental, and the action they result in is volitional. Moreover, note well, the

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In truth, in the case of thirst and hunger, the feelings may abate after a while. This is evident when I fast for a day; I do not know what happens beyond that. In such cases, the initial signals from the body are only a temporary warning, whose memory must suffice to influence us to appropriate action.

categories of causality of causation, influence and volition are all involved.

8. Furthermore, note, whether we obtain relief volitionally or against our will, sooner or later the same process starts all over again. We get thirsty, hungry; we drink, eat; we digest and feel the urge to dispose of the waste; we go to the toilet; pretty soon, we get thirsty and hungry again, and so forth. At least these digestive tract processes are cyclical (more or less daily), and go on throughout our lives to provide our body with energy and matter.

One further remark: it should be noted that the initial physical sensation is in some cases aroused by a prior thought (which in turn may have been brought about by some other sensation, and so on). For example: if before going to bed I ask myself whether I need to urinate, my attention goes down to my organ and this usually suffices to initiate a sensation of need that would probably have not been present or intense enough otherwise. Or again, I may feel no thirst till I see an advertisement for a drink. We shall return to this issue further on, when we consider mental urges.

Another powerful physical urge is the **respiratory** urge. Breathing (muscles pumping air rhythmically in and out of our lungs) is most of the time automatic. Occasionally, it becomes a more or less voluntary act. If air is lacking in the surrounds or our throat is blocked, one becomes aware of the difficulty of breathing and to some extent volitionally intensifies it. If stalked or stalking, one may find one's breathing more marked and noisy, and perhaps try to control it so as to remain unheard by the enemy feared. In meditation, when one turns one's attention to one's breath,

one's initial tendency is to take over the function, as if obliged to breathe consciously; although after a while it is possible to observe the breath without affecting it. Also, it seems¹²¹, one cannot willfully *stop* oneself breathing indefinitely: if one persists, one loses consciousness and the breathing mechanism takes over again.

The **sex** drive has two facets. Its basic function is *reproductive*. This is a milder, long-term urge, part of the general will to live, a will to survive in one's descendants (as an individual¹²², or a member of a certain family or race or species), perpetuating one's genetic makeup. Here, the 'discomfort' to be removed may be the metaphysical fear of nonexistence, or the more conscious desire to obey an assumed Divine commandment. The time frame to fulfill that purpose is anytime after puberty and before natural loss of sexual potency or fertility, accidental organ damage or death – which is mostly understood to mean as soon as possible or convenient.

The sex drive also has a *hedonistic* component, which serves to promote the biologically primary reproductive function. This is a short-term urge, which can become very intense, not to say overwhelming. Here, the 'discomfort' to be removed is partly the pain of sexual tension, partly the hope of sexual pleasure. Sensations of physical lust arise in and around one's sex organ at the sight of a potential sex partner, and the urge

¹²¹ See Curtis and Barnes. p. 408.

¹²² Here, I refer to the Jewish belief that one's children are continuations, extensions in time and space, of oneself. But we may also refer to the Buddhist teaching that sexual desire is the motor of cyclic existence, because through that desire one engages in all sorts of pursuits that increase karma and thus generate one's rebirth.

and excitement become more intense as the relation approaches consummation. The potential of reproduction is momentarily largely eclipsed by the immediate urge to engage in actual intercourse. One may control one's timing (or even at the last minute for some reason disengage). Finally, one lets go and obtains relief in orgasm and ejaculation, until the next time around.

Among humans, the sex urge is strongest in adolescence and youth, and perhaps (apparently because of testosterone levels) more so in males than in females; these facts have biological utility. Of course, some older people and females seem considerably influenced by lustful feelings, but this may rather be a sign of emotional immaturity and gullibility towards media hype¹²³, than natural necessity.

People can, by willpower, altogether abstain from sex for years or even all their life¹²⁴; this occurs under the influence of some common belief (e.g. Christian or Buddhist spiritual practice) or some personal peculiarity (e.g. a childhood trauma). A man may nevertheless have wet dreams. Some people temporarily or permanently ignore the reproductive aspect of sex, but are committed to its hedonistic aspect. Today, people may thanks to contraceptive pills and condoms engage in normal sexual intercourse without risk of conception, as promiscuously as they like. Some people

¹²³ The claim that sex, in whatever guise or form, is a necessity for mental hygiene and physical wellbeing has become widely accepted in our culture as fact. But, judging by its observable negative effects on personality and society, this claim should in my opinion be reviewed.

¹²⁴ Even animals do not all satisfy their sex urge (at least I assume so, observing that in many groups a dominant male monopolizes all the females).

satisfy their lust by masturbation. Some people go so far as to engage in child abuse, homosexual acts or even bestiality.¹²⁵

A third aspect of the sex drive worth noting is more conventional than physical, being due to *social* pressure. This occurs in traditional society, based on the family; but also in modern society, which glorifies the appearance of sexual prowess. If one fails to fulfill social expectations, one may considerably lose face or be variously stigmatized. Such penalties are real enough, as one's life-opportunities in society may be affected; so people generally comply. Exceptions may be granted, for instance to monks and nuns; indeed, in their case, the public regards any sexual interest as scandalous.

Any **feeling of sickness** urges us to identify the cause and find a cure, or at least to relieve the symptoms, or risk some untoward consequence(s). If we feel tired, our urge is to rest or sleep, till our energy returns, or risk collapse (e.g. at the wheel of our car). If we feel hot or cold, we have an urge to adjust the temperature of our body (e.g. by taking clothes off or opening a window, or putting a blanket on or turning the heater up); else, we start sweating or shaking, and lose energy, etc. If our skin surface is itching, we have the urge to scratch it, as if to remove the irritant; in some cases, the irritant (e.g. a biting insect) is in fact thus neutralized. In each such situation, our tendency is to avoid discomfort and eventual illness, and return to comfort and ensure health.

We may of course systematically preempt problems, rather than wait for them to arise and solve them – for example, by

¹²⁵ Needless to say, by listing such proclivities I do not mean to condone them.

earning a living, and thus making sure in advance that one has enough money for basic needs such as nourishment, shelter, procreation or medical insurance. Clearly, such functioning goes beyond immediate physical urges, preparing longer-term responses to them. This is all an expression of the will to live. Some people care too little for the future, some too much.

So much for our analysis of the common bodily urges. Of course, much more can be said about such processes from a biological or medical point of view – for examples: digestive and respiratory urges relate to metabolism, temperature control relates to homeostasis, and so forth. While such knowledge is truly fascinating, and worth acquiring to obtain a fuller understanding, our approach here is simply phenomenological – how the individual directly experiences things and responds to them. In particular, we have tried to clarify in some detail the involvement of volition and influence in them.

The processes above described, despite some differences of detail, have largely similar features, so that we can propose a general definition of the concept of urge, at least with regard to humans (we may have to make adjustments with regard to animals). Our interesting finding is *the extent to which what we call a bodily urge involves ‘mental’ components* (presumably, these diminish ‘lower’ down the scale of animal life¹²⁶). We are less driven by a physical force than by the

¹²⁶ However, there must be some mental component. Consider, for instance, why a housebroken dog holds back from doing its thing indoors – it must have some memory of its master’s disapproval of soiling the home.

prospect of some negative eventuality and the *thought* that the temporal window of opportunity to prevent it may close.

Moreover, although such urges relate to physical processes with eventual automatic outcomes, *they allow for volitional interference, in the way of temporary resistance and some convenient preemptive measure.*

The preemption may be positive or negative. In the case of urination and defecation, the event (call it X) that is minimally bound to occur if we do not interfere is incontinence, and its preemption consists in going to the toilet before that happens (i.e. it is also X). Likewise in breathing: the automatic and volitional acts have the same effect (bringing oxygen into lungs). In the case of thirst or hunger, the minimal event (X) is insufficient energy or matter, and its preemption consists in providing energy or matter soon enough (i.e. it is notX, the opposite). Likewise in reproductive sex: the danger faced is generational discontinuity, while the remedy is to procreate.

We might at this stage usefully distinguish between initial sensations emerging from *natural bodily* processes, like the digestive, respiratory and reproductive ones above described, and those due to some *external physical* stimulus. For instances: if a bright light flashes into our eyes, we blink, fearing damage to our retina; if someone is tortured, he may scream or cry, hoping to arouse pity in his torturer. It is useless to attempt an exhaustive list. Suffices to note that any sense organ(s) may be involved in the stimulus, and there are standard responses (though sometimes, creative responses may be called for).

A more radical distinction suggested by our above analysis is one between urges and mere *impulses*. Impulses, like urges, tend us on a certain course of action, and they can be resisted or indulged. However, whereas impulses can be resisted indefinitely without risking some untoward natural consequence, as we have seen this is not true of urges. Examples of impulses will serve to illustrate this differentia. If we hear some unpleasant noise, we rush over to stop it if we can. If we are tickled, our tendency is to wiggle as if to escape our tormentor. In such cases, note, our volitional response (resistance or preemption) has no very significant effect on our health or life¹²⁷.

We may use the word drive to mean ‘urges or mere impulses’. Often the distinction between urges and impulses is moot. Often, what appears as an urge can be construed as a mere impulse – for example, many of the above described hedonistic aspects of the sex drive. We may also classify habits or compulsions like smoking tobacco, the use of hard drugs or alcoholism as impulses. The failure to soon procure the desired drug may produce withdrawal symptoms (irritability, insecurity), making it seem like the impulse is an urge. Thus it seems to the victim’s befogged mind; but, biologically, the opposite is true – the drug is destructive. So in fact, if there is any urge, it is a natural urge to stop smoking or getting doped-up or drinking, or risk disease.

¹²⁷ Though it could be argued that even an unpleasant noise or sensation is somewhat threatening.

2. Mental urges and impulses

Mental impulses and urges have logical constructions similar to physical ones, except that usually the initial stimulus is a thought (or discontent) rather than a sensation (or discomfort). For example, the above mentioned social convention aspect of the human sex drive is clearly a mental urge, rather than a physical one.

The dividing line between them is admittedly sometimes arbitrary. Often, a physical urge or impulse occurs following a thought. We have seen, for example, how the mere thought of urination may give rise to the sensation that triggers the urination urge; similarly, for instance, the mere thought of a cigarette may make the habitual smoker 'feel like' having one. Conversely, a mental urge or impulse may be kick-started by a prior sensation or perception. For examples, one heard someone say something or saw an ad on TV.

A good illustration of mental urge would be my urge to write this here book. It starts with a spontaneous, persistent thought. It is an urge, in that a time constraint is consciously involved – I constantly tell myself to finish the book before I die (and pray to be granted life enough). This distinguishes it from, for example, an impulse to buy a new car I saw tantalizingly advertised; although, having so hooked me, the salesman may try to induce in me an urge to buy it, by setting a deadline for a 'special offer' at reduced price or with extra features!

The production of mental impulses, and their upgrade to urges, are common practices of religious traditions; for

example, a religion may teach that standard prayers or other rituals are necessary to salvation (impulse), and additionally institute set times for such rituals (urge). Similarly, the tax office sets a deadline for tax returns, and imposes a penalty if the task is not done on time. Such expedients are used by all secular ethical, social, legal or political systems, to promote duties and their timely exercise. In such cases, the terms ‘to impel’ or ‘to urge’ someone respectively mean ‘to cause an impulse or urge in’ that person – the causality involved being that of influence.

A mental impulse or urge is triggered by some distinctive memory (perceptual or conceptual), or an imagination (visual or auditory), or an emotion (a mood or psychosomatic sentiment or purely physical sensation), or a verbal proposition. These initial ‘thoughts’ may arise spontaneously, or through some intellectual process, or by mere association of ideas; or they may be generated by bodily influences or by perceived external physical events or persons. Beyond that stimulus, everything is analogous¹²⁸. Impulses differ from urges in lacking temporal pressure. The time factor involved in urges functions by creating psychological stress, which makes us double up our efforts so as to get rid of the annoyance as soon as possible¹²⁹.

It is interesting to compare *impatience* to mental urgency. They have some affinity, although they are logically opposite in the sense that urgency is due to (assumed) insufficiency of

¹²⁸ As we shall see further on, some mental drives have other differences from physical ones.

¹²⁹ Note that often two or more urgencies may be superimposed within a same time frame, increasing our stress tremendously, because we are forced to prioritize.

time, whereas impatience signals (assumed) excess of time. Impatience arises when one feels that some process (e.g. waiting for one's date) is taking more of our time than one is willing to devote to it. So one wishes to hurry it on, e.g. by being less careful or by inciting urgency in other people involved – and if it is out of one's power to do so, one suffers stress. The time one has mentally allotted to the task is artificially (by wishful thinking) shorter than the time it really takes. An impossible (and needlessly stressful) urge is therefore produced to fit a process of longer duration in a time restriction of one's own making.

A mental impulse or urge, like a physical one, involves a certain velleity to action, which may include specific muscular feelings; e.g. eagerness to play the piano may give rise to sensations in legs to go to the piano, and in hands to play it. An evaluation occurs, which determines our degree of desire or aversion, the urgency if any of its fulfillment, and the available ways and means. Choices are made and decisions taken, culminating in volitional acts – whether temporarily resisting the impulse or urge, or doing what it impels or urges us to do at an appropriate time and place, or letting things happen as they may.

Note that what classifies an impulse or urge as 'mental' is its assumed starting point – the eventual action(s) it drives us to do may be physical as well as mental. Thus, for instances, lust is an impulse to grab and kiss the girl, anger is an impulse to punch the guy's face in – these are physical acts proceeding from a thought. Again, yearning for understanding is an impulse to study – the latter consisting mainly of mental acts.

Just as bodily urges are cyclical, their fulfillment bringing only momentary relief, soon after which they recur, so with many mental desires – they tend to be insatiable and unlimited. Thus, for instance, for most people, the more money they can get, the better; because even if they feel secure for today and tomorrow, there is always the day after and the one after that to worry about. Urges can thus become permanent prisons, if given free rein. The lover of wisdom would here suggest: If you *identify with* the urge, it dominates you; if you don't, you *can* dominate it.

The passive connotation of the word drive (driven) should not be overemphasized, however. We should rather keep in mind that 'drive' rhymes with 'strive'. One may actively drive oneself. Our mental urges and impulses are not just happenstance, or innate like most physical ones – they are generally acquired. They are furniture of our minds that we have often constructed and placed there¹³⁰ ourselves. Like the body, the mind is an instrument of the soul. An instrument is something that has some uses, though not infinite uses; something that can be useful, but also obstructive; something that has a nature, and is not infinitely pliable.

Thus, we may train ourselves – or be trained by others – to respond in certain ways to certain situations. This may occur consciously, in the way of 'working on oneself' – or it may be the natural effect of a long series of separate choices and acts, which together eventually constitute a habitual pattern of conduct. We may be fully aware of a drive, whether we approve or disapprove of it; or we may be subject to it while

¹³⁰ This is said in a common manner of speaking. Drives are of course 'stored' in the brain, as discussed earlier, in the section on therapeutic psychology (chapter 8.3).

largely unaware of it as such, whether due to overall poverty of self-knowledge or because we have suppressed the specific knowledge to make room for some personal contradiction.

Indeed, we may be subject to conflicting drives, be they physical and/or mental. For example, one may have to risk one's life to save a loved one. Impulses or urges are in conflict when it is naturally impossible to follow/fulfill them both. Urges are, moreover, in conflict, when the time required for their performance and their time limits makes it impossible for us to satisfy them both. In such cases, we have to become aware of the potential conflict, or else fail in both cases; and then we have to prefer one to the other, and in urgent cases make our mind up quickly enough to avoid actual clash. Sometimes the dilemma is paralyzing; in which case, nature follows its course.

When a person deals with such conflicts in a systematically irrational manner, making little effort to bring them out into the open and resolve them one way or the other, keeping them in the dark through fear of admitting unflattering traits or wishing to indulge in drives he or she knows to be unsuitable and harmful, the person is eventually subject to mental pathologies. Such *repressive* behavior over time may, for instances, give rise to chronic negative emotional states like anxiety, or to occasional 'inexplicable' outbursts of hatred and anger, or to excessive sleep and permanent fatigue, or to nervousness and hyperactivity, and so forth.

In all such cases, one can glimpse underlying conflicts that have to be faced, and resolved through appropriate thoughts and deeds. Mental drives are not permanent features once acquired. They can, more or less consciously, be attenuated and eventually eliminated, by making suitable choices over

time – for instance, training oneself to respond differently to the same stimuli till such new response becomes ‘second nature’. Such changes usually require sensitivity, cunning, effort and time – they rarely just happen or can be produced by immediate will.

3. Formal analysis of physical and mental urges

We analyzed in detail some basic bodily urges, and showed that similar features can be found in other physical urges and in mental urges, stating that these differ essentially only in the way our attention is drawn to them. Physical urges are triggered by certain sensations either originating in the body or caused by external objects, whereas mental urges spring from thoughts. We also noted that mere impulses differ from urges in lacking the factor of inevitability. Impulses involve stimulus and standard response, but no time limitation; there is tendency in them, but no urgency.

a. To begin with, let us review (with new numbering) some of the salient features of physical urges and their closest mental analogues, with particular emphasis on aetiology:

1. Some event is *bound to eventually occur*. This event, or at least its timing, is undesirable¹³¹. The time limit involved may not be known with any precision, but instead indicated by the increasing intensity of physical sensations. In the case of mental urges, the time frame is

¹³¹ E.g. in hunger or thirst, lack of nourishment is undesirable, whereas in incontinence it is not the waste disposal that is undesirable but its timing.

often emotionally highlighted, though it may have been intellectually estimated.

2. But fortunately, the untoward event can *voluntarily* be slowed down for some time, or preempted. However, it cannot be indefinitely retarded, and the time allowance for its preemption is limited. As we have explained, preemption may be positive or negative. The consciousness involved in the volition may range from minimal (so-called involuntary) to maximal (fully aware).
3. If the event or its time of automatic occurrence seems inopportune, the agent may be increasingly influenced by *the prospect* of such occurrence or mistiming to take some suitable voluntary steps to retard and/or preempt the event. Note the words inopportune, prospect, influence, voluntary and suitable – implying valuation, cognition and volition at various stages. Even in the case of physical urges, the central events are mental.
4. The initial sensations or thoughts, that made the agent aware of the event, do not force him to act in any way; he may choose not to intervene. If the agent intervenes inappropriately or too late, or does nothing about it, the undesirable event occurs anyway, at whatever time natural circumstances happen to make it occur.
5. Relieving an urge, whether by an act of will or by letting things happen by inertia, does not mean ridding oneself of it forever. After a while, it may reappear. This is particularly true of natural bodily urges, though it may even apply to mental urges.

This list suggests that urges can be formally defined through a series of statements, including modal categorical and

conditional propositions. Thus, we might label the agent concerned A, and the event X, and so forth, and state concisely: “X will inevitably happen to A by time T, unless A retards such event (inertial X) by will for a while or until A preempts X by willing X (or notX, as the case may be) before X naturally occurs, etc.” However, the above detailed description serves as definition just as well.

Our analysis makes clear that an urge may be viewed as a ‘causal *nexus*’ – a series of causal relations of various kinds together forming a common pattern. The same is true to a lesser extent of an impulse; it has some of the components of an urge, but not the more pressing ones. Both are more complex than the relation of influence, which they involve among others.

What should be examined next is what we mean here by the modality “*inevitable*” – for it is clear that this term has many nuances.

- In its strictest sense, we mean by it a *natural necessity*, something deterministically bound to occur eventually come what may. This sense would apply to the natural bodily urges earlier described; for instance, once we need to pee, we are eventually bound to. A more conditional version of same would be *natural inertia*, meaning: within a certain existing framework, the event is inevitable, but if this larger context is changed, the inevitability might not hold. For example, the patient will ‘surely’ faint if not fed, but that won’t happen if the patient dies.

It should be added that natural inevitabilities do not apply only to the body or its physical surrounds. The mental

domain also has a ‘nature’ and so is subject to natural necessities and inertias. For example, if one behaves in certain foolish ways, one is bound to eventually suffer certain unpleasant consequences, like neurosis or madness.

- The concept of inevitability can be further broadened with reference to *artificial necessity*, and further still with reference to *artificial inertia*. For examples: in a legal system, a penalty may be obligatory once sentenced, or it may be open to review. Clearly, such artificial inevitabilities apply in situations organized by someone’s volition (one’s own or some other persons’). They may be physical as well as mental; for instances, the penalty may be capital punishment, or it may be social stigma.

The concept of urge can further be broadened, by acknowledging the fact that the inevitability and/or its timing need not be *real*, as so far implied, but may be merely *imagined*. The urge, be it physical or mental, is based essentially on the agent’s assumption that there is inevitability (of whatever sort) and/or that the undesirable event will happen within a set amount of time. Such assumptions are sometimes justified, and sometimes erroneous – but in either case, the urge has the same stimulating power. Error is perhaps more common in the case of mental urges; but even bodily sensations and physical perceptions may be wrongly interpreted.

It follows from the above analysis that we can emancipate ourselves from physical and mental drives that we find inappropriate, provided we remain lucid. We should try to always be aware of the forces impinging upon us, identifying their nature and sources, checking their underlying premises,

evaluating the benefits and dangers inherent to them, and confronting them if they need to be rectified. It is preferable to be proactive than reactive – as the saying goes “a stitch in time saves nine”.

As already stated, to insure personal freedom of action, it is necessary not to identify with the urges or impulses concerned, i.e. not to consider them as part of one’s essential identity. The object is not, however, divorcing oneself from one’s passions, or rigidly controlling them, out of fear of them. Internal harmony and peace, and ‘spontaneity’ and ease in action, are highly desirable. The most efficient way to find the right balance is through meditation: achieving inner calm, everything naturally falls into place.

Humans have free will – but that is a potential we have to daily actualize. Doing so, the self asserts its mastery of the house of matter and mind it inhabits.

4. Are there drives *within* the soul?

We may ask the question: are there *spiritual* urges and impulses, by analogy to physical and mental ones? Is the term spiritual appropriate, or are all non-physical ones mental?

A common early experience of meditation is that thoughts of all kinds (e.g. focusing on a sensation or memory or emotion; projecting a mental picture or sound; verbal discourse, anticipating, planning; etc.) seem to have a ‘momentum’ of their own – seemingly ‘*against our will*’. They are not (or not always) entirely involuntary, but often (if not always) involve some voluntary mental activity – and yet we do not have

instant and total control over them (at least not till we reach a certain level of mental calm through meditation).

This is a paradoxical experience, which needs to be explained. How come human will does not have immediate and full control over the mental if not material functions at its disposal? Why can I not *stop* mental turbulences at will, and get on with my meditation? What is it below the surface that *drives* thought, making it semi-automatic if not completely hectic? How do obsessions, and more broadly compulsions, work?

The mind, as well as the body, would seem to have its own mechanistic inertia. Our primitive response in the face of such impulses is to 'follow' them, doing what they impel us to do. The soul (through its free will) tries gradually to gain ascendancy over these naturally moving mechanisms, i.e. to resist them and become more autonomous. At first, only some aspects may be immediately accessible to willful interference. As we become more calmly focused on the spiritual self, and cease to identify with mind and matter, we are able to more and more control them. Control is not a matter of greater force, but of finding the correct point of leverage.

If we grant the postulate of freewill, that the soul's modus operandi is always and exclusively volitional, it means we reject any notion that inertia or coercion are possible in the 'spiritual' domain, i.e. within the soul. It is therefore an assumption that *all* involuntary events occur outside the soul (in body or mind, or beyond them in the rest of the world), never in it. This implies that, although it is cognitively receptive, the soul in itself has no 'passions' of volition. Influences make a direction of will 'easier or more difficult'

for the soul, but do not literally push or pull it in any direction.

This theory may make our inner life seem extremely bland and dispassionate, and some may well wonder if it is accurate. They will argue that we do seem to have drives, pressing on us or drawing us hither and thither. It does appear that there are influences that do not merely increase or decrease the effort requirement of our volitions, but which at least are programmed to occur *unless voluntarily stopped*. If that is true, then the soul might be said to have 'real' drives, at least in the way of internal 'inertial processes' (if not causative necessity).

But the issue is: are such (seemingly) 'spiritual inertias' really occurring in the soul, or in its physical and mental surrounds? I very much doubt that any such inner impulse or urge could move the soul into acts akin to volitional acts even with the soul's acquiescence (let alone with determinism). The soul's typical 'acts' seem to me such that they can only be performed by the active will of the soul. I suspect the nature of these acts is such that only the soul can carry them through to completion.

However, to be clear, we have to distinguish here between *the soul's willing (positive)* from its totally *not-willing (negative)*. Otherwise, we would have to assume the soul is always obliged to will, whether a positive or a negative goal. It would never be at rest, never uninvolved. This would not be a true picture of our inner life. When the soul positively 'acts' (either willing or deliberately not willing), it creates something new in and for itself. But obviously, when the soul 'does nothing', it still has some description –

viz. the way it happens to be thus far. The latter situation is not to be counted as 'inertia' in the above sense.

If we carefully analyze situations involving drives, such as the 'hard to control' thoughts mentioned above, we find that the events that are 'inertial' are entirely in the realm of causation, in body and/or mind, i.e. outside the soul. For instances, speaking out or imagining something. In such cases, there is a natural process in the nervous system or in the rest of our body that, either in general or in certain specific circumstances, is bound to occur, unless the soul volitionally interferes and stops such a development. The soul's volition, or abstinence from volition, is entirely in the realm of the soul; whereas the precise inertial event, whether it is allowed to proceed or prevented, is entirely outside the soul.

In truth, even our most subtle feelings, such as the positive and negative moods or esthetic responses that poetically put seem to permeate our very soul, do not really occur in the soul proper but in the adjacent mind. Although very subtle, they are still internally perceived phenomena, and not intuited experiences. Therefore, they act on the soul like all other influences, making its volitions easier or harder, but are not essentially within it.

Though hard to prove with finality, this doctrine seems more probable. However, see the further reflections below, which give more consideration to the different ways consciousness is implicated in volition.

5. Formal analysis of spiritual urges

We have just considered where in the psyche seemingly inertial events like obsessions and compulsions might be located, and concluded that they could not be assumed as spiritual (i.e. in the soul) consistently with will and its freedom, but must be regarded as mental. This, as we shall now show, suggests certain formal differences in some mental drives.

There is a *special class of mental urges*, which deserve particular attention. As we saw earlier, the volitions we call ‘unconscious’ or ‘inadvertent’ are so called, not because they lack *all* consciousness or deliberation, but because they have a very *minimum* of it. The adjective ‘involuntary’ is paradoxically applied to certain of our volitions, only hyperbolically in the way of self-reproach for insufficient attention, not meaning literally to imply total non-volition.

We may on this basis construct a logical form of urge that, instead of opposing natural or artificial inevitability (necessary or inertial, real or imagined) to voluntary retardation or preemption, opposes an agent’s so-called *involuntary (i.e. minimally conscious) will* to the same agent’s *voluntary (i.e. more conscious) will*. By this means, we are at last able to clearly formalize the ‘spiritual inertias’ most of us experience daily in our thoughts and actions. We can thus explain why obsessions and compulsions seem to occur by themselves although they obviously involve will; and even against our better judgment, although we are essentially beings with freewill.

Our proposition is that *although such urges do involve consciousness and will, **more effort** of consciousness and will is needed to prevent or stop them than to start and continue them.*

A habitual routine involves consciousness and will, but it is *relatively* effortless compared to the investment called for by any attempt to overcome it, so we repeat it on and on and thus reinforce it. This explains the analogy between ‘spiritual’ inertias and natural inertia: an extra effort is required to transcend them. Just as in the realm of causation, the inertial goes on until if ever diverted by volition, so in the realm of the soul, there are situations where less demanding volitions proceed unless or until more effort is invested. We might thus refer to ‘volitional inertia’, or keep using the term ‘spiritual inertia’ to stress the agent’s responsibility in the implied indulgence.

Thus, here, (1) instead of referring as above done to some event that is “bound to eventually occur”, we refer to a relatively ‘involuntary’ volitional activity; and (2) whereas the former would be “voluntarily slowed down for some time, or preempted”, the latter would be relatively more voluntary (i.e. require more effort of consciousness and volition). In both cases, (3) mental events determine the response. And, finally, (4) if the response is “letting things be”, the event that occurs here is continuation of the ‘involuntary’ behavior; after which (5) the whole cycle may resume. The analogy is manifestly apposite, allowing us to use the term ‘urge’ in both cases.

These specific mental urges may be distinctively called ‘spiritual urges’, for the reason already stated. We can then (briefly) define such urge in formal terms, as follows.

“Agent A has an urge to will W” means **“if A does not voluntarily will notW, then A involuntarily wills W”**, where ‘voluntary will’ refers to conscious volition and ‘involuntary will’ refers to subconscious volition, i.e. volition with the minimum amount of awareness needed to perform it and no more. It is logically obvious (since W and notW cannot both occur at once) that “if A does voluntarily will notW, then A does not involuntarily will W”, so this need not be added.

I would like to emphasize the importance of this finding. Having previously formalized physical and mental urges and impulses, and here spiritual ones, we can now safely assert that *in all human drive contexts, the agent retains freewill and responsibility*. Until now, a doubt could subsist, because vagueness of conception allowed some theorists to give the impression that the agent could be essentially passive and therefore unaccountable. But our descriptions show that his personal involvement is quite conceivable, and thus serve to confirm it.

For example, Freudian theorists *subdivide the person into conflicting forces, segments or entities* – the ego, id and superego; or the conscious, subconscious and unconscious; and such like – in an effort to explain various behavior patterns and psychological effects. However, though such concepts may well serve a useful therapeutic purpose¹³² out of context, from a broader philosophical point of view they are counterproductive, because they needlessly split up the self into impersonal heterogeneous fractions, and thus put in

¹³² Which I tend to doubt, since as far as I can tell such a disintegrated vision of the psyche is likely to produce psychological conflicts.

doubt the soul's fundamental liberty and accountability. Thus, such theories ultimately obstruct explanation, stopping us from asking how the unitary self may function in conflicting ways.

The scenario of spiritual urges is, to repeat, as follows: some involuntary will *W* is about to be or has been put in motion; but the opposite *notW* can still be voluntarily willed; the agent is increasingly influenced by the undesirable prospect of *W*, until he voluntarily wills *notW*. In other words: *W* seems desirable at first sight (due to the little effort of cognition and evaluation expended), and the agent naively pursues it (using minimum consciousness); then the agent (suddenly investing more effort of consciousness and will) reviews the situation and revises his estimate of the desirability of *W*, preferring *notW*; this influences him to make the extra effort of consciousness and will to pursue *notW*, instead of *W*. Note that *notW* logically signifies anything that is contrary to *W*.

The direction of will *W* need not in itself be harder than *notW*; the opposite may in fact be the case. However, *W* may be initially preferred by default, in the way of an instinct, while *notW* requires intelligent reflection. That is, *W* may be the first choice because it is more manifest, so that one tends to attach to it unthinkingly, without comparing it to others; while *notW* has to be sought out to be noticed.

Notice that our brief definition does not mention the awareness of something influencing *A* to will *W* or *notW*. The involuntary will of *W* may have one set of influences (say, *I*) and the voluntary will of *notW* may have another set of influences (say, *J*). Among the latter (*J*) may be a dawning 'self-awareness' by *A* of his involuntarily willing or about to

will W; the agent may then realize he does not want to proceed further in that direction, and voluntarily will not W instead. However, the influences labeled J may equally well exclude such self-awareness and the ensuing negative motive, and be concerned with some entirely other purpose and a more positive motive.

Therefore, although the involuntary or voluntary volitions involved in 'spiritual' urges, as all other acts of will, may be facilitated or made more difficult by various influences, the latter are not central to the logic of such urges. The essence of such urge is that an unconscious willing is incipient (a velleity) or ongoing (actual action has started), and that this proceeds until and unless hindered (prevented or reversed) by an opposite and more mindful act of will. Therefore, these urges as such are not necessarily influences.

One may or may not notice what one is doing, before doing the opposite. The agent need not cognize his impulsive act (the unconscious willing) to awaken his counteraction (the mindful will). Although such extra awareness may on occasion make the latter easier, it may in some cases make it more difficult and in other cases have no influence at all.

A spiritual urge constitutes an 'objective' situation, in the sense that the agent, although essentially free, has somehow become locked into a certain course of action, from which he cannot extricate himself without a special effort of consciousness and will. This is more constraining than the situation of influence, which does not imply any prior commitment or engagement.

The velleity or actuality of the involuntary will involved in such urge of course does have causes. The main cause is the

soul's initial choice or decision to will in the direction concerned; this may be referred to as self-programming. This initial posture or performance may well be – indeed is likely to be – influenced by mental or material considerations. The latter may be the natural alignment of phenomena (terms and conditions), or phenomena more or less intentionally set up by some other agents (for example, commercial advertisers or political propagandists or ‘social engineers’).

The resistance or counteraction to spiritual urge, i.e. the voluntary will in the opposite direction, similarly has causes. The main cause is the agent, asserting or reasserting his freedom, either losing interest in the initial will or gaining interest in the new will. Each of these options may as usual involve various supportive or adverse influences, which may again be natural or social phenomena. Finally, the soul deliberately wills to dominate and deprogram its previous will.

Whereas rectifying improper physical and mental drives constitutes a struggle of the soul against forces relatively external to it, revising improper spiritual drives signifies a struggle between the soul and itself. By preferring consciousness to carelessness, we take responsibility for our actions and attain self-mastery.

13. THE QUASI-PURPOSIVE IN NATURE

1. Purposiveness

The concept of *purpose* is initially and primarily one relating to human action. We mentally visualize, or conceptually and verbally project, a state of affairs that we would like to bring into existence or to ensure the continued existence of, and proceed to do what we consider necessary to achieve that aim. The goal may be something within us – a spiritual quality (such as strength of character) or a mental content or skill (such as knowledge of logic) or a bodily condition (such as not catching a cold) – or it may be an external acquisition (such as a meal or new clothes). The means is something we do to fulfill the desire concerned.

Thus, propositions concerning purpose basically have the form “I am doing this *for* that”, or more broadly “**agent A does X in order to achieve or obtain Y**”. Such a proposition concerns volition, its subject (A) being a human agent, the means (X) being some act(s) of direct or indirect will by the agent in hopeful pursuit of the goal (Y), which has been projected by the consciousness of the agent.

Note that the agent may be right or wrong in thinking that Y is at all possible to him (let alone ‘good’ for him!), and he may be right or wrong in thinking that X specifically is something that can lead him to Y. Indeed, he may admit that

his goal Y is uncertain and/or that his proposed means may be inadequate, and still be considered as doing X for Y.

In a second phase, the concept of purpose is passed on to higher animals (those assumed to have volition), and such propositions can be used for them too. And as we shall see further on, in a third phase, the concept is applied *by analogy* and in a diluted sense to the non-volitional functions of our and their organs, as well as to other living organisms (without volition) such as plants; we may refer to such ‘as if’ purposes as *quasi-purposive*.

Furthermore, we commonly apply the concept of purpose to inanimate objects. This does not mean that we consider such objects to choose purposes for themselves, or to have inherent natural purposes. They have the purpose *we* – i.e. any volitional being – *assign* to them. This refers, then, more precisely to the *utility* of the object or some part of it to the purposes of some agent. The useful object may be artificial or natural. For example, the utility of a chair is to be sat on by people; a chair is an object designed and manufactured with this use in mind. For example, a monkey uses a stone it picked up to break open a nut; although a natural object, the stone (by virtue of its original size and weight) has utility for this monkey.

Works of fine art are, of course, commonly considered as intentionally ‘without utility’. But this is using a restricted sense of the term utility, without excluding the utility of aesthetic expression (for the artist) or pleasure (for the viewer or auditor), or of communication (between artist and admirer) or of offering (to God or other loved one). What we would prefer to exclude from artwork are vanity and mercantilism

(the pursuit of fame and fortune), and other such more materialistic and less spiritual aspects of human endeavor.

2. Organic functions

The definition of the concept of function in biological discourse is simple and clear:

The 'function' of an organ (i.e. of any part of a volitional or non-volitional organism) and of its characteristics and activities refers to **the causative role that these play in the preservation, development and furtherance of the life of the organism as a whole** – or more broadly, in widening circles, in the furtherance of the life of its kind(s), or of life on earth.

This, note well, is a derivative of the concept of *causation*, not of volition. When we use the term function in volitional contexts, we intend the purpose or utility of the entity, character or action concerned in the achievement of some more or less conscious end, as already discussed. Here, the term function refers to something *unconscious*, i.e. it is intended as analogous to purpose or utility but *without implying an agent's goal*.

Nevertheless, the concept of organic function is somewhat analogous to that of willed function, in that the organ seems to tend to the survival, improvement or reproduction of the organism. It is quasi-purposive.

Many philosophers have struggled with this issue, trying to reconcile the idea of mere causation in nature with the impression that life tends to life, as if some mysterious inner force impels it in that specific direction. In particular, Aristotle proposed a concept

of ‘*final cause*’¹³³ to cover such unconscious tendencies. Others have compared such apparent striving to conation, and named it ‘*conatus*’. Modern biology has explicitly eschewed such teleological explanation; although in practice, at least in elementary or popularizing texts, the discourse of biologists is implicitly full of quasi-purposive expressions¹³⁴. (If the reticence is justified, it is necessary to analyze why such linguistic habits persist and what more consistent and accurate verbal formulae might practically replace them.)

Yet, as the definition of organic function proposed above shows, we can have our cake and eat it too! It is an observable fact that certain material entities differ in some significant manner from most others: for instance, if you plant a seed in the ground, it grows into a vegetable that eventually gives birth to new seeds; but if you plant a stone in the ground, it may suffer changes by erosion or by fusion with other stones, but it will never ‘reproduce’. On the basis of such observations, we have over time distinguished between living beings and minerals (inanimate matter).

The peculiarity of living beings is that (although natural, and not man-made) *their parts are organized in systems, sustaining each other and the whole in various ways*. Of course, nowhere in an organ or organism is there a sign where it is written “I am doing this for that”. Still, unlike non-living entities, all (or more precisely, most) the qualities and activities of life *demonstrably cause* (i.e. are natural or at least extensional *causatives* of, or in Aristotelian language: are efficient causes of) continuation of individual life (or more broadly, through procreation and social

¹³³ See **Appendix 2** on Aristotle’s doctrine of “the four causes”.

¹³⁴ For example, when we say “Nature does so and so”, or similarly reify a species making it seem like an agent, or tacitly imply the events – which it is a passive subject of – to be its activities. Such anthropomorphisms are often concealed in the use of equivocal verbs, like ‘adaptation’.

protection and support, the life of the species or of the genus, or life as such).

The expression “**for**” (or similar ones, like “**so as to**” or “**in order that**”) allows us to communicate briefly a lot of information, concerning organs and the direct and indirect outcomes of their features and movements. For example, teeth are organs “for” eating. The shapes of some of them are such as to enable them to cut food up; the shape of others, to crush it. As the upper and lower teeth are moved against each other, they begin the digestive process that results in nourishment of the blood with new matter, which keeps the body (including the teeth) strong and healthy.

It should be stressed that the epistemological basis for a claim to quasi-purposive events in living matter is not merely that *the isolated* event under scrutiny results (by mere causation) in longer and multiplied life, but that *all (or most)* events in living matter have this same concrete and abstract result. The reason we have to admit an incomplete frequency – saying ‘most’ instead of ‘all’ – is that we do observe a minority of parts, traits or activities of organisms to be (or occasionally, become) useless to life or even antithetical to it. These situations we put aside as abnormal or diseased¹³⁵, considering them as effectively incidents or accidents in life processes.

The concept of organic function is thus not directly ontologically evident, but a product of adductive logic. There is no logical irregularity in its formulation or defense. It is an empirically based hypothesis, a tool of discourse through which we manage *to collect and order* our observations of certain entities, characters and movements in the natural world. It facilitates biological discourse, placing particular observations in a wider system of explanation. It is a causal concept entirely based on causation, and not on volition. It is not purposive, but merely quasi (*as if*) purposive.

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For examples, an extra finger or a cancerous breast.

All the concept of conatus asserts ontologically, then, is that *the physical processes of life (mostly) take a certain direction (more life) rather than any other (less life)*, just as we might for instances propose that ‘bodies continue in their state of rest or uniform motion in a straight line unless acted upon by a force’ or ‘like charges repel, opposites attract’. It simply refers to certain causative necessities or inertias for certain classes of natural objects (namely living organisms, not dead ones and not inorganic matter). We can simply say: ‘things just happen to be so’ or ‘that is their nature’. The idea of inherent orientation is logically quite compatible with the ideas of natural law and physical mechanism.

We can argue that just as, at a subatomic (quantum mechanical) level, events may appear naturally spontaneous, and yet, on a larger scale (of visible physical bodies), they seem ruled by natural laws – so may the directionless events of inanimate matter *collectively* (when brought together in the specific structures of life) result in the effectively directional events of animate matter. Here again (as we saw in the discussion on volition in relation to the laws of physics), what prevents some scientists from admitting conatus is their *reductionist* mentality, their dogmatic¹³⁶ refusal to consider that ‘the whole may be more than the parts’.

No conscious purpose is intended by it, and there is nothing mystical or metaphysical about such an underlying force¹³⁷. Indeed, although the concept of organic function may have originated by analogy to that of conscious target (keeping the idea of goal, while artificially dropping its implication of consciousness) – volitional

¹³⁶ I say ‘dogmatic’ because it is a doctrine adhered to without specific proof (i.e. without experiments and mathematical formulae deriving the living from the non-living), but *by anticipation*.

¹³⁷ It is a secular concept, although theists remain logically free to assert that this state of affairs was instituted by the Creator or is regulated by Providence, i.e. that nature was or is so programmed. Similarly, animists may suppose an underlying ‘will of Nature’.

function may ultimately be viewed as a subset or special case of organic function, in the sense that the volitional agent generally thinks he is serving his life by pursuing his goals.

We may on this basis envisage the development of a '*natural ethics*', one with simply 'life' as its standard of value, or *summum bonum*. However, the main difficulty facing such an undertaking would be precisely to arrive at a consensus as to the meaning of the term 'life' which can be variously understood, in a materialistic, psychological and/or spiritual sense, with reference to the individual or more universally, in one lifetime or many, and so forth. Everyone claims to be pro-life in one sense or another! For example, abortionists do. The question is: whose life? Or: what sort of life?¹³⁸ So, we come round full circle.

Nevertheless, I think the logical problems are surmountable, probably by means of dialectical or dilemmatic arguments. Such arguments may have forms like: "**whether Y or notY is preferred, the requirement is still X rather than notX**" or "**whether X or notX is pursued, the result is still Y rather than notY**", where X, notX refer to alternative intermediaries and Y and notY to alternative consequences. Certain means are necessary, whatever the ends one pursues; and there are certain overarching outcomes, whatever our chosen course. We might by such teleological reasoning reach at least some common ground.

It follows that, *from a biological point of view, the soul and its faculties and functions (cognition, volition and valuation) should be regarded as no different from other organs of the living organism possessing them, whether physical or mental.* The

¹³⁸ For example, in the case of abortion: "whose life?" – adult needs or desires are favored over those of the unborn; "what kind of life?" – the life of the aborting adult is thenceforth weighed down by the selfish choice made.

spiritual ‘organs’ are equally functional, tending towards the maintenance and perpetuation of life. Their complexity compared to other organs gives them increased sensitivity, flexibility and power to fulfill that function; but also, this very advantage increases the possibilities and probabilities of error and breakdown.

The *natural* imperative to life inherent in all organisms, as a sort of conatus, is transformed into an *ethical* imperative to life in specifically conscious, volitional beings, in proportion to their cognitive powers and freedom of will. In lower animals, cognition and volition function instinctively, whereas in higher animals, there is progressively more mindful choice, reaching a peak in humans; and indeed, in the latter species, there is also a range of behavior, depending on the spiritual development of each individual.

Note lastly that our above definition of organic function is broad enough to include not only the functions of organs of individual organisms, but also *populations* of organisms. Reproduction minimally implies transmission of life; but in many species (even some plants), the parents continue to support (e.g. feed, protect, train) their offspring for some time. Individuals not directly related may help each other within a variety of social arrangements, in groups of various sizes (like a small tribe of ants or a large nation-state of humans).

Moreover, different species may behave symbiotically, effectively favoring each other’s life. Sometimes, they are not merely of mutual use, but unilaterally or mutually dependent. One species may actively cultivate another in order to feed on it. Culling may be useful to the group culled, preventing depletion of environmental resources. Even when no benefit to the victim is manifest, one species feeding on another may be asserted to have as function the maintenance on earth of life as such or diversity of life or higher forms of life.

Although inanimate matter per se cannot be said to have functions, we may of course say that it is *used* in many unconscious life processes. For example, plants use nitrogen and sunlight for their growth. This enlarges the concept of utility that we introduced earlier with reference to conscious purposes.

In conclusion, we have here shown that it is possible to formalize ‘functionalism’, with reference only to causation and to the common character of certain natural entities called life. We have thus shown quasi-purposive events in an unconscious nature to be conceivable, and justified teleological discourse on this basis.

3. The continuity of life

As we have seen in the previous section, the great majority of the features and processes of the organs of living organisms have ‘functions’, meaning that they play some causative role in the support of life. This object of organic functioning, i.e. ‘life’, may be understood at many levels. In a first phase, we apply it to the physiological factors of the individual living being. Later, with respect to the increasing complexity of animal and human life, we apply it to the psychological factors, the mental and spiritual.

a. One of the great discoveries of modern biology is that, despite their many differences, all living organisms are composed of one or more tiny ‘cells’, which are visible to everyone under the microscope¹³⁹. Some cells are devoid of a nucleus (prokaryotes); others have one (eukaryotes). The former include bacteria and other unicellular organisms; the latter, both unicellular and multicellular organisms – plants, fungi, animals and humans composed of up to billions of cells. Thus, when we refer to a potato plant, a cat or a man or woman as ‘an individual’ organism, we are already

¹³⁹ Viruses are not cellular; however, they are not independent organisms, but rather bundles of genetic material and protein that multiply parasitically.

really discussing a symbiotic grouping of smaller organisms (the cells that make up the organs that make up the whole organism).

Upon further reflection, it becomes evident that life is not just an individual phenomenon, but applicable to populations. This is not mere metaphor – in many species, the individual has no chance of survival for any significant duration in isolation from the particular group (family unit or larger) it belongs to. In effect, the group is the organism and the individual is a mere organ of it, with a specific function in relation to the whole (for example, a bee in a hive). It is a prejudice of human conception to regard ‘an organism’ as necessarily something whose organs are all spatially contiguous and inseparable. We can also logically view as ‘an organism’ an entity whose parts can move around some distance apart from each other for some time, provided the interactions of the parts are sufficiently important to them all.

Moreover, since all living things reproduce, we may consider offspring as organs of their parents, and parents as organs of their offspring. Again, these are not mere words, but reflect material and temporal continuities. In some species, notably among higher animals and humans, behavior, information and material possessions are also passed on from generation to generation. Such genetic and cultural inheritances are artificially ignored in conceptualizing discrete individuals. Furthermore, parents (plants or animals) may support the life of their offspring for some time – feeding them, warming them, protecting them from predators, and so forth. Sometimes, the offspring later in turn serve the parents in various ways, and may even serve each other (which refers us back to the groups above discussed). Thus, any line of living organisms may ultimately be viewed as a single organism changing form over time, splitting up and merging.

Thus, at least some groupings of two or more living organisms may be viewed as single organisms with detachable parts, the function of such parts being to ensure the subsistence and to enhance the life of the whole – as in the case of organs stuck

together, only with greater flexibility. This concept is applicable to the continuity of generations in any family line, as well as to population groups that may include many families.

The causal relations involved in such spatial and temporal, as well as material, mental and spiritual, continuities are all basically of the form: “*without the organ, the organism could not live or would have much more difficulty doing so; with the organ, the organism’s chances are made possible or increased*”. This formula clearly applies to parts of individuals and to individuals within groups. Cut out our hearts, we die; cut off our left hand, our chances of survival decrease; without our parents, we would not be born or survive long after birth; without the younger generations, the older ones are doomed as soon as they weaken; taken out of society, most of us would quickly die off.

All of this suggests *the continuity of life*. Moreover, life is truly uniform in a material sense, as suggested by another crucial finding of modern science, namely: *the universality of the genetic material of life (DNA)*. We can also point to numerous anatomical, metabolic, behavioral and other similarities between living beings to buttress and broaden the concept of continuity. For example, the observation that ontogeny retraces phylogeny (how a human fetus successively resembles a fish, then a reptile, and then a lower mammalian with a tail) is impressive.

b. We might go one step further in this widening perspective on life, and argue speculatively that ultimately *all life is one*, i.e. all living organisms on earth are apparently part and parcel of one and the same giant living organism. This is here conceived, not to ‘prove’ some pet thesis, but merely to put the continuity of life into perspective, taking the concept to an extreme for the sake of argument.

The ecological perspective is significant in this context. The single living organism inhabits a *mineral* environment that is always in flux due to physical causes (like the Sun’s rays, ice

forming or melting at the Earth's poles, wind, rain, floods, etc.). But additionally, this environment is constantly changed by that living organism, wittingly or unwittingly. Furthermore, within this theoretical overall creature, neighboring species and individuals constitute the *organic* environment for each other at any given time and place, together with the mineral surrounds. Plants compete with each other for space and mineral resources; sometimes, they effectively cooperate, as when one species provides the chemicals needed by another; plant life provides a changing theater for animal life; animals destroy, cultivate and eat plants; animals hunt, raise and eat other animals. Thus, the vegetable and animal environment is also constantly in flux. Species in the same geographical region interact, and likewise individuals in the same group. All living beings in a given milieu very dynamically interact and affect each other to various degrees over time.

As earlier mentioned, there are sometimes symbioses between individuals or groups of different species or genera. For instance, one may feed and protect another, and feed on it or be protected by it – as in the relationships between humans and wheat, cattle or dogs. Going further, we could interpret the situation when one organism eats another, as the same larger living entity exchanging its parts, feeding one part of itself with another, moving matter and energy around itself. On this basis, we could argue that it is 'natural' for a lion to eat a gazelle, and that the gazelle does its job in the wider context by being eaten. One kind is made tributary to another.

If we consider in one dramatic sweep the history of life on earth¹⁴⁰, since its appearance some 3,700 million years ago, about 800

¹⁴⁰

I make no attempt here to describe this history in detail, but every reader should make the effort to read about it, and get

million years after the formation of the planet, the idea becomes quite *thinkable* that it is all one organism, which has over time split-up into a multitude of ‘detached organs’ (individuals) composed of a multitude of ‘attached organs’ (components of individuals)¹⁴¹. Each such ‘organ’ of the whole organism comes, moves, reproduces with others, changes and goes, in reaction to changing conditions within the organism itself (the organic environment) and its mineral environment, always tending to the conservation of life as such, the life within it – life being nothing other than this very behavioral tendency.

Some such extrapolation might eventually be found useful for the development of a natural ethics. Some ecologists use this idea of *the unity of life* to encourage widespread protection of nature, in an age when mankind is destroying more and more of it. Some contend that this is excessive and utopian, though I doubt mankind will ever be guilty of self-destructive altruism! No doubt, a balanced model is conceivable – one that erects reasonable *hierarchies of value*, which give due consideration to human social needs while maintaining a broad focus on maximum protection of life on earth.

acquainted with current discoveries and scientific theories. There are many excellent books on the subject; and of course, there is lots of interesting material on the Internet.

¹⁴¹ I am here of course referring to the self-replication of the first unicellular organism(s) – the prokaryotes, followed some 1,800 million years ago by the eukaryotes; and then to the first multicellular organisms, aggregated algae appearing some 1,500 million years ago. Animals only made their appearance much later, less than 600 million ago.

14. CONCEPTS OF EVOLUTION

1. The logical form of evolution

Our discussion of the ‘quasi-purposive’ in nature brings us to the topic of ‘evolution’, which some have claimed to be a case in point. Keeping an open mind, we shall examine the issue. Evolution primarily means change – progressive change over a long time such that the later appearances differ considerably from the earlier ones.

The term is sometimes used in physics, to describe the history of inanimate matter from primordial quarks through astronomical events to heavy atoms, organic molecules and finally (so far) to living cells. In biology, it is used to refer to changes of population groups (species), implying a more radical sort of change than the mere ‘development’ of individuals, which term refers to the growth of an organism (its organs becoming more formed and functional, cells dividing and multiplying, and so forth, making the whole more competent to deal with the demands and dangers of living).

Note that my interest here is not in fully detailing, and justifying or criticizing, any biological theory. I gather that there are difficulties in the subject, many of which have no doubt been resolved, and many perhaps not. I admit at the outset that I am not qualified to judge between the pros and cons. My approach is philosophical rather than biological. It could be considered an investigation (to my own satisfaction, as a logician) into *the discourse* relative to evolution – i.e. what is meant by the propositional form “X evolves to Y”; what sort of more basic causal propositions underlie it; what concepts does it appeal to.

Now, in my earlier work *Future Logic*¹⁴², I dealt with the logic of *change* in some detail – with reference to two main forms of change:

- ‘**Alteration**’, where some individual thing classed as X and not Y to begin with, is classed as X and Y at a later time; for which I used the form “this X got to be Y”.
- ‘**Mutation**’, where some individual thing classed as X and not Y to begin with, is classed as Y and not X at a later time, for which I used the form “this X became Y”.

In the former case, the individual remains X while it changes from notY to Y; whereas in the latter case, the individual ceases to be X before it changes over to Y. Note that it is possible to *rephrase* alteration as mutation (this X-notY became X-Y), or mutation as alteration (this thing, that was X-notY, got to be Y-notX).

These forms are of course quantifiable, i.e. we can say ‘all X’ or ‘some X’ instead of ‘this X’. Such forms are useful to discussion of movements of individuals from one class to another, while remaining essentially the same in some respect or without remaining essentially the same. Needless to say, they ignore intermediate stages, but such complications can be dealt with by appropriate specifications. However, such forms are not applicable to evolution, though they may be used to discuss aspects or portions of it.

The word ‘mutation’, as here used (i.e. by the logician) seems to correspond to that intended by biologists in the expression ‘genetic mutation’. For the reader’s information, a ‘gene’ consists of a long chain of molecules with certain properties. Genes (singly or collectively¹⁴³), in conjunction with some environmental

¹⁴² See chapter 17 there.

¹⁴³ I refer here to polygenic inheritance, where one trait is a function of two or more genes. Sex-linked traits are an important case in point.

conditions¹⁴⁴, determine many of physical traits and processes, including many behavior patterns, of living beings. They are inherited from generation to generation since life began, ensuring that attributes of parents are reproduced in offspring, essentially unchanged.

Without getting too deeply into biochemistry, the essential molecular structure involved in genes is DNA, which consists of four nucleotides labeled A, C, G, T. The latter can only be physically paired in four ways TA, CG, AT, GC, which are respectively labeled U, C, A, G. The latter in turn constitute the four letters of genetic coding; these may be combined in 64 sets of three letters (called codons), i.e. UUU, UCA, GAU, CGA, etc. These triplets give rise to only 20 amino acids (and three other molecules that act as 'stop signals'). A few hundred amino acids may combine in a repetitive series; for example, CAU-CAU-CAU-etc. That is the molecular structure of a gene.

The same gene may be said have two or more variants – if we now understand the term 'gene' with reference to *the biological role it plays*, rather than to *its exact chemistry*. For instance, the gene controlling the color of the flowers of a pea plant. Such variants are called 'alleles', and the molecular difference between them may be just one amino acid in a chain of several hundred. In our example, there is one allele for purple flowers (dominant) and another for white ones (recessive). When these genes are brought together in reproduction, they behave according to certain rules, giving rise to the numerous variations between the individuals of a species. Generally speaking, genes are stable and reproduce predictably.

¹⁴⁴ Such as light or darkness, heat or cold, dryness or wetness.

However, very rarely (perhaps once in a thousand or a million), mutation occurs in genes, due to chance¹⁴⁵ physical causatives, such as radiation or chemical pollution. Genetic mutation may consist of the substitution, deletion or addition of a single letter of genetic code, but this radically changes the nature and effect of the gene. For examples, in the series CAU-CAU-etc., if a U is deleted, we obtain CAU-CA↓C-AUC-AUC-etc.; alternatively, if a C is added, we obtain CAU-CCA-UCA-UCA-etc. Note how the CAU sequence is not lost, but shifted over by one. If the mutation occurs in sex cells or cells giving rise to them, the mutant gene is transmitted to eventual offspring (which may or not survive and in turn reproduce).

Thus, from a logical perspective, if we symbolize (these symbols are invented, not drawn from genetics) the original gene as O and the mutant gene as M, mutation is expressed in a proposition of the form “gene O becomes gene M”. If, alternatively, we consider O and M to be ‘the same’ gene K, in the sense that both refer to the genetic key to some specific biological trait or process (like flower color), without specifying the precise variation (e.g. blue or red color), then we can describe the change from O to M as alteration of K¹⁴⁶.

Another form important to biology is of course the form of **reproduction**, say: “X reproduces Y”, where the terms X and Y refer to *similar individual entities*. This form not only implies a *change* (i.e. at least, the arising of Y), but also signifies a *causal relation* between the terms (the first gives rise to the second, somehow). The individuals involved may be whole organisms – or they may be genes. In either case, the form might be applied to a

¹⁴⁵ Note that the same mutation may occasionally occur in different individuals, although the probability is small.

¹⁴⁶ In such case K signifies all the molecules that O and M have in common, except those that differentiate them.

parent and its immediate offspring, or more broadly to the offspring of its offspring, etc.

Note that I have, above, presumed genetic mutation to imply the form of logical mutation (as above defined), such that an individual gene (O) has itself physically *become* another individual gene (M). The mutant gene M might then go on and reproduce faithful copies of itself. But it would also be conceivable for the genes concerned (O and M) to be different individuals, the former giving rise to the latter by a faulty duplication process and the two coexisting for some time. In this alternative scenario, genetic mutation would not imply logical mutation, but a form of reproduction not implying physical continuity between the parent gene and its immediate offspring, a relation more akin to that between a parent and the offspring of its offspring. I do not know enough biology to say whether such ‘unlike reproduction’ ever actually occurs.¹⁴⁷

In the case of *evolution*, a distinct form “**species X evolves to species Y**” must be used, such that the individuals subsumed by the initial class X are not the same units as the individuals subsumed by the final class Y. Note well: the units of class Y *are not and never were* units of class X – so this is quite a different logical situation to alteration and mutation!

¹⁴⁷ Words are in any case not the issue. The vocabularies of logic and philosophy on the one hand, and of the special sciences (such as biology) on the other, are related but not always identical in connotation. Sometimes, as here, the logical word is more rigidly defined than usual; in other cases, the opposite occurs, as for example with the terms “genus” and “species”, which in logic loosely refer to any overclass and subclass, whereas in biology, they are more specialized.

Here again, note, we only specify the starting and ending states, though there might be a long progression of changes (alterations and mutations) in between them. Yet, some sort of continuity is implied, some *causal* thread tying the initial and final units – in biology that is the fact of reproduction or affiliation: the former units are ancestors and the latter are their descendents. Furthermore, the causes of the changes involved are not specified or implied, but must be separately clarified using appropriate causal propositions. The chronology, or time between the terms, can also be separately specified.

In evolution, the individuals subsumed by a class procreate other individuals of the same class, but these are over time slightly altered or mutated; and at some point, the changes are so pronounced that we can no longer regard the new individuals as belonging to the same class. In evolution, one class (or a segment thereof) is effectively replaced by another, a bit as in ‘mutation’ an individual undergoes a change of essence. Thus, the form of evolution has aspects of both extensional and natural modality, in that its terms do not refer to the same individuals and yet a real continuity between them is implied. As we shall see, this modal duality also occurs in other aspects of evolution.

The way of reference involved in this propositional form is thus neither distributive, nor collective, nor collectional (as in other forms) – but something new and more complicated. It is that (only) some members of class X end up as all the members of class Y; and moreover, the continuity between members of X and Y is not (usually) due to individual threads, but involves mergers (sexual intermingling) every which way at every generation, over many generations.

Note that, just as we could rephrase mutation as alteration by focusing on a broader class as our subject (‘thing’ instead of ‘X’) – so in the case of evolution, if we focus on a genus common to both the starting and ending species, such as ‘living beings’, the

propositional form can be modified to imply a less radical change. For example (excuse me if I have any facts wrong), instead of saying “mesohippus evolved to merychippus”, we might say “equus (the genus of horses) ‘*passed from*’ mesohippus ‘*to*’ merychippus”. The words chosen (e.g. passing) are not so important – what matters is that the formal relation involved is quite different.

Such changes of perspective allows us to keep in mind what is unchanging in the midst of change; for instance, throughout the history of evolution, the fact of life has remained a constant, while only its particular expressions have changed.

A new chapter must be written by logicians in the logic of change, treating the propositions concerned with reproduction and evolution in detail. I will not attempt to do the job here, but move on.

2. Evidence for evolution

The term evolution should first be taken neutrally, to refer to any *apparent* changes in species of living organisms, since *whether* such change occurs is also (to begin with) open to debate. Secondly, if such change is admitted, the question arises as to *how* such change might occur; and here different hypotheses have been proposed, one of them being Darwin’s ‘theory of evolution’ and its later improvements.

Another issue arising in this context is whether such eventual changes can be considered directional in any sense – i.e. whether evolution can be viewed as a sort of ‘conatus’ in the sense described in the previous chapter, giving life the possibility to persist in changing circumstances.

With regard to the first issue, the paleontological and geological evidence at hand is clear: various fossil remains are found in different strata of the earth, which can be scientifically dated by

various techniques. It has been observed that earlier strata contain fossil forms that later strata lack, and vice-versa; and in general (with few exceptions), earlier forms have been structurally simpler than later ones. Whence we can infer that life on earth has not always had the same forms: species have come and gone; and in particular, mankind and many other species populating the earth today are relative latecomers.

All our experience shows that life begets life, and no life in our experience emerges from non-life. Granting that later species did not just pop up out of nowhere, but must have come from somewhere, it is reasonable to suppose that they evolved from earlier species. This is called by some the 'fact' of evolution, although it is of course based on inference.

Note that such inference involves a movement of thought from 'difference' to 'change'. In the *extensional* mode of modality, we speak of 'change' when we simply mean static differences from one instance *of a kind* to the next instance of it, because what changes is the appearance of things before the observer as he shifts his attention from one specimen to another. This is different from 'change' in the *natural* (physical, spatial, temporal) mode of modality, which refers to different appearances *of the same individual* over time.

Such a movement of thought is not in itself epistemologically illegitimate, provided we well understand and remember that *it is inductive and not deductive*. That is, the extensional mode evidence is used adductively, to confirm the natural mode hypothesis – but it does not definitely prove it. More evidence must be adduced if possible; and no empirical evidence should be found that definitely denies the hypothesis. If we remember that, since we have not actually monitored species giving rise to new species in our lifetimes or in the laboratory, this inference is only based on indirect evidence, we remain open to correcting it if such evidence to the contrary is found.

And indeed, biologists do not only rely on fossil discoveries to support the idea of species change. They also point to morphological, metabolic, genetic and other uniformities, which further strengthen this first hypothesis – indeed, so much as to make it almost undeniable. These analogies, by the way, also involve some inferences from the extensional to the natural mode of modality. It seems reasonable to suppose that similar organisms must have descended from common parents, but it is not totally unthinkable that in fact completely independent parallel trees of life occurred under uniform natural laws.

Say (for the sake of argument, though this description of things is unproved, and one might well ask why it has not recurred since) that life¹⁴⁸ chemically arose in puddles of water filled with ‘organic’ molecules (containing carbon – perhaps amino acids) under the impulse of lightning (an energy input). Two possibilities exist: either the formation of the first living cell was a *one-time* freak event, from which all life on earth today descends – or *many* ‘first living cells’ may have thus arisen independently of each other in different places over a long period of time, and given birth to distinct yet similar lines, many though not all of which endured, and some may even have eventually converged (sexually intermingled). The implied question may admittedly not have much importance, but is here raised to emphasize that the mere facts of genetic and other uniformities do not answer it.

Does biology advocate an individual organism at the root of all life on earth, a unicellular equivalent to the Biblical Adam; or is the hypothesis of plurality of first cells to be

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We do not yet know the origin of life. Most biologists suppose life naturally arose on earth, when environmental conditions became suitable. But some suggest simple bacteria arrived from outer space attached to meteorites (leaving aside the issue of how, when and where they were formed).

preferred? One could argue for ‘monogenesis’, by saying that it is less onerous to assume a statistically unlikely phenomenon like the formation of life to have occurred just once than many times. Or one could argue for ‘plurogenesis’ by saying that, once the favorable conjunction of natural conditions was there, random explosions of lightning would likely produce a multitude of such results in scattered puddles over a long time, rather than a unique accident. Since matter generally reacts uniformly to uniform conditions, these first living organisms would likely be similarly composed and structured.

Another, more direct body of evidence for the changes possible in life is the experience of plant and animal breeding by men throughout history, producing varieties with little resemblance to the originals¹⁴⁹; for examples, how thin wild grasses became rich domestic wheat or barley, or wolves eventually turned into dogs of all shapes, colors and sizes, from Chihuahuas to Saint-Bernards. Nowadays, also, genetic engineering provides evidence of possible change, although so far (to my knowledge) species changes (that are viable and capable of reproduction) have not been demonstrated in the laboratory¹⁵⁰.

Certainly, anyway, the genetic analysis of all species that is currently underway in biology will resolve a great many or most issues of taxonomy and genealogy. We who are curious about it are very fortunate to be living at this historical time¹⁵¹.

¹⁴⁹ Although not changes of species, so far as I know. That is, dogs and wolves may reproduce together.

¹⁵⁰ And I must say, I personally find the idea of genetic manipulation of living beings (especially animals, but even plants) utterly obscene and criminal. My mentioning it is not intended to be an encouragement or a sanction.

¹⁵¹ I recently read that fungi are genetically in some respects closer to animals than to plants!

Granting the fact of evolution to be a reasonable assumption in the light of all available evidence, the next step is to try and convincingly explain *how* such change occurs – i.e. its aetiology. Charles Darwin (1809-82) proposed in 1859 a neat theory to explain this phenomenon in a naturalistic manner, i.e. without assuming some mysterious force akin to voluntary agency residing within unconscious living matter, and without appealing to Divine intervention at every turn.

This ‘theory of evolution’ was later improved upon, when the genetics work of Gregor Johann Mendel (1822-84) became known in 1900 (though first reported in 1865). Darwin spoke of biological ‘variations’, but had no clear idea as to how they might occur. Mendel, using quantitative experiments, discovered more precisely how variant characteristics were transmitted from parent to offspring, through what was later called genes. The ‘synthetic’ theory, combining Darwin and Mendel, has been further refined since then.

3. Random mutation

Our concern here is not biology, but what aetiological lessons we can draw from it. One of the concepts used in evolutionary theory that has to be examined is that of ‘random mutation’ of genes. It should be noted in passing that Mendel had not foreseen genetic mutation, but only variation through the interplay of dominant and recessive genes. It was Hugo de Vries who in 1902 observed that genes could occasionally undergo radical changes. Later, in 1927, some of the agents of such mutations were identified by H. J. Muller; x-rays, UV light and certain chemicals were found to be mutagens.

Genetic mutations are an ordinary, though rare to very rare, part of life. Taken individually, their impact on the species is minimal. It

is estimated, for instance, that every human being has about two new mutations in the midst of its 100,000 genes¹⁵². Over time, a few of these mutations might conceivably become established, but most will not. Mutations do not by themselves determine the direction of evolution.

When biologists speak of *random* mutations, they mean that the genetic mutations that do occur are *not necessarily* such as to increase the organism's overall chances of success in the environment it finds itself in. The mutations might well be beneficial to the organism, or equally well be harmful, or even neutral; also, they might be viable and capable of being passed on to subsequent generations, or again they might well not be so. Therefore, it cannot be claimed that genetic mutations are programmed into the organism, with the quasi-purpose of improving its chances for living. This is emphasized, to exclude any idea that the gene somehow 'detected' a certain environmental feature, and mutated in such a way as to better 'adapt' to that feature.

Moreover, the term random, spontaneous or chance mutation is not intended to appeal to a notion of natural spontaneity (i.e. to quantum mechanical effects). The mutations are considered caused, in the deterministic sense of causation; we have already mentioned some of the causes or mutagens. Such radiation or chemicals are indeed part of the immediate environment of the genes, causing them to mutate. But the mutation is a mere physical reaction of the gene; it is not akin to a 'response to stimulus'. It is not necessarily such as to make the organism more resistant to dangerous radiation or chemicals; indeed, very often such mutagens damage the organism irreparably.

Furthermore, terms like 'chance' used here are meant to stress the *coincidences* of events involved. Coincidence refers to two or more chains of events coming together at a certain time and place; they

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See Curtis and Barnes, p. 522.

may all be quite determined, and yet their meeting is (relatively) a matter of chance. For instance, an organism may stray into a polluted place, which is not part of its natural environment; e.g. a plant seed blown by the wind or a wandering animal landing in Chernobyl. Here, 'chance' could refer to the unpredictability of most purely physical events in practice, even when they are in theory understood; or more broadly, to the possibilities of volition (by animals or humans).

With regard to human volition, we are now quite able to intentionally produce mutations, by applying appropriate radiation or chemicals. More impressive still, is the advent of genetic engineering. In this light, we should enlarge the concept of mutation, including both artificial and natural mutation in it. The term 'random' mutation applies only to the latter, and not to mutations due to volitional intervention.

Natural mutations are said to be random to suggest *although they of course have physical causes, these are isolated events and not systematic reactions to physiological conditions in the organism concerned or physical conditions in its environment*. This idea was intended in opposition to an alternative theory to Darwin's, suggested by Jean Baptiste Lamarck (1744-1829)¹⁵³, that characteristics acquired by parents in interaction with the environment could be inherited by offspring.

The latter thesis would mean that, as its habitat and body goes through changes, from whatever efficient causes, an organism might develop adaptive genetic reactions or responses, which would increase its chances of survival. A sort of regulative or feedback mechanism was implied. In the case of plants (and the equivalent functions within animals), such reactions would be unconscious – events produced directly by purely physical laws. In the case of animals (at least the higher ones, including humans),

¹⁵³ And indeed, I gather, at some stage by Darwin? However, his final theory is free of this assumption.

the reactions could be called ‘responses’, insofar as they might occur indirectly through the mediation of consciousness – i.e. upon seeing (or otherwise sensing, and maybe even conceiving) such and such an environmental or bodily configuration, the organism automatically prepares appropriate genetic changes that increase its chances of survival (or those of its offspring).

Note well that I am not proposing any personal theory here, but only (as a philosopher) considering the variety of conceptual instruments at our disposal, i.e. to develop some sort of flow-chart of possible questions and possible answers. To better understand Darwin’s evolution theory, it is necessary to understand Lamarck’s alternative thesis, since the one is intended in opposition to the other.

It should be noted that the changes of outward characteristics (phenotypes) here discussed are those necessitating genetic mutations (genotypes). We are not concerned with physical (or other) developments that are already programmed as *immediately potential* in the present genetic configuration, and which may become *readily actualized* under appropriate environmental, physiological or volitional conditions – for examples, as a muscle may be expanded by exercise, as a skill may be acquired by training or as knowledge may be increased by learning. The Lamarckian thesis suggests that such actualizations of potentials may in turn generate new potentials (logically, of course, the latter are already ‘potential’ – but less immediately so, requiring as they do a restructuring of their underlying matter).

When Lamarckism mentions ‘inheritance of acquired characters’, it refers to such deeper modifications – in the code of life. Some physical or mental event or process, such as the new use of an organ in new surrounds, triggers (perhaps not always, but when a special need for it is signaled) a change in the genetic information, so that the next generation does not need to repeat the acquisition process but has the character by inheritance. Lamarckism claims that *genetic* mutations may non-randomly result from significant

causes like environmental changes or physiological conditions or even intentional work.

The famous example given is that of giraffes, whose necks were thought by Lamarck to have progressively grown each generation 'so as to' reach foods higher up on trees; meaning that, upon finding food often too highly placed, individuals strived to reach it, and their genetic material was modified to match the new conditions thenceforth. In this way, according to said thesis, evolution is mechanically 'programmed' into life, though in a flexible and not overly mechanistic manner. In other words, genetic mutations are *functional* events; like blood flow or sensation, they are a means through which life perpetuates life. A *conatus* is implied: some sort of unconscious striving or tendency to further life is inscribed in the organism.

The Darwinian thesis, on the other hand, while allowing that physical causatives are behind the randomness of genetic mutation (as with any physical event), denies all systematic relationship between specific environments (or resulting internal conditions) and particular directions of change. Mutations may well be – and evidently often are – of no value to life or even antithetical to it. The fact that some mutations seem to conveniently improve the organism's chances at life in changing circumstances should not be taken as evidence of any inherent loading of the dice in that direction. Random mutation suggests that the chances for favorable mutations are on average no greater than those for unfavorable ones or for mutations that are neither favorable nor unfavorable.

The hypothesis of Lamarck is not unthinkable; a world in which individual organisms are so made as to react or respond to changing conditions constructively, passing on their improvements to their offspring, is conceivable offhand. But biologists have come to the conclusion that the less orderly and predictive hypothesis of Darwin is more congruent with all empirical data discovered or considered to date. Needless to say, I accept that judgment.

Even so, I wonder if we could not *still* consider Darwinian evolution as an ‘unconscious striving’ of sorts. I ask the question, not out of some reactionary wish to reassert an old idea, but from a philosophical perspective – the need to make a fair assessment of what our common concepts contain and exclude. It seems to me that we can harmonize these at first sight antithetical concepts, as follows.

We could view random mutation collectively as precisely *the expedient used by life to statistically ensure its survival in every possible environment it might encounter over time.* This supposition is nothing special; analogies can be drawn. We need only look out of our window and see how trees yearly produce thousands of seeds, no two exactly alike, of which maybe one or two specimens at most will give rise to new trees. Life works like that: mass-producing trials on the off chance that some specimens get past the obstacles in their way. Instead of the more obvious Lamarckian expedient of *ad hoc* genetic changes, nature has apparently opted for reliance on the law of averages.

In that case, random mutations are on the whole life-perpetuating acts, fitting perfectly in the general definition of life as a series of all sorts of self-perpetuating acts. Even though genetic mutations are *individually* ‘products of chance’, *taken all together* they constitute one of the resources life has at its disposal for its own survival. In this respect, genetic mutants are essentially no different than genetic variants. They are ‘blind experiments’, in the same way that a root grows straight out till it encounters an obstacle or a mouse unknowingly decides to head due west till it encounters a cat – except that they occur at a more radical level and the opponent they face is the environment as a whole (many different environments) over a long time (many, many generations).

Why presume life has to be either static or changing in orderly ways? It may well be viewed as ‘programmed’ to change in scattered ways. The unpredictable can also be granted the status of ‘conatus’, provided its *overall* effect is furtherance of life! The fact

that some (or even most) blind experiments fail does not disqualify them from quasi-purposive status, since even conscious experiments may fail and fail again yet be considered purposive. By thus broadening our perspective, we acknowledge species evolution, *however* it occur in fact, as a perfectly natural life process, rather than considering it as an accident. Random mutation is then not an inexplicable dysfunction of genes, but a quite normal function, serving to further vary possible adaptations to possible environmental changes and thus increase the chances of survival of life as such.

Ultimately, life does not (so to speak) 'care' what form it takes, so long as it continues. Thus, what seems accidental relative to a *particular* form of life appears quasi-purposive for life *as a whole*. If we imagine life on earth as one collective organism, we may assign it an abstract 'organ' of genetic mutation. This organ is inherent in the genes in every particular organism, in the way of a mode or law of functioning applicable to genes. From time to time, it churns out random genetic combinations, which may or not prove useful in some circumstances for the maintenance of life on earth.

Thus, without at all denying Darwinism, but on the contrary acknowledging it, we may apparently still affirm evolution as a sort of 'unconscious striving'.

4. Natural selection

Another concept worth looking into for aetiological reasons is that of 'natural selection'. This is the idea that the new characteristics emerging from random genetic mutations may over time persist and spread in a group, either displacing the old ones or coexisting with them. If a characteristic is not compatible with the surroundings, the individuals that have it will naturally pass away and no longer reproduce it; while if a characteristic happens to be more or less adapted to the environment, it will proportionately

persist and spread. This is called 'survival of the fittest'¹⁵⁴. Of course, if an individual does not reproduce, it is irrelevant to evolution, whatever the adaptability of its genetic content (although it may play an indirect role by otherwise affecting other individuals or the environment).

Here again, the conceptual intention of the principle is determinism, i.e. to explain observed events in terms of causation *rather than* by means of seemingly more obscure or remote causal concepts. As with random mutation, the basic appeal is to coincidence in a causative context. This hypothesis is preferred to competing ones, like natural spontaneity, some sort of conatus, animist 'spirits' or Divine volition, in accord with the general direction of modern science in favor of simplicity and order. Causation is thus (rightly) regarded as the explanatory doctrine to be relied on first and foremost, before any alternatives are even proposed; the latter only come into play when and if causation is found clearly inadequate.

Determinism is claimed in this context, by considering the eventual volition of humans or higher animals as within and part of nature, i.e. as for all intents and purposes a subcategory of causation. That might be justified by arguing that we are here concerned with the lives of species on a grand scale, i.e. over very long periods of time (millions of years). In such case, the impact of individual animal (including human) volitions becomes irrelevant; they average out as if causation was involved.

¹⁵⁴ Incidentally, I wonder why some alleles are dominant and others recessive? This seems to me 'directional'. The value of variety seems obvious: to increase chances of survival under different conditions. But given variety, why are not all variants of a gene equally frequently reproduced? If the dominant allele is so because it is better suited to most conditions, why is the recessive kept on?

However, the issue may be further debated, pointing out that when volitional beings affect their own lives or the lives of other volitional beings or of non-volitional beings, determinism is not (strictly speaking) the only causal principle involved. In particular, when animals struggle together and kill each other, or when they eat or otherwise destroy plants, it is not mere causation but volition that is the cause of death.

That such destruction by will, whether intentional, incidental or accidental, has large scale effects on whole species can hardly be doubted. Even in our own lifetimes, we have witnessed mankind destroying a great many species of flora and fauna. Furthermore, we are now just beginning to enter an era of genetic manipulation, which may result in widespread species changes that have nothing to do with natural selection, unless the term 'natural' is stretched to include the 'artificial' (i.e. the works of mankind and other volitional beings).

Other factors of species change, besides genetic mutation and natural selection, mentioned by biology are gene flow (this refers to movements of individuals from one population group to another, which tends to make populations more uniform), genetic drift (this refers to the chance isolation of populations, which reduces their genetic variety) and non-random mating (including self-pollination by plants, and preferential mating among animals). Note that some of these factors involve consciousness and will.

It should be stressed, too, that living organisms of all kinds constantly modify their mineral environment. The oxygen our atmosphere is graced with started to accumulate only some 2.5 billion years ago, thanks to photosynthetic activity by cyanobacteria; plants re-condition the soil they are in; mankind makes great changes all around it. Thus, though the environment also or mainly depends on factors external to life (the Sun, continental drift, volcanic eruptions, meteors, and so forth), it is to some degree an effect of life. Furthermore, when we speak of 'the environment' relative to a given species, we mean not just the

mineral world around it, but the world covered by plants and roamed over by all sorts of animals. When discussing natural selection it is well to keep these complications in the concept of environment in mind.

The notion of natural selection is, from its inception, based on analogy to artificial selection. In the latter, the human experimenter chooses individual specimens of a plant or animal possessing certain desired characteristics, and gets them to reproduce; and then again, among their offspring, he selects those he prefers, leaving out those he is not interested in, and gets the new generation to reproduce; and so forth, until he obtains a generation that will reproduce the desired characteristics in all offspring. Natural selection is conceived as similar, except that the selection is not intended by a person, but is happenstance due to the accidents of random mutation and changing natural surrounds; over time, the theory predicts, these accidents also effect certain group changes yielding new uniformities.¹⁵⁵

The Darwinist concept of evolutionary “adaptation” of species to their environments refers to an essentially *passive* process. Individuals actively adapt – in the sense that a plant’s roots grow around a rock or its leaves turn to the Sun, or that an animal finds shelter from the storm in a cave or fights a foe and eats it. But species as such ‘do’ nothing other than live on through reproduction of some of their members; they ‘adapt’ only figuratively speaking. Those individuals, *if any*, that *happen to be* already genetically adapted to their current milieu in each generation, due to previous variations or random mutations, survive and pass on their genetic code to most of their offspring, which in turn may be well adapted or not, according to their genetic makeup and the environment they encounter.

¹⁵⁵ Note that some natural selection is involved in artificial selection, in that fertility may be diminished or lost.

Species some of whose members continue to be sufficiently (if not perfectly) adapted to their environment continue to exist. If the environment changes over time and all genetic forms (including all random mutations) composing a species are inadequate, the species ceases to exist. If random mutations occur, able to survive in the new changing environment, the species evolves along the same lineage (anagenesis).

Additionally or alternatively, some members of a species may stray into another geographical area and survive. This group may over time change characteristics due to random mutations in its genetic pool, more appropriate to the new environment. Gradually, these variations may become so pronounced that in comparison with the original population a new species has effectively evolved, which cannot reproduce with the old one (speciation). Another group, straying into another geographical area, may evolve quite differently, and form yet another distinct species. Again, although these had common roots, they may have diverged so much that they can no longer interbreed.

This is the Darwinian perspective (roughly put: it has of course been greatly elaborated on and improved since its inception, and continues to be perfected and enriched), and it seems indubitable. It explains so much throughout the science of biology that it cannot be ignored, and has earned general admiration.

However, as pointed out in the previous section, it could be construed as a conceptually narrow view, tracing the courses of *particular* species. Looking at things more broadly, by considering life on earth *as a whole* throughout history, or life as such, events may seem more directional. The evolutionary changes of particular species then seem more like effective reactions or responses of the collective living organism of our biosphere to the varying mineral environment external to it, as well as internal interchanges between its various parts (the species and their members). Random mutation coupled with natural selection is simply one of the 'strategies'

living matter uses to maintain life in a changing mineral, vegetable and animal world.

When life almost disappeared on a number of occasions (for instance, 80-85% of all species, including 95% of all invertebrate marine species in shallow waters, were wiped out some 225 million years ago), the earth's putative 'single living organism' did not die, but was forced to take new forms starting from a more limited genetic pool. Such recoveries took millions of years. But they might be compared (roughly, conceptually) to a lizard losing its tail and growing a new one. Life has all its potential histories within its genetic material. Supposedly, given an eternity and an infinity of environments, every possible form would be tried by life.

Perhaps, also, any life form surviving a mass extinction could give rise to all others again; but it may be that regressions are not always possible. It may be that though humans may evolve from bacteria, the reverse is not true under any circumstances. In the latter case, even if small regressions are occasionally found, evolution may be said to have a direction, from simpler to more complex forms of life. In any event, as Stephen Jay Gould stated: "Wind back the film of life and play it again. The history of evolution will be totally different"¹⁵⁶.

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See *Conversations*, p. 41.

15. MORE ABOUT EVOLUTION

1. Social Darwinism

Darwinism has, since its inception in the latter half of the 19th Century, been influential beyond the field of biology proper, in ethical as well as economic, social and political theorizing and commentary, some of which has been pernicious. Under the heading of 'Social Darwinism', racism, exploitation and violence were given a boost, causing much suffering to many people. Although similar ideas existed before Darwin published his theories, they gained credence and prestige from their superficial association with such an important work of biological science. Using pseudo-scientific discourse extrapolated from Darwinism, ideologies like Hitler's could thenceforth pretend to justify conquest and domination.

Concepts like “the struggle for existence” and “the survival of the fittest” seemed charged with meaning, suggesting that biology condoned harsh, dog-eat-dog societal practices, pitting people against each other and judging whoever won the contest to have naturally deserved to win. Alternatively, the necessity of “adaptation to the environment” could be interpreted as a biological call to fit-in socially and not make waves, to accept and not rebel, to be subservient to the powers-that-be. The doctrine served both to justify the oppressors and to keep their victims docile.

Here, we wish to ask the question – is such reasoning logically appropriate? Given that human society is from a biological viewpoint an ordinary population grouping, one might well infer that such concepts can legitimately be applied to it. But if there are

conceptual errors concealed in such discourse, what are they – i.e. what are the limits of the Darwinian concepts of evolution?

To begin with, it should be admitted that the conceptual error is not entirely on the side of the Social Darwinists – they were dishd out a *misleading terminology* by Darwin himself. Terms like ‘struggle’, ‘fittest’ and ‘adaptation’ were no doubt chosen as approximations illustrating certain aspects of evolution, but the ignorant and their manipulators could readily misconstrue them as confirming a ‘law of the jungle’ scenario for society. In principle, epistemologically, these choices were of course legitimate; as our knowledge develops, we frequently expand and contract the meanings of existing words to match new data. But they were unfortunate, in that they were easily misused.

Paradoxically, such terms are based in the human (and animal, or at least higher animal) experience, but applied by the biologist *by analogy* to the whole range of living beings (including bacteria and plants), who thereby gives them new and specialized connotations. The Social Darwinist then comes along and picks up these same terms, reapplying them to human society, in view of their anthropomorphic flavor, glossing over the biologist’s precise intentions, and concentrating exclusively on the images the terms superficially project by virtue of their original meanings. Although the terms have returned to their original domain, they have in the interim acquired subtle ethological significations.

Thus, the phrase ‘struggle for existence’ projects an image of fighting for one’s life against difficult odds and powerful enemies; the phrase ‘survival of the fittest’ implies that in this life and death struggle whoever won is naturally the best man, who in fact deserved to succeed all along, as his victory proved *ex post facto*; the phrase ‘adaptation to the environment’ suggests a scenario of submission, which the losers if they at all survive must remain content with, serving their masters, keeping their tails well between their legs. These dramatic connotations were conveniently adopted

by the Social Darwinists, under the pretense that they came from biology.

What such phrases have in common, in their original senses, before Darwinism used them as biological expressions, is the underlying human (or animal) *consciousness and will* they imply. When biology co-opted them, it applied them indiscriminately to organisms without these faculties, notably bacteria and plants. Moreover, the harsher aspects of the original words were simply abandoned in favor of wider and softer applications. For example, when a flower appeared in nature, with a brighter color than hitherto, one more attractive to pollinating insects – this was labeled by the biologists as an ‘adaptation’, a maneuver in the ‘struggle’ and an increased ‘fitness’.

Apart from such terminological misappropriation, Social Darwinism involves serious misunderstandings of the *concepts* of biological Darwinism. Evidently, bacteria and plants cannot be said to have purposes, since they lack consciousness and will – their ‘actions’ can only at best be regarded as quasi-purposive, in the sense that they apparently de facto have a common direction, viz. the perpetuation of life. Thus, the flower in our example did not ‘do’ anything that could literally be characterized as adapting, struggling or becoming fitter; the flower can claim no credit for its evolution. According to Darwinism, there were just random genetic mutations, which happened to be physically compatible with surrounding conditions that happened to occur.

The concept of struggle for existence, as understood by biology, treats every possible behavior pattern under the same heading. It is not limited to situations of conflict or even of difficulty, but covers every aspect of the life of individuals and populations that happens to be ‘good for’ them. In this broad perspective, cooperation, sharing, mutual service and symbiosis are equally forms of ‘struggle’ – they are expedients adopted by the organisms concerned – consciously, or of course (by analogy) unconsciously, as the case may be – to further their own lives, by means of

exchanges of goods and divisions of labor. Even true altruism (to the extent of self-sacrifice) may be assimilated under this concept, if separate individuals or groups are conceived as really parts of the same whole. Tolerance and peace are also expedients. Social Darwinism foolishly or cunningly ignores such nuances.

Furthermore, Social Darwinists misunderstand natural selection. Survival is not a product of conquest or at least compromise in some dramatic struggle of the organism with other organisms and with the environment. Survival, even for humans, is not proof of some sort innate fitness or personal credit; things are not that simple, orderly or satisfying¹⁵⁷. As Darwin was careful to stress, survival is mostly a matter of plain *luck*. The law of averages makes some individuals or groups survive and some die off, with little or no regard for their genetic potential.

For example, a city tree has thousands of seeds; most of them fall on the pavement, with no chance of ever germinating; one or two may fall on the lawn under the tree and not get raked away by the gardener, each giving rise to a seedling; then comes the lawnmower and puts an end to that attempt, though one seedling may be missed and grow on for awhile. In this example, the seeds all have genetic content of more or less equal value for the furtherance of life, though some may in fact be more robust and fertile than others; but it is generally mere chance and *not* their relative genetic potential that has determined which finally survived.

The same truism applies to all individual lives. Lightning may strike a tree, which falls and kills the dominant monkey in a group – supposedly, the best genetic specimen; it was not killed by any inherent unfitness, but by bad luck; there was no fault in its makeup that differentiated it from its mates, that earmarked it for genetic extinction (assuming it had no offspring before) – it was simply in the wrong place, at the wrong time. As, indeed, was the

¹⁵⁷ If they were evidently so, everybody would believe in God and Job would never have written his book!

tree. The trees and monkeys spared by that accident of nature may in fact be genetically much weaker and in the long term have less chances of survival, so that the world's genetic pool has in fact been impoverished by those two deaths.

Similarly, with regard to whole species: The existence of the human species today is just, according to biology, due to the mass extinction of the dinosaurs about 65 million years ago when a giant meteor struck planet Earth. The dinosaurs were eminently 'fit' for life here, more so than the mammals, since the former did much better than the latter for over 130 million years, keeping them small and insignificant. Only after these essentially fitter species were wiped out, could the mammals (those that happened to survive the cataclysm) emerge, diversify and grow, eventually giving rise to the human species.

It may be that if dinosaurs had survived, they would have in time given rise to species far superior to the human (i.e. more intelligent and more powerful, in the best senses of those terms). Maybe the genetic strains that did survive the catastrophe, and give rise to the human species, were by far inferior in every respect, except for a lucky break. One could of course argue that the mammals were proven fitter by the very fact of their survival; their fitness consisting presumably in being smaller (under 25 kg) and thus able to take shelter from the physical upheavals that destroyed the dinosaurs (though not all of them, note – since reptiles, birds, and other of their descendents persist). But this argument is rather circular, because it treats exceptional events as on a par with routine events.

Fitness, or adaptive capacity, should not be construed as implying a sort ability in principle to somehow preempt eventual disasters. In our above example of the tree and monkey struck down by lightning, the natural event involved was such that it would have killed any other tree and monkey that happened to be there at the time. The trees and monkey that survived had nothing notably different in their makeup; nothing saved them other than

coincidence. In particular, the surviving monkeys did not sense the lightning coming and scatter.

Some commentators, after similar reflections, have suggested the expression 'survival of the luckiest' would be more accurate. More precisely, we might say that, within the range of those biologically *fit enough* to survive in a give environment, the fittest are not always the luckiest. The specimens that do 'make it' are not necessarily the ideal candidates. I shudder to think of all the great genes destroyed in natural disasters, and due to human wars and environmental devastation. Ours is not 'the best of all possible worlds'.

The concept of fitness (as here described) is faulty not only because it ignores the important factor of luck, but also because it is applied in an undifferentiated manner to the whole organism or species, rather than to specific characteristics, and is then used for comparative purposes. It should be kept in mind that (a) each fitness is relative: what is fit in one respect may be unfit in other respects; and (b) overall fitness is an average: the same individual or group may have more characters that are usually more fit than characters that are usually less fit, and so be declared 'on the whole fit'; therefore (c) comparisons of fitness between individuals or species are not very meaningful, since different circumstances are necessarily involved in their respective lives.

If a man is eaten by a tiger, it does not prove the tiger to belong to a higher species than the man. It just means that the tiger is physically stronger than the man. It remains true that, in other respects, the man is superior to the tiger, being able to invent a spear or gun that kills it at a distance, or simply by virtue of being able to write poetry. If the human species ends up eliminating the tiger species, it does not prove the tiger species to have been unfit for life on earth. It just shows how stupid and shortsighted mankind can be. Similarly, in human society: if a thug kills a gentleman, or a Nazi kills a Jew, it is only a demonstration that the former was more violent, and certainly not proof of greater moral

or social worth. The victim is not shown genetically deficient or constitutionally less viable.

2. Spiritual Darwinism

Those who believe in Social Darwinism usually wish to flatter themselves that they belong to the class of the fittest; the superior, beautiful people; the dominant elite. I would say that a more logical impact from Darwinism would be to make us kinder, more sympathetic to other creatures. That is its impact on me, anyway. Once we realize that we are all really made of the same stuff, just genetic variations on the theme of living matter, we feel closer to other people, other peoples and other species.

Social Darwinism promoted a culture of racism, claiming a genetic basis for its collective evaluations of peoples. But the 'value' of a person is not in his or her genes, but in what he or she makes of them – in his or her 'virtue'. The dignity of a human being, as of an animal, is in how it responds to the challenges of life with the means at its disposal, the use it makes of its cognitive and volitional powers. In the case of humans, the possibility and necessity of decency towards others seems essential, since violence, hatred and fear are in the long run to the disadvantage of all, even if they may in the short run seem advantageous to some. Nothing in biological science justifies the reading that war, of some against others or of all against all, is natural. For creatures like us endowed with reason and freewill, wisdom, kindness and intelligence are obviously the best course.

It is interesting to note that the image of human society projected by Social Darwinists matches perfectly with the traditional portrayal of the egoist grasping and clinging, climbing over the bodies of all those that are in his way, taking whatever he wants whenever he can. It shows up the essence of Social Darwinism, as

a narrow-minded doctrine designed to vindicate selfish pursuits and the social injustice resulting from them. Instead of such mindless behavior, spreading suffering, one may of course propose an enlightened self-interest that considers the broader and longer-term consequences of one's actions. In Darwinist terms, one could say that only justice, peace and love (excuse the clichés¹⁵⁸) are over time likely to ensure survival of human life and life in general.

Finally, it is all an issue of quality of life. What kind of world do we want to live in – an obscure place of stupidity and conflict, death and destruction, or a shining place of wisdom and harmony, life and progress? Of course, utopian philosophies and religions can also cause much harm, but they should not for that reason be ignored, constituting as they do mankind's attempts to probe more deeply into such issues.

Can Darwinism, properly conceived (and not as some have historically misconstrued it), assist the humanities (i.e. ethical, social, economic and political discourse)? The time frame of biological evolution is very long, very much longer than the span of human history. The humanities mainly draw on the latter for their empirical data, to predict what forms of social behavior and organization are likely to bring good or bad to individual humans, human groups or humanity as a whole. The survival of the human (and other) species is a legitimate standard of judgment for the humanities, drawn from biology. But within that broad framework, many conjectures are possible, between which we can only judge with reference to history, if only approximately. Many questions faced by humanity remain unanswerable, whether we look to

¹⁵⁸ Most people would in principle agree with these “politically correct” generalities. However, some people treat “peace and love” as absolutes, which one must impose on oneself without regard as to whether the opposite party does so too. With that, I find it hard to agree – one has the right and duty to self-defense when necessary. That is why “justice” should also be mentioned; it ensures equilibrium.

biology or to history, for the simple reason that they deal with novel issues that have no precedent in the past.

In any case, we have seen in the present work the *specificity* of human beings, in terms of their degree of consciousness and volition compared to other animals. These two differentia are radical enough to suggest that whatever conclusions biology may come to with respect to life in general, it has to reconsider them very carefully when trying to apply them specifically to *homo sapiens*. A species that displays such major distinctions is bound to be subject to some more specific, less mechanistic biological considerations. Our fate cannot be left to chance. If humans have the power of choice, then their nature is to refer to ethical discourse, to help them decide in a pondered manner what courses to follow.

It is important in this context to understand the term 'survival' in a large and deep sense. Ultimately, it does not just mean *physical* continuity at all costs; this is only minimal survival. There are greater degrees of survival, ranging from physical health up through psychological wellbeing to spiritual life. The human being, especially, is no mere body, but a largely mental and spiritual entity. Mankind is not just driven by matter, but has other, seemingly 'higher' considerations. Consequently, *the standards* of success or failure may be different for humans than for other species.

A person may succeed materially but woefully fail in other dimensions of his or her being. Another may fail in the material domain yet succeed in the intellectual or spiritual domain. Who is 'better off'? If we insist on applying 'genetic perpetuation' as the only conceivable biological norm, we will prefer the first. But if we allow that at the human level of existence other issues may be involved, we may prefer the second. The fact is, many people are no longer subject to the reproductive instinct, and choose to have sex lives without begetting children, or to become monks or nuns.

Physically, they are naturally selected out; but what does that prove? Perhaps some of the latter function on another evolutionary scale, wherein it is not the genes that matter most but the soul. Perhaps genes only exist to eventually give rise to souls, or as vehicles for souls. The materialist interpretation of things is not necessarily the final word. I mean, from an ethical point of view, it is just a doctrine like any other.

It could be argued, in accord with the biological principle of evolution, that the soul ‘evolved’ in certain forms of living organism, as *an instrument* of the body, improving the body’s chances of survival and reproduction. In a materialist perspective, ‘spiritual philosophy’ may then be considered as an aberration, whereby the tool (the soul) has forgotten its original function and acquired the pretension that it is life’s goal and that the body must serve it. But it is equally conceivable that, once the soul appeared on the biological scene, it surpassed all other considerations in the material pursuits of the organisms that had one.

The latter perspective might be characterized as ‘Spiritual Darwinism’ – or as *the salvation of the morally fittest* – a doctrine diametrically opposed to that of historical ‘Social Darwinism’, which refers to the physical or political dominion of thugs. If we reflect, the spiritual principle of salvation of the morally fittest is nothing new; it has always been the basis of spiritual philosophies like Judaism or Buddhism. Some people advance on the spiritual path, and some are left behind or regress. Some people make the effort to evolve spiritually and are ‘saved’ or ‘enlightened’; others refuse to use their life constructively, and remain in darkness or sink further down. So it goes – and few, very few, find their way to true ‘survival’ – i.e. ‘eternal life’.

3. Theological perspectives

Some observers, mostly out of religious motives, do resist the conclusion that there is evolution of species. They point to extreme mathematical improbabilities (approaching zero) of the proposed ‘changes’ taking place in the time paleontology makes available for them. They also offer statistical arguments against the possibility of life originating spontaneously by random combinations of molecules, in the first half to one billion or even full 4.6 billion years of the earth, or even the roughly 15 billion years of the universe. Furthermore, they argue that the alignment of astronomical and specifically earthly physical conditions necessary for life to emerge was too improbable for chance to be claimed.¹⁵⁹

Such mathematical objections are certainly impressive, at least to a layman like me. One could for a start retort that the improbable is not quite impossible. Moreover, it may be that there are as yet undiscovered natural processes, or laws of nature, that would significantly reduce mathematical improbabilities once factored into their equations. Before rushing to a non-naturalist conclusion, however satisfying, it would seem to me wise (more in accord with inductive logic) to search for such missing data or laws.¹⁶⁰

¹⁵⁹ Whence, it is concluded that some Divine intervention must have been necessary – to load the dice sufficiently, as it were. I am not competent to judge the mathematics involved; but if it is correct, the miraculous conclusion would seem justified, until and unless some more natural explanation is eventually proposed. See for instance Schroeder, or the much earlier *Proceedings* of the Associations of Orthodox Jewish Scientists.

¹⁶⁰ There is no particular reason to expect God to intervene in a grandiose public manner in the course of nature. Rather, in my opinion, some sort of naturalist conclusion is to be expected and persistently sought.

Objectors also contend that the paleontological record still has many significant gaps – and that till such ‘missing links’ are found, any such conclusion would be premature. They argue that the existence of such apparent discontinuities after over a hundred years of extensive research could be regarded as evidence of real discontinuity.

But with regard to evolutionary transition, these critics give no natural explanation as to how new species might appear without gradually emerging by procreation from previous species. To me, evolutionary continuity is more credible than discontinuity, because it is easier to explain missing links by the reasonable suppositions that (a) the populations of missing species were perhaps relatively small and short-lived, (b) the traces of most living specimens have been destroyed by natural processes over time, and (c) most of the few extant traces are too dispersed and well concealed to have been found – than to try and otherwise explain the observed abrupt appearance of fossils of numerous new species.

Such critics do not propose a hypothesis about jumps from one life form to the next by ordinary reproduction or other natural processes, but one of successive species creations; i.e. they appeal to ongoing miracles long after the initial Creation of the world. So, although their criticism of gradualism is in principle acceptable to naturalists insofar as there are unanswered questions (viz. the missing links), their suggestion of miraculous change is understandably not well received. It lacks weight, not because of atheistic prejudice, but because it is methodologically weak, since a simpler hypothesis (small and ephemeral populations, and destruction, dispersion and concealment of traces) does exist.

Certainly, modern biologists actively address the question and openly debate the issues. They consider four or five patterns of change, based on the fossil record, namely “phyletic change” (gradual “change within a single lineage of organisms”), “cladogenesis” (“splitting of lineages” based on the “founder

effect”), “adaptive radiation” (“sudden – in geologic time – diversification... associated with the opening up of new biological frontiers”), and “punctuated equilibria” (based on “allopatric speciation”), as well as extinction. The theories proposed by Ernst Mayr, George Gaylord Simpson, Niles Eldredge and Stephen Jay Gould, and Steven M. Stanley, are all intended to provide scientific answers to this interesting question of “the tempo of evolution”.¹⁶¹

One body of the evidence for evolution perhaps most disturbing to creationism is the great number and diversity of species existing and having existed on this planet, as well as the cantonment of different species in different geographical niches. A creationist would say this proves the richness of God’s imagination, and his making special spaces for each of His creations. However, if God’s ultimate purpose was specifically, as the Bible commentators claim, the creation of humans and the drama of their redemption, why go about it in such a roundabout way?

When the accepted scenario was as in the Bible narrative a seven-day process, mankind could seem like its crowning achievement. But now that science envisions a process of many billions of years, involving the birth, life and death, of innumerable individual organisms and species, only at the very end of which, some 6,000 years ago, does historical man appear, one may well wonder what that was all about!

Why did some species – which may look ugly and stupid to us – exist for hundreds of millions of years and then vanish without descendants in some natural catastrophe? An omniscient Being would not need to make ‘experiments’ before getting to the point. Although faith is shaken by such reflections, the idea of evolution should certainly not be regarded as intrinsically anti-theistic. Perhaps we ought to view God not as a linear technician, but as a fine artist who wished to add richness and depth to His creation.

¹⁶¹

See Curtis and Barnes, chapter 39.

However described, evolution can also be imagined as a process run by God, so that what looks like mechanism or chance is really hidden intention. We can say either: (a) He programmed the whole thing since Creation; or: (b) He is behind the scenes at every stage, choosing each turning at every major fork of the way. Or again: He created genes capable of a great many possible combinations and mutations, either (a) letting them naturally change, as secular science proposes, or (b) using them as a potential array of tools for providential interference, as religion prefers. In any case, there is no problem, no difficulty in reconciling the two viewpoints.

As I have made clear throughout, I am personally persistently open to the idea of Divine intervention. But I prefer to leave it as a personal faith (I stress the words personal and faith) *applicable to any and all results* of science, and not as a thesis *in competition with* scientific ones. This position makes it possible for me to retain my own faith in God, come what may in science. Whatever scientists at any time decide seems a true description of nature, I say: “OK—that was obviously God’s will”; and if scientists change their mind later on the basis of new evidence or discourse, I just say “OK” again!

The very possibility of such flexibility shows that nothing science discovers or concludes about the world can ever affect faith in God. The notion of God is indeed (as Karl Popper suggested) unfalsifiable; this may make it irrelevant to most scientific inquiry, *but still does not falsify it*. This is one sense in which we can think of God as an absolute: our idea of Him is not relative to any particular view of the world, but compatible with all (though of course, *this is no proof* of God).

However, this principle of tolerance fails if one insists on a rigid literal (as against allegorical) interpretation of certain religious texts, and refuses to constantly readapt one’s detailed beliefs to current empirical data and theorizing, continuing to promote received doctrines against all evidence and rational argument, so as to seem unshakably faithful.

The psychology of *religious fanaticism* is worth looking at. The fanatic seeks to appear firmly religious, thinking that such behavior demonstrates possession of the virtues of courage and loyalty. But in fact, beneath this veneer and bombast, excessive religiosity is on the contrary a mark of cowardice and betrayal, which the clerical class (of whatever persuasion) has historically often shown itself adept at exploiting. The victims (and ultimately the clerics are victims too, of course) are taught intellectual abdication, i.e. to relinquish their experience and reason when it contradicts religious dogma, under the threat that if they have different opinions (however well based and argued) they will lose God's and the religious community's acceptance.

The same frame of mind is programmed in people within a totalitarian society (like Nazism or Communism): to avoid punishment and obtain rewards, on a more material plane, they will admit and do anything the powers-that-be suggest or demand. I do believe that 'fear of God' is a good attitude, a religious teaching that many people unfortunately lack; but I cannot conceive God as wishing people to deny and incapacitate their own minds and those of their neighbors. Truth cannot be served by lying or pretending. Spiritual growth relies on honest witness and rational criticism.

An open-minded religious attitude need not be construed as an outright denial of revelation, or of its historicity; but as an admission that such revelation, if it occurred, may well have been formulated *in the context of* knowledge of man and the world at the historical moment of its occurrence, because its purpose was not anticipation of material information but timeless spiritual guidance. Inversely, any gainsay by scientists of the possibility or existence of God in the context of their findings and ideas is pretentious – it is using their (well-deserved) prestige beyond the limits of their field of study, making 'inferences' that are logically unjustified.

Religious people who resist science¹⁶² do not bring credit to religion, but make it seem mentally retarded. It seems to me, granting God exists, that modern science has *aggrandized* rather than belittled the idea of God. Until recently, the scenario we imagined and believed of the creation of the universe, of the earth, of life and of mankind was very simple. The heavens were not very high, time was not very long, everything was relatively ready-formed and static, the earth was a small theater, and life on it a minor drama.

Now, the universe is perhaps 15 billion years old, containing billions of galaxies each with billions of stars, and black holes, all in motion, expanding. Inanimate matter has itself ‘evolved’ from quarks to electrons, protons and neutrons, to small atoms, to stars and larger atoms, to stars again and planets, to water molecules and carbon, to life. On earth, there have been massive geological and climatic changes, living organisms appearing and diversifying, a bewildering variety of individual and species fates in a changing environment, punctuated by a few gigantic natural catastrophes causing mass extinctions.

All sorts of weird and wonderful creatures have inhabited this planet for hundreds of millions of years, long before we and most of our most visible neighbors appeared on it. It has been estimated that “less than 1/10 of 1 percent, perhaps less than 1/1,000 of 1 percent”¹⁶³ of species ever existing are currently in existence. Humans (in their present garb) are only very recent arrivals on the

¹⁶² It should be stressed that such attitudes are not peculiar to Judaism, Christianity and Islam, but equally found in Hinduism and Buddhism. The latter religions, too, *contain many beliefs that are out of step with modern science*. One example (drawn from various texts): the belief that the earth and humanity have always existed, with sentient beings (in human or other form) going round and round the wheel of karma forever, and so forth. These religions, too, did not predict the Big Bang or Evolution.

¹⁶³ Curtis and Barnes, p. 552.

time line of life on earth. Other species, very similar to humans, lived and disappeared; some even coexisted with our ancestors for tens of thousands of years before dying out.

Surely, this new scenario is much more interesting and impressive. Imagine the unfolding drama of it all over the whole sweep of time. If anything, it glorifies God!

16. THE SELF

We live at a time of cultural globalization, when East and West are meeting and enriching each other. They have of course intersected to some degree at various periods of history¹⁶⁴. But the present may perhaps be compared in intensity to the period in the history of philosophy when the Arab or Moslem philosophers sought to assimilate and reassess Greek and Hellenistic philosophy. Many Western intellectuals today, myself among them, are impressed by some of the insights of Oriental psychology and philosophy, and seek to take them into consideration. In my view, however, while being duly receptive, we should not surrender our critical faculty. Monoculture is not the goal – but rather mutual enrichment through debate.

1. Ungluing the mind

The genius of Oriental psychology! The *Treatise On Sitting Forgetting*¹⁶⁵ recommends us to make the effort that “the mind does not stick to things”. According to this view, the ordinary mind needs some content to cling to, to *actualize* at all. Rather than giving thoughts free rein (abdication) or

¹⁶⁴ See for instance Yuen-Ting Lai.

¹⁶⁵ See *Taoist Meditation*, pp. 84-7. The *Treatise* is “a Tang dynasty text on meditation practice”.

trying to rein them in (suppression), it recommends we repeatedly unglue our minds.

How true this description of mind is! It explains so much of our behavior! Consider how we ordinarily always have some mental content, be it some catchy musical tune, the face of someone one is infatuated with, the memory of some recent conversation, success or vexation, the anticipation of some event or the planning of some action, philosophical reflections or pious prayers, or any kind of thought or mental activity. Tempting random thoughts are constantly offered up to our conscious mind from the subconscious, so as to provide ‘fodder’ for rumination. Problems (psychological, familial, social, political, etc.) are subconsciously contrived, so as to have a problem to solve, something to think, emote, talk and act over.

We are never quiet, always fixated on or obsessed by some topic, always “mulling and musing”. We feel we *need* to fill the mind: whence our enslavement to newspapers and books, radio and television, and other ‘entertainments’¹⁶⁶, however tiring or enervating they may be. Sensuousness – whether in the form of sex or masturbation, of drugs or alcohol, of rock or techno music, or of porno, horror or action-packed movies – is also just a way to give content to mind, through more and more sensational sensory stimuli, whether pleasant or painful. Most of us cannot bear to be truly idle and quiescent for one minute, except in lazy sleep. And even then, our pastime consists of dreams. Even the meditation some of us resort to

¹⁶⁶ To the great profit and pleasure of those who provide us with the content. They know that however stupid or false it all is, we are hooked to the drug and will come back for more.

is used (mostly, at first) as just another way to ‘occupy’ our minds.

Like a pot of boiling soup, with gaseous bubbles rising up to the surface and bursting, the mind’s substratum seems constantly excited by sensory inputs, emotions, reminiscences, and more or less voluntary imaginings and verbal thoughts. A memory may at first just appear as a hint, a tempting loose thread; curious, I grab it, and am transported into the depths of the memory. Why did this memory beckon? Very often, by logical or incidental association with a preceding memory or sensation or emotion or imagination or cogitation. Trains of thought are formed, as we become increasingly entangled. Like monkeys swinging from branch to branch, we cling to one item then to a more or less associated item; and thus we wander endlessly through the forest of the mind!

The *Treatise* teaches: to free ourselves from such travail, we have to avoid the mind’s tendency to fixate on things. *Our (subconscious or conscious) attention sticks to things, to whatever it finds. When we unglue it from one thing, it automatically finds another to stick to.* It is analogous to a sucker or magnet, which you detach from one thing, and it immediately locks on to another. Thus, one is always ‘absorbed’ in something, as if terrified of having to face oneself alone. This image of human psychology is very powerful and instructive.

Practicing ‘no thought’, ‘no mind’, ‘empty-mindedness’ does not mean trying to be vacuous and inane all day long – but rather signifies having a light-footed consciousness, one that does not compulsively stick to just-anything merely for the sake of filling the mind, but is intelligently deployed. If

awareness is truly required, it is flexibly provided. If there is no real requirement, one can effortlessly return to inner quiet and calm.

Of course, such smart practice implies giving up desires and habits one has long identified with! It is no use just thinking or talking about it; one has to *do* it! “Just say no” to all foolishness. Sitting meditation is a great help, developing the repose we need to see things in perspective and take the necessary steps.

I have found with practice that if, as soon as one awakens in the morning, one resists the mental temptation to ‘*stir up*’ one’s mind with extraneous thoughts, and in particular negative thoughts, one finds it easier to rest in serenity (and perhaps good cheer) thereafter, all day long. It is a shortcut: rather than allow scattered thoughts to proliferate, and then have to quiet the mind down later, it is smart to make a small effort of self-control from the start.

Negative thoughts may be stimulated by a diffuse negative feeling, as attempts to understand and rid oneself of such bad feeling; even so, one can resist the temptation to so respond, and give the feeling time to naturally subside. The ego tends to identify with such unpleasant emotion, and uses it as a springboard for thoughts of frustration, hatred, fear or despair, etc. But all these are mere excuses for mental activity, and one is wise to cultivate inner calm and equanimity.

Our ordinary way of confronting the world is very selfish, self-centered or conceited – every thing or event is *related to oneself* in one way or the other. We are affected by each and every presentation. In meditation, after a while, our self

becomes transparent – more selfless, indifferent and humble. Sensations, emotions, memories, fantasies and thoughts come and go, but we do not attach ourselves to them, because we do not attach as much importance to them.

2. Abstract vs. concrete self

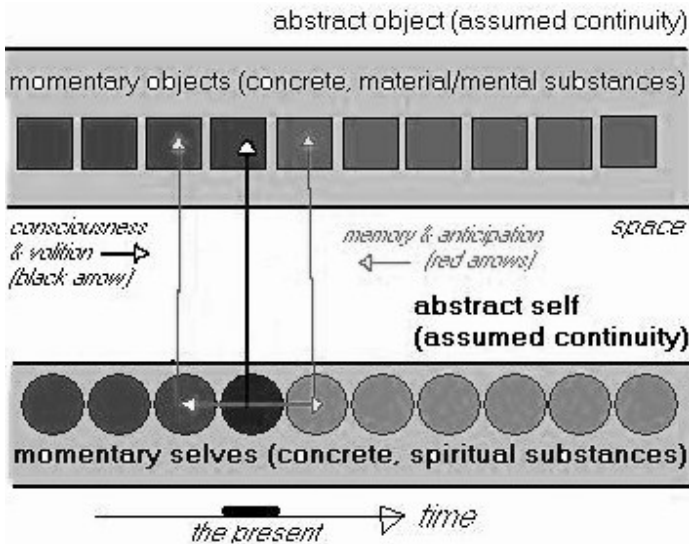
I finally managed to conceive (on a theoretical level, without making personal claims to the direct experience concerned) how the Buddhist idea of ‘emptiness’ of self (in subjects, and indeed in objects of consciousness) might be convincingly presented and consistently argued, when I read the following passage from *Patanjali’s Yoga Sutra*¹⁶⁷:

“A succession of consciousnesses, generating a vast array of distinctive perceptions, appear to consolidate into one individual consciousness” (IV, 5).

It occurred to me that the logical demands that every event of consciousness requires a subject (i.e. a soul being conscious) as well as an object (i.e. the content of consciousness), and that every event of volition requires an agent as well as an act, could still be met in the context of ‘emptiness’ of self, if we assume the schema in Figure 2 below.

¹⁶⁷ This text is available at time of writing at www.arlingtoncenter.org.

Figure 2. How momentary subjects and objects give rise to abstractions



Note: This is a very rough illustration, to facilitate discussion. The self has no phenomenal qualities in our experience; so, all its spatial features here are merely symbolic. The drawing is not intended to assign a specific shape and size to the concrete or abstract soul (respectively, the successive circles and the virtual tube linking them together), since the self has no extension. Similarly, the space between the subject and object is not to be considered literal, since

the self has no location or distance¹⁶⁸. The black arrow signifies consciousness and volition, probing and changing objects external to the soul; while the red arrows are virtual representations of memory and anticipation reaching the past or future, respectively, through the continuity of the soul or at least the succession of soul moments (more on this further on).

As I have argued in *Buddhist Illogic* and in *Phenomenology*, consciousness has to be understood to signify a subject as well as an object. When something appears, it appears *to* someone. Otherwise, it merely exists – it does not ‘appear’. Patanjali seems to agree with the implied objectivist position, when he writes further on:

“But the object is not dependent on [people’s different] perceptions; if it were, what would happen to it when nobody was looking?” (IV, 16.)

Granting the existence of a subject of consciousness, and similarly of an agent of volition, – i.e. me in my case, you in yours – the issue arises: how is this entity known? It does not seem to manifest any phenomenal qualities, i.e. it is not perceivable by any of the material senses or in the analogous modes within the mind. Is it only, then, known by conceptual inference from perceived phenomena? No – I have argued in those works – this would not suffice to explain how we routinely experience self-knowledge, i.e. our awareness of

¹⁶⁸

We roughly locate the self or soul in our body (including head), because it seems at the center of all our sensory experiences (behind the eyes, between the ears, in the nose, under the tongue and the skin), and because our imaginations and verbal thoughts all seem to be going on inside the head.

our *individual* acts of perception and conception, logical insights, choices and volitions, preferences and feelings.

Therefore, we must have *not just a general theoretical knowledge of the self, but direct access to it time after time*. Since this direct access cannot be subsumed under ‘perception’ – having no phenomenal evidence to rely on – it must be called by another name, say ‘intuition’. Furthermore, since the self, as subject (or as agent), has none of the perceptible qualities of objects (including acts), it should be distinguished from them with regard to substance. Whereas concrete objects (or acts) are labeled ‘material’ if sensory or ‘mental’ if imaginary, concrete subjects (or agents) are to be labeled ‘spiritual’ (souls).

Now, until the above-mentioned insight generated in me by Patanjali’s text, I assumed all this to imply that the soul needs be an entity existing continuously for some extended duration of time. In such case, the Buddhist idea that the soul is ‘empty’ of substance could not be conceptually expressed and logically upheld. But now I realize that a compromise position is possible, which reduces the apparent conflict between theoretical construct and alleged mystical experience.

This reconciliation is possible if we clearly distinguish between the intuited *momentary* existence of **concrete soul** from the assumed *continuous* existence of **abstract soul**. The same distinction can be made for the object – i.e. perception only reveals the object’s moment by moment concrete existence, whereas the apparent unity between its momentary manifestations is a product of abstraction.

It *suffices*, for logical consistency, that we posit a momentary, concrete spiritual substance being conscious *at that moment* of a momentary, concrete material or mental substance; or likewise *at that moment* willing changes in matter or mind.

With regard to consciousness, the momentary soul may *at the moment of its existence* equally intuit itself, its own acts or tendencies (cognitions, volitions and evaluations), and also *past* moments of soul experiencing objects, self, etc. (insofar as such past is inscribed as memory in the present), as well as *future* such moments (by anticipation, i.e. by present imaginative projection). Similarly, with regard to volition, the momentary soul wills whatever it does at the present moment of its existence, and has no need of past or future moments to do so. All that is intended and hopefully made clear in the above drawing.

Each momentary self exists while in the present, but the next moment it is effectively another momentary self that exists. However, each momentary self, seeing at that moment its *unity of form* with the preceding and following momentary selves, gets the false impression that it is *one* with them, i.e. may identify itself with them as previous and later expressions or parts of itself. Thus, the illusory notion that it is spread over time arises – due to a confusion between the abstract self and the sum of the concrete selves. Similarly, *mutadis mutandis*, with regard to objects be they mental or material.

According to this viewpoint, we need only assume that traces of the past are carried over into the present through some sort of ‘memory’ inscribed in successive present concrete subjects or as objects somewhere in their environments. There is thus no logical necessity for us to assume that the different

moments are bound together in one continuous *concrete* soul and in continuous concrete objects of consciousness. We can equally regard the apparent unities of subject (or of object) over time to be due to *abstract* commonalities between merely momentary concrete souls (or objects).

This is easy to grasp with reference to *the image of a wave at sea*. As ‘it’ rolls across the surface of the water, it visually seems like one continuous thing. But upon reflection, we know that the water composing the wave is constantly being replaced by water further on in its course. That is, contrary to appearance, the water constituting the wave does not travel along with the wave, but just bobs up and down. ‘The wave’ is thus just an abstraction, i.e. a mental projection by us based on perceived repetition of a certain shape over time.

But it should be pointed out that this analogy is not perfect. For, in the case of the wave of water, each successive water-content along the path of the wave exists before the wave passes through it and continues to exist after. Whereas, in the case of a subject or object in time, the present is the only position where existence is actual – the past having ceased to exist and the future being not-yet in existence.

Patanjali, in the initially quoted verse, seems to assume that time is actually divided into discrete ‘moments’ of some duration. This is apparently contrary to the assumption of modern physicists that time is an infinitely divisible continuum. The following verses seem to confirm that his position is that the continuity is illusory:

“The past and future are immanent in an object, existing as different sectors in the same flow of experiential substances” (IV, 12). “Their

transformations tend to blur together, imbuing each new object with a quality of substantiality” (IV, 14).

And further on, more explicitly:

“One can see that the flow is actually a series of discrete events, each corresponding to the merest instant of time, in which one form becomes another” (IV, 33).

But I think it ultimately matters little in the present context whether we assume that time comprises a succession of separate events or a non-stop flow. For we can apply the above illustration and analysis in either case, i.e. whether we assume the series of circles or squares merely contiguous or infinitely overlapping. Perhaps we could explicate the ‘moment’ of Patanjali as the breadth of time that a given subject’s consciousness is able to span in one go. That is, perhaps time is continuous but our consciousness functions subjectively in discrete bits.

The important thing is that we may now accept *two* theses or theoretical constructs relative to the given data.

- One is that of ordinary consciousness, which presumes that underlying the abstract self is a continuous concrete entity (likewise, with regard to an abstract object).
- The other construct is that claimed by Buddhists with reference to deep meditation, namely that no concrete continuity (but only a succession of discrete events) underlies the abstract continuity; i.e. that the apparent continuity is not real but illusory. Or in other words, that the abstract self (or likewise, the abstract object) is ‘empty’.

We need not at this stage judge between these two theories. What interests us is that *both are consistent with* the demand that consciousness imply both a subject and an object.

But in either case, the *concrete* soul is *not* ‘empty’ – there is at least a momentary entity beneath it. In other words, the ‘momentary concrete soul’ is the common ground of both the ordinary mindset (which however unifies different moments into one ‘continuous concrete soul’) and the Buddhist claim (which rejects such unification, regarding the apparent continuity as merely abstract).¹⁶⁹

Note well that no special logical doctrine needs to be conjured to explicate the claim that an abstract concept may not be underlain by a concrete unity. We have an example of this assumption in the ordinary view that a *class* concept or common name refers to a shared characteristic without implying (contrary to the Platonic idea) that it refers to an actual archetype suspended somewhere. This is by way of contrast to the *individual* concept or proper name, which is ordinarily taken to signify that all the objects it groups and labels are manifestations or facets in space and time of a single entity. The following is a more specific example:

If I think of ‘myself’ in the rougher sense, I include all the sensations felt at various times in different locations in my body, the sight of my skin, the sound of my voice, the thoughts in my head, etc. Although these factors are scattered in time and place, I regard them as ‘an individual’ called Avi Sion. Furthermore, each slice of my life is somewhat

¹⁶⁹ In either case, if we wish to support an ultimate monism, we can imagine all instances of subject and object, and the consciousness relating them, as ‘bubbles’ momentarily popping-up in an underlying unitary substrate of all existence.

different from the previous: the air in my lungs, the food in my stomach, the blood in my veins, and so forth, are constantly on the move. Likewise, in space: no cross-section of me is comparable; organs differ, I move my arms and legs, etc. Even so, I ordinarily think of me as singular; i.e. the abstraction 'Avi Sion' is in this case considered as referring to a concrete 'sausage' in space-time. Similarly, if I think of another human being or your pet dog or my car.

In contrast, if I think of the 'classes' with the common names 'human beings' or 'dogs' or 'cars', there is no intention (again, except for Platonists) to unify all instances into one big meta-individual. Thus, we commonly readily admit that there are abstract concepts without a single concrete referent, i.e. which merely intend a *similarity* between two or more concrete referents. The Buddhist proposition is simply that this latter understanding is also applicable to the case of 'individuals'.

The discussion becomes more complicated if we more carefully consider the time factor. Firstly, in our above illustration, the arrow symbolizing consciousness and volition is perpendicular to time's arrow; but that implies synchronicity, i.e. that these relations take no time to relate subject and (external) object, or agent and (external) act. It would perhaps be more accurate to suppose a delay, so that consciousness currently observes what is already slightly in the past and volition eventually affects what is still slightly in the future; i.e. we have two diverging arrows. But such supposition is problematic, since the premise of discontinuity is that no intermediate time exists, no being in between the moments shown; i.e. that the present moment is an indivisibly unity.

Secondly, we have too easily assumed that memory and anticipation can somehow function across time, even while considering each moment of time as essentially independent of the previous or next one. The above illustration suggests the pathway of memory to go through cognition of the past when it was present, coupled with a transfer of information from past subject to now present subject. However, here again, with regard to retrospection, it would be inappropriate given the premise of discontinuity to propose that movement of information (communication) occurs from one moment to the next, with time's arrow. Similarly, anticipation cannot be considered as prospective or advance vision of the future itself, and yet when we mentally project a prediction (e.g. when willing), we intend it into a not yet existent future; this is even more problematic, seeming to imply movement of information against time's arrow.

In reply to such objections, some Buddhist philosophers would respond that there is no space and so no time delay between subject and object, since both are in one and the same "mind"; or again, that all moments of time are in fact one, being all illusions of that one and only "mind". But less extreme Buddhist theorists would rather emphasize that the discontinuity thesis is not simply that concrete events (of subject or object) are in fact discrete, suggesting a succession of lawlessly spontaneous and unrelated happenings. No, there is still some sort of 'continuity' to take into account. It is the "karmic" component – the idea that each successive event in a series is *causally determined* by the preceding (and all environmental factors).

What this means exactly is open to discussion. It is debatable, for instance, whether freewill is allowed for or fatalism is implied. But more radically, if as Buddhists claim 'everything is causally

connected to everything’, the concept of causality loses all meaning, *since no distinction between causes and non-causes, or between types and degrees of causality, remains*. In short, while the idea seems plausible if we refer back to the image of a wave of water (where ‘energy’ – another abstraction, note well – is considered as passed on through the water), we are hard put to find a definition or develop a detailed understanding of causality that would correspond to the Buddhist viewpoint.¹⁷⁰

Another issue to consider is epistemological. Granting we never experience anything other than the immediate present, i.e. that reminiscences and anticipations are events in the present that suck us in and give us the impression of transporting us into past or future, the question arises how do Buddhists know about karma, i.e. that the present is an effect of the past and the future a consequence of the present? It seems to me that they can only claim an *adductive* legitimacy to their karmic interpretation – in other words, not much more than the epistemological basis of the ordinary assumption of continuous essences and souls! By adductive, I mean given an empirical basis, to postulate a certain extrapolation from it, in the way of a coherent hypothesis to be compared to other hypotheses. That is to say, karmic theory is as much a ‘conceptual construct’ as the continuity theory it seeks to replace.

The thesis of discontinuity seems less credible to me than that of continuity, because it suggests that the whole universe (irrespective of its nature or size) instantly vanishes and then reemerges, or is destroyed and then recreated, at every moment. This means that instead of having to explain it once, we have to find a new explanation for it in every moment – and of course, we have no time for that in any one moment.

¹⁷⁰ I discuss these issues in more detail in my *The Logic of Causation*, chapter 16.3.

Moreover, we do not only need to explain the repeated *existence* of the universe, but its apparent *similarity* in any one moment to previous moments – for it always seems to contain traces of the past (e.g. footsteps in the snow, paleontological fossils, mental memories or photographic records) comparable to the present (e.g. you look like I remember you).

And finally, of course, comes the more complex issue of *causality*, to explain why similar entities in similar situations appear to behave similarly (*regularity*) and more difficult still, why some individual entities seem variously linked to individual events (*responsibility*). The thesis that there is some continuity across time thus requires less explanation; and being simpler, it is adductively preferable.

Thus, though all we experience of the self and the world is indeed momentary, the hypothesis of continuity remains conceivable and indeed more probable. The *epistemological* fact of transience of all phenomena and intuitions does not per se exclude the *ontological* possibility of certain continuities between them.

It is true that the ‘self’ especially has only a present existence, and no past or future within the present, since memories and imaginations (including projections of the future) are located outside of the soul, occurring in the mind and being stored in the brain. And indeed, even the soul’s present impressions of itself (by intuition), its mind (by inner perception) and its physical body and environment (by sensory perception), are open to considerable doubt, being often very transient and not always clear or memorable.

Also, since the soul has no information on itself or on the outside world within itself, there is some justification to regard past and future as essentially 'illusory', as the Buddhists do¹⁷¹. The latter term could be considered as somewhat hyperbolic, intending to stress the argument that they are *at best inductive constructs*. 'The past' so-called is constructed from present impressions of the present and apparent present 'memories' of some 'past' – but, judging by verification procedures in the present, the alleged past is *often* more fantasy and self-delusion than a fair estimate of what was. Similarly, and all the more so in the case of 'the future', which not only refers to the apparent past and present, but to incipient intentions of one's own and others' wills (which may or not be finally carried out).

However, such reasonable doubts that can be raised about the present, past and future of the self and its surrounds, cannot be reasonably be taken to an extreme, for the simple reason that that would make the statement of doubt logically self-contradictory. Therefore, we must admit that wherever consciousness occurs, it is based on *some* certainties, which does not necessarily mean total certainty. The inductive constructs that make up most of our 'knowledge' can indeed be erroneous, but it must be admitted (to remain consistent) that they progressively tend to truth.

¹⁷¹ The contemplation of this illusoriness is, I believe, called *samapatti*.

3. Sundry reflections on the soul and God

The soul is what we regard as the essence of a person, the unitary substance that is both subject of consciousness and agent of volition. This soul need only be present during the life of the physical organism sustaining it, not before or after.

Ontologically, whether the soul is perishable or imperishable does not seem relevant to our study of its cognitive, volitional and evaluative capacities. Epistemologically, how would we know it as a fact either way? If there is no contradiction in either concept, and no evident immediate knowledge of it, we must revert to generalizations and hypotheses to establish it. From a philosophical point of view, the soul may be either short-lived or undying; equally. Some souls may be short-lived to different degrees (animals, humans), some undying (God's at least). There is no law of causality, nor law of knowledge, requiring all subjects or agents to be imperishable or to age equally.

Mortality does seem more empirically justified – in that people and animals evidently are observed to physically die. If the soul is an epiphenomenon of matter, it is probably mortal. Immortality implies literally an eternity of existence, and not merely life after death for some time; this seems a very unlikely hypothesis, unless we refer to the religious thesis that the soul originates in God and eventually merges back into Him, or similar ideas. The issue remains forever (i.e. so long as we exist) open, speculative.¹⁷²

¹⁷² Note that my position concerning knowledge of the existence of God is that we can neither prove nor disprove it; on this topic, see my *Judaic Logic*, chapter 14. My views concerning

I am not sure Judaism (at its Biblical core, at least) and allied religions ultimately believe in immortality, though they may believe in some transmigration, or at least in the ultimate resurrection of the dead. The ‘messianic age’ is projected as a period of happy existence for differentiated individuals, rather than as a nirvana wherein all will fuse with God. Just as at some past time, God was alone, so at some future time, He will again be alone: only He (or His Soul, pronoun and noun having one and the same referent) is Eternal. But on the other hand, logically, just as we came from God before we got to Eden, perhaps after the messianic age we shall indeed eventually return to Him.

The philosophical position concerning the soul adopted in this volume is that it is either directly intuited by itself, or at least implied by its functions of cognition, volition and valuation, some of which are certainly directly intuited (i.e. experienced, although not as concrete phenomena). We could refer this position to the Cartesian “*cogito, ergo sum*” (I think, therefore I am), if we understand the term ‘thought’ broadly enough, as referring to the three functions. Epistemologically, I infer that I am, due to having experiences, using logic and forming concepts (cognition), intending or doing actions (volition) and expressing preferences (valuation). Ontology reverses this order, acknowledging the self as logically prior to

how we ordinarily arrive at knowledge of the nature of God are expounded in *Phenomenology*, chapter 9. Note that I make no claim that anyone has attained to prophetic knowledge, though I keep an open mind relative to this notion.

any and all such ‘thoughts’, as their implied subject or agent.

The notion of a soul no doubt has a history. I do not claim to know it, can only roughly guess at it. The idea of a personal soul is thought by historians to be rather recent – dating apparently from the time humans started burying their dead, or otherwise ritually disposing of them. Much later, philosophers (notably Aristotle¹⁷³) developed the hierarchical distinction between vegetative soul, animal soul and human soul. The first level of soul (involving birth, nutrition, reproduction, growth, decay, death) was found in plants, beasts and humans; the second level (involving locomotion and sensation), only in the latter two; and the third level (involving reason, and exceptional liberty), only in the last.

Buddhism (or at least some currents of it), distinctively, denied the real existence of a soul, considering the ‘self’ apparently at the center of the individual’s consciousness as an illusion¹⁷⁴. According to the mentalist school (Yogacara),

¹⁷³ This distinction was later adopted by Jewish mystics, using the terms *ruach*, *nefesh* and *neshamah* (although they seem to interpret them in very divergent ways, however convenient – probably because the terms are not clearly defined, and seemingly interchangeable, in the Bible, from which they are drawn). Similar ideas are found in other cultures, but here again I can only guess the history.

¹⁷⁴ Although, if we examine some of the arguments put forward in support of the no-self claim, their illogic is glaring! This is particularly true of the pseudo-reasoning of the foremost philosopher of the Madhyamika school, the Indian Nagarjuna (2nd Cent. CE). To give an example I recently came across in a book by the Dalai Lama (pp. 54-5): “The Vaibhashikas therefore understand final nirvana in terms of the total cessation of the individual. A well-known objection by Nagarjuna... [if so] no one

the apparent self is based on eight modes of consciousness – the five due to sensory perceptions; the mental faculty correlating and interpreting them (like the ‘common sense’ of Aristotle); and two more. The seventh mode (called *manas*) refers to the deluded impression of having a separate self, giving rise to conceit, selfishness, and similar afflictions. The eighth mode (called *citta* or *alayavijnana*) is considered the repository of ‘karma’, making possible the delays in consequences of actions.

Thus, the ‘seventh consciousness’ may roughly be equated to the ordinary concept of present soul, although it is declared illusory¹⁷⁵; and the ‘eighth consciousness’ may be ultimately compared to the religious concept of a soul that passes on from body to body, although a carryover of potentiality is implied rather than perpetuation of actual existence. This series might be completed by the notion of the ‘original ground’ or ‘causal ground’ of consciousness and existence,

ever attains nirvana, because when nirvana is attained the individual ceases to exist.” Nagarjuna is a joker, who likes to play with words (see my *Buddhist Illogic* for many more examples). He here suggests that ‘attainment’ is only conceivable through alteration (where the subject remains essentially the same, while changing superficially). But it is logically quite conceivable that the individual disappears upon crossing over into nirvana: that would simply be a case of mutation (where the one-time subject becomes something else entirely at a later time). There is nothing absurd in the said Vaibhashika position. (Note incidentally that that position is analogous to the theistic idea of merging back into God, mentioned higher up.)

¹⁷⁵ The accusation of illusion is due to their considering the notion of self as a product of conception *from mental and sensory perceptions* (i.e. *dharmas*, phenomena), rather than as I propose as something known by direct self-intuition (i.e. experience with a *non-phenomenal* content).

the Nirvana of one-mind and no-mind – which could be considered as related to our concept of God. Although Buddhists would likely deny it, the analogy seems to be apposite, because it shows the recurrence and uniformity of certain concepts in all human cultures.

Another Indian culture, Hinduism, as well as other peoples and philosophies, consider God more frankly as the Soul of the universe, the common root of all particular souls. In Judaism and sister religions, God is projected as a conscious Presence overseeing (in a cognitive and volitional sense, and in the evaluative sense of lawgiver) the whole world, much as each of us has a soul reigning over his or her own little world. Some suggest, as already mentioned, that our own soul is but a spark¹⁷⁶ out of God's.

Some consider God as transcendent, others as immanent. The latter end up equating God with Nature, in the way of pantheism (Baruch Spinoza comes to mind, here). The human belief in God may have historically developed out of animism, itself probably a generalization of the vague notion of a personal soul.

Peoples living close to Nature (the Indians of North America, for instance) tended to perceive an *undifferentiated* godliness in all life and indeed in all of nature. Everything had a soul—a bubbling stream or a roaring ocean, a majestically immovable mountain, a pebble rolling downhill, the Sun, the Moon, the vast sky, one day blue, one day grey and rainy, rolling clouds and thunder in the sky, the wind brushing through the forest, a bud flowering, a soaring eagle, a roaming

¹⁷⁶ The idea of a 'spark' is drawn from Lurianic kabbalistic philosophy.

cougar, field mice scattering, a fish jumping up. God was everywhere to be seen and encountered.

Such ideas may have in time become concretized, with the notion of *discrete* “spirits” residing in a stone or tree or river or mountain. Each thing was thought to have consciousness and volition, just as people intuited these powers within themselves (probably long before they named them). People might then seek to talk with bodies of inanimate matter as with animals; for instance, to respectfully ask permission to interact with them in some way. Or they might have to trick or fight them into doing what they wished them to. Eventually, these small, scattered “gods” were taken home or at least represented in stone or wooden idols (as apparently in Africa).

Some gods, like perhaps those of Nordic peoples, may of course have evolved out of historical persons – kings or heroes who were remembered in stories and eventually became larger-than-life myths. Later, as in Greece and Rome, more abstract gods evolved, who represented broad domains of the world (like the heavens or the sea) or of human activity (like love or war).

Eventually, apparently thanks to the Hebrews, *monotheism* was born, i.e. belief in a single and sole universal spiritual God. Founded by the patriarch Abraham, Judaism became a more organized national religion a few centuries later¹⁷⁷.

¹⁷⁷ A more concrete ‘monotheistic’ religion, consisting of worship of the Sun exclusively, appeared briefly in Egypt at about that time. But the question is, who inspired whom? It is certainly equally conceivable that a small foreign contingent (Hebrew slaves) culturally influenced the larger host (some of the Egyptians).

Eventually, through Christianity and Islam, both much later offshoots of Judaism, abstract monotheism gained ascendancy in large parts of the world. Christianity is closer to Judaism than Islam in some respects, further in others. The former is more explicitly rooted in Judaic textual details, whereas the latter uses them more as a tacit springboard. Christianity retains some concrete ideas and images relative to its founder Jesus, while Islam like Judaism eschews all such deification or representation.

Still today, in India for instance, the pantheon of gods and the ubiquity of images of them is striking. Although Hinduism has also long ago reached the idea of abstract monotheism, it has not made it exclusive. Buddhism, for its part, attained a high level of abstraction, but without personalizing it as God (at least not originally, although many Buddhist offshoots have in practice identified the founder Buddha with God). This is consistent with the Buddhist doctrine that even the human soul is ultimately “empty” of personality. However, Buddhists have remained influenced by ancient idolatry, in view of the statues of Buddha they worship (and thus mentally project ‘soul’ into, note)¹⁷⁸.

Jewish monotheism is not about God being the Soul of Nature. Nature (*hateva*) is sometimes said to be one of the ‘names’ of God – but this is taken to mean (e.g. by

¹⁷⁸ To be fair, it may be that in the minds of some practitioners of meditation, statues and flat images are not objects of worship, but mere aids to achieving the depicted stillness, silence and concentration. One would have to ask individual practitioners what their real intentions are. All the same, it would seem likely that someone starting with imitation in mind, will develop an emotional attachment to the representative object and end up personifying it and bowing down to it. Which, to my mind, is silly, to say the least.

Maimonides) that Nature is in God's power. In Judaism, God is *absolutely abstract and without any concrete manifestation whatsoever* – no incarnation in human or any other form, and nothing that can be represented by an image. Or more precisely, God is purely spiritual and never material. He is nevertheless the Creator of the world of nature, and remains all-knowing and all-powerful in it. Omniscient – not merely in the sense of knowing generalities (as Aristotle suggested), but also in the sense of knowing every particular; and thus able to exercise providence down to the last detail – as befits omnipotence.

This is analogous to the human soul, which has no phenomenal aspects¹⁷⁹ of its own, although it is capable of knowing and interacting with the phenomenal world. However, the analogy is not total, since Judaism teaches that the world is not God's body, and moreover that humans did not create their own bodies but God created both their bodies and their souls (Genesis 2:7):

“And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.”

So, it is conceivable to Jews that whereas God is eternal, humans are not; and it is also conceivable that God's 'breathing life' into us was animating our bodies with a bit of His eternal Soul.

¹⁷⁹ In this respect, Judaism has similarities to Buddhism; although unlike the latter, the former recognizes a non-phenomenal 'spiritual' substance for soul. Another possible analogy is that between the "Ayin" (non-existence, nothingness) of Jewish kabbalah and the "Shunyata" (emptiness) of Buddhism.

As these reflections show, the histories of the notion of soul and of that of God are closely intertwined. One of the functions of religion and/or metaphysics is to propose origins for soul and God, and explain how they are known.

Catholic Christians, to varying degrees, use *material* representations of Jesus in their homes, churches and processions. This may historically be an inheritance from the representation and worship of Roman emperors, which was widespread and seemed normal in the world Christianity took over. Protestants, later on and for various (political as well as spiritual) reasons, have for the most part eschewed three-dimensional sculptures and dolls, but they still resort to *mental* representations as well as to two-dimensional pictures. Hinduism and some forms of Buddhism similarly resort to incarnations of numerous divinities, giving them bodily form or thinking of them concretely.

These are *perceptual* ideas about divinity. Judaism, and later on Islam, on the basis of the narratives in their scriptures (the Torah and the Koran, respectively) ascribe perceptible *behavior* to God, in the way of manifest miracles (if only the sending of an angel or a prophetic vision, or the decree of a legal system), but they exclude any physical or mental representation of God, which they reprove as “idolatrous”. The idea(s) of God transmitted by their holy books, and later reinforced by interpretative commentaries, are essentially *conceptual*.

As philosophers we might ask: what is the rationale for the worship of statues or other representations? Does the worshipper consider that material (or mental) object itself to be what he or she is worshipping (fetishism), or to contain the divinity aimed at or be an emanation of it or a channel to it –

or does the concrete object at hand merely serve as a mnemonic or as an expedient means to focus personal attention on a divinity far beyond it?

One would have to enter people's minds to find out for sure (for their own introspections and oral reports are not necessarily reliable). I would suspect that there is a wide range of attitudes in different people, some imagining a more literal interpretation, others being more conscious of the possible distinctions. The spiritual issue is: does this practice 'weigh down' the soul, preventing it from 'rising' to the formless?¹⁸⁰

I should add that I personally suspect that people who believe in some incarnation(s) of God, or in narrow gods or idols, and even atheists or agnostics, *often or at least occasionally* lift their eyes and prayers to the heavens, effectively intending to appeal to or thank God. That is to say, adherence in principle to some non- or not-quite monotheistic doctrine does not exclude the occasional intuition and practice of monotheism. The issue here is not the culturally specific name given to the Deity, or the theoretical constructions usually associated with that name, but the actual intention of the praying soul at the moment

¹⁸⁰ The essential purpose of idolatry, I would say, is to *imprint* people's minds with alleged representations of gods or God. It is a powerful form of advertising, which produces psychic dependence on the idol, so that it is voluntarily or involuntarily recalled and appealed to in various circumstances. This incidentally benefits the clerical class tending and serving the idol; although, to be fair, the members of that class are rarely hypocritical, but themselves true (indeed, usually truer) believers.

concerned. I think all or most humans have that understanding and reaction in common.

Philosophical theism or theology offers no narrative, no stories, concerning God; it is therefore, of course, free of any concrete representations. It consists of frank, changing *speculations* of a general sort, as to whether *in the context of ordinary human cognitive faculties* an abstract God can be definitely known to exist – or for that matter, not to exist.

Extraordinary forms of knowledge (allegedly attained, for instances, through prophecy or meditation) are not inconceivable, but hard to prove to us ordinary people; they therefore remain speculations. Honest philosophers have no prejudice on the subject, and freely admit room for doubt. Nevertheless, they find it possible to formulate consistent theories, which *might* be true about God and soul. On this basis, though no dogma is allowed, various *personal faiths* are possible.

In this way, without imposing any particular religious doctrine, philosophy may yet save the fact of religion from annihilation by pseudo-thinkers. Here, religion is denuded of all extraneous material (that which has made it disreputable), and limited to certain essential propositions given credence through philosophical discourse. The spiritual dimension of human existence is thus confirmed and reaffirmed.

17. SOME TOPICS IN DEONTOLOGY

Deontology is a vast topic, which we can only touch upon in the present volume. I have already made scattered remarks on this subject in previous chapters, and in earlier works¹⁸¹; here some additional comments seem worth making.

1. Founding ethics

The term ‘deontology’ may be taken to refer to the theoretical study and foundation of ethics, without initial preference for any particular ethical system; another term for this is ‘meta-ethics’. This philosophical discipline is concerned with the form, rather than the content of ethics – how ethical systems are structured, the logical forms and arguments used in them, how standards or norms might be first established (‘axiology’¹⁸²), and indeed all ontological and epistemological issues relative to ethical judgment.

¹⁸¹ See chapters 3.4, 10.3 and 13.2, here; also, chapter 13 in *Judaic Logic*.

¹⁸² The term axiology is often used in the wide sense I here give to deontology. I prefer to use the term axiology more specifically with regard to the issue of norm setting, because of its similarity to the word axiom (they both have the same Greek root, ‘worth’).

Deontology will, for instance, emphasize that *the concepts of life, consciousness and volition are central to any ethical claim or system.*

- Ethical discourse can only concern living beings. Inanimate entities (e.g. a table or a molecule) have nothing to lose – for their defining boundaries are fluid and arbitrarily set. We may break a diamond or disintegrate it – but ‘it’ has lost nothing. Living beings, on the other hand, have things to lose – their limb and life, which may be harmed or destroyed. A microbe is not just a mix of matter; kill it, and the matter remains but it no longer behaves as a living cell.
- Ethical discourse is of no use to unconscious organisms, since they have no way to gain knowledge of it. We do consider that some things are conducive and others are detrimental to plants or microbes – but knowledge of such things concerns us, not the plants or microbes. Such knowledge tells us humans how to cultivate them, presumably so as to eat them or otherwise use them – so it is really a subset of human ethics. Animals can acquire knowledge of sorts, and so may conceivably learn facts or behavior (e.g. from their parents) that protects and furthers their life.
- Ethical discourse presupposes volition. If the conscious organism has no volition, no ethical proposition concerning it is meaningful – since it can do nothing other than whatever it happens to be doing in the circumstances concerned anyway! Ethics is for organisms with freewill, meaning humans and higher animals.

Ultimately, of course, ethics is the prerogative of humans – who are not only alive and conscious and volitional, but moreover able to reason about ethics in general, to formulate and understand particular ethical propositions, and to monitor and manage their own behavior systematically. There is no point researching and writing an ethics, if the subject of it is unable to read it or follow it.

Imperatives, prohibitions, permissions and exemptions – all such statements, whatever their specific contents, logically presuppose an acceptance that the subject has some rationality and free will¹⁸³. It is absurd (self-contradictory) to make or imply statements like: “don’t refer to the concepts of consciousness or volition in your discourse” – since to say “do not” implies one has awareness and choice.

Of course, volition is (as we have seen) something very hard to fully define and prove, because it is – like consciousness and like feelings – a *primary* object of experience. It is not like something else, to which it might be compared and reduced; it is something *sui generis*, a basic building block of experience. There is no logical basis for excluding volition from the realm of existence, just because it cannot be entirely described in terms of material or mental phenomena. It suffices to point out that it is something we experience

¹⁸³ Immanuel Kant appears to consider that we know of our freedom indirectly from our ‘sense of duty’ and the logical consideration that duty is only meaningful to a free agent. This is of course nonsense. The sense of freewill is, in my view, far more radical than that of duty. Also, I am not at all sure we have an innate sense of duty – our intuitions of duty are derivatives, not primaries. Even logically, liberty without duty is not something inconceivable; in a sense, we consider God as being free even of duties.

distinctively (through ‘self-knowledge’, ‘introspective intuition’ or ‘apperception’ – however we choose to call it). We do not, note well, merely conceive it as a generality – but distinctly experience particular acts of volition within us.

Most human propositions and reasoning about causality are really about volition and allied concepts. Although the world of nature, or causation, is of course of great daily concern to us – we are also all the time greatly involved in thinking about our place in that world and in society, as well as our inner world, and all such thought is essentially to do with volition and allied causal concepts, including ethical concepts.

As we have seen, the ethical modalities (i.e. imperatives, prohibitions, permissions, exemptions) have to do with the realm of the possible. What is impossible in any respect does not belong in the realm of ethics (except to deny responsibility). With reference to any domain we face (nature, society, our own psyche), the following truisms are worth keeping in mind:

- Some things are inevitable; some future events are naturally necessary, no matter what anyone (except perhaps God) does to avoid them. *A contrario*, some things cannot happen, no matter what anyone does in the attempt to make them happen.
- Some things are inevitable (or unfeasible) for some volitional agents, but not so for others. Or they are so at one time, but not another. Or under certain conditions, but not others.
- Some things are bound to happen, *unless* we make a determined effort to prevent them (e.g. a natural disaster,

a war or a nervous breakdown). Some things are bound not to happen, *unless* we act in a timely and appropriate manner to make them happen (e.g. a building, a social system or a psychological development).

- To prevent dangers from actualizing, it is usually necessary to be aware that the things concerned are dangerous, preventable, and likely to occur if not acted upon. Similarly, to achieve some positive value, it is usually necessary to identify it as such and to believe in the possibility of achieving it, as well as to acknowledge the need to make an effort to achieve it.

With regard to “freedom of the will”, this phrase – as already pointed out – refers more precisely to the freedom of the soul to will, whatever influences to the contrary accumulate. In a Buddhist perspective, where the ‘soul’ or ‘self’ is radically denied, we might identify the concept of freedom of the will with that of “the unconditioned” – i.e. it is one’s “Buddha nature” that is free, and we only attain true freedom by getting to and abiding in that place within one’s psyche.

Otherwise, according to Buddhist psychology, we are greatly moved by “desire”. In this context, it would perhaps be well to draw a distinction between “general desire” and “particular desire”. The former concept would refer to the emotional base of desire as such, a diffuse substratum without specific object; while the latter concept would refer to the application of general desire to a particular object (e.g. a loved person), often merely on the basis of a random fantasy or other pretext.¹⁸⁴

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If the felt emotions are sufficiently distinctive, we might subdivide general desire into broad (intermediate) categories such

Many influences impact on any given act of volition; some facilitate it, others make it more difficult. As we have seen, influences may be outside factors, which condition the volitional act through having been perceived or conceived by the agent. Mental factors of various sorts are also of course often influential to varying degrees. Some influences are simple, short-lived, *ad hoc*; while some seem to be more complex and deeply ingrained. Habits, for instance, are produced and reinforced by repetition. Obsessions and compulsions involve complicated hidden factors, which produce inertias unless certain work is done to overcome them.

We have seen how impulses and urges – be they physical, mental or spiritual – can be reconciled with the fact and concept of freewill. We were particularly concerned to find out why and how some normally volitional aspects of mental life, such as some thought processes, might sometimes give the impression that they occur automatically, indeed against our will. We arrived at the conclusion that such thoughts, although products of consciousness and will, are hard to control instantaneously, just because a greater and more sustained effort of consciousness and will is required to rein them in than to let them loose.

Many actions we label as ‘unconscious’ or ‘involuntary’ are really *minimally* conscious or voluntary. Our linguistic habit

as “lust for sex”, “power lust”, “greed for food”, “greed for money”, “yearning for fame”, etc. This supposes that not only do we feel vague ‘desire’ before we desire something specific, but also there is an intermediate stage where general desire first takes shape as vague lust or greed etc. before it focuses on a particular object of lust or greed etc.

in that regard should not be allowed to mislead us into erroneous doctrines. When we have an impulse to do something, we may immediately (more or less whimsically) ‘follow that impulse’ and do the thing concerned – or we may restrain ourselves momentarily, at least long enough to reflect and make a considered decision. The amount of effort put into that reflection determines how (i.e. to what degree) ‘conscious’ and ‘voluntary’ is our subsequent action or our further restraint from action. A policy may be instituted for future recurrences of similar choices, or a habit may be programmed by repeating the same decision.

Through such formal analyses of psychological factors, we have (I believe) greatly succeeded in buttressing the concept of volition.

The development of ethical propositions – and eventually an ethical system – constitutes an attempt *to prepare in advance* answers to questions that naturally and inevitably arise in the course of volition. It is a service the ethical philosopher seeks to render to fellow volitional agents¹⁸⁵, just as the logician seeks to facilitate human pursuit of knowledge or the physical scientist seeks to facilitate human interactions with nature.

It is a necessary endeavor, because judgments made in the heat of the moment, under the impact of all sorts of emotional and other influences, are not always as broad-based and accurate as those made ‘in the ivory tower’. Sometimes, admittedly, the philosopher on his armchair cannot anticipate

¹⁸⁵ Of course, such philosophers must be careful to remain modest, and not imagine they can tell everyone what to do in all circumstances.

all the factors that the agent in the field actually faces. Sometimes, to be sure, it is better to act “intuitively” rather than in a “pondered” manner. But more often than not, it is wise to consider matters with a cool head, and with plenty of time to reflect and take a maximum number of issues into consideration.

But whatever ethics proposes, or whatever this or that ethical theory proposes – and whoever is behind the proposition, oneself or others – *such an ethical proposition is merely one influential factor among others in the act of will*. It does not remove the responsibility of the agent for his action. It is just an influence; the volition remains his own.

Even if one believes the ethics one is following to be of Divine origin (i.e. decreed or inspired by God, and transmitted by some religion) – one remains responsible. The act of faith in that religion is itself a volitional act, for which one is responsible. All subsequent acts performed under the influence of such faith remain acts of free will.

2. Ethics concerns the living, thinking, willing

Ayn Rand wrote somewhere¹⁸⁶, concerning values – “of value to whom and for what?” – implying that the term ‘value’ does not stand alone, but is relative to certain subjects and to certain standards. This is not a mere grammatical observation, but a logical insight too often ignored.

As we have said, ethics concerns the living, and in particular organisms with consciousness and freewill, who have and make choices – i.e. the thinking and willing. This fact

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Atlas Shrugged, p. 939.

signifies that, whatever content we give to ethics, it must be consistent with these three basic factors – life, cognition and volition. They are necessary conditions for any ethical system. That is, the “to whom” and “for what” aspects of valuing are ultimately one and the same, or they at least intersect considerably. By knowing whom we are concerned with, we know what their needs are.

The distinction between living and non-living matter is admittedly not easy to make with final precision, so that the materialist perspective on life continues to seem equally if not more credible to many people. They argue that life is a phenomenon essentially like any other in the material world; they define life as a natural outcome of certain combinations of atoms.

They may be right – but the issues remain: how come this complex phenomenon was potential in the building blocks of matter (quarks, or whatever); how come matter evolved after the Big Bang through elementary particles, atoms, molecules, organic molecules, till living cells emerged; and how come the latter in turn gave rise to consciousness and will?

These questions are difficult to formulate, for it is difficult to express the kind of answer that is sought through them. We seem to have descriptive answers (i.e. the process of evolution of matter and life is, let’s say, adequately described) – but these answers do not answer those questions. The issue is not, either, epistemological – we do not seek more proof, we do not doubt the descriptive scenario given. Our questions are, rather, why did these potentials exist in the original substance of matter; why would matter take so many different forms, and evolve all the way to life, consciousness and volition? Why did quarks exist and why did they not

remain quarks forever? Why are the ‘laws of nature’ that made them change (whatever these laws be) inherent in them?

Yes, there are questions of sorts – so no one, not even the convinced materialist, can claim to ‘know it all’. We have seen how the concept of natural ‘conatus’, of distinctive quasi-purposiveness in living processes is a legitimate concept, which does not call for special epistemological dispensations, but is formed in regular ways. It implies a sort of striving without consciousness, life relentlessly pursuing more life. Perhaps this abstract observation is the best definition of life we can propose.

The prime standard of natural ethics is bound to be Life, since the phenomenon of life is the core thing that gives meaning to the concept of ethics. That is, of course, a very vague norm, which biology, physiology, psychology, sociology and kindred sciences may clarify and enrich for us, telling us not only what furthers life, but also what gives it its fullest expression. This more precise account would need to refer not only to life – but also to consciousness and volition. *They too* are underlying standards that all ethical theories have to support, since ethics is meaningless without them.

With regard to life, I know that my own readings in biology have greatly affected my understanding of this standard, shifting its sense from a more self-oriented “my life” or “the life of my loved ones”, over to a broader interest in “life as such” or “life in general” or “all life”.

Beyond the struggle for survival of individuals, groups, species (which is undeniably fundamental), we may discern the struggle for survival of life per se, independent of any

particular form or genetic content. In the latter perspective, the various forms of life are but means to the more basic end, that of life as a whole. The diverse forms may struggle against each other, competing for limited resources, using each other as well as minerals as natural resources¹⁸⁷, but ultimately their efforts can be considered as converging to a common goal, the continuation of life as such, in some form or other at least, but better still in as many forms as possible¹⁸⁸.

One might thus argue for the ‘unity’ of life, as if we speak of one organism that can split up into many smaller interacting entities, yet nevertheless remains one. We, and all animals and all vegetables are not just cousins – we are the same entity. This “Gaia hypothesis” may have some validity and utility. Nonetheless, we can conceive of a hierarchy or pyramid of living organisms, from the simplest to the most complex, at the top of which (at least here on Earth) we seemingly happen to be in numerous or most respects.

Mankind is the species (or perhaps the only remaining species on Earth) with the maximum amount of consciousness and freewill. These powers are found to a lesser degree in other species, but most in us. Even within the human race, there are individual variations, some of which are perhaps inherent to a genetic makeup, while others can be improved on by personal effort. Considering all this as an outcrop of matter at the Big Bang, it is as if matter strove to

¹⁸⁷ Except for the lowest creatures in the food chain, which feed on minerals only.

¹⁸⁸ It does not follow, of course, that genetic engineering is in the long-term favorable to life. Nor does this doctrine condone having sex with animals!

see and know itself, and volitionally act upon itself, going way beyond the blindness and ‘natural law’ determinism (including, here, the mindless indeterminism of quantum mechanics) of the mineral realm.

These are speculations, of course; but I ramble on because they seem to have some impact on the idea of a universal ethical standard. We should also, in this context, keep in mind the last phases of the biological story – what we call ‘history’. After eons of animal evolution, a weird species called humans emerged, and at times seemed the crowning achievement of nature, though now looks more and more like its nemesis. Is evolution collapsing onto itself in a final flurry of fickle frenzy?

And within that framework, we need to consider the history of ideas, and in particular the history of philosophy, to understand the thoughts and behavior of the individual humans we are today. Ideas and philosophies, from a biological viewpoint, are just ways and means people have through history responded to changing environmental, social and psychological challenges. It is a long story of trial and error, in which those who wrote the most or became most famous were not necessarily those who understood the most. Looking back, one is at times amazed at the incompetents philosophy has attracted.

But what is wonderful about philosophy is that even stupid philosophies are useful to the development of philosophy, because they encourage other philosophers to distance themselves from their positions, and explain why. For this reason the history of philosophy is an integral part of philosophy, because each philosophy in it is somewhat delimited by all the others.

3. Conscience and conformism

Most people, perhaps not all, have a functioning *conscience*. What is that? It seems to be a reserved ‘part’ of us, which we charge with the task of supervising the rest. Of course, granting that the soul has no spatial extension, this description is only a manner of speaking, a mere analogy. One’s conscience is no other than one’s self behaving in a certain way in time; it is a volitional function, although it may be habitual to various degrees, even obsessive-compulsive. Conscience may thus be ‘big’ or infinitesimally ‘small’.

Conscience essentially means consciousness (in French, the two words are the same) – being aware. The role assigned to conscience by us is to critically oversee our thoughts and actions, and judge whether they fit in with our deepest standards of what is humanly appropriate in given circumstances. This job may be performed consciously, or subconsciously; in the latter case, we can induce the implicit judgments by observing the subject’s patterns of behavior. Conscience is thus revelatory of *effective* ethical standards.

Note that the concept of conscience is also applicable in the more neutral realm of ‘ethics of knowledge’, where we monitor and regulate our cognitive processes (our intellectual honesty, our will to realism, our efforts of research, the logic of our inferences, and so forth).

We can, by observation of a person’s consciousness and volition at work, infer that person’s underlying ethical standards. Insofar as most people have common standards,

such observations may give rise to a notion of ethics *based on* conscience. However, such a doctrine is hard to uphold, as it seems to involve circularity. Are the deep ethical standards that conscience bases its judgments on innate? That would seem doubtful, although some could be posited as instinctive, i.e. as genetically transmitted emotional influences.

For the most part, however, the norms implied by our conscience are acquired and changeable. For most people, this means mostly reference to the cultural norms of the social group around them, which are largely conventional, though often based on the accumulated wisdom of a society or mankind over time. Some people, to some extent, take a more active part in the formulation of their guiding norms. A person may start with one set of norms, acquired through education or by cultural osmosis, and later acquire a somewhat different set, whether by change of peer group and adoption of a new convention, or through more conscious and rational efforts.

Most people function by *conformism*. In a modern, media-based society, like ours today, this occurs as conformity to stereotypes – for examples, the stereotype of the rebellious youth (who, however, wears the right type of clothing and uses the appropriate language), or the stereotypes of the crusading reporter, tough-guy lawyer or hotshot investment specialist. Conformism makes things easy: one does not have to think too much about what to do – and one is easily classified by others, gaining ready benefits from such identification.

Conformism is nothing new, but found in all societies, throughout history and geography. It is not just a matter of external appearance or behavioral patterns, but controls

thought processes. The practice is especially evident in closed religious or political groups. People in such ideological circles are prone to thinking by means of clichés, rather than investigation. They tend to cognitively function by *subsuming people and events under preordained categories*, rather than by developing categorizations inductively. A person or event is forced into a limited number of given labels, with no room for conceptual adaptation.

Even if the natural sciences are essentially neutral with regard to setting ethical standards, in the sense that we do not observe ready-made ones in nature, they still have a constructive function, helping us to identify objective means to our ends. They also play an eliminative role, helping us to get rid of ideologies based on false presuppositions. But of course, granting that the body, in itself or as a vessel for the soul, is important to life, biology is also informative as to what standards are natural. Science is therefore important to deontological efforts.

The Kantian view of ‘duty’, as something that must be done whatever the human cost¹⁸⁹, ought to be considered in this context; it appears as the notion of a stiff-minded extremist. I should add that, although Rabbis have a similar fundamentalist attitude with regard to certain *mitzvot* (commandments), they do consider that the law has to be tempered occasionally, to save a person from unnecessary harm or pain. Such avoidance of doctrinal rigidity may be characterized as ‘humanism’; it is remembering we are concerned with human beings, not robots.

¹⁸⁹ For example, one should not lie to someone just to avoid hurting the person’s feelings.

Also worth noting here is the observation that people sometimes commit sins (according to their standards) almost deliberately, in order to rationalize – even if *ex post facto* – their sufferings as punishment for their sins, preferring this twisted option to the frightening idea that there might be unjustified suffering in the world! This is another instance of ideology, where one tries to force experience into preconceived ideas, instead of remaining cognitively flexible.

Although ethics is built up primarily around the individual, since individuals are the ultimate units of its injunctions and inhibitions, its social aspect should not be underrated. The individual soul has three powers – consciousness (the soul as subject), volition (the soul as agent) and valuation (which gives rise to the emotional life). But additionally, the soul has a social dimension, which is not entirely reducible to the said three powers. This fourth aspect of soul is fundamental to its nature, although hard to pinpoint.

We do not exist as isolated entities, but as part of a social fabric. Why else would people congregate in communities and nations? An unloved baby is as good as dead psychologically, losing intelligence, the ability to communicate, and so on¹⁹⁰. People need each other, not merely as means but as ends. This is a complex issue that deontology must take pains to integrate.

¹⁹⁰ A few years ago, when the Rumanian dictator fell, orphanages were made public, where children were barely cared for at all. They were found to be horribly underdeveloped, mentally and physically. Interestingly, babies closer to the door of a dorm were slightly less affected than those farther away, because they experienced the rare passages of the nurses a bit more often!

4. Tai Chi, karma yoga and faith

Doing Tai Chi some years ago, led me to an insight concerning “virtue”.

The Tai Chi form comprises a great number of incremental individual ‘positions’, which slowly flow into each other, forming whole ‘moves’, which in turn naturally succeed each other, resulting in a complete ‘form’.

No position in or portion of the form is justified by any others, although stringed together they form a consistent and powerful whole.

Each incremental Tai Chi position within a move must be experienced as important in itself, and not merely as a ‘way station’ en route towards the final position in that move. It is not instrumental, but to be enjoyed and appreciated as it is, without anticipation of its eventual destination or utility. Every ‘intermediate’ position is a ‘value’ or goal in itself, and not merely a ‘virtue’ in the sense of a means to an end.

The movement from one such position (or one whole move) to the next is also a moment of which we should always be firmly aware. The instant of change, of shifting over into a new position, is also to be felt with great concentration.

By so treasuring every point and transition in the trajectory of Tai Chi, we incidentally maintain its full

potential towards an infinity of other moves. We also get a sense of the discontinuity and continuity of time.

A move has little value if one is not intensely conscious of all the segments comprising it. For this reason, Tai Chi is considered a meditation and should be performed as slowly as possible.

Tai Chi illustrates the Stoic principle that “virtue is its own reward”¹⁹¹. It teaches us how each virtue is a value, and how the expression of many varied virtues is also a value.

Such a lesson in living may be valuable even at the time of our death.

Rather than be afraid of that great unknown, no matter what form our death takes, we could regard it as a great opportunity! Just as we should go through life contemplating its course with equanimity, viewing the bad as well as the good as a great and interesting show – so, when death arrives, we should meditatively watch it come.

Just think: *your one and only chance* to experience this mysterious event first-hand! It is worthwhile training oneself throughout life to be conscious in all circumstances. Watching oneself die, if only for a moment, one may at last know what death is – or what life is.

Another Oriental discipline that teaches the same concept is “karma yoga”. Karma yoga is going about your daily work activities without concern for the advantages they may bring you personally. This is practiced in yoga ashrams and the like; for example, a Zen monk may sweep the courtyard or do a bit of gardening every day.

¹⁹¹

See earlier discussion of this principle, in chapter 10.3.

Many people suffer much in their work life, wondering why they have to perform certain boring routines to earn their living. Karma yoga teaches: enjoy it! Do the job, without involving your ego – without ‘selfish motive’. This is of course an idealization, not a call to or justification of amorality or immorality. It merely means: concentrate on the job you have undertaken to do; take one thing at a time, and all tasks eventually get done.

It is important to realize that faith is an essential building block of all ethical systems.

Religions, like Judaism or Buddhism, are ridiculed by some people because of their requirement of ‘faith’. Such people argue that in an ethic based entirely on reason and experience, nothing would be assumed worth doing until and unless we *first established* that our proposed actions were bound to or likely to have certain positive consequences considered worth pursuing – whereas in religious ethics, we *cannot* know the truth and value of the goal (God or Nirvana, as the case may be) in advance of ourselves attaining it, and we must also take it for granted that the alleged means (suggested to us by the tradition concerned) lead to that putative goal.

Thus, religious ethics would seem in principle contrary to reason, since their defining characteristic is faith – in both the goal and the means. They are made to appear as a sort of gigantic con game, whereby some future events *inaccessible to* experience or strict inference from experience are forecast (heaven or hell, or similar notions), and we are told (as a revelation or ‘witnessing’) that we must do this and that, and abstain from doing so and so, to achieve the positive consequences and avoid the negative ones.

But though such arguments have weight, they are not entirely fair and conclusive. In truth, all purposive action involves faith. For our knowledge of the empirical world through reason is essentially an inductive, tentative one. It consists mostly of generalizations and adductive arguments, based on past experience and dependent for confirmation on future experience – which means, ultimately, it is built by trial and error. Most propositions we believe are attempts at truth, which we hope will hold, but which we may need to correct further on.

One may still contend that, whereas secular ethics make relatively small or at least discrete demands, religious systems demand we invest our *whole life* in a purpose whose validity and value may just be figments of someone's imagination, and the efficacy of the means to which is far from evident. But is that fair criticism? Surely, in common pursuits like raising a child or pursuing a career, we invest our whole life in purposes without guarantees of success. Human beings inevitably gamble, whatever their course of action, whatever the way of life they choose.

So, the demand of faith by religious ethics should not be viewed as a determining argument in favor of secular ethics. Concerning religion, Pascal's Wager comes into play; for those who totally reject religion, there are still great uncertainties to cope with. Thus, the deontologist must keep an open mind, neither rejecting religion offhand, nor (of course) naïvely accepting its claims.

I have elsewhere¹⁹² attacked the principle of karma, dear to Indian philosophy, pointing out the epistemological

¹⁹²See *Buddhist Illogic*, chapter 9.

difficulties involved (for us ordinary mortals) in establishing alleged karmic relations. Similar objections can be raised with regard to claims of Divine reward or punishment: how could such claims be proved? But here I wish to point out how even secular ethical principles are often based on mere suppositions, and do not for all that lose of their power.

If I claim, in accord with karmic law, that it is best for me not to do some deed harmful to others, because the same *will* surely happen to me if I do so – I am involved in a circular argument of sorts. I can claim this as a generalization from past bitter experience, but that generalization will not be tested in the particular case at hand if I believe in it and abstain from the deed, and so it will somewhat paradoxically remain forever unempirical!

On the other hand, it would suffice for me to claim more hypothetically that if a similar harmful deed were done to me, as it well might, I could not then consistently complain that I was a victim of some cruelty and injustice, having allowed myself to do the same. In this way, the benefits of karmic principle can be maintained – the consciousness of reciprocity – without having to prove actual causal connections.

Another example: I can pursue the Buddhist ideal of ‘cessation of desire, so as to avoid rebirth’, *just in case* there is such a thing as rebirth and *on the supposition that* it is caused by desire. Although these assumptions are unproved, and we cannot even imagine how they might ever be proved, they may still legitimately be used as working hypotheses. Similarly, one might argue: *in case* God exists and gave man the Torah, I had better act thus and thus. I have to do something, so it might as well be that.

In other words, behavior *need not be based on certainties*, which are anyway rarely if ever available, but can be based on frankly *conditional judgments*. The conditioning involved may have any mode – not only the natural mode, but also the extensional and the logical modes. Since human knowledge is inevitably limited, it is largely uncertain to some degree. Nevertheless, life cannot be blocked by this truth; volition still needs guidance. Therefore, action based on hypothetical reasoning has ethical validity.

18. MORE TOPICS IN DEONTOLOGY

1. Inducing ethics

How is ethics actually built up in people's minds, and how is it to be justified epistemologically? My proposed answer to these questions is as follows.

We all have our own 'intuitions' of right and wrong, good and bad, just and unjust, kind and unkind, etc. Some of these are primary – arbitrary valuations of the free agent. Others are basically emotional, sentimental or sensual. Others are derived from conceptual insights, based on accumulated ideas and values of which we may be more or less conscious, and which we may have more or less justified. At this stage, we need only consider them all as notions, as mere phenomena, at their face value – without regard as to their sources, structure, consistency or validity.

Taken one by one, in isolation from other such valuation experiences and from knowledge as a whole, these intuitions may, of course, be real or illusory. They are not necessarily 'correct' or 'justified' just by virtue of their occurrence, nor of course automatically invalidated by the fact that they as yet have not been established as true and valid. This is analogous to my treatment¹⁹³ of appearances in general as

¹⁹³

See *Future Logic*, chapter 2.

neutral, before we start classifying them as realities or illusions.

Thus, initially, these intuitions of value or disvalue are acknowledged to have some small credibility just by virtue of appearing, but not enough of it to decide whether they are ultimately reliable or not. But, through an inductive procedure that treats these individual insights of right and wrong as *hypothetical raw data*, and then faces them off with all other data, *comparing and contrasting* these value-insights to each other, and with the wider context of non-evaluative knowledge, we manage to gradually build up a consistent structure that includes some of them and excludes others.

From this ordering process, emerge the modalities of ethical propositions (must, may and may not, cannot). Using syllogistic and factorial techniques similar to those used with non-ethical propositions¹⁹⁴, ethical insights are statistically ordered, collectively yielding ethical systems. By ‘statistical’, here, I mean ‘for *all, most, some, few, no* other valuations (as the case may be), this one is compatible or incompatible, implied or not-implied’. Thus, I suggest, ethical logic is constructed in much the same way as logic in general is.

Note that ethical propositions do not only have categorical form, like “X must do Y”. Some have conditional form, like “if Z occurs, X must do Y – but if Z does not occur, X need not do Y”. The former are applicable under general conditions, whereas the latter under particular conditions; but apart from that difference, their force of “imperativeness” is the same.

¹⁹⁴ Non-ethical propositions have been labeled ‘alethic’. Regarding ‘factorial’ analysis, see *Future Logic*, Part VI.

My theory is, therefore, similarly intuitionist. This is not, however, a relativistic position, at all. Some ethics are more reliable than others. What distinguishes the ethical systems of different people at different times is, simply, the clarity and amount of ethical and non-ethical intuitions that have been taken into account, and the logical rigor with which each of us orders this raw data into a consistent whole. People with confused minds are drawn hither and thither by their feelings and notions, and fail to evolve a trustworthy ethic. Others are more careful, and produce a sounder end product.

Thus, the right-wrong or good-bad experiences at the ground of ethics are technically akin to the true-false or correct-incorrect experiences at the ground of non-ethical knowledge. The procedure for judging them is the same: we grant them some *ab initio* credibility, but reserve our final judgment till further research has confirmed them in all respects (until and unless new evidence or arguments emerge to the contrary). Thus, in effect, value-intuitions are treated as empirical data; this gives them some weight, but does not in itself constitute full justification, which requires a longer and more holistic process of review.

As raw data, ethical intuitions are not only comparable to sensible qualities like colors or feelings, but also to logical insights. By this, I suggest that, *given the very same level of intelligence and information, two people in similar circumstances would theoretically have the same ethical intuitions*. Granting this bold assumption, we acknowledge a certain ‘objectivity’ to ethical judgment. Of course, this assumption cannot be definitely proved by experiment, since in practice we cannot hope to make two people – or even the same person at different times – sufficiently the same.

This hypothesis allows us to develop ethical concepts from the ethical notions, in the same way as in general discourse the logical modalities are constructed from apparent logical insights of identity, contradiction, compatibility or implication – by recourse to factorial analysis and factor selection. We revert to adductive methods – trial and error, the elimination of doubtful data, till what we are left with seems reasonably well tested and confirmed.

The leftover ethical judgments are then logically ordered relative to each other, as goals and means, so that the list of *final ends* is reduced to a minimum, which implicitly contains all subsidiary values. This is the *teleological* stage of the proceedings. These final ends constitute the ‘standards of value’ for the particular subject (man or woman) who has concluded them.

Of course, these standards are to some extent in constant flux, changing with new life experiences, reflections, incoming information, and under the influence of other people. Some aspects of people’s value systems remain firmly anchored in them, to the degree that they personally identify with them. Some values diminish or lose their importance in time; others acquire or increase in importance later on. Note well that we are speaking here of *seeming values*, i.e. of the appearance of value to some particular person at some particular time.

There may thus be divergences of opinion among people’s values, even though they live in the same milieu. Inversely, many people in a community or historical period may have the same values, so that these *common values* appear to them immutable and objective.

Thus, ethical logic, like the logic of non-ethical knowledge, should be viewed as an inductive enterprise. It is not a

deductive system, wherein we are at the outset given, in one way or another, a set of “top moral principles” from which all moral judgments are syllogistically inferred, as many moral philosophers propose. Ethics is not casuistry, based on more or less agreed, arbitrary “axioms” (so-called). Rather, we gradually evolve standards of value over time: they are our short list of most impressive and important looking moral insights.

These norms (or “highest goods”) may, once arrived at, be used *in the way of* axioms, but they remain open to review and verification at all times, in recognition of the fact that they were originally products of induction. Although many of us tend to enshrine certain norms, and insist on their eternity, such rigidity is neither justified nor necessary. A norm carries more conviction if it is felt sufficiently confident to face and withstand challenges, than if we block all reconsideration.

Nevertheless, some norms are logically very secure, if not immovable. This refers to the norms that fit the general teleological argument: “*whatever your particular values, you must still refer to so and so (the secure norm) as a supreme value, because it is a precondition to the pursuit of any values whatsoever*”. We can in this way argue that life, body, cognitive faculties, awareness, volitional faculties, liberty, health, sanity, and so forth, are all preconditions that any value system we propose has to accept.

Although, note well, such basic values do not by themselves make possible an answer to all ethical questions – they nevertheless provide a framework for all other values.

This is comparable to the role played by the laws of thought, and indeed by logic in general, within knowledge. These top principles or axioms are self-evident, because they are

implied even by propositions that attempt to deny them. Nevertheless, it does not follow that logic by itself allows us to deduce the world without reliance on experience. We must still largely depend on experience. Logic just helps us to make sense of that experience.

In the domain of values, some values act as *sine qua non* conditions for all other values. Since all values are to some extent relative to these values, they may be considered as effectively absolute values. If we can argue of some value Y that “**whether you value X or you value notX, you must still pursue or retain Y and/or avoid or remove notY**” – Y is established as such a precondition. Note that X and notX are presumed values, and not merely indifferent objects. This is essentially dilemmatic argument, similar to that used in general logic to establish necessary propositions.

It is an aspect of teleological reasoning, which (as already said) investigates ways and means to intuited values, in the light of natural and artificial tools and obstacles available. Teleological reasoning refers to the natural and extensional modes of modality, rather than to the logical mode. It makes consistency checks between our different goals, and places them in hierarchies and priorities. It seeks out the most effective means to these goals, considering all surrounding conditions and time factors. The use of such reasoning should not be taken to imply an essentially utilitarian or epicurean view of value systems.

People often declare “happiness”, or some particular version of it, as their ultimate goal. But most people would find it difficult to say just what they mean by happiness – is it

fulfillment of one's major goals, a positive emotion or a maximum of pleasures? Paradoxically, Buddhism suggests, the active *pursuit* of happiness is not likely to result in happiness. In any case, such "eudemonism" is not a *sine qua non* of all values, and so not an absolute value. That is, we can in fact live without happiness, and most of us do. Nevertheless, we would naturally prefer to feel good than feel bad; and, within limits, this is often possible if one lives virtuously. Dignity and decency beget a measure of contentment.

Note lastly this important remark. Though we have value intuitions, and however these intuitions arise, we are *never forced* to act in accord with them. We (men and women) remain at all times free agents, who are responsible for their final choices. Even when we develop a complex ethical system, we remain free to act or not act in accord with our beliefs. We may ignore them or even act against them. Our beliefs have causal power as influences, but no more. This is freedom of the will, without which no ethic can be claimed.

2. Ethical formulas

Ethics and law systems can, at least partially, be built on certain logical considerations.

People often say "don't be so judgmental", and "live and let live!" – or they may sneer, implying contempt for such idiocy. This is presented as an argument against ethical distinctions, an attempt to generally invalidate ethics by claiming all moral judgment to be relative and uncertain. However, the proponents of this thesis fail to realize that it is

logically inconsistent, since it is itself composed of judgments.

To say: “*don’t judge*” or “*do let live*”, or otherwise imply it is wrong to judge, is to propose the paradoxical ethical proposition “one should not make ethical propositions” – which is *self-contradictory*. It logically follows that the opposite position is true, namely that “it is indeed permissible to make ethical propositions”.

In this way, we have definitely proved, as logically self-evident, the existence and demonstrability of some ethical propositions. We have established an axiom for deontology. Those who say “be tolerant” (towards just anything) are effectively making an uncompromising, intolerant statement – therefore, they cannot be right, by their own terms.

Such arguments are not rhetorical tricks – they clarify the way things are, by virtue of our having consciousness and volition, and being able to engage in discourse and argument. Concepts of ethical moment naturally evolve from our experience of the world and interaction with it. They are not arbitrary constructs, which can be manipulated at will. Once evolved, they have a logic – of which we must be aware and which we must respect.

Many moral judgments, and indeed many laws, are based on **the principle of reciprocity**: “do not do unto others as you would not have them do unto you”¹⁹⁵. This is an ethical formula most people would

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In the Jewish tradition, this adage is first found in the Talmud (Shabbat 31a), in the form “what you hate, do not do to your friend”, as an interpretation by the sage Hillel of the Torah commandment “love your neighbor as yourself” (Leviticus 19:18).

intuitively accept, even if they might disagree as to what they or others would or wouldn't want done to them.

When a murderer kills, or tries to kill, he tacitly, by the implication of his act, claims the right to kill. Since he is, in fact, no different from his human victim, he thereby grants to others the right to kill *him*, at least in self-defense, if not punitively. He cannot consistently argue that he has the right to kill others, but others do not have the right to kill him.

*Ethics takes every claim as a universal principle, unless good arguments can be adduced to particularize it*¹⁹⁶. One cannot exempt oneself from the imperatives one gives others, or permit oneself what one has prohibited to others, unless some very convincing distinction between self and others is offered (for example, that the others belong to a different species). It is reasonable to assume that particular moral claims derive from general principles.

This is one application of the reciprocity principle, on the basis of which we grant the state the right to execute

Note that the form he gives it is negative; it is a minimalist call to forbear from causing harm, rather than an injunction to do good (which is covered more specifically through many other commandments). In the Buddhist tradition, it is similarly taught that we will act humanely towards others if we remember that all sentient beings have, like ourselves, a natural desire to be happy and not suffer. This, too, is an appeal to reciprocity.

¹⁹⁶ Note well the differences between this principle, and Kant's famous maxim. I am not stating that the mere possibility of generalization establishes ethical rules; and I am making allowance for the particularization of such rules.

murderers, to keep the peace. Some people argue that the death sentence is not necessary or useful, and many countries have abolished this extreme penalty, but that is not my concern here. I am not arguing that issue one way or the other, but am only trying to clarify our reasoning with regard to reciprocity.

Note, in any case, that society's killing of the murderer is very different from the murderer's killing of some innocent victim. The murderer has initiated violence; the state merely retaliates. When society avenges the victim and punishes the culprit, protecting society from further injury, there is no basis for further retaliation against the executioner or those who appointed him. All that, of course, is said on the theoretical assumption that there has been due process, under just laws, beyond a reasonable doubt, and so forth. In practice, these caveats are admittedly often inadequately respected.

A similar argument can be constructed with regard to theft. When a thief steals, he thereby ignores or denies the existence of private property, and therefore cannot be indignant if others (in practice through the state) impound his property or fine him. If he is indigent, he may be imprisoned on the argument that this deprives him of the liberty to enrich himself, and incidentally, prevents him from further theft. Here again, justice is served through the logic of reciprocation.

We often argue: "if everyone did this (or didn't do that), everything would be fantastic (or everything would be terrible)", but such general arguments are *idealistic*, since in practice it is improbable if not impossible that literally

everyone will do (or not do) some one thing in concert; there are always recalcitrants!

A person could well argue that he is willing to live in a world where everyone can do as they please: he is willing to take the risk involved. We cannot argue against such an anarchist that he too might get hurt, since he is gambling he won't. Our argument is circular and impractical.

It follows that such a person will not be convinced by any rational arguments not to kill or steal, but must be overpowered by society into compliance with the law. The reciprocity principle as here used is not abstract ethics, but a justification for concrete force.

It should be stressed, in this context, that many crimes have not only certain direct and obvious effects on a particular victim, but also much wider and more insidious consequences on society as a whole. ***Every crime – insofar as people are victims to it, witness it or hear about it – causes people to lose some of their natural trust in other people.***

When a murderer kills, people begin to fear someone might kill them. When a thief steals, people have to hide their money and lock their doors. When a rapist rapes, women begin to fear men in general. When a schoolteacher abuses a pupil, all educators become suspect. And so forth, with every criminal act – and this principle is all the more true nowadays, when the media give wide and loud coverage to the more heinous crimes.

This, then, is the further crime of every criminal – he decreases people's trust in each other. Suspicion grows, and everyone's freedom is curtailed. 'Potential victims' (i.e.

anyone in any way resembling past victims of the crime concerned) must take protective measures, and ‘potential criminals’ (i.e. anyone with any resemblance, however remote, to actual criminals) must limit their movements. Society thus loses its cohesion, and everyone becomes a little less happy. In some cases, relations between people become aggressive.

Some of the reasoning involved in this distancing between people is, of course, logically unjustified. If a news bulletin is about a husband killing his wife for her money, other rich wives may come to imagine that their own husband could well do the same. If the news is that a boss raped his secretary, many secretaries will the next day look at their bosses with a bit of concern. The categories ‘husband’ and ‘rich wife’, or ‘boss’ and ‘secretary’, are enough to generate some analogy, and sow a doubt, *even if the psychological and other conditions involved are totally different.*

Statistics are sometimes read, or misread, in ways that reinforce such reasoning. If a number thieves are foreigners, all foreign-looking people become ‘probable’ thieves in people’s eyes, even if the proportion of thieves among foreigners is less than that among locals; the actual degree of probability involved becomes irrelevant in people’s minds. (For example: suppose 20% of population are foreigners and 10% of population are thieves, it may be that only 5% of foreigners are thieves, in which case 11.25% of locals are thieves!)

People also wrongly convert propositions, thinking that “all X are Y” implies “all Y are X”. For example, ‘all rapists are men’ becomes ‘every man I meet could be a rapist’ in some

women's minds, and they behave as if he is so. Absurd it might be, but people are human.

Society is thus a *collective* victim of every crime, and it is proper for the state (as the instrument of society) to vigorously intervene, and prevent, repress and punish crime.

In all such negative situations, the principle of reciprocity is used to hinder, limit or repair the damage caused to other people or society as a whole by some individuals or groups. It should be stressed, however, that in most situations, the principle of reciprocity plays a much gentler role in people's minds, encouraging mutual respect and trust. This occurs when the persons concerned reflect *before* committing a wrongdoing, thinking: "I would not like that done to me, so I will not do it to others" or "I shall not behave in this way, so as not to spoil our world even more" or the like.

Some people do go one step further, and apply a positive version of the reciprocity principle, thinking: "if I was in this difficult situation, I would hope or expect others to come to my aid, therefore I will offer my help". This is an admirable attitude. Of course, those to whom help is offered may not want help, or not that particular kind of help, or at least not the way it is offered. One cannot stuff it down their throat. For this reason, the positive version of the principle is less easy to formulate: *the recipient(s) of our attentions must be a willing party to the transaction*. Still, it often does come into play, promoting tolerance, friendship and even love. This, in turn, increases social bonds and makes everyone's life that much easier.

3. Philosophy of law

Ethics naturally arises first of all within the individual, in the sense that he or she may have certain imperatives, inhibitions or liberties. Ethics as a social phenomenon presumably arose in the family, as the head of household (on the basis of his or her personal ethic) gave advice or orders and was obeyed (whether out of love or fear). More broadly, the surrounding community would have traditions and rules to be respected, as well as advice or orders from the leadership, whoever that included, to maintain social bonds. Eventually, the local shaman or other religious figure gave instructions, in the name of the deity or deities of the group. As these informal social ethics became more formal institutions, the concept of law emerged.

What I wish to discuss here is the distinction between ethical principle and legality, so as to stress that *making something legal doesn't make it moral; making something illegal doesn't make it immoral*.

A distinction that people seem to often find confusing is that between ethical and political law. People generally do understand that the laws currently on a nation's statute books (here referred to as 'political' laws, meaning that they are enacted and enforced by the body politic, though they may concern any matter) are not necessarily moral in content; but they also generally consider that what such laws allow is ultimately permissible and what they forbid is best avoided.

For this reason, society may in some cases interdict practices that its proponents claim harmless, being "private acts

between consenting adults” – on the basis that such acts nevertheless indirectly affect people who are not directly a party to them. For example, homosexuality can reasonably be made illegal on the grounds that making it legal gives some youths the impression that it is moral, causing such behavior to spread, to the consternation and against the will of a great many citizens (including very many parents), so that it is no longer a private affair but an issue of public policy.¹⁹⁷

Let us briefly consider the concepts involved. Ideally, an absolute ethics would be derived from wise and informed consideration of human nature and of man’s place in the world. Armed with such general moral guidelines, each well-meaning human being would in principle be able to know right from wrong in each particular situation facing him or her, and would exercise will accordingly. There would be no need for laws enforced by society.

Practically, such a utopian scenario can only lead to social havoc. Even in a society filled with good will, people have different ideas as to what is right or wrong, and absolute proofs are hard to find. All the more so, since humans have free will, and many of them – under various influences – often opt for what they (themselves) consider bad, rather than (as logic would dictate) do the good. Conflicts thus inevitably arise, which are ultimately to the disadvantage of all. For these reasons, it is generally agreed that some minimal common standards have to be conventionally imposed by the majority or an empowered minority.

¹⁹⁷ Even if the practitioners did nothing to promote their practice, their mere negative *influence* on society would be sufficient reason to prohibit it; how much more so, if they make efforts to propagate it.

We accordingly constitute states, governments, legislatures, judiciaries and police forces, which together make and enforce laws. A guiding principle in enacting and enforcing such laws would be that “the rights of one person end where those of other people begin”. Another useful adage is “do not do unto others what you would not have them do unto you”. But clearly, such statements do not provide us with an exact science. It is not always easy to decide what needs legislating and what is best left alone. Political science is a changing, empirical discipline.

In this corrected perspective, ethical law covers all human action, while political law covers only some of it. The former is ideally universal; but only a fraction or subset of it is politically enacted and enforced, the rest being the responsibility of the individual to discover or at least practice.

The scope of such political law is vast, but not as vast as the scope of moral law. It includes criminal law (against murder, theft, etc.), civil law (about marriage, inheritance, etc.), commercial law (concerning property, contracts, etc.), and indeed any legal issue that may arise in the interactions between human beings.

Theoretically, at least, the purpose of such laws is to ensure social peace, the common weal, personal security, justice, and so forth – although in practice, as everyone knows, they are often instruments of exploitation and unjust. In principle, what makes them stand out from the mass of ethical laws is the need to reduce frictions between people to a reasonable minimum. Historically, such minimalism has not always been accepted; some societies have been totalitarian, attempting to control almost everything.

In practice, for epistemological reasons already stated, the domains of ethics and political law are bound to somewhat drift apart, so that although the two domains intersect to some extent, the political domain is not wholly contained within the ethical domain, but partly falls outside it. Laws enacted by society, whether by democratic means or otherwise, may differ from the laws suggested by personal conscience or by reasoned study and debate by ethical philosophers.

Such divergence is in some cases reasonable; but it is often irrational. In a non-democratic system of government, the prejudices of the governing few are imposed on the majority, without room for argument. In a democracy, where in principle rational argument is the rule, *pressure groups* occasionally manage to format laws that accord with their aberrant views simply by virtue of the power of their numbers or through other considerations that force politicians to submit to their will. In recent decades, many activities traditionally judged as immoral have been declared legal in Western countries.

Now, let me say that this is not a political tract¹⁹⁸; I do not expect anything I say or do is likely to stem that unfortunate tide. My philosophy of history is very skeptical. *In each generation, some faulty belief held by large segments of the public comes to the fore and gains ascendancy, until it is brought to its natural absurd conclusion, like a sore spot bursting and releasing its pus, and disaster strikes, so that*

¹⁹⁸ I generally avoid getting into political comment or debate in my writings, because my philosophical aims are at a deeper level of epistemology and ontology. Controversy is bound to alienate some readers, who might consider some of my views as either too 'liberal' or too 'conservative'.

enough people learn to avoid that particular folly thenceforth.

Nazism and Communism were typical examples: they arrived on the scene of history to the sound of popular cheers, and left in the midst of countless tears. People in Europe learned certain lessons, about the active use of brute force, about persecution of racial minorities, about national and class hatreds, and so forth; they changed their ways somewhat thereafter. They might have saved themselves the trouble and the pain, if they had resorted to reason, instead of yielding to their lowest emotions.

Remember that Hitler was democratically elected (more or less). Realistically, democracy is without doubt the best and fairest system of government available to us; but as we all know, it is not perfect. The fact that certain legislation is passed is not proof of popular support, let alone right¹⁹⁹. Most laws are based on indirect democracy; the legislators and judges involved in the matter may well be cowardly, amoral or personally compromised. If referenda were used, the results might well have been very different. But even in the case of laws established by direct democracy, *numbers of votes do not determine what is right or wrong.*

From this reflection it follows that the fact that some laws on the statute books socially-politically prescribe, allow or forbid some behavior pattern, does not mean that the behavior pattern in question is ethically-morally prescribed, allowed or forbidden, respectively. What society happens to have favored (or forbidden) may nevertheless, from the point of view of ethics, be wrong (or right, respectively). The

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All the more, the support of major media means nothing.

arguments involved may have been fallacious or based on inadequate information.

‘Legal’ and ‘moral’ must be understood to be distinct, separate categories, although conceptually they are partly related (as we have explicated). Making something legal doesn’t make it moral; making something illegal doesn’t make it immoral. Youths should especially be made aware of this important distinction.

The individual may not reasonably regard the existence of certain legal tendencies in the statute books as indicative of ethical truth, because legislation is not exclusively based on rational reflection, but depends on social *forces*. The legislator may be faulted for misguiding fellow citizens, but these remain responsible for their own acts.

The individual is still required to think for himself or herself, and to at least consider the ethical advice of the wise doctrines that humanity has produced. The existence of political freedoms or limits does not exempt an individual from moral responsibility for his or her choices. Legislation is not a substitute for conscience, or a just alibi for moral abdication. Although a legal threat or protection can mitigate moral responsibility, it does not absolve.

From an ethical point of view, laws are just one influential factor among others in behavior, which in certain cases it may be wise to volitionally dismiss or oppose.

19. APPENDIXES

1. Some formal logic guidelines

We have in the course of the present work introduced a great number of propositional forms, such as “A wills W”, “X influences A to will W”, and many more. In some cases, we have been content to broadly define a causal relation without further treatment. In others, we have gone into more detail, preparing the ground for eventual logical treatment. But the present work (unlike the author’s previous works) has not attempted to systematically develop the logic of the various forms introduced in it. This policy was adopted for two reasons: one, to make the text more readable and widely accessible; and two, because the task of formalization is enormous.

This daunting task is left to future logicians. Nevertheless, we shall here make some hopefully helpful comments, in addition to those made in passing throughout the main text. It is always useful to start with a *nomenclature*. Thus, we have called forms about volition: “volitional propositions”, and forms about influence: “influential propositions”. We may similarly name other forms, like those about velleity or habits or urges.

Next, we must clearly *formulate* each form, using symbolic variables for the terms (X, Y, Z or the like). The form concerned should then be *analyzed* into simpler ones, already

studied by logicians. I call the larger form a ‘bulk’ form and those it is composed of or reducible to its ‘pieces’; for example, briefly, “X influences A to will W” implies “A willing W requires less effort with cognition of X than without it” among others. The implied form may in turn be reducible; e.g. the form just mentioned may be reworded with the hypotheticals “if X (is cognized while A wills W), then effort E(X) is required (for willing W)” and “if notX, then effort E(notX)”, and the comparative “effort E(X) is less than effort E(notX)”.

The forms thus progressively clarified then need to be systematically studied, if we are to develop a thorough formal logic for them. This means *interrelating* all the forms of the same family (validating eductions and oppositions), and considering their concatenations (validating syllogisms and other arguments), as regards deductive logic, as well as dealing with inductive ways and means. This is a big job, requiring much patience, which is likely to yield some tasty fruits. Ultimately, forms *of different families* must also be logically compared and combined; for example, volitional and influential forms. In this way, the logician prepares for all eventual discourse using all possible forms.

Any attempt to develop a thorough formal logic must take non-formal nuances into consideration; otherwise, the treatment will be naïve and ultimately misleading. Many logicians err, because they are too quick getting involved in purely technical issues, before they have sufficiently studied the matter at hand. As I have often argued, excessively ‘symbolic’ logic is pretty well bound to fall into this trap. Better to stick with ordinary language, although it is more

bulky to deal with, because one can more easily spot if one is straying from reality.

For example, again briefly: consider the four forms below, willing and its negation, or activity and passivity.

- (a) “A wills W” – this refers to an active will of W by agent A.
- (b) “A wills notW” – this refers to an active will of notW by agent A.
- (c) “A does not will W” – here A minimally does nothing with regard to W.
- (d) “A does not will notW” – here A minimally does nothing with regard to notW.

These forms are in a standard ‘square of opposition’, assuming that agent A cannot at once will W and will notW – so that (a) and (b) are contrary. Clearly, (c) and (d) are intended as the formal contradictories of (a) and (b), respectively. It follows that (c) and (d) are subcontrary. When both are true, agent A is can truly be said to be passive. But if (c) is true without (d), then A is active in (b). Similarly, (d) may be true without (c), by implication from (a).

However, it could be argued that (a) and (b) are in fact *compatible*, although an agent cannot *achieve* contradictory goals simultaneously, since he can *pursue* both at one and the same time, provided the respective *partial* causatives of the two results that he wills into motion at the time concerned are compatible with each other (as sometimes happens). In such case, the square of opposition between the four forms is more dilute: the diagonals still relate contradictories, but the four lateral relations are ‘unconnected’.

We can further complicate the formal issues, if we more closely consider what we mean by “willing”. On the surface, “A wills W” suggests direct will, so that A has but to will in the direction of W and W is brought about. But most objects of will are not attainable at will – A may desire to attain W, and he may do what he thinks is useful to such end, and he may do his best, yet he may be wrong in his assumptions, and his best may not be good enough, and he may end up unsuccessful, or (if W is divisible) only partly successful. Of course, A may try again; but in some cases, W may no longer be attainable, and the opportunity may be lost.

If A wills W and succeeds, then at that moment notW ceases to be. If A wills W and fails, then presumably notW continues to be – although it may be that W is brought into being by some causative or a volitional agent *other than A*, provided that W is not something *within A* but further out, granting that as a free agent only A can affect what goes on within himself. (Similarly, mutadis mutandis, with regard to willing notW.)

If A does not will W, he has effectively “allowed” notW to be – i.e. to continue if already present or to occur if it was absent. That is of course not per se equivalent to willing notW, unless A positively intended notW by abstaining from willing W. Here again, that is assuming no other cause or agent can and does bring W, or notW, about – in which case we can only refer to A’s intentions or wishes. (Similarly, mutadis mutandis, with regard to not-willing notW.)

Various reasons may cause A not to actively will W – such as lack of energy, laziness, weak will, cowardice, indifference, lack of motivation, having better things to do, and so forth. All such reasons are *influences* in relation to the non-will of

W by A; they make A's willing W harder by some degree. All other things being equal (i.e. if no other causes come into play), the *inertial* result will be notW (i.e. if W is not actively willed, notW will naturally take place). If A now decides to will W, he will have to overcome the said influences against W. Some new influences may however come and facilitate this choice, and make W easier to will than it seemed previously. (The same can of course be said, *mutadis mutandis*, with regard to notW.)

Apart from influences, one must also consider the terms and conditions provided by the environment more broadly. Influences are only those factors in the environment that have been perceived to be there, or at least are thought to be there. There remain factors that have not been perceived or thought to be relevant – but which in fact have causative significance.

We would similarly need to study the formalities of all other propositional forms, related in one way or another to volitionals, starting with influentials. We have already defined the positive influential forms, but not interpreted their negations. The way this is done is by denying the defining implications of the corresponding positive forms. Thus, at first sight, “X *does not* influence A to will W” means “A requires *either more or equal* effort to will W with cognition of X than without it”. But on closer scrutiny, to arrive at the strict contradictory, allowance must be made for cases where A is neither aware of X nor aware of notX, or where A cannot will W at all, or where A is not a volitional agent. (Similarly, *mutadis mutandis* for “X does not influence A not to will W”.)

With regard to other oppositions, we would for example declare the forms “X influences A to will W” (meaning “A

requires less effort to will W with X than without X”) and “*notX* influences A to will W” (meaning “A requires less effort to will W without X than with X”) to be contrary, since “less effort with X” equals “more effort without X”, and since “less effort” and “more effort” without X are incompatible (though not contradictory, since “equal effort” remains an option). On the other hand, the obverse forms “X influences A *to will W*” and “X influences A *not to will notW*” are not as equivalent as might first appear, since we could argue that “the effort to will W” and “the effort not to will notW” are not necessarily the same (with or without X).

Our distinction between necessary causation and inertial causation (in chapter 2.1) has an important consequence for formal logic. Thus far, we have treated all natural conditional propositions, “When this, then that”, as one, but in fact they are of two sorts. Sometimes we mean that the consequent follows the antecedent with natural necessity; but sometimes we only mean that the consequent invariably follows the antecedent *provided* no volitional interference prevents it. The latter negative precondition is very often left tacit in practice, but should obviously be taken into consideration in all reasoning processes involving such inertial propositions. For example, in a first figure syllogism with such a proposition as its major premise, we cannot draw a conclusion if this tacit proviso (which is effectively part of the middle thesis) is somehow incompatible with the minor thesis, and if we can draw a conclusion the tacit proviso becomes part of its antecedent.

As such examples illustrate, we should not rush to judgment in formal analysis, but proceed very cautiously, thinking the issues through. Logic is a big responsibility! An error of

formal logic by logicians signifies thousands and millions of errors of ‘material’ logic by ordinary practitioners thereafter. It is comparable to mathematicians making a theoretical error, which is carried over into physics, architecture, and so forth, causing havoc in science and technology. Of course, contradictions would soon become apparent.

2. Aristotle’s four causes

The Greek philosopher Aristotle proposed four senses of the term cause, four ways with which anything may be explained. These “four causes” were called the material cause, the formal cause, the efficient cause and the final cause. An example would be a man-made statue: its granite is the material cause, its shape is the formal cause, the sculptor’s chiseling away at a stone is its efficient cause, and the image of Hercules the sculptor intended to produce is its final cause.

I have read some modern writer’s claim that nowadays only the efficient cause would be considered rightly named as a ‘cause’ – but that claim is not correct, as we shall now show. All the four causes fit the bill with regard to causality, and all four of them to some extent qualify as causation:

1. The material cause is a necessary though partial cause, since we can say of it: “without some material, there would be no sculpture; whereas with it, a sculpture becomes possible”. The stone used for the sculpture was thus a causative, although that particular piece of matter could have been replaced by another; i.e. it was only a contingent cause. The stone by itself does not a sculpture make, so it is only a partial causative.

2. The formal cause is something quite abstract, but can be considered another necessary partial cause, since “without some form, there would be no sculpture; whereas with it, there is”. Again, this particular shape given to the stone is not a necessary causative, since another shape could have been applied. Also, the shape cannot exist without material substrate, so it is not a complete causative.
3. The efficient cause, in our example, is of course primarily the sculptor – the human agent using his volition. But the term can also be applied to the inanimate chisel and the blows it gave the stone, ignoring for a moment who held it and willed its movements; or equally well, to a sculpting machine built by someone. In any case, the efficient cause can be regarded as a causative – again a necessary one (in the sense that *some* sculptor or moving chisel was needed) or a contingent one (if we focus on *this* specific sculptor, or this particular chisel and those particular movements), and in either case a partial causative (since matter to be sculpted was needed too).
4. The final cause in our example is not essentially a causative, but rather an *influential* cause, since it is only through *its imagination by* the sculptor that it has played a role in the genesis of the sculpture. However, we can still reduce this mental goal to a causative, if we consider that had the sculptor not thought of and intended some image, he would probably not have engaged in all these movements of his, and certainly if his movements had been wholly capricious they would not have resulted in such a perfect resemblance of Hercules. Thus, here, we have another *sine qua non*, and again a partial causation.

Note that it could be argued that in the example we have given the formal and final cause are identical – a certain shape, resembling that of Hercules. But it should be clear that we might equally well posit other intentions of the sculptor as final causes – for examples, his intent to honor Hercules, or to make money by selling the sculpture to the Athens municipality. Any motive involved is a final cause.

Lastly, our example deals with a special case – that of manufacture of some finished product by a conscious, volitional agent. However, Aristotle's intent is that these four causal categories be used also in the explanation of natural events –in the wider world of living and inanimate objects.

- Clearly, all such objects must have a material cause and a formal cause; all particular phenomena apparently have substance and form (abstract characters found in common with other particulars in diverse measures). By analogy, we might also apply these concepts to the mental and spiritual domains. The term 'material' cause must thus be understood to refer to any assumed concrete substance, and 'formal' cause to any conceptual abstraction.²⁰⁰
- With regard to efficient cause, the concept is applicable not only to agents and their acts (i.e. volition), but to non-volitional entities and movements in living matter, and more broadly to non-living matter. For examples: the respiration of oxygen into our blood stream via our lungs is an efficient cause of our continued life; the momentary alignment of the sun, earth and moon is

²⁰⁰ It could also be argued that substance and form are both abstractions, i.e. products of conception, anyway, and so ultimately indistinguishable.

an efficient cause of the phenomenon of eclipse of the moon.

- As for final cause – the concept may be stretched to fit non-volitional life processes, as explained in our discussion of the quasi-purposive. Such ‘conatus’ is of course a mere abstraction, based on the observation of life perpetuating itself; but it does imply efficient causes at play within the organism. For inanimate matter, no concept of ‘final cause’ is applicable, except in relation to the purposes of some volitional being (including, eventually, God) or with reference to utility for the quasi-purposes of living entities.

Although I here defend Aristotle’s foursome, I do not regard it – by far – as the last word on aetiology. If our intent is to categorize all the senses of the term ‘cause’, there are a lot more things to be said about it. As we have seen, causality is a very broad concept, not limited to causation or even to Aristotle’s four causes however viewed.

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