A NATURAL HISTORY OF CAUSALITY

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A NATURAL HISTORY OF CAUSALITY: PHILOSOPHICAL PRINCIPLES TOWARD MORE HUMAN SCIENCES

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A Thesis

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ABSTRACT

The traditional paradigm of causality presupposed by the natural sciences is not equipped to handle the new ways of thinking coming in the wake of what has been called the "interpretive turn" in philosophy and the social sciences. This dissertation initiates a new paradigm of causality, one that seeks to be more adequate to the needs of twenty-first century philosophical and scientific thinking. The dissertation begins by reviewing the central problems of the old paradigm and attempting to indicate precisely how it is inadequate. Next, with the aid of David Hume's deconstruction of causality, this dissertation seeks to ground the proposed paradigm in the meaning of causality as accessible to everyday lived experience (as opposed to basing it upon an a priori idea). Then, the analysis of causality so far achieved is brought within the phenomenological ontology of Maurice Merleau-Ponty, which provides a non-dualist way of thinking the relationship between subject and object (as well as between objects and between subjects). The discussion seeks to show how a new manner of conceiving such relationships overcomes the intractable difficulties arising from thinking causality in traditional terms. Finally, the dissertation indicates some ways that the new paradigm might be deployed in both human and natural sciences and considers some of the implications of the new paradigm for changes in scientific thinking.

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CONTENTS

INTRODUCTION	I
TEXTUAL ABBREVIATIONS	IV
CHAPTER ONE	
WHAT THE PHYSICAL SCIENCES CANNOT DO	1
THE POSITING OF THE OBJECT MAKES US GO BEYOND THE LIMITS OF OUR ACTUAL EXPERIENCE	6
HUME'S PHENOMENOLOGICAL REDUCTION	10
FROM THE MIND TO THE BODY	14
THE SUNSET OF MATERIALIST KINEMATICS AND DYNAMICS	17
WHAT IS MISSING IN ACTION ON THE OBJECTIVIST PARADIGM	18
THE DOUBLURE	24
ADVENT OF THE FLESH OF THE WORLD	28
FIRST STEPS TOWARDS A DE-RATIONALIZATION OF CAUSALITY	28
A NEW TYPE OF BEING	32
THE OPENING OF THE HORIZON	35
THE PRIMACY OF PERCEPTION	37
THE PRACTICE OF THEORY OR THE THEORY OF PRACTICE?	
CHAPTER TWO	
THE NATURAL RELATION: A CONDITION OF REALITY	43
Two Views of the Same Object	46

-

1

SAYING "NO!" TO METAPHYSICS	51
REASONING "JUSTLY AND NATURALLY"	55
WHAT WE HAVE TO BELIEVE	57
THE DIFFERENCE BETWEEN COMPARISON AND ASSOCIATION	60
VIVACITY IS NOT VERSIMILITUDE	64
THE UNACKNOWLEDGED PARADIGM	70
THE END OF THE "PHILOSOPHICAL" PARADIGM	72
A CONFLICT OF INTERPRETATIONS	76
NECESSITY AND THE PAST	81
THE SENSE OF VOLITION	84
CHAPTER THREE	
PLATO RULES, EH?	90
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE	91
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE DIFFERENT "VIEWS" OF THE SAME OBJECT	91 96
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE DIFFERENT "VIEWS" OF THE SAME OBJECT A NEW <i>TWIST</i> TO THE THINKING OF PHILOSOPHERS	91 96 99
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE DIFFERENT "VIEWS" OF THE SAME OBJECT A NEW <i>TWIST</i> TO THE THINKING OF PHILOSOPHERS AN UNSURPASSABLE PLENITUDE	91 96
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE DIFFERENT "VIEWS" OF THE SAME OBJECT A NEW <i>TWIST</i> TO THE THINKING OF PHILOSOPHERS AN UNSURPASSABLE PLENITUDE THE SENSIBLE THAT HOLLOWS ITSELF OUT	91
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE	91
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE	91 96 99
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE DIFFERENT "VIEWS" OF THE SAME OBJECT A NEW <i>TWIST</i> TO THE THINKING OF PHILOSOPHERS AN UNSURPASSABLE PLENITUDE THE SENSIBLE THAT HOLLOWS ITSELF OUT CONCLUSIONS THE PERPETUAL CONVERSATION WHAT DO I KNOW?	91 96 99
MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE	91 96 99

•

.

CHAPTER FOUR

YOU ARE HERE
CREATING INTUITION
DOMINATION AND DIFFÉRENDS
JUSTICE AND THE TYRANT128
THE SILENT PERSUASION OF THE SENSIBLE
CAUSALITY AND RECIPROCITY
POSED ON THE VISIBLE
LIVING IN THE TRUTH
PHYSICS, THE "FAIRY-TALE", AND THE PHILOSOPHICAL RELATION
THE VIRTUAL MIND OF GOD
THE FLESH OF THE GESTALT149
A REBIRTH OF WONDER
DON'T PANIC
THE INTERROGATION OF SCIENCE AND THE SCIENCE OF INTERROGATION
THE DOUBLE GROUND OF THE LIVED, OR, THE EVAPORATION OF "THE MIND- BODY PROBLEM"
HISTORY AS A SUCCESSION OF EVENTS THAT FURNISH THEMSELVES WITH MEANING
MARVELLOUS RELATIONS
"THE" PAST IS ALSO A CONCEPTUAL CONSTRUCT
CONCLUSIONS: A GENIUS FOR AMBIGUITY, OR, CAUSALITY AS ORGANIZED UNCERTAINTY

TO REDISCOVER OURSELVES FINALLY FACE TO FACE WITH THE WORLD	
ITSELF	176
TAKING OUR HISTORY UPON OURSELVES	178
A LOGOS FOR THE LEBENSWELT	180
BIBLIOGRAPHY	183

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INTRODUCTION

We say that the body has understood and habit has been cultivated when it has absorbed a new meaning, and assimilated a fresh core of significance (Merleau-Ponty, 1962, 146).

Several general themes are intertwined in this text. First and most central is the phenomenological paradigm of causality that brings together David Hume and Maurice Merleau-Ponty. I argue that this new paradigm is more adequate to our experience of what it means to be *human* than the physics paradigm; it gives us a way of understanding how it is that we have real freedom in the midst of a world that is causally ordered.

The way of understanding freedom that this text maintains is as different from the position that denies the efficacy of causes as it is from the position that denies the reality of freedom. It recognizes that it is central to the human condition, and certainly to science, to try to anticipate outcomes and to improve prospective outcomes. In order to do this, we invoke and act upon causal explanations, even when considering our own actions. One unfortunate consequence of turning causal reflection back upon ourselves has been to conclude that we are totally a product of prior causes, that everything we do can be entirely explained by appealing to causal relationships.

I want to argue that this conclusion does not at all follow from the meaning of "causality". To the contrary, a proper understanding of causality reveals an ineradicable personal component, which even physics cannot overcome: its basis in first-hand, or lived, experience. For this understanding, we will undertake a reinterpretation of Hume's doctrine of causality, which, I argue, is best understood phenomenologically. To understand how it is phenomenological, we will first consider Hume's deconstruction of the "modern" paradigm. Then we will be in a position to see how Merleau-Ponty completed the deconstruction and how his notion of the *flesh* can incorporate Hume's understanding of causality.

Making all this explicit serves to show how these two authors' notions yield an alternative understanding of causality. In bringing Hume and Merleau-Ponty together, I attempt to carry out Merleau-Ponty's instruction to himself in his working notes, just prior to his death: "Justify science as an operation within the given situation of knowledge and thereby make apparent the necessity of the ontology 'complementary' with this operational science" (1968, 225-26).^A The paradigm currently guiding causal thinking in the physical sciences confines thinking to only one dimension of human experience, the external. Because humans are not merely natural objects, I suggest that we must take subjectivity seriously and posit objectivity cautiously. I argue that an adequate paradigm must not permit us to overlook the fact that no form of being can be posited without reference to the incarnate subjectivity of the human body. I conclude that any paradigm that entirely ignores the subjective dimension is not fit to speak of human experience.

The second theme of this dissertation is the deployment of both Hume's and Merleau-Ponty's deconstructions of the a priori underpinnings of classical and modern paradigms in clearing the way for the new paradigm. This critique takes aim from several quarters, but is unified by one methodological principle, which is Hume's: the primacy of perception. I will argue that the ineradicable personal component in experience means that the necessity proper to causality cannot be the sort of a priori absolute certainty and predictibility that scientism posits.

The thinking that emerges from the new paradigm also departs from compatibilist positions. I aim to indicate the capacity of the new paradigm to think in a clear and workable manner the intertwining of freedom and causality in the fabrication of reality, Taking up Hume's insistence upon the primacy of the natural over the philosophical

^A Merleau-Ponty continues: "Characterize the scientific treatment of being, time, evolution, etc., as a locating of 'features' of the Universe of 'features' of Beings, a systematic explanation of what they imply in virtue of their role as *hinges*. By principle science is not an exhausting, but a physiognomic portrait——Its freedom of manipulation, its operational freedom is immediately synonymous with an intra-ontology. The equivalence that analytic geometry establishes between space and number to be understood, not as a spiritualization of space (Brunschvicg), but indeed as a spatialization of the understanding, as an intuition of the ontological equivalence of space and number before a subject of knowledge that is of the world.

The scientific deduction-experimental fact parallelism is neither to be contested, nor to be understood as a proof of a *realism* of science. It is founded on the fact that the deductive science renders explicit the structures, the *pivots*, certain traits of the inner framework of the world. This *truth* of science, far from making a philosophy useless, is founded and guaranteed only by a relation of transcendence with Being, an inherence of the subject and the object of science in a preobjective Being."

relation, I argue that all totalizing explanations of subjective experience in terms of external relationships among external objects beg the most important question: How is it that those associations are established in the first place?

The third theme of this text is to show how Merleau-Ponty takes Hume's first principle much more seriously than Hume's empiricist followers; Merleau-Ponty's existential phenomenology works out the implications of what is radical in Hume. Understanding how brings us to incorporate Hume's notion of causality within Merleau-Ponty's ontological principle, the *flesh*. This confluence of Hume's understanding of causality with Merleau-Ponty's topological notion yields an account of causality for which incarnation is not a problem; it presents causality as the "crossing of the avenues" between self and world, as the locus of contact in which ourselves, the world, and the relationships among us become actualized.

Chapter one sketches out a general overview of the project and addresses in a general way what is at stake. It is deliberately vague, providing the reader with a vantage point from which to take his or her bearings in navigating the more complicated arguments that follow. Chapter two closely considers Hume's deconstruction of classical and modern notions of essences and of causality and undertakes a phenomenological interpretation of Hume's account of causality. Chapter three indicates how Merleau-Ponty^B incorporated Hume's critique and attempts to integrate Hume's account of causality with Merleau-Ponty's ontological notion of the *flesh*. I argue that the resulting paradigm of causality is more appropriate to the human sciences than the current physics model, because it is more adequate to our lived experience of what it is to be human. Chapter four investigates some implications and applications of the new paradigm, applying the new manner of thinking to both human and natural sciences.

^B See Madison (1974, 111): "Quand la phénoménologie critiquait la notion de causalité dans la science, ce qu'elle contestait, c'est l'idée d'un déterminisme objectif et la notion d'une nature parfaitement déterminé en soi. C'est ce que Merleau-Ponty appelle 'le préjugé de l'être déterminé ou du monde'. C'est l'idée défendue par le mécanisme déterministe classique que si l'on pouvait déterminer la position de tous les éléments d'un système et la loi de leurs mouvements, on pourrait prédire exactement ce que sera un état futur de ce système."

Finally, a comment about footnotes: For those readers who like to have ready-to-hand the original texts being interpreted, I have included relevant passages in footnotes marked alphabetically. Other footnotes are marked numerically, as usual. Readers wishing to read through without distraction may ignore the textual references that establishing the legitimacy of the somewhat unusual connection between Hume and Merleau-Ponty may require for others.

Textual Abbreviations

- Dialogues *Dialogues Concerning Natural Religion*, Norman Kemp Smith, ed. Indianapolis: Bobbs-Merrill, 1947.
- Enquiry Concerning Human Understanding, in Enquiries
 Concerning Human Understanding and Concerning the
 Principles of Morals, Second Edition, L.A. Selby-Bigge, ed.
 Oxford: Oxford University Press, 1989.
- E2 Enquiry Concerning the Principles of Morals in Enquiries
 Concerning Human Understanding and Concerning the
 Principles of Morals, Second Edition, L.A. Selby-Bigge, ed.
 Oxford: Oxford University Press, 1989.
- Essays Essays, moral, political, and literary, *Revised Edition*. Indianapolis: Liberty Press, 1987.
- H The History of England: From the Invasion of Julius Caesar to the Revolution in 1688, in six volumes. Indianapolis: Liberty Press, 1983-85.
- T A Treatise of Human Nature, Second Edition, L.A. Selby-Bigge, ed. Oxford: Oxford University Press, 1978.

CHAPTER 1

WHY A NEW PARADIGM?

It is essential to the reflective analysis that it start from the *de facto* situation. If it did not from the first take as given the true idea, the internal adequation of my thought with what I think, or the thought in act of the world, it should have to suspend every "I think" upon an "I think that I think," and this upon an "I think that I think that I think," and so on . . . The search for the conditions of possibility is in principle posterior to an actual experience, and from this it follows that even if subsequently one determines rigorously the *sine qua non* of that experience, it can never be washed of the original stain of having been discovered *post festum* nor ever become what positively founds that experience (Merleau-Ponty, 1968, 44-5).

What the Physical Sciences Cannot Do

Since the time of Plato, Western philosophy has sought to justify the good life on its own merits. Plato tried to persuade his contemporaries that justice is superior to injustice by showing how the just man is free and the unjust man or tyrant is in fact a slave. One way that he chose to teach this doctrine was by way of a metaphor, which treated the passions as forces that seek to enslave the individual, in the way that individuals within society seek to enslave the commonwealth for their own benefit.

Today, the objectivist methods inherited from Plato, which treat lived experience as unreliable and basically illusory—as ever-shifting "images" of an underlying eternally unchanging "Reality"—fail to do justice to what it is to be human; they cannot, therefore, but fail to do justice to the good life lived on its own merits. We will not be in a position to say precisely how objectivist accounts fall short until Chapter three, when we will draw the thread between the objectivist view of time and its paradigm of causality tightly enough to make the inadequacy of that approach evident. In Chapter four, we will make the reasons for the failure more evident, by drawing a causal connection between the tyrant's power project and its inevitable result: a life ruled by unending frustration and fear.

At this present juncture, we may begin by saying that the objectivist, scientist paradigm fails precisely because it appeals to substantial essences in attempting to explain what it supposes to be an absolute totality, a completed and completely knowable universe. In the course of this text, I will attempt to show that all of our ideas of totalities are presumptive; they are, so to speak, *overtures* to the interpretation of experience. Both David Hume and Maurice Merleau-Ponty have bequeathed us convincing arguments that positing totalities of any kind, whether natural object or universe "makes us go beyond the limits of our actual experience" (1962, 70). When we posit such totalities, we do so "without the authority either of the memory or senses" (T. 83); as a consequence, "our whole reasoning [is] chimerical" (ibid.).

To date, mainline science has not admitted this situation; we should not be too surprised, however, since the advent of phenomenology is so recent and the tendency to detach ourselves from our experience and pass to the *idea* is deeply ingrained. The ability to think abstractly has proved important to our survival; it is the basis of our technological strength. Nonetheless, useful as such practices might have been to our success as a species, they have put us in danger of losing contact with perceptual experience. Some scientists, such as chemist Michael Polanyi (1962), philosophers of science, such as Stephen Toulmin (1982), and ecologists Steward T.A. Pickett, Jurek Kolasa, and Clive G. Jones (1994) have, however, also argued in this direction.

Hume and Merleau-Ponty argued that the objective mode of thought, which is central to natural science, must be recognized to be not prior to but, rather, the outcome and the sequel to perceptual experience. To put this differently, the style of thinking that is called "objective" is a cultural artefact¹ (as, of course, is the style called "subjective"). What this means, of course, is that the objectivist mode of thinking is not the only and, moreover, not the only right way to conceive the world. In other words, the world that science describes is not "The Way The World Is". This likely sounds heretical to some readers; for that reason, I want to make it

¹See, for example, Alan G. Gross (1990, 7), who describes scientific "discovery" as *rhetorical invention:* "Why redescribe discovery as invention? To discover is to find out what is already there. But discovery is not a description of what scientists do; it is a hidden metaphor that begs the question of the certainty of scientific knowledge . . . To call scientific theories inventions, therefore, is to challenge the intellectual privilege and authority of science . . . If scientific theories are discoveries, their unfailing obsolescence is difficult to explain; if these theories are rhetorical inventions, no explanation of their radical vulnerability is necessary".

clear from the outset that I am not attempting to rule out or even to devalue that style of thinking. I am seeking to revalue other styles and I am questioning the claim of objectivist thinking to be the only legitimate authority on the question of what counts as real. I will argue that this style of thinking asks certain questions of the world, which are circumscribed by certain interests and certain presuppositions, and that, consequently, the world gives answers only to those questions.

These are not, however, the only legitimate questions we may and do ask of the world. When we ask other questions, we get other answers, ones that reveal other dimensions of the world, to which the quantifying methods of the physical sciences may not be amenable and to which other styles of thinking may be more adequate.

In order to see the limitations of objectivist thinking, it is important to observe its operation. Let us begin with Merleau-Ponty's diagnosis of the movement of abstraction from lived experience to idea. This movement is natural, thoroughly ingrained. As a result it is mostly overlooked, a situation that leads to objectivist thinking.

Merleau-Ponty wrote:

Obsessed with being, and forgetful of the perspectivism of my experience, I henceforth treat it as an object and deduce it from a relationship between objects. I regard my body, which is my point of view upon the world, as one of the objects of that world. My recent awareness of my gaze as a means of knowledge I now repress, and treat my eyes as bits of matter. They then take their place in the same objective space in which I am trying to situate the external object and I believe that I am producing the perceived perspective by the projection of the objects upon my retina. In the same way I treat my own perceptual history as a result of my relationships with the objective world; my present, which is my point of view on time, becomes one moment of time among all the others, my duration a reflection or abstract aspect of universal time, as my body is a mode of objective space (1962, 71).

In this passage, Merleau-Ponty points out how lived experience gets forgotten and pushed into the background by theoretical thinking (ideas about the world). We replace our living awareness of our relationships with the world with the abstract and objective concepts that help us to understand certain dimensions of that very experience. In William James' words, "Properly speaking, concepts are post-mortem preparations, sufficient only for retrospective understanding" (1977, 253). In illuminating the process of abstraction, Merleau-Ponty draws the *phenomenological* distinction between the external and the internal, which maintains Hume's first principle ("the priority of impressions" (T. 6) or the primacy of perception).

This distinction is expressed in Hume's question: What qualities of our impressions lead us to believe in the existence of objects external to and independent of ourselves? (T. Bk I, Sect. II). It is important to understand that Hume's is not the question of whether or not objects "really" exist. It is the phenomenological question of how what we do in fact experience leads us to that belief. Objectivistic thinking cannot hope to answer this question adequately. Lived experience is presupposed and not elucidated by the categories and concepts employed in that enterprise. In the course of this discussion, I will try to show why such notions as, for example, *sensation* cannot do the job. I will argue that, in general, such notions as a physical system undergoing stimuli, a picture that presupposes and does not elucidate lived perceptual experience, which is the first, not the last, contact with the world.

What I will try to make evident in the course of the argument is how an objectivist picture replaces lived experience with the presupposition that certain kinds of physical systems must exist, so as to go on to explain how it is that we perceive. The notions that allow us to tell a causal story of our experience (for example, of the visual perception of a block of marble as produced by innumerable stimuli impinging upon our retinas) presuppose lived perceptual experience, the lived process of coming to perceive the block of marble as a block of marble in the first place. What such an approach fails to acknowledge is that the notion of a sensation is an artefact of a certain style of thinking about lived experience, one that is not prior to but posterior to the lived experience that it purports to explain. To put it differently, the notion of sensation cannot totally explain lived perception (although, of course, it does give us valuable insights into certain dimensions of perception), because living perception is primary. Lived experience is the basis upon which ideas depend, from which they receive their warrant as true ideas. This is what it means to say that living perception is primary and not secondary. It is the *idea* of *sensation* that is secondary, that carries the stain of the lived sensory experience that discovered it. For this reason, no idea, such

as the idea of sensation, can ever become what positively founds lived experience.

This may, for some, be a difficult point to grasp; its difficulty shows how much in the web of concepts abstract thinking has become enmeshed. Since the point is not only difficult but also crucial to understanding my thesis, I will try many alternative means of showing just how a solely objectivist position takes for granted what phenomenology tries to elucidate, namely, how it is we come to experience objects in the first place. To see how such approaches fall short, we will first consider some difficult and subtle passages in the *Treatise*, ones which require considerable effort to understand. What Hume was attempting to say but was unable to articulate clearly was at that time entirely new: Individuation is an overture to the ascription of causal relations.

To put the point phenomenologically, all experience is experience of some thing and to experience something as a thing it must first of all be differentiated from a background. Only once a thing has been individuated can the constancy be experienced that taking the thing as a continuing object requires; only then may the relations of constant contiguity and temporal sequentiality be ascertained so as to enable the ascription of causal relationships.

My account concerns Hume's elucidation of the process involved in what, phenomenologically speaking, we might call "moving from the immanence of perceptual experience to positing a world of transcendent objects". Objectivist approaches persistently overlook the fact of immanence, which phenomenology recognizes as the ground from which objectivity emerges. So ingrained is the practice of overlooking this primal fact that it is common to forget completely how to notice it. This unfortunate circumstance requires a concerted effort to overcome, a persistent directing of our attention to our immediate experience, prior to the intervention of ideas and abstractions. Hume devoted a great deal of effort to bringing this tacit awareness to the attention of philosophers. Empiricism goes some of the way in this direction,² but the empiricist

²William James called for a *radical* empiricism, in his own way pointing out the shortcomings of the empiricist approach.

use of the theoretical notion of "sensation"—instead of directing us toward lived experience—leads us once more to mistake the idea for the reality. Contrary to what the reader may presently think, notions such as *sensation* presuppose and do not elucidate perceptual experience; "sensation" alludes to a theoretical object, which has been abstracted from the lived experience of bodily being-in-the-world in an attempt to explain that experience. More about this later.

Both Maurice Merleau-Ponty and Edmund Husserl recognized in Hume a precursor: one who "went, in intention, further than anyone in radical reflection, since he genuinely tried to take us back to those phenomena of which we have experience, on the hither side of any formation of ideas" (1962, 220). Merleau-Ponty drew upon Hume's phenomenological (as opposed to empiricist³) analysis of the process of positing a world. I want now to turn to that analysis, which of course oversimplifies the process for the purposes of illustration. Because of the difficulty of the description, we will approach the point cumulatively, from different directions. Let us turn, then, to the *Treatise* to understand why phenomenology—and not empiricism—has got Hume right.

THE POSITING OF THE OBJECT MAKES US GO BEYOND THE LIMITS OF OUR ACTUAL EXPERIENCE

Common sense tells us that objects in the world exist externally to and independently of ourselves. Hume asked of common sense a properly phenomenological question: What qualities of phenomena lead us to believe in the continued and distinct existence of objects (T. 187)? What qualities in the phenomena themselves when we experience objects "produces the opinion of a *continu'd* or of a *distinct* existence" (T. 188)? What, to put the question in a more analytic way of talking, makes us individuate objects from ourselves and what makes us believe in their identity through time? It is important to remember that this is not the sceptical question of whether or not there "really" is a world of objects. Hume considered that to be something, "which we must take for granted in all our reasonings" (T. 187).

³That is, Merleau-Ponty rejected Hume's theoretical forays, which one sees in, for example, *Treatise*, Bk II, Sect. II, as tending to "dissect and emasculate experience" (1962, 220). What he valued in Hume was his close attention to phenomena prior to the move to ideas, such as *sensation*.

Hume clearly recognized what makes the matter difficult: the question of "how far we are *ourselves* the *objects* of our senses" (T. 189, final emphasis added). Ordinarily, we suppose that we perceive our body as an object among other objects "when we regard our limbs and members" (T. 191). What we naturally tend to forget, however, when thinking of our body as an object, is our immediate *perception* of what, when we come to thinking abstractly, we call "body" (things external to and independent of ourselves).

Hume explicitly made a point of saying what Merleau-Ponty later went on to argue at length,⁴ with the aid of twentieth-century psychology:

Even our sight informs us not of distance or outness (so to speak) immediately and without a certain reasoning and experience, as is acknowledg'd by the most rational philosophers.

As to the *independency* of our perceptions on ourselves, this can never be an object of the senses; but any opinion we form concerning it, must be deriv'd from experience and observation (T. 191).

Odd as it may seem, objects, inasmuch and notwithstanding that they are independent from us, are primarily experienced, to use Hume's phrase, as "certain impressions" (T. 191). In other words, what is *object* is always already what is *subject*. Whenever we observe, say, our limbs as objects in space among other objects, it is always and inescapably by way of subjective experience. Moreover, *whatever* we observe as object always occurs by way of subjective experience. What we observe as external to ourselves always posits itself as such by way of internal, or first-hand, experience.

It is crucially important for all of what follows that the reader clearly understand the significance of the phenomenological notion of "internal", of which Merleau-Ponty's *lived body* is an example. The lived body is to be distinguished from *the body* as conceived by natural science. The lived body may be distinguished, as Hume noticed, from the body as object. The lived body is not the body that can be reached from the outside. Even the so-called "inside" of the body, the internal organs, for example, as we all can observe them in surgery, is not the "inside" to which phenomenology alludes; that "inside" is not the immanence to which "the lived body" refers. The lived body, as Merleau-Ponty wrote, is "our general

⁴For a rigorous phenomenological study of this claim, see Merleau-Ponty (1962, 98-147): "The Spatiality of One's Own Body and Motility".

medium for having a world" (1962, 146). The lived body is, so to speak, the other side of the body of natural science and from which the natural science conception of body is derived,

I know this is difficult, in one sense. In another sense it is easy; any child would know what is so difficult for us, as adults, to articulate. I hope that Merleau-Ponty's description of the subjective from the tactile dimension will aid the reader in accessing the dimension of experience that we tend to forget, which Merleau-Ponty's "lived body" attempts to recall to our awareness:

It is no different, in spite of what may appear to be the case, with my tactile body, for if I can, with my left hand, feel my right hand as it touches an object, the right hand as an object is not the right hand as it touches: the first is a system of bones, muscles, and flesh brought down at a point of space, the second shoots through space like a rocket to reveal the external object in its place. In so far as it sees or touches the world, my body can therefore be neither seen nor touched. What prevents its ever being an object, ever being 'completely constituted' is that it is that by which there are objects. It is neither tangible nor visible in so far as it is that which sees and touches (1962, 92).

This description distinguishes the objective body ("a system of bones, muscles, and flesh") from the side of experience known as "immanence"; the lived body "is that by which there are objects". This phenomenological "inside" is not an object, but "the feeling that one feels, the seeing one sees, is not a thought of seeing or of feeling, but vision, feeling, mute experience of a mute meaning" (1968, 249). This is more than just consciousness of seeing or of feeling; it is directed awareness, reflection, upon the "side" of experience that is first-hand—self-consciousness, if you like. Deliberately focusing upon this side of experience so as to make it explicit to oneself is prerequisite to an adequate understanding of phenomenology. It is something we knew as children, something tacit to everyday awareness, but which many of us have forgotten. If what is at issue is not presently clear, please be patient, since many other ways of invoking this awareness are forthcoming.

It is important to be forewarned that accessing the moment of movement from the external side of experience to the internal at first gives one a rather queasy feeling of ambiguity, of indeterminacy, which may help to explain why we tend to ignore it. At that moment, we are neither object nor subject but somehow both and somehow neither. That moment is the crossing of the avenues, the hinge from one side to the other. The moment makes us uneasy;⁵ it does not fit neatly into the conceptual categories we use to organize experience. In fact, that experience tends to disrupt those categories, to make us see their relativity and their contingency. For that very reason, the experience is at first unsettling; nonetheless, it is also instructive and one becomes progressively less nervous of the crossing with each occurrence.

We are of course dealing with a temporal process, a movement from one way of thinking to another. There is more than this going on, however; there is not only the shift but also the awareness of the shift, which enables a new manner of reflection upon the process. The awareness of the shift allows us to move deliberately from the one side of experience to the other and to reflect upon the volition involved in producing the shift. We feel we might catch ourselves from the outside engaged in a cognitive process from the inside. In trying to touch ourselves being touched—as in trying to see ourselves looking by using a mirror—a reflective process occurs, in which we distinguish ourselves from objects (1962, 93) and, nevertheless, see ourselves as objects.

In his account of causality, Hume gave us an indication of how, although they remain distinct, the inside is, nonetheless, inextricably interwoven with the outside. As Merleau-Ponty put the point:

Start from this: there is not identity, nor non-identity, or non-coincidence, there is inside and outside turning about one another (1968, 264).

In this passage Merleau-Ponty used the metaphor of a hinge to describe this double-sidedness of experience.⁶ James used another sort of metaphor to evoke this idea:

The world we practically live in is one in which it is impossible, except by theoretic retrospection, to disentangle the contributions of intellect from those of sense. They are wrapt and rolled together as a gunshot in the mountains is wrapt and rolled in fold on fold of echo and reverberative clamor (1977, 256).

Chapters two and three will further develop the idea of experience as having, always, two sides. For now, it suffices to notice two main features

⁵In this we are like other animals, such as dogs, who avoid ambiguity in favour of certainty. See Joel M. McMains (1992). ⁶See Merleau-Ponty (1968, 225, 264).

of this way of thinking experience: First of all, James' metaphor indicates how

The two functions thus play into each other's hands. Perception prompts our thought, and thought in turn enriches our perception. The more we see, the more we think; while the more we think, the more we see in our immediate experiences, and the greater grows the detail and the more significant the articulateness of our perception (1977, 256).

Secondly, Merleau-Ponty's *hinge* metaphor alludes to the fact that reflecting upon the movement from one side to the other enables us to deliberately, so to speak, *pivot* experience on this hinge, from external to internal, from object to subject, and back again. The two sides are interdependent and the hinge permits us to open and to close the door from one to the other and to move from one side of experience to the other. At the risk of oversimplifying to make a general point, we may try to lock the door and hide inside (Idealism) or we may go outside and staunchly refuse to come in (Realism). Experience has, however, a tendency to behave like one of those revolving walls in the movies. Just when we think ourselves safely ensconced on one side of the wall, we lean against it and it revolves, unexpectedly shifting us to the other.

HUME'S PHENOMENOLOGICAL REDUCTION

Right now we cannot spend any more time playing with the revolving door that Merleau-Ponty's metaphor has allowed us to articulate; for, we must carry forward Hume's investigation of the genesis of the opinion of distinct and continuing existence: individuation and identity. This opinion cannot be accounted for on the basis of causal relationships. To put Hume's conclusions in a nutshell: We cannot account for the opinion of distinct and continuing existence merely by reasonings from cause and effect, that is, as being derived from custom by the regularities of past experiences (T. 197). The attribution of causal relations between present and past experiences of "the same" objects requires in the first place the individuation of objects from their backgrounds and in the next the ascription of constant contiguity and temporal succession among them.

Hume came to these conclusions by way of a phenomenological analysis of an everyday experience, one that is worth quoting at some length: I am here seated in my chamber with my face to the fire; and all the objects, that strike my senses, are contain'd in a few yards around me. My memory, indeed, informs me of the existence of many objects; but then this information extends not beyond their past existence, nor do either my senses or memory give any testimony to the continuance of their being. When therefore I am thus seated, and revolve over these thoughts, I hear on a sudden a noise as of a door turning upon its hinges; and a little after see a porter, who advances towards me. This gives occasion to many new reflexions and reasonings. First, I never have observ'd, that this noise cou'd proceed from any thing but the motion of a door; and therefore conclude, that the present phænomenon is a contradiction to all past experience, unless the door, which I remember on t'other side of the chamber, be still in being (T. 196).

What is going on in this passage is complicated and requires some repetition to make explicit. The passage is a "phenomenological reduction" of an everyday experience. Sitting beside a fire, Hume noticed that, aside from those objects immediately around him, he had no present sensory evidence for the continuing existence of what he, nonetheless, took for granted. Suddenly, he heard a noise. That perceptual experience was interpreted "as of a door turning upon its hinges". Since he was not facing the door, the visual experiences that had often accompanied similar sounds in the past were absent on this occasion.

It is important to notice that "the sound of the door" was individuated, it suddenly emerged into focal (as opposed to peripheral) awareness; perhaps he had been dozing or deeply involved in reading. The sound suddenly "stood out" against a background of other perceptions, for example, the fire in the grate, the warmth of his skin, the texture of the armchair, etc. Notwithstanding any distinguishable differences between the present sound and past occurrences of this sort of sound, the *resemblance* among them led him to write: "I never have observ'd, that this noise cou'd proceed from anything but the motion of a door" (T. 196).

Implicit here is the fact that similar sounds had occurred in the past in different contexts, as well as the fact that *this* sort of sound was different from any other sort in his experience. This sound was *the sound of a door* and not any other sort of sound. That the relation is inherent in the experience is illustrated by the fact that, on this occasion, the sound occurred in the context of certain visual perceptions, which did not, nonetheless, get associated with it. In the past, other types of visual experiences were associated with that sound. Hume did not on this occasion attribute the sound, for example, to the visual perception of the fire in the grate. He did not, because to have done so would have gone against his past experience: the result would have been an instability (what he calls a "contradiction") in experience. It was, if you like, an inference to the best explanation, to the explanation that would permit the phenomena that would otherwise be chaotic to have a logos, a structure.

Hume argued that, although the association of the sound with the idea of a door "may seem to be of the same nature with our reasonings concerning causes and effects; as being deriv'd from custom, and regulated by past experience; we shall find upon examination, that they are at the bottom considerably different from each other" (T. 197). We might argue, in other words, that the idea of the door is dependent upon the causal relationship taken to exist between the constant conjunction (of visual and other impressions with which the sound has typically been accompanied) and the sound. If, however, we simply rely on past experience, we will find that we have no reason not to take as associated the impressions immediately perceived at each moment, for example, the sound with the visual impressions of the chair or of the fire. Such "dissociated impressions" are perfectly ordinary. In any particular situation, however, we do not merely associate presently perceived impressions in this way. Neither do we associate perceptions merely on the basis of a calculation of the frequency with which different impressions were contiguously or sequentially perceived in the past.

If we did, we would never be able to advance beyond, to allude once again to James, a blooming, buzzing confusion. As Hume put the point (contra Hobbes^C): "The extending of custom and reasoning beyond the perceptions can never be the direct and natural effect of the constant repetition and connexion, but must arise from the co-operation of some other principles" (T. 198), which serve "to bestow on the objects a greater regularity than what is observ'd in our mere perceptions" (T. 197). For

^C See (1651, Ch. III): "But as wee have no Imagination, whereof we have not formerly had Sense, in whole, or in parts; so we have no Transition from one Imagination to another, whereof we never had the like before in our Senses. . . . But because in sense, to one and the same thing perceived, sometimes one thing, sometimes another succeedeth, it comes to passe in time, that in the Imagining of any thing, there is no certainty what we shall Imagine next; Only this is certain, it shall be something that succeeded the same before, at one time or another" (1985, 94).

instance, what we might ordinarily call "the sound of a door opening" embedded in a background of what we ordinarily might call "a fire in the grate" would, in the next experience of "a fire in the grate" lead to an expectation of the sound of a door opening accompanying it. Without individuating "the sound of a door opening" from the background of other sounds, smells, sights, and feelings, it could never come to be known as such, because it would be associated equally with every kind of background in which it had ever occurred in our experience, and so could not be associated with any. Without, in other words, the individuation of some sort of whole⁷ as distinguishable from a background within which it is situated, we could never have come to the experience of an object in the first place.

In order to connect the "past and present appearances" of things "and give them such an union with each other, as I have found by experience to be suitable to *their* particular natures and circumstances" (T. 197), I must first experience them *as things*. In other words, the notion of a continuing object (identity through time) requires, in the first place, the experience of a thing (individuation).

Hume supposed that there must be "certain qualities peculiar to some impressions" (T. 194), which give rise to the notion of continuing existence. *Coherence* and *regular dependence* are two such qualities:

Bodies often change their position and qualities, and after a little absence or interruption may become hardly knowable. But here 'tis observable, that even in these changes they preserve a *coherence*, and have a regular dependence on each other; which is the foundation of a kind of reasoning from causation, and produces the opinion of their continu'd existence (T. 195).

The relations of coherence and regular dependence that we observe in certain impressions is, for Hume, the basis for a kind of causal reasoning, the kind that leads to the opinion of continuing existence. To observe *constancy*—the coherence and regular dependence of

⁷See A. Michotte (1963, 239-40, emphasis altered): "In the experimental situations which we set up, the factors of integration operated to link together these impressions of different sense-modalities in a less automatic and compelling way than we might have expected. This inevitably makes it a matter of some doubt whether in ordinary life there can be a *spontaneous* 'causal impression' linking up an impact with the noise which goes with it . . . The link between the two events cannot in this case be one of production, but only one of 'belonging'; in other words the noise must appear as a *property* of the visual event". Hume realized that some impressions, which in everyday experience are tightly bound together and appear as *properties*, may themselves be individuated under further analysis.

perceptions—in the way that Hume suggests we do, in the way, for example, that "the sun or ocean, for instance, returns upon us after an absence or annihilation with like parts and in a like order, as at its first appearance" (T. 199), requires, in the first place, that *sun* or *ocean* be individuated, that they be differentiated from *sky* or from *sand*, for example.

I have argued above that wholes, such as *sun* or *ocean*, cannot have been associated in the course of experience by a calculation of the repetition of more basic parts, such as *pure sensations*. The experience of *sun* or of *ocean* as wholes of some sort is prerequisite to the experience of them as (continuing) objects, which *constancy* permits, and to which "a kind of causal reasoning" leads. This is all pretty vague insofar as description is concerned, and the analysis is admittedly oversimplified so as not to become intractable, but the point can be made straighforwardly enough: Individuation is an overture⁸ to the ascription of causal relations.

FROM THE MIND TO THE BODY9

What I have been trying mainly to direct attention to so far, is the perceptual experience with which objectivistic thinking has lost contact. Individuation is, first and foremost, a perceptual experience. Our body is our way of distinguishing between ourselves and the world, as subject from object. As babies, we all discovered that an object is a sort of *other*, which can be observed, touched, heard, tasted, from all directions—from west, from east, from north, from south, from above, from below—but never from *within* (in the phenomenological sense).

Merleau-Ponty tackled the difficult task that Hume noted, the question of describing "how far we are *ourselves* the *objects* of our senses" (T. 189, final emphasis added). Merleau-Ponty followed Hume's visual approach to the pivot between subject and object:

My visual body is certainly an object as far as its parts far removed from my head are concerned, but as we come nearer to the eyes, it becomes divorced from objects, and reserves among them a quasispace to which they have no access, and when I try to fill the void by

⁸This metaphor is deliberately ambiguous. I want to say both that individuation is a gesture toward and that it serves as a prelude to the ascription of causal relations.

⁹I borrowed the idea for this heading from a comment Doug Odegard made in a conversation about the project of linking Hume to Merleau-Ponty.

recourse to the image in the mirror, it refers me back to an original of the body which is not out there among things, but in my own province, on this side of all things seen (1962, 92).

In this passage, Merleau-Ponty tackled Hume's question by leading our awareness back, step by step, from looking at our limbs as objects in the world to the proprioceptive and vague awareness of the whole body as object to the point where the sense of objectness disappears and, instead, we move to a sense of subjectness, which is the link^D that maintains the indissoluble interrelatedness between subject and object.¹⁰ Thinking of this point differently, we might say that our lived body acquaints us with a wholeness, which we go on to parse through distinctions of reason. The distinctions tend to move us away from the sort of unity that is consistent with subsumption under a law. This wholeness is to be distinguished from the sort of totality posited by calculative reason, which attempts to re-associate without remainder what gets dissassociated in objective thinking. Such thinking both presupposes and aims at this sort of totality. It will never achieve it, because the ambiguous remainder left behind by analytic attempts to disambiguate experience is inherent to lived experience and the distinctions of reason upon which such objectivist theories are built presuppose lived experience. To put it differently, lived experience, as I have suggested, is fundamentally ambiguous.¹¹ Because it is ambiguous, it cannot be rendered entirely transparent to calculative reason; but "it" can be "felt" as a whole.

^D See, for example, Hume (T. 277-8, "Of the Passions): "Tis evident, that pride and humility, tho' directly contrary, have yet the same object. This object is self, or that succession of related ideas and impressions, of which we have an intimate memory and consciousness. Here the view always fixes when we are actuated by either of these passions . . . When self enters not into the consideration, there is no room either for pride or humility . . . But tho' that connected succession of perceptions, which we call self, be always the object of these two passions, 'tis impossible it can be their cause, or be sufficient alone to excite them". Merleau-Ponty expressed the point differently: "The presence and absence of external objects are only variations within a field of primordial presence, a perceptual domain over which my body exercises power. Not only is the permanence of my body not a particular case of the permanence of external objects in the world, but the second cannot be understood except through the first: not only is the perspective of my body not a particular case of that of objects, but furthermore the presentation of objects in perspective cannot be understood except through the resistance of my body to all variation of perspective. If objects may never show me more than one of their facets, this is because I am my self in a certain place from which I see them and which I cannot see" (1962, 92). ¹⁰See Hume (T. 277-8) and Merleau-Ponty (1962, 92).

¹¹For an extended analysis of the ambiguity of experience, see Merleau-Ponty (1962) and Gary Brent Madison (1981). See also Merleau-Ponty (1962, 95).

As such, "it" will never succumb to our attempts to achieve a totally objective knowledge of the kind that modern science has set up as its goal. "The mind never perceives any real connexion among distinct existences" (T.636). Reason makes distinctions in the flux of experience, but, as James also emphasized, reason "can discover no real sameness, though the same name [say, "David Hume"] covers both of them" (1977, 218). The basis for the sameness, as paradoxical as it may sound, lies in Merleau-Ponty's notion of the lived body. It seems paradoxical because I have just argued that the lived body is the locus of the experience of the ambiguity of experience and ambiguity most certainly is not sameness. Nonetheless, the lived body leads, in Merleau-Ponty's later work, to his notion of the *flesh*, which provides the sameness that allows us to talk of wholeness (if not totality) in experience. As we will see, the flesh provides wholeness because it is ontologically reversible between subject and object. The notion of ontological reversibility is a *presumptive* wholeness that, unlike the totalities posited by calculative reason, is derived from lived experience. It is not a priori, because it does not allude to something hidden behind experience but phenomenological, because it alludes to features of everyday experience that are accessible to everyone. More of this later.

Merleau-Ponty's notion of the flesh provides a principle toward a new paradigm, which grounds causality in lived experience. Far from claiming that we do not perceive causal relationships, I will try to show that Hume was fundamentally in agreement with authors like James, who wrote of lived experience as "the active sense of living which we all enjoy, before reflection shatters our instinctive world for us" (1977, 214). We will eventually say of our experience of causality—upon which all of our reasonings concerning matters of fact are based (E_1 , 26)—that (to borrow James' words) it is "shot through with adjectives and nouns and prepositions and conjunctions" (1977, 215). We will return "causality" to the wild, to the stream of life whence its meaning comes, and which is always already there to reabsorb it. When it returns to us, it will have absorbed a new core of meaning. THE SUNSET OF MATERIALIST KINEMATICS AND DYNAMICS Our century suffers from the disease of abstraction. Fortunately for us, however, our century has also provided the material for an antidote. Drawing upon Hume's reasons for rejecting appeals to a priori principles made by the Church of his day, Merleau-Ponty and other phenomenologists subject physics to a thoroughgoing critique.

That this critique is needed seems indubitable, since the objectivist paradigm has proved to be so powerful in improving our material welfare that some adherents have come to believe that talk about the internal dimension of experience can and should be entirely eliminated. At the hands of "scientific method", the subject has been confined within a machine. Moreover, since the subject cannot be quantified, objectivist practitioners argue that it cannot be real. Only "objective" language, such as "glucose consumption", "forebrain", "dopamine levels", "coding vectors", "neural pathways", and "peristriatal cortex", may be used for "that new taxonomy [which] will still embody by far the more penetrating insight into our nature" (Paul Churchland, 1988, 180). Our collective conceptual destiny, Churchland adds, lies in eliminating talk about beliefs and desires in favour of what are, purportedly, more accurate, more correct ways of talking.¹² The language of beliefs and desires, it is said, will (because it can) be completely translated without remainder into the language of the projected neuroscience.¹³

Churchland once argued that "all observation occurs within some system of concepts, and our observation judgments are only as good as the conceptual framework in which they are expressed" (1988, 47). To insist on the validity of experience as traditionally interpreted, Churchland added, begs the question. Churchland rightly pointed out that the West has, in its "official" doctrine, moved away from viewing the heavens as an interlocking set of rotating spheres and the earth as harbouring witches among its fauna. Churchland was also right to say that (from one point of view) Western history records progressive changes

 $^{^{12}}$ The extreme of the sorts of point of view to which I am alluding is, perhaps, best exemplified by Paul Churchland's eliminative materialism (1988).

¹³This example of human will overreaching human understanding is an attempt to escape the mythical consequence of the modern science vision, which has come to fruit in our century: nihilism. For a penetrating and illuminating diagnosis of this situation, see David Michael Levin (1988).

in interpretations of experience. He was right that the West has benefitted in many ways from these changes in view. Churchland's choice of examples and the language of his challenge to what he chooses to call "folk psychology", however, reveal a deeply held and unchallenged prejudice.

Churchland claimed that his arguments challenged "the integrity of the background conceptual frameworks" (1988, 47-8) in which the observation judgments that reveal such subjective experiences as pains, beliefs, desires, fears, and so on are expressed. His prejudice restricted him from noticing, however, that his own conceptual framework fails to challenge the belief that we have no alternative but objectivism in considering "whether we should reconceive the nature of some familiar observational domain" (1988, 48). Churchland presupposes the continued dominance of the objectivist framework of interpretation. To put this differently, what Churchland presents as a reconceptualization amounts to nothing more than a further proliferation of the language of the objectivist framework. Churchland's entire "spectrum of possible outcomes" (1988, 49) is circumscribed by the boundaries of the objectivist universe of discourse. And that universe no longer has the authority that he invokes: to legislate unilaterally as to what counts as real.

Man is, as Charles Taylor observed ("Cognitive Psychology", 189), the self-interpreting animal. This lesson may be drawn from the same historical data upon which Churchland drew in advocating his desire to eliminate the language of beliefs and desires. Churchland's question, whether we should reconceptualize, is superficial, since that just is what humans do. Churchland's question, moreover, tacitly assumes that our answer must be "Yes" to his type of reconceptualization, that, of course, we are both willing and able completely to objectify ourselves, that no other sort of reconceptualization is desirable. The objectivist prejudice prevented Churchland from asking the right question: not whether but "Whu?"

WHAT IS MISSING IN ACTION ON THE OBJECTIVIST PARADIGM Mainline natural science's potency contains the seeds of its impotence. Its framework may explain motion but it fails to understand action; it ------

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may speak intelligibly of velocity but it fails to make sense of power; it may plot location but it cannot comprehend either situation or direction.¹⁴ This is because the latter notions (action, power, situation, direction) require *causality* in the full sense¹⁵—as opposed to the truncated, mechanistic sense. The *Treatise* gives us a notion of action that requires change, real change: the experience—which yields the idea—that what we do makes a real difference. I will argue in Chapter two that Hume's understanding of causality legitimates the claim that when we act, those actions are indeed original starting points of events and do not merely transmit a push from elsewhere.

James understood the importance of distinguishing between perception and idea in order to do justice to the experience of novelty and, hence, to freedom. He knew that and why what he called "rationalistic" thinking failed to do justice to common experience:

Pluralism, taking perceptual experience at its face value ... protests against working our ideas in a vacuum made of conceptual abstractions We cannot explain conceptually *how* genuine novelties can come; but if one did come we could experience *that* it came. We do, in fact, experience perceptual novelties all the while. Our perceptual experience overlaps our conceptual reason: the *that* transcends the *why*. So the common-sense view of life, as something really dramatic, with work done, and things decided here and now, is acceptable to pluralism. 'Free will' means nothing but real novelty; so pluralism accepts the notion of free will (1977, 269).

It is, I will attempt to show, the first-hand experience of novelty—that is, of *change*—that the mainline science paradigm of causality cannot comprehend. This is admittedly vague at the moment, but it indicates the general direction. Cashing out what it all means will require all of what follows. For now, it suffices to say that, without *feeling* that we make a difference, we could not act. Without the felt-relation of conjunctions and the felt-relation of causality that certain conjunctions produce, we would be unable to *act*, because those lived feelings are the criteria upon which our assurance and conviction rest. It is precisely these feelings and this causality that the objectivist paradigm fails to encompass.

PIET ANTITI STATES

- بطرید م*حجلہ میں ا*لیم*ہ د*ر -

¹⁴The idea of *direction* entails both past and future.. It requires the sense of a goal toward which movement is striving as well as a sense of whence it has come. More of this later. ¹⁵I take Hume's understanding of causality to include the whole of the *Treatise* (not just Book I).

In the early twentieth century Ludwig von Mises¹⁶ argued that human action presupposes the causal relation; it presupposes seeing the world in the light of causality:

Man is in a position to act because he has the ability to discover causal relations which determine change and becoming in the universe. Acting requires and presupposes the category of causality (1949, 22).

Man has in common with some other species the characteristic of being an *interfering* animal. We continually ask von Mises' question: "Where and how must I interfere in order to divert the course of events from the way it would go in the absence of my interference in a direction which better suits my wishes?" (1949, 22). We have this in common with other sentient beings; consciousness of processes and of constant conjunctions permits the repetition of reliable actions, of deliberate, intended actions, which is associated with a sense of $power,^{E}$ with the ability to to change things from what they would otherwise have been. We also often ask ourselves how we may elicit something new from the course of events, a question which requires the capacity for selfconsciousness, of reflection upon the degree to which we are ourselves integral to the process and to what extent we transcend the process and initiate changes within it. To put this differently, we are concerned with the extent to which we are free to act upon and to introduce variety into events.

Physics cannot help us with such issues. I want to argue that there is an approach more adequate than that of physics to the questions asked by philosophy and the human sciences. Such an alternative approach is sorely needed. Von Mises, among others, saw that causality had become hopelessly abstracted from common life:

Man raises the question: who or what is at the bottom of things? He searches for the regularity and the "law," because he wants to interfere.

Sec. S. Patrick Mark 1944

¹⁶Von Mises was the teacher to F.A. von Hayek and of many other economists. He was for twenty-five years Professor of Economics at the University of Vienna and from 1934 to 1940 Professor of International Economic Relations at the Graduate Institute of International Studies in Geneva.

^E See (T. 166): "The simple view of any two objects or actions, however related, can never give us any idea of power, or of a connexion betwixt them: *that* this idea arises from the repetition of their union: *that* the repetition neither discovers nor causes any thing in the objects, but has an influence only on the mind, by that customary transition it produces: *that* this customary transition is, therefore, the same with the power and necessity; which are consequently qualities of perceptions, not of objects".

Only later was this search more extensively interpreted by metaphysics as a search after the ultimate cause of being and existence. Centuries were needed to bring these exaggerated and extravagant ideas back again to the more modest question of where one must interfere or should one be able to interfere in order to attain this or that end.

The treatment accorded to the problem of causality in the last decades has been, due to a confusion brought about by some eminent physicists, rather unsatisfactory. We may hope that this unpleasant chapter in the history of philosophy will be a warning to future philosophers (1949, 22).

Although von Mises wrote in the early part of the century, the methodology still current in economics involves finding a model such that the properties of equilibrium can be derived from underlying parameters. On this physics-inspired view there is no place for causality properly understood. (I will argue in Chapter two that, for Hume, novelty is part and parcel of causality properly understood.) Currently, an exodus¹⁷ of the human sciences from the confusion Mises worried about—a confusion which had meanwhile become the norm—has, happily, begun.¹⁸ Von Mises' objection to the application of the physics paradigm of "causality" to economics is equally applicable to all human sciences. Using the objectivist space-time grid in which eternal equations are operative, for example, we can conceive of ourselves as in motion, as processing information. We may think of the biochemical processes that constitute our bodies as in motion, as reallocating atoms from one configuration to another. Our behaviour may diverge from the expected development, I want to emphasize, only because the analyst failed to

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¹⁷See Robin Cowan (1994, 63-4): "Causes are events that generate other events, called effects. But an event is necessarily a change in the pre-existing state of affairs, so if there is no change in a system, then ipso facto, there are no events, and thus there can be no causation. In economics, when considering causation and causal analysis, a change must be defined as 'any divergence of the actual from the expected development, irrespective of whether it means a "change" in some absolute sense'. When an economic system is in equilibrium, agents' expectations are fulfilled and their plans are successfully carried out, so agents never encounter situations that would lead them to change their beliefs. At the foundation of changes in economic data are human actions, the causes of which are changes in beliefs and desires. The equilibrium method, by focusing exclusively on situations in which beliefs do not change, in an important sense eliminates change, and therefore causation, from the analysis. Indeed, to put the matter more strongly, the aim of the equilibrium approach is to find the level of analysis at which no change occurs—the standard response to a putative disequilibrium in which agents make mistakes or encounter events that appear (to the analyst) to force them to change their beliefs is to short that by including a formerly ignored market (often the market for information) or by redescribing a good (often in terms of a lottery) the phenomenon is made an equilibrium after all, and agents are not in fact changing their beliefs. But if there is no change there are no events, and thus neither causes nor effects".

¹⁸For a strong example of this exodus in the field of economics, see Donald N. McCloskey (1985).

include some relevant data. Our behaviour, to put this differently, might be unpredictable under the physics model only because the analyst did not take all of the relevant data into account.

On this model, we cannot really act, because the meaning of "action" (as opposed to "behaviour") requires *novelty*. For an action to have an effect means that novelty is introduced into, so to speak, the "preexisting" state of affairs, changing the way things turn out. Hume included novelty in his definition of cause as "where, if the first object had not been, the second never had existed" (E_1 , 76). The meaning of "action" includes beliefs and desires as causes. Outcomes count as the effects of our actions. For an event to count fully as an effect of action, it must introduce novelty into the pre-existing state of affairs. And this is, precisely, what natural science cannot provide: the meaning without which, as I will argue, "causality" has no meaning at all. And this is not just a case of a philosopher redefining a word to suit her purposes; rather, the move is in the contrary direction. Our everyday language of action, as only one example, is entirely at odds with the paradigm operative in the natural sciences. In order to predict, which of course they want to do, they describe things as not really changing. In other words, the natural sciences deal with the extent to which the metaphor of mechanism is appropriate to experience.

Unfortunately, some scientists forget that ideas are abstractions and they, along with Parmenides, then try to persuade the rest of us that change is an illusion or that it is subject to the inexorable "laws" of nature. Such a position is forced to attempt what Hume insisted was impossible: "The mind can never possibly find the effect in the supposed cause, by the most accurate scrutiny and examination" (E₁, 29). As Hume realized, "the effect is *totally different* from the cause, and consequently can never be discovered in it" (E₁, 29, emphasis added). To put Hume's point differently, the effect is different from the cause and, consequently, cannot be found in it. because in the process novelty is introduced, which cannot be foreseen by examining the initial conditions. To put this differently again, lived experience includes novelty, which logic does not, and according to contemporary wisdom, cannot include. I will argue in Chapter two that the causal relation is primarily a lived relationship, one to which scientific logic cannot but fail to do justice. To act means to bring novelty into the world or into ourselves, even when to act means to inhibit change. In such instances, we are equally attempting to change what would have been the case had we not acted. In other words *we* are attempting to *be*, so to speak, the first object without which the second had never existed. In his role as philosopher of action, Hume made the point that as actors we are causes. To put this differently, to act means to take up what is, contingently, and to change it to what it must then necessarily be, precisely *because* we have acted so as to make it so.

Merleau-Ponty made this point in in his characteristically pithy style:

Human existence will force us to revise our usual notion of necessity and contingency, because it is the transformation of contingency into necessity by the act of taking in hand (1962, 170).

Here Merleau-Ponty tells us that human existence means the act of taking things—which just happen to be—*in hand*. By that very process we transform what contingently happens to be into what must be (necessarily) because it is the result of our action. Being *human* consists, in part, in making fact out of contingency. Human being-in-the-world alludes to that very process.

There is a grave danger in conceiving ourselves entirely in the objective terms favoured by mainline science. On this model, we must think of our perceptual lives as reactions to stimuli or, at best, as eddies in the midst of a perpetual flux whose motion is ruled by eternal laws of nature. On this view human subjects are nothing but epiphenomenal ghosts of departing energies.

What we seek to do in understanding ourselves as acting subjects, however, is to understand ourselves as inhabiting a world, as acting upon beliefs and desires to achieve our goals. Science and philosophy are supposed to help us to understand experience. Understanding is not cultivated by explaining away (as opposed to explicating) the very lived experience that we are attempting to understand. We live our actions as making a difference. It is no help at all to move to a realm of ideas in which what we live is denied. Can an explanation that fails to do justice to lived experience lay any legitimate claim to counting as "reality", as what is "really" going on (contrary to what "appears" to be going on)?

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I maintain that it cannot. I maintain that such explanations narrow rather than enlarge our understanding when they purport to be "The way things Really are". For "action" to have any meaning whatsoever requires that we introduced novelty into experience at some time or other. "Action" requires, then, future and past. Action requires lived time, in which nonreversible events have taken place—for this is an irrepressible part of what we experience as humans. I submit that we cannot hope to understand ourselves if we go along with the objectivist agenda and reduce action to behaviour: a multitude of partial processes, the one exterior to the other in some spatialized model of time. This does not count as change; it counts only as alteration of form. This model does not even approach a comprehension of *human* experience. The difference is *novelty*.

Needless to say, we also inhabit object as well as animal dimensions. Of course, objective science has much that is valuable to say to us about those dimensions. More importantly, however, we also inhabit the human dimension; without *action* the idea of behaviour makes no sense. To the human dimension the objectivist paradigm of causality is not equipped to travel.

THE DOUBLURE

Action requires a paradigm of causality that adequately accommodates self-consciousness, self-reflection. This requirement brings us up against the difficulty we encountered earlier. To use Hume's words, the difficulty is the question of "how far we are *ourselves* the objects of our senses" (T. 189). As well as thinking the body as an object among other objects, we may focus upon the lived body. To put this in Hume's terms, "when we regard our limbs and members", instead of perceiving body (in the scientific sense), we perceive "certain impressions" (T. 191).

A fundamental and inescapable fact of human existence is that we experience everything from, so to speak, two "sides". Every time I speak, for example, I hear my voice as heard as well as my voice uttered.¹⁹ To put this differently, in speech we feel ourselves creating sounds to be heard as well as hearing our voices as sounds having been made. As well,

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¹⁹See Merleau-Ponty (1968, 148): "My two hands are part of the same body, because it moves itself in the world, because I hear myself both from within and from without.".

.. . . .

we hear the voice we utter as well as the voice that reflects back to our ears as it does to those of others. This is a feature of everyday awareness; we notice the difference when we first hear a tape recording of our own voice. As well as observing our activities from, as it were, the "outside" as an object among other objects in a world that is also an object—we also experience the world from, so to speak, the "inside".

We often experience the two sides as linked. The difficulty, as we well know, lies in how the portions of experience that we call "mind" might be *understood* as connected to the portions that we call "body", so that the two sides may be *thought* as interacting—as they do in experience without reducing the one to the other—which is manifestly not the case in experience—and without eliminating the one in favour of the other which is likewise manifestly contrary to experience.

No doubt some readers will be thinking: "Science has already dealt with the doubleness of our being. Quantum physics, for example, or cybernetics models can accomodate the fact that we are actors as well as observers." This claim is simply false. Those systems *enframe*²⁰ subjectivity within an objectivist "totality". This characterization of objectivism is no straw man. Consider, for example, one type of reduction: the cybernetic paradigm. Under this framework non-living systems, such as thermostats, may be said to display purposeful behaviour. Norbert Weiner, for example, claimed that "if the notion of purpose is applicable to living organisms, it is also applicable to nonliving entities when they show the same observable traits of behavior" (1961, 323). Now, I have no objection to applying the notion of purpose in this way, even to non-living objects. My objection is to mistaking the metaphor for reality.

Such attempts to reduce human action to mechanical behaviour strike me as a variation on a common logical fallacy:

Thermostat behaviour is like human activity.

Thermostat behaviour is mechanical.

Therefore, human activity is mechanical.

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 $^{^{20}}$ James put the general point in this way: "Rationalistic philosophy has always aspired to a rounded-in view of the whole of things, a closed system of kinds, from which the notion of essential novelty being possible is ruled out in advance" (1977, 253).

Of course, we would quickly recognize the invalidity of this move if it were presented deductively, but, nonetheless, it seems to me to underlie positions such as behaviourism. A more recent attempt is that of William T. Powers, who tried to adapt this model to encompass humanism:

The conclusion we are led to by the thinking in this book is that there is mechanism in behavior-but it is not the mechanism the behaviorists have in mind, for it is capable of having inner purposes in the full humanistic sense. ... This process puts experience before theory but paradoxically shows that much which seems uniquely human is after all only acquired mechanism. The human remainder, the factor distinguishing man from animal or machine, is visible in the model only as a ghost, through its transcendent effects on the model itself (1971, x).

Powers' model is an attempt to explain "inside" behaviour so as to ring truer to our every day realities. It fails because, as he himself admits, it reduces human experience to only acquired mechanism but is left with a ghostly human remainder, which, ironically-as he also admitscontinues to exert "transcendent effects on the model itself". It will become more evident as my argument develops that it is because the phenomenological dimension of experience escapes all explanations (because it is prior to and presupposed by all explanations) that the ghostly "human remainder" cannot be exorcised. It seems to me that the question is not how to explain human action completely as mechanical but, rather, to what extent the metaphor of mechanism is appropriate and to what extent it is not.

In a more recent version, William Glasser applied the cybernetic model to a new sort of behavioural psychology, called BCP (Behaviour: the Control of Perception Psychology). Like Powers, Glasser rejects the stimulus-response model of behaviourism. He argues that "because we are living creatures we are moved by inside forces. While outside forces affect what we may choose to do, they do not cause us to behave in any particular or consistent way" (1981, 2, emphasis added). Recognizing the inability of behavioural science to predict human action, Glasser goes on to devise a model consistent with that unpredictability. He presents the human "system" as a sophisticated feedback system between the "external world" of incoming perceptions and the "internal world" of needs. At the risk of oversimplifying his model, when incoming perceptions do not meet our needs, an "error" signal occurs, stimulating behaviour that intends to change perception so as to eliminate the error.

Instead of being driven by outside forces, we are "driven by powerful internal forces that push us not only to survive, but toward belonging, worthwhileness, fun, and freedom" (1981, dustjacket). They "push", but they do not "cause".

Glasser's model is admittedly an ingenious and helpful way to think the mechanistic dimension of behaviour. As such, it is no closer to understanding the crux of human action than Powers'. In these models, the so-called "inside" is *enframed*: enclosed within an objectivist system. They all leave behind a "ghost", which escapes the model and transcendentally "sets" the needs of the organism. The problem stems from the fact that, in all such models, "inside" does not allude to something qualitatively different from and irreducible to what is alluded to by "outside". Here we arrive at the barrier, that "most difficult point, that is, the bond between the flesh and the idea, between the visible and the interior armature which it manifests and which it conceals" (Merleau-Ponty, 1968, 149). At this juncture we see clearly what is at issue: the *bond* between impression and idea, which is the very experience that needs elucidation.

In summary: Just as we must assume the uniformity of nature in order to prove it, so also objectivist method presupposes the lived perceptual experience of its practitioners. An important theme introduced here will continue to emerge throughout this text: that the evidence in favour of scientific theories presupposes the validity of the very human perception that is brought into question by the theories and for which hypothetical entities are invoked so as to explain what is "really" going on—as opposed to what we perceive to be going on. I will argue that not only can we not escape the subjectivity that is at the heart of all our attempts at objectivity, objectivity emerges and has its home at the very heart of subjectivity.

To put the point differently, what was assumed to be objectivity and to entirely escape lived experience is in actuality *intersubjectivity* and wholly intertwined with and dependent upon first-hand experience. Both Hume and Merleau-Ponty conceived of the portions of experience that count as objective as all having a subjective "lining", which is not detachable. As Hume observed at the very outset, "All the perceptions of the mind are double, and appear both as impressions and ideas" (T. 3). Experience is,

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if you like, "two sided". Although inseparable, the two sides are nonetheless distinguishable. Both Hume and Merleau-Ponty wanted to understand how, to borrow Merleau-Ponty's words, "the passage from the self into the world and into the other is effected, at the crossing of the avenues" (1968, 160). Chapters two and three will attempt to elucidate some principles these thinkers have in common so that we may reconceive causality in a manner adequate to our experience of freedom.

Advent of the Flesh of the World

The pull of the subjective side of human experience is strong; it resolutely continues to challenge the push of objectifying forces and may just indicate something even more real than what is knowable through scientific method. Just as we would not agree that diamonds are not real because steel tools cannot cut them, so we should not acquiesce to the rhetorical devaluation of the subjective simply because it will not submit to classification and definition by methods appropriate to objective research. Gary Madison put the point concisely:

La vie, c'est quelque chose qui ne peut pas être *expliqée* objectivement, c'est quelque chose qui doit être *compris* intérieurement, par un *sujet* luimême vivant. Ce n'est pas par une analyse objective, mais seulement par une sorte de sympathie^F véçue que nous pouvons comprendre ce qu'est la vie (1974, 117).

FIRST STEPS TOWARDS A DE-RATIONALIZATION OF CAUSALITY In the eighteenth century, David Hume realized that he had discovered something about causality that would scandalize²¹ his contemporaries.

²¹See T., 167: "But tho' this be the only reasonable account we can give of necessity, the contrary notion is so riveted in the mind from the principles above-mentioned, that I doubt not but my sentiments will be treated by many as extravagant and ridiculous. What! the efficacy of causes lies in the determination of the mind! As if causes did not operate entirely independent of the mind, and wou'd not continue their operation, even tho' there was no mind existent to contemplate them, or reason concerning them.. Thought may well depend on

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F This position is entirely in keeping with Hume's doctrine of sympathy. See, for example (T., 316-7): "No quality of human nature is more remarkable, both in itself and in its consequences, than that propensity we have to sympathize with others, and to receive by communication their inclinations and sentiments, however different from, or even contrary to our own. This is not only conspicuous in children, who implicitly embrace every opinion propos'd to them; but also in men of the greatest judgment and understanding, who find it very difficult to follow their own reason or inclination, in opposition to that of their friends and daily companions. To this principle we ought to ascribe the great uniformity we may observe in the humours and turn of thinking of those of the same nation; and 'tis much more probable, that this resemblance arises from sympathy, than from any influence of the soil and climate, which, tho' they continue invariably the same, are not able to preserve the character of a nation the same for a century together".

He argued that causality, the necessary connection among objects, is, like morality, not independent of first-hand experience.²² In other words, since experience is always someone's—as well as *of* something—causality has a first-hand component, an ineradicable personal component. In saying this, Hume was not denying that the operations of nature are independent of thinking and reasoning, that is, independent of conscious processes. He held, as common sense demands of us all, that such relations among objects as contiguity and succession and repetition must be thought independent and antecedent to understanding (T. 168).

To put the matter in a slightly different light—as Hume himself readily admits ("I allow it" (T. 168))-all experience is, of course, of a world. Hume emphatically maintained, however, (and in this he is followed by phenomenologists such as Merleau-Ponty²³) that experience is just as undeniably—and is primarily—for someone.²⁴ Hume made explicit a tacit dimension of experience, the personal component in causality, which had hitherto been regarded as impersonal, as entirely other than human.

Hume was attempting to bring a new turn to the thinking of philosophers. He brought the practical, a largely tacit dimension of experience, into focal awareness. Chapter two will argue that Hume

causes for its operation, but not causes on thought. This is to reverse the order of nature, and make that secondary, which is really primary. To every operation there is a power proportion'd; and this power must be plac'd on the body, that operates. If we remove the power from one cause, we must ascribe it to another: But to remove it from all causes, and bestow it on a being, that is no ways related to the cause or effect, but by perceiving them, is a gross absurdity, and contrary to the most certain principles of human reason". 22 Hume saw his position on understanding as consistent with his views on morality (T. 455): "I am not, however, without hopes, that the present system of philosophy will acquire new force as it advances; and that our reasonings concerning *morals* will corroborate whatever has been said concerning the understanding and the passions". He urges here, at the opening of Book III, just as as the beginning of Book I, that "nothing is ever present to the mind but its perceptions; and that all the actions of seeing, hearing, judging, loving, hating, and thinking, fall under this denomination" (T. 456). 1 ____ Auto me tanenganne 23 Merleau-Ponty defended his right to incorporate Hume into his viewpoint against the objections of Émile Bréhier, in his defense of *the Phenomenology of Perception* (1964, 29). ²⁴For a concise summary of the phenomenological position on the primacy of perception, see G.B. Madison (1974). For a detailed and convincing account of Hume's doctrine of the dimensionality of perception, see Donald Livingston (1984, for example, 48): "The term 'perception' is meaningless outside of a system, and, as it turns out in book I, part IV, three systems are required which are in conflict (the popular system, phenomenalism and the doctrine of double existence). The tension is resolved only from the transcendental perspective of 'true philosophy' which legislates that we are to think of perceptions as having internal and external dimensions. If so, then the term 'perception' must contain this tension within itself not because of Hume's carelessness or looseness of expression but because of the way our thinking goes".

showed causality to be not primarily theoretical but practical. He showed that the natural relation and not the philosophical relation is primary. The practical domain, which Hume called custom or habit, is the wellspring from which such regularities and expectations as those we call "forces" and "laws" are drawn.^G Hume was introducing a new style of thinking; his rhetorical strategy was first to clear the ground of prejudice. He therefore deconstructed the classical notion of substance, of an unchanging, identical essence,²⁵ arguing that this presupposition is not observational. He suggested that, in everyday experience, identity requires change; certain sorts of changes, for example, are required for the existence and are, therefore, incorporated within the meaning of natural objects (e.g. "tree" and "river"). Identity does not in practice require any ontological commitment to the idea of *substance*, but emerges in the first place from the experience of and from the language of natural objects.

Looking at Hume's rhetorical strategy, we may see that he followed Aristotle's. He reevaluated the side of the sense/intellect pair that had been devalued by Platonic rhetoric but which could not, of course, be eliminated;²⁶ to put this differently, Hume insisted upon the primacy of the practical over the theoretical. We might consider Hume's project as a Copernican revolution in philosophy because it reversed the traditional sense/intellect pair derived from Plato. For Hume, ideas form, so to speak, the lining or *doublure* of the sensible. This is not to denigrate their importance, since, for example, without them there could be neither time nor space;^H they are an active²⁷ part of lived experience. Nonetheless,

 27 For Hume ideas can cause impressions, such as passions.

^C See (T. 125): "The idea of cause and effect is derivid from experience, which presenting us with certain objects constantly conjoin'd with each other, produces such a habit of surveying them in that relation, that we cannot without a sensible violence survey them in any other". ²⁵For a detailed account of this deconstruction see my "Individuation and Causality in Hume", M.A. Thesis, unpublished, SFU, 1992. ²⁶As Chaïm Perelman notes (1979, 74): "Loci of quantity and loci of quality propose choices

²⁶As Chaïm Perelman notes (1979, 74): "*Loci* of quantity and *loci* of quality propose choices to us. They do not destroy totally what they reject. To whoever admits a *locus*, the antithetical *locus* is not necessarily unattractive; one of the values in discussion can be depreciated but it continue s to exist".

^H See (T. 196): "I receive a letter, which upon opening it I perceive by the hand-writing and subscription to have come from a friend, who says he is two hundred leagues distant. "Tis evident I can never account for this phænomenon, conformable to my experience in other instances, without spreading out in my mind the whole sea and continent between us, and supposing the effects and continu'd existence of posts and ferries, according to my memory and observation."

ideas do not inhabit a different realm from sensible experience; they cling to the sensible.

Hume's first principle initiated the phenomenological project, which, as Merleau-Ponty wrote, "puts essences back into existence, and does not expect to arrive at an understanding of man and the world from any starting point other than that of their 'facticity'" (1962, vii). To put the point differently, unlike the Platonic tradition's love affair with the eternal and disembodied as home of unchanging essences, phenomenology concerns itself with lived experience and maintains that essences are not to be found elsewhere than within the structures of lived experience; • therefore, the appropriate starting point for our investigations is not in the realm of ideas but in that of experience.

Chapter two will consider Hume's critique of classical notions of essences and Chapter three will show how Merleau-Ponty²⁸ carried forward Hume's critique. At this juncture, it is enough to note that both philosophers saw a need for a thoroughgoing transformation of these notions that are central to our thinking. Merleau-Ponty wrote that phenomenology is "the study of essences; and according to it, all problems amount to finding definitions of essences" (1962, vii). What he is getting at here is the crucial importance of the manner in which we define what we take to be the feature or features without which a thing would not count as the sort of thing it is. We should not take for granted that we know the nature of things; Hume commented, for example, upon the illusory character of the Cartesian assurance that we know the nature of matter and of mind.

Merleau-Ponty's point is rhetorical or, perhaps, one for the philosophy of rhetoric. His point is that philosophical problems facing us today arise from the way that essences have been defined, because it is in language that we think the world. After all, theories, like works of art, are human products and have their most important function in common with other

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²⁸See Madison (1974, 111): "Quand la phénoménologie critiquait la notion de causalité dans la science, ce qu'elle contestait, c'est l'idée d'un déterminisme objectif et la notion d'une nature parfaitement déterminé en soi. C'est ce que Merleau-Ponty appelle 'le préjugé de l'être déterminé ou du monde'. C'est l'idée défendue par le mécanisme déterministe classique que si l'on pouvait déterminer la position de tous les éléments d'un système et la loi de leurs mouvements, on pourrait prédire exactement ce que sera un état futur de ce système."

cultural artefacts. Polanyi articulates the similarity between theories and works of art:

The relation between theory and experience is perhaps even more akin to that established by a work of art which makes us see experience in its own light.... Facts which are not described by the theory create no difficulty for the theory, for it regards them as irrelevant to Itself. Such a theory functions as a comprehensive idiom which consolidates that experience to which it is apposite and leaves unheeded whatever is not comprehended by it (1962, 47).

Considering the centrality of language to the way the world is for us, it is not surprising that establishing an existential understanding of language is a major philosophical focus of our century. Polanyi's position is right in line with Merleau-Ponty's. Polanyi writes: "To modify our idiom is to modify the frame of reference within which we shall henceforth interpret our experience; it is to modify ourselves" (1962, 105). This • century's focus has increased our awareness of how language and the world are interdependently related. Chapters three and four will take up the issue of definitions in more detail. At this juncture, we need to note that how we define things determines what relationships will be appropriate and inappropriate to them. Definitions, therefore, establish frames of reference within which thinking operates.²⁹ Change definitions and thinking consequent upon them changes. What requires study, then, is how best to define essences. This is, I want to emphasize, no mere theoretical but primarily a practical concern, since the language we choose not only expresses but also transforms experience.

A NEW TYPE OF BEING

As we shall see in Chapter two, Hume made explicit the role of language in causality and, hence, in the manufacturing of reality. In Chapter three, we will consider how Merleau-Ponty's rhetorical transformation of experience, of perception, into *flesh* is informed by Hume's insight into the phenomenological double-sidedness of experience. What Hume struggled to express as "phænomena", which he then categorized into "impressions" and "ideas", Merleau-Ponty called "phenomena" in his early work and, in his later work, "flesh". For now, it suffices to say that both Hume and Merleau-Ponty directed our attention to lived

 $^{^{29}}$ For a mathematico-logical defense of the claim that the laws of experience follow from an initial act of individuation, see G. Spenser Brown (1972).

experience—as opposed to our ideas of experience. In order to begin to understand the concept of *flesh*, one must first notice that of which everything is constituted, not theoretically, but right here in lived experience. One must notice that element of experience that goes mostly unnoticed. Just as fish live in water, we live in the flesh.

Some reader is no doubt wondering, "Why 'flesh'?" In the first place, flesh is the most bodily of bodily terms. Merleau-Ponty^I subscribed to the Humean revolution; he wrote: "One must see or feel in some way in order to think" and "Every thought known to us occurs to a flesh" (1968, 146). The point is that the idea of pure consciousness, entirely free from the messiness of contingency and temporality is something of which we have no experience. It might be helpful in attempting to understand the concept of flesh to compare Merleau-Ponty's way of writing it to Hume's.

First consider one of Merleau-Ponty's articulations:

Sure as it is that I see my table, that my vision terminates in it, that it holds and stops my gaze with its insurmountable density, as sure even as it is . that when, seated before my table, I think of the Pont de la Concorde, I am not then in my thoughts but am at the Pont de la Concorde, and finally sure as it is that at the horizon of all these visions or quasi-visions it is the world itself I inhabit, the natural world and the historical world, with all the human traces of which it is made—still as soon as I attend to it this conviction is just as strongly contested, by the very fact that this vision is *mine* (1968, 4-5).

This passage focuses upon the proximity, the contiguity, of two fundamental dimensions of experience: the *of a world* and the *for someone*. At one moment objects in the world demand our attention; at the next we recognize that the colours, sounds, smells, tastes, textures of those objects are our own perceptions. This shift from one dimension of experience to another is perplexing; repeating and reversing the shift makes some people giddy, causes vertigo or even panic in others.

Now have a look at one way that Hume approaches the matter:

It has been observ'd, that nothing is ever present to the mind but its perceptions; and that all the actions of seeing, hearing, judging, loving, hating, and thinking, fall under this denomination. The mind can never exert itself in any action, which we may not comprehend under the term of *perception* (T. 456).

What Hume wanted his readers to notice is that as much as the world is present to us, as much as we see, hear, judge, love, hate, and think of - 2

¹See (1968, 152): "We will therefore have to recognize an ideality that is not alien to the flesh, that gives it its axes, its depth, its dimensions".

objects in the world, we must admit that all of that may also be classified as perception. His insight into the fundamental ambiguity, the fundamental double-sidedness of experience^J is the seed of Merleau-Ponty's notion of *reversibility*, which is fundamental to flesh. These two notions and how they constitute developments of Hume's initial insight will be focal points of our attention in Chapter three. For now it suffices to say that the very facticity of experience, its existential hereness and nowness, is what Merleau-Ponty calls *flesh* (*la chair*). Vision, and by extension other sensory experience—at the risk of frightening readers off—may be thought as moments where the surface of the visible is folded back upon itself (1968, 152).

Later on, we will explore the domain of *flesh* more extensively. For present purposes we need to bear in mind the most important respect in which Merleau-Ponty's "definition" of ideas differs from the objectivist. An idea is "not the contrary of the sensible, [it] is its lining and its depth", (1968, 149). Of *ideas*, Merleau-Ponty wrote:

(They) cannot be detached from the sensible appearances and be erected into a second positivity. The musical idea, the literary idea, the dialectic of love, and also the articulations of the light, the modes of exhibition of sound and of touch speak to us, have their logic, their coherence, their points of intersection, their concordances (1968, 149).

In this passage Merleau-Ponty maintained that ideas cannot be totally abstracted from the bodily dimension and made to form a separate realm of existence. This is so because, if we look and see, we will notice that ideas are the *doublure* of the sensible; the two dimensions cannot be separated. It is the lived world that is the true home of intellect and ideas; it is in the lived world (as opposed to an a priori realm of *forms*) that the logic of the world is to be found.

Hume noticed that it is entirely natural to think that there "may be several qualities both in material and immaterial objects, with which we are utterly unacquainted" (T. 168). Like Hume, Merleau-Ponty recognized that we cannot help but imagine "forces" and "laws" to account for regularities in experience. Such notions serve to guide our thinking but

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^J See (T. 2-3, emphasis added): "The first circumstance, that strikes my eye, is the great resemblance betwixt our impressions and ideas in every other particular, except their degree of force and vivacity. The one seem to be in a manner the reflexion of the other; so that all the perceptions of the mind are double, and appear both as impressions and ideas".

are not profitably thought of as hidden behind the screen of lived experience, which will one day (when we have disembodied ourselves) be lifted. Merleau-Ponty's position is that ideas would not be better known to us if we had no body, if we could escape lived experience. In fact, it is then they would be inaccessible to us. As Merleau-Ponty wrote: "They could not be given to us *as ideas* except in a carnal experience" (1968, 150). This is Merleau-Ponty's way of expressing Hume's first principle. If an idea is *of a sensible impression*, then there is no idea independently of \Rightarrow an impression. "Ideas are the invisible *of* this world; they inhabit and sustain it; they have been acquired only through their commerce with the visible" (1968, 150-1).^K Like the young of the pelican, ideas are nourished from the very heart of the sensible.

To sum up our direction: Hume's first principle brought mind and body together; Merleau-Ponty's *flesh* ontologizes that union. The shift of awareness emerging in Hume's idiom initiated what in twentieth century phenomenology developed into a change in our interpretation of the world: the word became flesh,^L expressing the reality of the *hereness and nowness* of self-conscious experience.

The Opening of the Horizon

Phenomenology followed Hume's lead; it is the discipline of critical perception, of attention to common life. Like Plato's philosophy, phenomenology has an emancipatory function. David Michael Levin describes that function:

The discipline of critical perception: the meticulous, exacting discipline of attention to our life-world, to what we are experiencing in the course of our daily lives ... a method which teaches us to see what previously was not to be seen. In particular, we shall give hermeneutical phenomenology a diagnostic, and therefore potentially emancipatory function, using its powers of awareness to bring to light, through the channels of our experience, the sufferings and needs of our time (1988, 34, emphasis added).

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K See also (T. 3-7).

^L See Merleau-Ponty (1968, 153): "Pure ideality is itself not without flesh nor freed from horizon structures: it lives of them, though they be another flesh and other horizons. It is as though the visibility that animates the sensible world were to emigrate, not outside of every body, but into another less heavy, more transparent body, as though it were to change flesh, abandoning the flesh of the body for that of language, and thereby would be emancipated but not freed from every condition".

Levin diagnoses the nihilism of our time to be the result of objectivism. To emancipate ourselves from objectivism requires that we revisit and redefine subjectivity. It will come as no surprise to the reader, therefore, to find that the words "experience", "perception", and "flesh" are redefined so as not to allude to what is traditionally conceived as "the subjective". Subjects are no longer thought to be atomic, isolated individuals.^M "We" are not locked inside any padded cells, whether of sense data or of language. "We" are not brains in vats being stimulated by some *mal génie* or mad scientist. Phenomenology frees us from those , ways of thinking ourselves; "we" are neither subjective nor objective in the traditional sense of these terms. "We" cannot say *what* we are, because we are not whats.

Let us see how phenomenology redefines these ideas. Shortly before his death, Merleau-Ponty wrote:

It is necessary to suppress the causal thought which is always: view of the world from without, from the point of view of a Kosmotheoros with, in anti-, thesis, the antagonistic and inseparable movement of the reflective recuperation—I must no longer think myself in the world in the sense of the ob-jective spatiality, which amounts to autopositing myself and installing myself in the *Ego uninterressiert*—What replaces causal thought is the idea of transcendence, that is, of a world seen within inherence in this world, by virtue of it, of an Intra ontology, of a Being encompassing-encompassed, of a vertical, dimensional Being, dimensionality—And what replaces the antagonistic and solitary reflective movement (the immanence of the "idealists") is the fold or hollow of Being having by principle an *outside*, the architectonics of the configurations (1968, 227).

This passage in Merleau-Ponty is admittedly difficult. This should not deter us. We should both expect and accept some difficulty, since Merleau-Ponty was attempting to think what had not been thought before. He was making explicit a tacit understanding that has been approaching consciousness since at least Hume's time. This passage summarizes phenomenology's critique of objectivism as it applies to the notion of causality. It criticizes the objectivist obsession with escaping

^{M.} See (T: 363): "In all creatures, that prey not upon others, and are not agitated with violent passions, there appears a remarkable desire of company, which associates them together, without any advantages they can ever propose to reap from their union. This is still more conspicuous in man, as being the creature of the universe, who has the most ardent desire of society, and is fitted for it by the most advantages. We can form no wish, which has not a reference to society. A perfect solitude is, perhaps, the greatest punishment we can suffer.... Whatever other passions we may be actuated by ... the soul or animating principle of them all is sympathy; nor wou'd they have any force, were we to abstract entirely from the thoughts and sentiments of others".

the lived world, with attempting to get beyond experience so as to view it in its entirety. It accuses that method of creating an insuperable polarity: on the one hand, the attempt to flee the contingency and the temporality of lived experience and, on the other, the inevitable fall back into what on those grounds can only be conceived as wayward and transitory. This passage also suggests a new paradigm of causality, one which—as Chapter three will indicate—incorporates the limitations of the flesh and thereby finally finds its *freedom*.

THE PRIMACY OF PERCEPTION

Hume's first principle will take centre stage in Chapter two, which suggests adopting it as the fundamental principle for a postmodern reconceptualization of causality. At this juncture, we move on to discussing another inadequacy of objectivistic science: its inability to allow the human subject to speak.

First a point about the rhetoric of science: The entire enterprise of the physical sciences is designed to support a privileged ontology, whose fundamental components are as a priori as any conjured up by any Philosopher. In the first place, electrons, protons, and nuons, for example, are none of them accessible to experience. What we experience are tables and chairs, trees and flowers, ocean and river, sun and stars. Nowhere do we confront an electron. Even cloud chambers show us none, only their "traces".

This objection cannot be rebutted by phenomenalist lines of argument, such as that we do not really see tables and chairs but only the "traces" of tables and chairs, for example, in the images that light projects on our retinas. This argument operates by theoretically breaking apart the lived relationship between experience and object that Hume established in his phenomenological reduction (T. 196).³⁰ In suggesting that we see only traces of objects, this argument drives a wedge between us and the world, a strategy analogous to the one that posits theoretical objects such as electrons in the first place and whose rhetorical purpose is to make the positing of such objects more plausible. It also opens the way to posit objects that are entirely theoretical and completely inaccessible to experience.

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³⁰Please recall the earlier argument in the section "Hume's Phenomenological Reduction".

We find examples of this strategy applied to all modes of sense perception in D.L.C. Maclachlan (1989). Maclachlan begins by defining perception as subjective, moves forward on the basis of suggestions that we do not, for example, really hear cars and trucks, but only sounds and noises, and reaches the conclusion that "The World" is in principle inaccessible to direct perception. In other words, Maclachlan argues that perceived objects are somehow subjectively constituted from sensations, which are "caused" by "The Real World". Maclachlan's purported "causal" inference to a "Real World", which, in turn, causes our perceptions, does not provide the sort of assurance that he is after. At the end of the day, we must count this view as sceptical, since it leaves our immediate sensory experience out of touch with reality.

To put this differently, the argument presupposes the relationship between us and the world³¹ but, instead of helping us to understand that relationship, it debilitates the relationship by putting the real object entirely outside of possible experience. Please notice that we have here a twentieth century version of the doctrine of double existence, which Hume (T. I, IV, iv) thoroughly deconstructed: "The fundamental principle of that [modern] philosophy is the opinion concerning colours, sounds, tastes, smells, heat and cold; which it asserts to be *nothing but* impressions in the mind, deriv'd from the operation of external objects, and without any resemblance to the qualities of the objects" (T. 226, emphasis added). Chapter two will articulate Hume's reasons for finding this approach unsatisfactory.

Secondly, there is a further point of rhetoric, which illustrates Merleau-Ponty's claim, mentioned earlier, that "all problems amount to finding definitions of essences" (1962, vii). Studies such as Alan G. Gross (1990) has made of the rhetoric of science³² reveal the significance of the claim that language creates the world, by showing how the objectivist project deploys the possibilities of grammar (e.g., the use of the passive voice and the making of physical events and objects the subjects of discourse (Gross (1990, Chapter 5)) in creating and maintaining its

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³¹On Hume's account of the relationship between individuation and causality, discussed in section ("Hume's Phenomenological Reduction"). ³²For a study of how the language of science is applied in economics, see Donald N.

³²For a study of how the language of science is applied in economics, see Donald N. McCloskey (1985).

ontology. The scientific use of language foregrounds the object at the expense of the subject. What is ignored is, precisely, the *doublure* that Hume's first principle makes explicit. This is not to say that scientific language is arbitrary; not at all, the practice makes sense in the context of the goals of science. What is arbitrary is the globalization of objectivist practice to the detriment of other sorts of practice. What is unacceptable is the claim that this method—a linguistic practice taken up for the sake of scientific clarity—reveals the one and only true nature of the world.

THE PRACTICE OF THEORY OR THE THEORY OF PRACTICE?

What is pushed into the background and remains unacknowledged by the scientific ontology is its tacit appeal to perception. This is why Merleau-Ponty said, of science, that it presupposes the perceptual faith and does not elucidate it. This is not to say that we should abandon scientific practice, but rather that we must be sensitive to its limitations. The popular philosophical fable about Mary the scientist, who grew up confined in a black and white environment, plainly illustrates my point. The aim of the fable is to make it plausible to say that someone might be said to have knowledge of colour by means of theory alone, in order to establish the possibility that knowledge might be said to be independent of perception. To put this differently, the aim is to say that nothing is added to knowledge by the phenomenological dimension.

Mary is well educated in the reading of wave lengths that are associated with the visible spectrum, but has no lived experience of colour. She "knows", for example, that a certain wave length signifies red, another blue, another green, and so on, but has never seen the colours that the wave lengths represent. She knows how, for example, to use the words "red", "blue", "green", and so on correctly, to make reference to the wave lengths that are purported to be all that those colours amount to. The question is "Are we willing to say that Mary has knowledge of colour?"

As is very often the case with such fables, this question arises out of a perspective that actively overlooks the human context of lived experience from which the abstract world of the fable is generated, and which readers and writers must tacitly assume in order to make sense of the fable in the first place. This fable suggests that a perfectly black and white environment is possible. The purveyors of this story seem never to have taken the time carefully to observe the phenomenon of perceiving a "white" wall, or a "black" wall for that matter. What evidence is there for a definable real-world quality of whiteness or blackness independent of our perception? There is none.

I want to suggest, to the contrary, that the perception of colour is what is universal. Let us ask a painter, one who works with colour, one with a high degree of consciousness, one who, for that reason, draws a strong distinction between colour theory and colour phenomena.³³ Anyone who has taken the time to look and see-and it does take both time and willingness—and who is not entirely a slave to the regularization that busywork demands of our senses knows that "white" may be, as painter Barbara Caruso's work demonstrates, red-white, blue-white, or yellowwhite, and that "black" may be red-black, yellow-black, or blue-black. Caruso puts these words in quotation marks because they are shorthand for what is in fact a wide variety of colour perception. When only one black pigment and one white pigment are used in a configuration on a sufficiently small plane surface such as a painting, because they are in highest contrast to each other, they may give the effect of a "perfectly" black and white experience. Nonetheless, colours are inherent to that black and that white.

Moreover, Mary's "environment" is not likely a plane surface. In a three-dimensional environment, subtle colours are born simultaneously with the perception of "black" and of "white". Her world is somehow illuminated, so one can assume that any objects in the environment will cast shadows. If we call the shadows "grey", we also must acknowledge them to be various. The colour of the shadows will vary in relation to the position of the source of the light, the position of the object, the density of the object. and the quality of illumination (e.g. daylight is cool white light; incandescent light is warm, yellow light; fluorescent is cool blue).

³³I want to acknowledge a debt to Barbara Caruso and to thank her for sharing her insight into colour with me, although, of course, I am responsible for the use of the material in this context. Readers who wish to pursue this investigation further are directed to Caruso (1986).

TATAL CARACTERISTICS AND ADDRESS

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Consider some thoughts that Caruso has written on the purported "purity" of colour:

Theory is supposition, the stuff of the mind; the artist's colours are pigment, the stuff of paint ... 'Pure' colour in the ideal context does not exist in nature.

Consider red. One red pigment (cadmium) reflects red rays and some yellow, and can be said to 'lean' toward yellow. Another red pigment (crimson) reflects red light rays and some blue, and can be said to lean towards blue... Green is the complement of red, and when intermixed with it yields *black* (1986, 26-7).

Caruso's explanation of the experience of colour in this passage appears to follow Newton's theory. Nonetheless, Caruso observes that theories such as Newton's, which are concerned with light,

ignore the nature of 'the coloured thing' which divides white light as a prism divides it. A coloured thing reveals some light rays by reflecting them, and absorbs others ... Colour theories of the mind examine individuals' responses to color, seek those responses common to the greatest number of individuals and present these responses as if they were characteristic of the colours. (These, more properly, are the characteristics of those individuals) (1986, 30).

Explanations of colour perception. I submit, are subject to the same critique as that of explanations of perception in general: they presuppose what they seek to explain and make what is derivative (e.g., theoretical entities such as "light rays") primary. In fact, it is the lived experience of colour and of its activity that is primary. It is the lived experience of colour, and of course of shape, with which artists work and which artists like Caruso seek to share with others.

Caruso concludes:

Over and over again, the event of the painting denies the theory. It is the event that declares its own meaning. The theory must be restructured (1986, 43).

The idea that anyone could be entirely restricted from perception of any colours but "black" and "white" is, I submit, a product of the disease of abstraction. After all, even Mary's ascetic environment would have to be lighted, and white light is producible from and refractable into all colours. If we trouble ourselves to look and see (as opposed to thinking in fanciful abstraction about the matter), we will notice that colour emerges from its context in interaction with human perception, even from the perception of white or of black (Caruso, 1986, 31). Which colour emerges is partly determined by what has just been perceived, as is evident when we saturate our eyes with a colour and then look at a "white" wall.

The philosophical tale of Mary the scientist is an abstraction that creates distortions when applied to reality. It overlooks the fact that in order for Mary to know that wavelength x is associated with, say, that shade of blue, the association had first to have come from someone's own lived experience. Mary's "knowledge" is derived from someone else's experience, just like my knowledge that England exists, since I have not been there but others have.³⁴ Without others' lived experience, Mary could not have her own-I would say limited-knowledge. To say that Mary has knowledge in the full sense seems to me like saying that cargo cults have, in the full sense, the goods that drop from the sky into their midst. Without the cultural, experiential context that supports and informs her, Mary could not do whatever it is that she does with her socalled knowledge.

To have knowledge in the full sense—that is, to understand—one must have lived experience of what a concept means. As James insisted:

To understand a concept you must know what it means. It means always ' some this, or some abstract portion of a this, with which we first made acquaintance in the perceptual world, or else some grouping of such abstract portions. All conceptual content is borrowed: to know what the concept 'color' means, you must have had some experience, active or passive, thereof. This applies as much to concepts of the most rarifled order as to qualities like 'bright' or 'loud' You can create new concepts out of old elements, but the elements must have been perceptually given ... Whether our concepts live by returning to the perceptual world or not, they live by having come from it. It is the nourishing ground from which their sap is drawn (1977, 245)

The same point applies to theories. Without the intimate connection to lived experience that James points out in this passage and that Hume insisted upon in his first principle, concepts and the theories incorporating them become empty and illusory, leading inevitably to a false philosophy. This is why phenomenological hermeneutics insists that • "concept" means a working out in action, in opposition to the rationalist view of concepts as independent of "mere lived experience". The truth of a concept is not separable from its working out in practice.³⁵

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³⁴The same point is addressed to Jeffrey Foss' contention (1987, 512), that "There is nothing which could be either said or otherwise done by the bearer of biblical knowledge of a state of consciousness which could not equally well be said or done by someone having only cognizant knowledge of that state". ³⁵For a more detailed discussion of this claim, see my (1994, 126-29).

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To summarize: Hume and Merleau-Ponty tried to explain how we come to know the world in a way that does justice to perception.^N Objectivist approaches fail to provide adequate accounts of perception because they ignore the lived experience that is the basis from which all theory ultimately derives and which is the ultimate measure against which all theory will be measured—not the other way around. By overlooking its own tacit assumption of lived experience, the impressive power of objectivism creates the conditions of its own weakness by cutting itself off from its source of strength. Perception is the nourishing ground in which the roots of concepts must be dipped, or else they cannot maintain the strength required to support the spreading branches of the tree of knowledge.

^N See, for example, (T., 217): "I begun this subject with premising, that we ought to have an implicit faith in our senses, and that this wou'd be the conclusion, I shou'd draw from the whole of my reasoning". Merleau-Ponty follows Hume in this premise. See, for example, (1968, 3): "We see the things themselves, the world is what we see: formulae of this kind express a faith common to the natural man and the philosopher—the moment he opens his eyes; they refer to a deep-seated set of mute 'opinions' implicated in our lives". Both philosophers recognized, along with Saint Augustine, that the problems begin when we try to articulate what we cannot but take for granted. See Hume, (T. 217), where, after an extended bout of trying to articulate this faith, he says: "To be ingenuous, I feel myself at present of a quite contrary sentiment, and am more inclin'd to repose no faith at all in my senses, or rather imagination, than to place in it such an implicit confidence". Echoing him, Merleau-Ponty writes: "What is strange about this faith is that if we seek to articulate it into theses or statements, if we ask ourselves [as Hume did] what is this we, what seeing is, and what thing or world is, we enter [along with Hume] into a labyrinth of difficulties and contradictions" (1968, 3). Merleau-Ponty could have been looking at the Conclusion to the Treatise when he wrote these lines. See also (T. 264-5).

CHAPTER TWO

THE MEANING OF CAUSALITY

Phenomenology³⁶ can be practised and identified as a manner or style of thinking (Merleau-Ponty, 1962, viii).

I shall venture to affirm, as a general proposition, which admits of no exception, that the knowledge of this (causal) relation is not, in any instance, attained by reasonings *a priori;* but arises entirely from experience. (E_1 , 27).

Hume sifted through the qualities of phenomena in his search to discover on what phenomenological basis, in actual practice (since we have never in fact accomplished access to the inaccessible), we draw the distinction between what is real and what is imaginary. His search terminated in the relation of cause and effect. This chapter elucidates Hume's most important contribution to the study of this relation: his insight into the ambiguity of experience. This ambiguity is expressed as two fundamentally differing accounts of what, nonetheless, continues to count as the same experience. These differing accounts make us think of phenomena as subject and as object. Objective accounts are associated with what Hume called the "philosophical relation" of causality; subjective accounts are associated with the "natural relation".

The Natural Relation: a Condition of Reality

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The relation of cause and effect is requisite to persuade us of any real existence (T. 109).

Tho' the mind in its reasonings from causes or effects carries its view beyond those objects, which it sees or remembers, it must never lose sight of them entirely, nor reason merely upon its own ideas, without some mixture of impressions, or at least of ideas of the memory, which are equivalent to impressions. When we infer effects from causes, we must establish the existence of these causes; which we have only two ways of doing, either by an immediate perception of our memory or senses, or by an inference from other causes (T. 82-3).

Because the perspective of the philosophical relation leaves lived experience out of its frame, from that point of view alone causality amounts to no more than constant conjunction between two

³⁶From φαινω, to shine forth, to be apparent or manifest.

independently existing objects. Any two things may be imagined as conjoined. The philosophical relation has no means at its disposal to do justice to the sense of necessity that is central to the meaning of causality; from the perspective of reason alone, everything seems loose and disconnected.³⁷ Somehow (perhaps because his point is subtle and ambiguity is so difficult to articulate clearly), Hume's insight into the limitations of reason has been taken to be his position on causality. I will argue to the contrary, that Hume's doctrine of causality is first and foremost one that directs our attention to the importance of the natural relation as the basis for the idea of necessity in causality. I will try to show that Hume recognized that, for something to count as causally connected and, therefore, as real, it must (to use James' way of talking) make a difference to our sense experience. I will argue that, without this sense of making a difference, any comparisons between objects upon the basis of constant conjunction never amount to more than imaginary juxtapositions. For something to count as real it must make some sort of difference to lived experience.

This *sense* of connectedness, of making a difference, is nowhere to be found in the philosophical relation, which is but an abstract comparison of ideas. It is to the natural relation we must turn for the locus of connectedness, for any *association* of phenomena, for example, of ideas with impressions. It is to the natural relation we must turn for the *lived inference* from which the meaning of "causality" stems. The epitome of this sense of connectedness is volition. In volition, we *feel* the connection between our attempts to act and the results of our actions. This sense of connectedness is characteristic of (normal) human experience.

Connections among objects are not so universally acknowledged. What one person senses as connected, another may not^{38} —due to the differences among us in what count as similarities and, therefore, as constant conjunctions. As a result, there are conflicts of interpretations

³⁷See A. Michotte (1963, 58-63), who concluded from investigations into the phenomena of causality: "The impact was not merely two objects coming into contact, but a whole *process* . . . [which] forms an indivisible whole, and entirely loses its character as soon as the movement is considered in isolation from the resultant situation, that of the two objects being side by side".

³⁸Michotte (1963) has shown that some conjunctions universally and immediately are experienced as causal.

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over what counts as real. Such conflicts over reality have a limit: the lifeworld, the dimension of experience that we all share. The life-world is the largely tacit dimension that we universally cannot but agree has causal significance.

As Madison argues:

The common element is not to be found on the level of symbolic expression (for what is to be found here are different "worlds" or "realities"); it exists rather at the level of lived experience that has not yet been articulated (1982, 131).

Fire and water, for example, act upon us all. Whether we know the laws of physics or not, we can all cross over a river upon a properly constructed bridge.

It is not insignificant that we share the lifeworld with others besides humans, that the universality of causal significance goes beyond human being-in-the-world. As humans, we may be able to discriminate more constant conjunctions and, therefore, be enabled to contrive more sophisticated ways of, for example, fulfilling the need and the desire for warmth than, say, cats or dogs. Nonetheless, if we are outdoors on a sunny day in a shaded area and we desire to be warm, as is the case for other animals, mere imagination or desire is not enough. To put this differently, merely *imagining* constant conjunctions is not sufficient, nor is noticing them and desiring a certain result. In order to *be* warm we must—like other animals—*act* so as to be warm; we may, for example, *move* from the shade into the sun. We rely on past experience and act so as to make a difference—in this case to ourselves. We may say that the sun causes us to get warm under the new conditions. It makes a difference to how we feel.

This making a difference is the condition that distinguishes between the imaginary heat of our desire and the real heat of the sun; it is a condition of reality, the condition of perception that indicates reality. It is this quality of perception that, as Hume noticed, permits us to draw the distinction between what is real and what is imaginary.

It cannot be overemphasized that this condition is no analytic condition of "possibility". It is not a logical condition at all. It is not one that *must* exist somewhere behind lived experience in order to account for the way we experience the world. This condition of perception is

phenomenological: It is a logos visible in phenomena themselves. It is a condition of actuality, one that we actually experience whenever events are associated. When we pay attention to perception, we can notice the lived association that is the natural relation.

This condition is universally accessible to experience; it passes Hume's first criterion for meaningful expression.³⁹ It is an impression of *sense*, beyond which, as Hume observed "there is no room for doubt or enquiry" (T. 83). When we feel the pain associated with getting too close to a fire, we do not doubt that the fire is producing the heat; we do not mistake that feeling for the idea of the pain that a flame can produce. Hume's first principle directs our attention to this everyday distinction (which we all routinely make between impressions and ideas), so as to focus our attention upon the primacy of practice over theory, of perception over abstraction. He applied this distinction throughout his writing, even though he recognized that, oftentimes, ideas also cause impressions (as when, say, the idea of an insult gives rise to a feeling of anger).

Even such ideas are not entirely dissociated from lived experience; someone would have had to have acted in some way for the notion of an insult to have arisen as an interpretation of that person's action. Even the famous "missing shade of blue" is not entirely alienated from lived experience, since the whole history of one's experience of colour and of shades of colour is brought to bear upon imagining the shade one has not yet experienced. Hume does not deny the possibility or even the legitimacy of such ideas. It is ideas that become so dissociated from lived experience as to conflict with it, which, for Hume, are illusions and which cannot but lead to a false philosophy.

TWO VIEWS OF THE SAME OBJECT

As I have indicated, Hume's analysis of causality distinguished two fundamental perspectives on reality, the "philosophical" and the "natural":

There may be two definitions given of this relation, which are only different, by their presenting a different view of the same object, and

³⁹Phenomenological method deals, precisely, with this condition; in this sense, it is an ontology of the present, since it yields theory that makes our own *praxis* intelligible to ourselves. In this way Hume was a proto-phenomenologist; in his theory of causality, for example, he observed common life and thematized what he found there.

making us consider it either as a *philosophical* or as a *natural* relation; either as a comparison of two ideas, or as an association between them (T. 169-70).

The two perspectives to which this passage alludes are those of theory (reason) and of practice (experience). Each perspective has a relation or complex idea proper to it. These ideas are produced either by comparison (the philosophical relation) or by association (the natural relation) (T. 13). It is crucial to understanding Hume's position to recognize that causality does not belong paradigmatically to the "philosophical" domain, to comparison by abstract reason. In fact, we cannot but fail to understand causality when we limit our investigation to the "philosophical" relation. Limiting the search for the causal connection to the philosophical relation to the very lived experience of connectedness from which the idea of causality stems.

The importance of this point cannot be overemphasized, but its significance is easy to misinterpret. Under the influence of Cartesian dualist thinking, Hume's distinction between the natural and the philosophical relations may be taken as maintaining that radical opposition, between what is purely a human product—that is, what has been called the subjective or psychological—and what is entirely other than human (the so-called purely objective and real). Such thinking leads to the view that causality is "merely" psychological, that is, that it has no basis whatsoever in the other-than-human world. It has led some authors to mistake Hume's position as maintaining the cause and effect relation to be an illusion: a glue that we smear upon the universe in the vain hope that we can cement its disconnected pieces together. This is not Hume's view and it should not be ours.

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Hume's scepticism about doubts as well as about beliefs provides a prophylactic against such dogmatic claims. To claim that causal relationships are merely psychological is in essence no different than to claim that they are totally independent of human experience. The one is radical scepticism, which somehow knows that knowledge of causal relationships is impossible; the other is dogmatism, which knows causal relationships to be real. As Hume argued, radical scepticism is just another form of dogmatism:

The sceptical and dogmatical reasons are of the same kind, tho' contrary in their operation and tendency; so that where the latter is strong, it has an enemy of equal force in the former to encounter (T. 187).

Hume insisted that whatever information we have about causal relations emerges in first-hand experience (T. 69). This means that it cannot be entirely psychological; after all, the power of production is nowhere to be found when we merely compare ideas. It is only in the lived inference between events that causality resides. As Hume observed, it is relations of cause and effect that constitute reality; everything that counts as real has that status as a result of some past experience of making a difference. To say that causal relationships are not "ultimately" real is to place in question the basis of what, in practice, differentiates reality from the imaginary. It is to presuppose the very thing that one at the same time puts into question. Such radical doubt thereby makes its own satisfaction impossible. Hume was an advocate of common sense, which can have no truck with such radical scepticism. To suppose that what Hume gives common sense with one hand he takes away with the other is hermeneutically suspect; it would be charging Hume with dashing common sense to pieces to interpret him as saying that the very basis of common life is an illusion.

Causal relationships are fundamental to common sense. Any child who has imagined the glorious pleasure to be had in handling a flame knows the experience of making a difference that constitutes the living reality of the flame. The natural relation, the lived association between events, enjoys an authority over any relationships among ideas in the imagination, an authority that no scepticism can conquer. The radical sceptic's so-called belief in his or her scepticism is belied each time he or she acts. Like the child, the sceptic also knows how volition makes a

difference, when he or she pulls away from a flame and immerses that hand in cold water. What counts as real is a matter of the practice resulting from lived experience; it is a matter of habit or custom, and of the common sense that upholds them.

Instead of treating Hume as a radical sceptic, we should treat him as a proto-phenomenologist, as Husserl and Merleau-Ponty did and as Donald Livingston and Nicholas Capaldi do. Then we can say that our experience of cause and effect establishes the world. Causality, in other words, is not a principle of abstract reason; it is not a condition that makes the world possible. Causality is a principle of lived experience, which makes the world actual. To say this differently, causality is that condition of perception that means "reality".

In order to benefit from Hume's insight into causality, we must steadfastly refuse to accept what some interpreters continue to insist on attempting to saddle him with. Hume moved far beyond what

the necessary conclusion *seems* to be (,) that we have no idea of ' connexion or power at all, and that these words are absolutely without any meaning, when employed either in philosophical reasonings or common life (E_1 , 74).

Too many readers get off the bus too soon. Even James, whose respect for common sense should have made him sympathetic enough to ride to the end of the line, overlooked the word "seems" in this passage and ended up mistaking Hume's critique for a doctrine. James got off at the wrong stop: a "barren 'looseness and separateness' of everything" (1977, 319). Left to itself of course, without lived experience to guide it, that is precisely where reason ends up.

Hume emphasized this point again and again:

All beings in the universe, consider'd in themselves, appear entirely loose and independent of each other. 'Tis only by experience we learn their influence and connexion; and this influence we ought never to extend beyond experience (T. 466).

Reasoning in abstraction makes all things appear disconnected; it is only experience that teaches us of connections, of relationships. The natural relation is a phenomenological connection, one that "we *feel* in the mind [. T]his customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion" (E_1 , 75).

A PHENOMENOLOGICAL ALTERNATIVE

Such a phenomenological approach to causality is far superior to an approach that holds, conversely, that "the subjective necessity of imagination (association) is founded on an objective necessity of this same faculty (affinity)". Even an author who defends such a position, Wayne Waxman, recognizes that the

endeavor to articulate and establish this position involved some of the most intricate, arcane, and ingenious philosophizing ever (1994, 148).

This fact should in itself give us pause. Is such arcane and intricate thinking—no matter how ingenious and intricate—justifiable? Why do we seek to defend the idea that the concrete order discernible in contingent events must have "hidden" behind it an a priori schema? Why should our lived experience of something be thought as the unfolding of a preexisting idea lying hidden deep within reason? Why should we strive to conceive the working out of a concept over time as a "merely empirical working out" of an eternal a priori schema? Why should we not think it as a working out in practice of an idea derived from practice in the first place? So far as I can see, what drives such enterprises is the desire to avoid facing up to *contingency*.

Phenomenology follows Hume in rejecting arcane and tortuously argued appeals to what is unperceivable in order to explain what we do perceive. As Merleau-Ponty asserted, we can account for a priori truths as "nothing other than the making explicit of a fact" (1962, 221). Merleau-Ponty took Hume's empirical approach entirely seriously here. A priori truths need not be thought as the empirical working out of an idea hidden deep within a reason independent of lived experience. We may look and see that such "a priori truths" are in fact ideas so generally ingrained as a result of past lived experience as to be a part of common sense; that is why we cannot imagine future experience without them. When we talk about a priori ideas, what we are doing is making explicit those implicitly held and sedimented ideas.

Hume's account counters the attempt to escape contingency; it offers an alternative to dragging ideas that emerged from contingent events into the domain of analytic necessity.⁴⁰ Has anyone ever shown any merit to

⁴⁰It is arguable but outside the perameters of this discussion that, as Merleau-Ponty suggested, even analytic necessity among ideas is in fact contingently derived. See James

the density and obscurity that gets generated by such thinking, beyond its ability to muffle "the death knell of traditional philosophy" (Waxman, 1994, 149). Hume sounded that death knell with the *Treatise*, by providing an alternative means to achieve objectivity,⁴¹ one that makes no inordinate demands upon our finite capacity for reasoning.

Hume held that any conviction arising from subtle reasoning diminishes in proportion to the efforts that must be made to enter into it (T. 185-6). His approach to argumentation was that of the rhetorical tradition: attaining the *adherence* of one's audience. His first principle is an example of rhetorical *inventio*, of an insight into a common ground in everyday experience. Hume appeals, in other words, to the lifeworld, to what is universal to humanity. In appealing to common experience, Hume practiced what he preached concerning belief: that the efforts of thought required to follow protracted and difficult reasoning disturbs "the operation of our sentiments, on which the belief depends" (T. 185). Any principles arrived at through arcane reasoning will never have the strength of those arrived at "in a more natural conception of the ideas" (T. 185). What is required is an approach appropriate to the nature of belief: a "lively conception, [which] can never be entire, where it is not founded on something natural and easy" (T. 186).

SAYING "NO!" TO METAPHYSICS

When the coherence of the parts of a stone, or even that composition of parts, which renders it extended; when these familiar objects, I say, are so inexplicable, and contrain circumstances so repugnant and contradictory; with what assurance can we decide concerning the origin of worlds, or trace their history from eternity to eternity? (Hume, 1947, 132).

Experiences come on an enormous scale, and if we take them all together, they come in a chaos of incommensurable relations that we can not straighten out. We have to abstract different groups of them, and handle these separately if we are to talk of them at all. But how the

(1977, 74-133) for a discussion of how the a priori might be contingently derived, through the, so to speak, "back door" of experience. Here again is an instance of the two sidedness of experience; what is experienced subjectively as necessary may, from the objective perspective be conceived as contingently derived. (More about the intertwining of subjective and objective in Chapter three).

⁴¹Hume's notion of objectivity is best understood in the light of his doctrine of *sympathy*, which led him to write that "ourself, independent of the perception of every other object, is in reality nothing" (T. 340) and that humans "can form no wish [and no opinion of ourselves (T. 499)] which has not a reference to society" (T. 363). *Sympathy*, therefore, is best rendered using the phenomenological-hermeneutical notion of *intersubjectivity*.

experiences ever *get themselves made*, or *why* their characters and relations are just such as appear, we can not begin to understand (James, 1977, 231).

Hume disturbed philosophy's dogmatic slumber. His critiques undermined the greatest "sophistry and illusion" (E_2 , 165) of traditional metaphysics: the claim that there is "some original principle, which cannot possibly be fallacious or deceitful" (E_1 , 150). Hume threatened the belief, stemming from Plato and Parmenides, in the existence of an infallible and eternally unchangeable reason and corresponding ideas, which are entirely unfettered from lived experience.

Such "ideas" and such a "reason" are, in fact, redundant; they both presuppose and tacitly evoke the very first-hand experience that they purport to call into question:

Neither is there any such original principle (in experience), which has a prerogative above others, that are self-evident and convincing: or if there were, could we advance a step beyond it, but by the use of those very faculties, of which we are supposed to be already diffident (E₁, 150).

Such ideas are not only redundant, they are also dangerous. The mythical element in such beliefs might lead us to say that the metaphysical practice of naming unknown principles or powers and attaching other ideas to them amounts, in practice, to a form of magic. Both philosophy and science are involved in this practice. As Madison observes:

Magic may have its myths, but science, that self-proclaimed demythologizer, is not without ones of its own. Even, and especially, if it is thought that magic is a kind of primitive science, it is often said that magic is a pseudoscience because it explains things in terms of unverifiable, occult, or supernatural forces. Science, on the other hand, gives "true" explanations since it deals with 'real' factors, with natural, verifiable, and, it is even said sometimes, observable, causes. Of course the assertion that science deals only or primarily with observable entities is utterly false, as most scientists would no doubt concede. An electron, for example, is a theoretical entity and cannot be observed in any ordinary sense of the word. The scientist, however, would want to say that even though it is a theoretical entity, a hypothetical construct, it nonetheless refers to something real. But what is reality? What does it mean to speak of reality in a case like this when what is 'real' necessarily transcends all possible direct experience (1982, 91)?

Madison's phenomenological critique of science echoes Hume's critique of a religious practice of his day, the practice—to put a Nietzschean turn on the point—of making idols of ideas:

When, instead of meaning these unknown qualities, we make the terms of power and efficacy signify something, of which we have a clear idea,

and which is incompatible with those objects, to which we apply it, obscurity and error begin then to take place, and we are led astray by a false philosophy (T., 168).

Hume subjected to critique the all-too-human tendency to attach names to what we don't know and then, what is worse, to attach ideas that are totally incompatible with actual experience to those names. His *Dialogues* address a conception of God:

A mind, whose acts and sentiments and ideas are not distinct and successive; one, that is wholly simple, and totally immutable; is a mind which has no thought, no reason, no will, no sentiment, no love, no hatred; or in a word, is no mind at all. It is an abuse of terms to give it that appellation; and we may as well speak of limited extension without figure, or of number without composition (Dialogues, 159).

Whether in support of religious dogma or of scientific doctrines, such a practice cannot but lead to "a false philosophy". Hume's critique goes unheeded by Wayne Waxman (1994), who tries to appropriate Hume to shore up traditional metaphysics, instead of biting the bitter bullet that Hume's thinking prescribed. Waxman attempts to construct a Humean rainbow bridge over the conceptual abyss between what is perceived and what is, in principle, not only unperceived but unperceivable: "an entire universe of unperceived beings . . . by definition, beyond our purview" (1994, 136).

I submit that this is a blatant misappropriation of Hume's legacy, since Hume steadfastly refused to invest in such metaphysical enterprises. That refusal was expressed in no uncertain terms in the first *Enquiry*:

Bereave matter of all its intelligible qualities, both primary and secondary, you in a manner annihilate it, and leave only a certain unknown, inexplicable *something*, as the cause of our perceptions; a notion so imperfect, that no sceptic will think it worth while to contend against it (E₁, 155).

Hume's ironic portrayal of the indifference of the (moderate) sceptic in this passage illustrates that we simply do not need such a priori notions as *essence* or *substance* underlying perception, since their absence leaves us no worse off than their presence. In fact, we are considerably better off without them; they are like those recalcitrant wheels on some shopping carts, which impede our progress and pull our thinking in directions we do not want to go.

As Hume put the point, such appeals to the a priori do not explain experience, but instead render it completely inexplicable: I believe many objections might be made to this (the "modern") system: But at present I shall confine myself to one, which is in my opinion very decisive. I assert, that instead of explaining the operation of external objects by its means, we utterly annihilate all these objects and reduce ourselves to the opinions of the most extravagant scepticism concerning them. If colours, sounds, tastes, and smells be merely perceptions, nothing we can conceive is possest of a real, continu'd, and independent existence (T. 227-8).

By annihilating the very objects it sets out to explain, this "modern" philosophy ends up as radical scepticism. Hume was strongly opposed to the move that Waxman tries to foist on him. After all, Hume demonstrated that no insight into an a priori essence is required to establish a connection among bodies; such an insight has never ever occurred and, nonetheless, the necessity established by the lived inference continues on without any such "insight" (T. 400). Recall the child who imagined the glorious pleasure to be found in handling a flame, who learned the authority of the natural relation. The lived association between flame and heat formed by such an experience is the "impression, then, or *determination*, which affords me the idea of necessity" (T. 156). The idea of necessity derives from that experience and has no meaning without it. There is no need for insight into the a priori; it is redundant.

Unlike such ways of thinking, which hold knowledge to be infallible access to an unchanging reality, Hume's account faces up to human finitude. Hume's account recognizes that, to borrow a phrase from Paul Theroux, "being mistaken is the essence of the traveller's tale". It incorporates temporality by permitting revisions to what is presently known. Abandoning the idea of an unchanging and hidden reality or essence that determines mere appearances, Hume's account makes sense of error in the context of lived experience; for example, the inference that the child makes at first (from the pleasurable experience of warmth from the flame to her expectation of increasing pleasure) is reasonable given her limited circumstances. When, however, she comes to experience pain upon contact with fire, she finds her expectation to have been erroneous; her idea of fire is thereby modified, please notice, by the object itself.

It is not the case that the child's perception was erroneous or misleading. The child's perception was accurate at every stage; what was mistaken and what got modified in her contact with the world were her idea and her expectation. Hume's account makes revisions to knowledge build upon what has been perceived, as opposed to rendering past perception null and void. The more experience one has—whether one's own or someone else's—the more one has at hand upon which one's expectations may rely. Error is not a case of being deceived, by some devious demon or by an inherently faulty perception; rather, it is a case of one's experience being always limited, always finite and open to revision. Which account does more justice to human experience?

REASONING "JUSTLY AND NATURALLY"

Ockham's razor gives the edge to Hume's account:

It being an inviolable maxim in philosophy, that where any particular cause is sufficient for an effect, we ought to rest satisfied with it, and ought not to multiply causes without necessity (T. 578)

Why opt for explanations of phenomena that invoke, say, *aliens* when we have other, more common sensical options? By parity of reasoning, why opt for explanations of perceptions that invoke beings that are, by definition, beyond our purview when we have the alternative of explaining them by other perceptions? This is only a problem for a style of thinking that conceives of perception as "mere perception", as "merely psychological" and demands a knowledge that is absolutely certain and unrevisable. Hume's courage in facing the limits of reason provided a better way of doing philosophy: the indirect method. This approach bravely acknowledges the limits of perception and staunchly refuses to relegate it to a secondary status.

For Hume, "we" have no existence independently of the world. Our selves and the world are intersubjectively constituted; therefore, when we say that the natural relation is a human product, we do not mean that it is "merely" a human product. To say that the natural relation is psychological, is not to say that it is "merely" psychological. That would be to miss the point entirely. The point is to reject such radical bifurcation. What is human, what is psychological, following Hume's revaluation of the natural, tells us something about the world. Causality is the paradigm example of the contact between self and world: The repetition of the union of two objects or events (the external) produces a habit of mind (the internal).⁴² This is what it means for an idea to be *of* an object: to be produced by it or to be a trace of it. What could be more exemplary of the interaction between mind and body than this relation?

Before we go on, I want to clear away some obstacles to this interpretation; for example, someone might point to passage in the *Treatise*, in which Hume argued:

This customary transition is, therefore, the same with the power and necessity; which are consequently qualities of perceptions, not of objects (T. 166).

Someone might suggest that this passage is evidence of subjective idealism. Not so. Recall Hume's distinction between the philosophical and the natural relation, the comparison of ideas as opposed to the lived association among them. What this passage and others like it are up to is to reinforce the distinction as well as the priority of the natural relation. Hume's opposition of "perceptions" to "objects" serves to reject the traditional metaphysical notion of object. What he objected to is the use of "object" to explain perception; such an object is in principle beyond experience. Hume illustrated that the same work can be done more effectively with what is accessible to experience: phenomena. Hume did not lapse into phenomenalism here, because his own notion of "phænomena" is not purely subjective; he rejected the exclusive disjunction between perception and object as constituting a doctrine of double existence. To put the point in phenomenological terms, for Hume, a perception is always already of an object; the subject and the object are always already related. The traditional metaphysical notion of object is, therefore. redundant.

Radical doubt of the causal connections that underwrite everyday activities threatens to destroy perceptual *faith*, which, along with Hume, we seek to make explicit. Hume insisted (L. I, 87) that neither intuition nor demonstration roots our certainty, that our assurance is rooted elsewhere. In other words, what Hume wanted to articulate was "Wherein", in matters that cannot be "prov'd by intuition or demonstration" (T. 95), "consists the difference betwixt incredulity and belief?". This is why he distinguished "knowledge", gained from the

⁴²A. Michotte (1963) provides evidence that, in fact: "This character of 'necessity' can occur in a single experience independently of any repetition".

purely analytical consideration of ideas, from "proofs", "which are deriv'd from the relation of cause and effect, and which are entirely free from doubt and uncertainty" (T.124). Hume rejected questions such as Waxman's, "How we are able to become aware of a consciousness transcending reality" (1994, 136, emphasis deleted), Hume was interested in ascertaining how, in practice, we come to refuse assent, for example, to historical claims such as "*that* Cæsar *dy'd in his bed*" (T. 95).

I continue to emphasize this point because it is crucial to understanding properly the phenomenological paradigm of causality being initiated in these pages, since it is rooted in Humean thinking. Hume would not and did not make inferences to a Reality behind experience. Hume explicitly rejected the "in-itself" hypothesis:

There are other particulars of this (double existence (T. 215)) system, wherein we may remark its dependence on the fancy, in a very conspicuous manner. Of these, I shall observe the two following. *First*, We suppose external objects to resemble internal perceptions. I have already shewn, that the relation of cause and effect can never afford us any just conclusion from the existence or qualities of our perceptions to the existence of external continu'd objects: And I shall farther add, that even tho' they cou'd afford such a conclusion, we shou'd never have any reason to infer, that our objects resemble our perceptions. That opinion, therefore, is deriv'd from nothing but the quality of the fancy above-explain'd, *that it borrows all its ideas from some precedent perception*. We never can conceive any thing but perceptions, and therefore must make every thing resemble them (T. 216).

Hume illustrated that the inference from perceptions to "*external* continu'd objects" supposed to be entirely different from perceptions can never be adequately legitimated. What is at stake in attempting such an inference is retaining the common sense requirement that objects continue to exist when they are not present to us. For this we do not need a world in-itself outside of all perception, which is nonetheless the cause of perception. All that we need to justify the ideas we have of objects—including their continuing while we are not present to them—is accessible to practical experience.

WHAT WE HAVE TO BELIEVE

To square philosophy with common sense, Hume rejected the absoluteness of the rationalist distinction between *knowledge* and *probability*. Then he subdivided the category of probability to make room in philosophy for matters of common life for which it would appear

ridiculous to claim that they are only probable, even "tho' 'tis plain we have no more assurance of these facts, than what experience affords us" (T. 124). The point is that this assurance is what we have always relied upon. Normally we do not trouble ourselves to doubt such matters as that, say, fire will continue to burn and the sun will rise again tomorrow. As Hume noticed:

When any phænomena are constantly and invariably conjoin'd together, they acquire such a connexion in the imagination, that it passes from one to the other, without any doubt or hesitation (T. 403).

Survival depends upon such assurance. We do not doubt, for example, that bread nourishes and water suffocates. Such assurance has become ingrained by the *natural* relation, which enlivens the idea of those connections through the *unopposed* evidence of experience. This is an important qualification. Only evidence which is, to use Hume's term, *infallible*^A —in other words, unopposed by anyone's experience—exceeds probability to the extent required to count as this superior kind of evidence. Arguments based upon cause and effect—"exceed probability, and may be receiv'd as a superior kind of evidence" (T. 124). It is important to notice that "infallible" is a technical term; in keeping with his first principle, by "infallible" Hume means "what has never been contradicted by experience" rather than "what cannot, in principle, ever be contradicted, because incapable of error".⁴³

For this reason, Waxman is right in his criticism of the insistence

that a people able to recognize constant conjunctions, but differing from us in never enlivening ideas brought to mind by associated impressions, would still be capable of "getting beliefs about the unobserved"; and that we, "the beneficiaries of an additional mental item," differ from them only in "the otherwise empty ritual of adding (the) unanalysable idea of necessary connection to some of our beliefs (1994, 138).

^A See (E₁, 36): "It is only after a long course of uniform experiments in any kind, that we attain a firm reliance and security with regard to a particular event".

⁴³This suggests a way to resolve the question of why knowledge is incapable of error. We seek reliability, for only then can we trust actions to the domain of habit, which once achieved frees our consciousness to other activities. Whenever contradicted by experience, the assurance we call knowledge gives way to doubt. Then we can no longer trust that activity to habit and must reconsider. Therefore, whenever what has become habitual is contradicted by experience, we lose assurance and give up the claim to knowledge. Knowledge (assurance) is thought to be infallible only because, whenever opposing evidence damages our assurance about the matter, we give up relying upon it unthinkingly (habitually) and then give up knowledge claims. If we are honest, we do not seek to lead others along a trail that is unreliable.
escape. That "precinct" is created by a thinking process that divorces perception from the world and weds it to the law of excluded middle.

The matter of definition is a critical issue. Consider some questions Merleau-Ponty had about certain definitions:

Might mechanistic science have missed the definition of objectivity? Might the cleavage between the subjective and the objective have been badly made; might the opposition between a universe of science entirely outside of self—and a universe of consciousness—defined by the total presence of self to self—be untenable? (1983, 10).

I contend that the solipsist predicament is the outcome of an untenable definition of subjectivity, of a badly made cleavage between subject and object. We are under no obligation to adhere to such definitions. Chapters three and four consider more closely the impact of our manner of defining things. At the moment, we must return to our project of putting the "subjective-idealist" interpretation of Hume to its final rest.

THE DIFFERENCE BETWEEN COMPARISON AND ASSOCIATION

The *philosophical* relation, left to itself, as Capaldi observes, "does not permit an inference to be believed about a real connection among objects outside of the imagination. We can imagine any one of these relations, but this implies nothing about the actual connection in experience" (1989, 64). We can, by comparing ideas, imagine any two objects in a causal relation. It is only through experience—the natural relation however, that objects become, in fact and actuality, causally related. To put this differently, divorcing the philosophical relation from the natural relation abstracts constant conjunction from its context in the lived process of connectedness that provides the significance⁴⁴ of the causal relation.⁴⁵ Such a practice reduces causality to mere concomitant variation.⁴⁶

⁴⁴Recall that "this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion" (E_1 , 75).

⁴⁵See, for example, A. Michotte (1963, 63): "All this [experimental evidence] serves to make more precise the point which I was trying to make earlier, in connexion with the concept of activity, when I said that the impact was not merely two objects coming into contact, but a whole *process* (Chapter I, 2). Now we can see what exactly is involved. The 'impact' in the full sense, or the 'encounter' of the two objects, is a *process which begins at the boundary of the radius of action and ends at the moment when the objects are side by side.* This process forms an indivisible whole, and entirely loses its character as soon as the movement is considered in isolation from the resultant situation, that of the two objects being side by side". As Michotte

Now the connection made in the natural relation is not merely psychological. It is, rather (as I will argue), the locus of interaction *between* body and mind, the *crossing of the avenues*, as it were. It is • worthwhile to read closely Hume's description of that interaction:

Suppose we observe several instances, in which the same objects are always conjoin'd together, we immediately conceive a connexion between them, and begin to draw an inference from one to another (T. 163).

Please notice that this passage is a phenomenological⁴⁷ reduction of causality; Hume directs our attention to the phenomenon from which the idea of causality is derived: the emergence of the natural relation from the interplay between the world ("the same objects") and the mind ("we observe", "we conceive", "we draw an inference"). Hume's account is phenomenological because it focuses our attention upon what we actually perceive (as opposed to what "must be" going on behind experience). It is only the presupposition of body-mind dualism that makes this interplay problematic. If, like Hume, we reject the Cartesian prejudice^B toward thinking we already know the nature of matter and of

⁴⁷As Joseph J. Kockelmans (1995, 578-9) observes: "The question of what phenomenology is may suggest that phenomenology is one among the many contemporary philosophical conceptions that have a clearly delineated body of doctrines and whose essential characteristics can be expressed by a set of well-chosen statements. This notion is not correct, however. In contemporary philosophy there is no system or school called "phenomenology", characterized by a clearly defined body of teachings. Phenomenology is neither a school nor a trend in contemporary philosophy. It is rather a movement whose proponents, for various reasons, have propelled it in many distinct directions, with the result that today it means different things to different people . . . The fact remains that there are many phenomenology's adherence to the primacy of perception] one can only faithfully report what one has experienced of phenomenology by reading the phenomenologists".

^B See (T. 159-60): "For some of them [philosophers], as the *Cartesians* in particular, having establish'd it as a principle, that we are perfectly acquainted with the essence of matter, have very naturally inferr'd, that it is endow'd with no efficacy, and that 'tis impossible for it of itself to communicate motion, or produce any of those effects, which we ascribe to it . . . This opinion is certainly very curious, and well worth our attention; but 'twill appear superfluous to examine it in this place, if we reflect a moment on our present purpose in taking notice of it". Hume goes on to argue that, on Cartesian presuppositions, the idea of power can never have any basis: "It follows that we deceive ourselves, when we imagine we are possest of any idea of this kind, after the manner we commonly understand it" (T. 161). This is Hume's point in

observed (ibid., 8, analytical observation allows us only to recognize a succession of movements. This is due to the influence of the law of excluded middle in the analytical process. ⁴⁶This is evident in Bertrand Russell's observation that physics does not need the idea of causality, that it had even jettisoned the notion in favour of equations: the quantificational abstraction of concomitant variation.

mind and, instead, we *look and see*, we notice there are certain constantly conjoined perceptions (some called "body" and others called "mind"), which are causally related in common experience. We feel thirsty; we desire a drink of water; we get up and pour a glass of water; we drink the water; our thirst is quenched. All of these processes involve lived experience of causal relationships among them. We never doubt this in common life. It is only when we enter our philosophical "closets" where we suppose that we "know" body and mind to be two radically different substances—that we can even begin to entertain doubts about the reality of those relationships.

Hume tried to reconnect philosophical thinking to common life. He observed that the lived connection of the natural relation emerges in the midst of "this multiplicity of resembling instances" (T. 163). His phenomenological method showed that we need not look beyond experience to some "hidden idea" to find "the very essence of power or connexion"; it is to be found *in lived experience*. It is a structure of lived experience itself, which gives rise to the idea of power. To paraphrase Hume (T. 171), it is the very constant conjunction of objects, along with the determination of the mind, that constitutes power. It is the natural relation from which the idea of power stems. This is why he claimed that "the distinction, which we often make betwixt *power* and the *exercise* of it, is without foundation" (T. 171).

The point is that power does not somehow precede or exist independently of the exercise of power, just as there is no experience of constant conjunction entirely independent of ourselves, or of a necessary connection entirely independent of ourselves. The event of connection occurs in us after a sufficient number of repetitions. The event occurs in us, when⁴⁸ we "feel a determination of the mind to pass from one object

saying that, instead of looking for the idea of power in abstract definitions, we should look instead to impressions (T. 157).

⁴⁸A. Michotte (1963) has shown that a causal impression can arise from only a single instance. Although this finding may seem to be at odds with Hume's contention, I do not believe it is, since Hume admitted that such a circumstance could occur and argued (T. 104) that the reason it could occur is due to past experience of causal connectedness, which, so to speak, primes us to respond to events in "an *oblique* and *artificial*" manner. The question of whether "the first" experience of the natural relation is spontaneous or the result of habit is irrelevant; we cannot penetrate beyond the simple fact of association in either case. "The Reason" behind this simple fact is what Hume claimed was unknown and inconceivable. As Merleau-Ponty (1962, 146)

to its usual attendant, and to conceive it in a stronger light upon account of that relation (emphasis added)" (T. 165). This is a phenomenological description of the emergence of causal connectedness. The fact that causal connectedness emerges in us does not mean that the event is "merely subjective"; the emergence is neither totally subjective or psychological nor totally objective, since lived experience is not limited to one dimension or the other. The point is that causal relationships are the crossing over from one dimension to another, which establish the reality of the connection.

Consider an example: Say that the fluorescent light over your sink does not work when you turn on the lightswitch. You notice, however, that the light comes on when you slam a particular cupboard door. The next time you want to turn on that light, you try slamming the cupboard door: the light comes on. After repeated experiences of the conjunction of slamming and lighting, you infer the lighting of the lamp from the action of slamming the cupboard door. The unlikely association of these two events of perception has occurred. Hume was right in his observation that it was likely the case that the causal inference is a result of the repetition of events rather than vice versa. Now, when we make this fact of experience explicit, we speak of "the principle of causality".⁴⁹

We need no doctrine of double existence to explain causality. There is no need to think isolated perceptions as somehow linked to equally isolated and unperceivable objects. It is only views wedded to the law of excluded middle, which have divorced perception from objects, which are stuck with maintaining that causal relations

enable the mind to compose for itself, and believe in, a present reality outside its immediate purview ... by extending its purview beyond the flux of perceptions which appear to it, causal relations bestow upon it a being over and above its appearance (Waxman, 1994, 139).

In attempting to avoid the solipsistic conclusion that objects are no more than (my) perception, such accounts take us on a metaphysical flight of

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observed, we say that "habit has been cultivated when [the body] has absorbed a new meaning, and assimilated a fresh core of significance".

⁴⁹Notwithstanding Gilles Deleuze's (1991, 115) transcendental empiricist interpretation of Hume : "We must remember that the effect of the principle of causality is not only a relation but is rather an inference according to that relation". The relation (abstract) follows from the inference (lived) and not vice versa.

fancy from "mere" perceptions to some inaccessible reality entirely beyond perception, to "a *being* over and above its *appearance*".

As Capaldi observes, this style of thinking

not only distinguishes between perceptions and objects, but it also seeks to infer the object from the perception. This particular inference Hume would not permit (1989, 73).

Capaldi is absolutely right. Hume did not try to link (isolated) perceptions to (isolated) objects; he did not need to do so. He had an alternative. Since, as Hume (T. 241-3) put it, "every idea of a quality in an object passes thro' an impression", we can bypass altogether any appeals to things-in-themselves outside of phenomena. Since every quality in an object passes through an impression, "therefore every *perceivable* relation, whether of connexion or repugnance, must be common both to objects and impressions". To put it differently, Hume's account of causality bypasses arcane reasoning linking perception to some uncompounded essence or thing-in-itself to link what we experience, that is, phenomena to other phenomena.

Having rejected the dualist bifurcation between perception and object, Hume was free to replace arcane reasoning with phenomenological thinking:

As no beings are ever present to the mind but perceptions; it follows that we may observe a conjunction or a relation of cause and effect between different perceptions (T. 212, emphasis added).

Hume insisted that we

can never observe (causal relationships) between perceptions and objects. 'Tis impossible, therefore, that from the existence or any of the qualities of the former, we can ever form any conclusion concerning the existence of the latter, or ever satisfy our reason in this particular (ibid.).

There is no subjective idealist spectre here; the "objects" to which Hume alludes are those entities conceived to be entirely inaccessible to direct experience. We can never get from perception conceived as purely subjective to those objects, which are thought as entirely independent of lived experience. I submit that it is time to stop trying and to follow Hume's suggestion, that *phenomena* are causally linked.

VIVACITY IS NOT VERSIMILITUDE

I submit that Waxman's analysis, which attempts to appropriate intentionality from phenomenology, is in complete opposition to phenomenological method. It breaks apart the relationship between consciousness and perception, treating "consciousness" as something that "we" do. It fails because it falls prey to what Merleau-Ponty (1962) called making perception into an object. Instead of having to try to link "perceptions" and "objects-in-themselves", Waxman's analysis pushes us even further away from the world. It makes of us an "intentional regarding-as-real" facing "perceptions themselves". Such a regress is no solution to the dualist problem, it only exacerbates the difficulty.

Moreover, Waxman's interpretation of "vivacity" as "verisimilitude" although it may initially appear to clarify matters—ends up being misleading. Presupposing the regressive bifurcation between perception and consciousness, Waxman argues:

Like believed ideas, the verisimilitude of impressions is not, as so often is supposed, a quality of *the perceptions themselves*, but of our *consciousness* of them, an intentional *regarding-as-real* (1994, 33).

This passage disjoins intentionality, "regarding-as-real", from perceptions, totally isolating reality on the side of the subjective. It is Waxman's analysis and not Hume's that is guilty of subjective idealism.

Somehow, as Waxman conceives it, this subjective power "renders even the dullest impression more 'forcible and real' than the most finely delineated, powerfully evoked idea":

It renders the fire we see raging before us more terrifying than a fire we merely infer in imagination from the sight of smoke filling the room (1994, 34).

Waxman's analysis leaves behind the usual question: On what basis does this subjective power decide which perception to render more "forcible and real"? I submit that it has no basis for making the discrimination. Waxman's analysis brings us around full circle to an even more regressive *aporia* than does Cartesian dualism. I suggest that we abandon such attempts as this. Why not follow Hume's suggestion and think the vivacity of the idea as individually the same as the belief (T. 116)? The presence before the mind of a perception and the belief in its real existence are, contra Waxman,⁵⁰ not "utterly distinct". Waxman even quotes (1994, 136) Hume explicitly rejecting the bifurcation⁵¹ between vivacity and belief:

We must not be contented with saying, that the vividness of the idea produces the belief: We must maintain that they are individually the same (T. 116).

Waxman's way of thinking increases our alienation from the world by alienating ourselves even from our own perceptions. Why not just call "belief" an "idea of a certain vivacity", which is causally derived from its association with impressions?

This suggestion is consistent with Hume's opening claim on the nature of belief:

The idea of an object is an essential part of the belief of it, but not the , whole (T. 95).

Moreover, contrary to Waxman's, Hume's thinking is properly phenomenological, since it keeps us close to *phenomena* as opposed to ideas. Even when writing about ideas, Hume directs us to pay attention to the phenomenon of ideas (as opposed to ideas about ideas), to the way that we experience ideas (as opposed to the way we think about ideas). We are directed to pay attention to how the very vividness of an idea just is what distinguishes it as a *belief*, as opposed to a *fancy*. It is the very vividness of the idea of a fire that is causally inferred from the perception of smoke, which distinguishes it from other less vivid ideas, which makes it a belief in the actuality of this fire.

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⁵⁰See (1994, 34): "Implicit in Hume's notion of vivacity, as I interpret it, is that the mere *presence* of a perception before consciousness does not suffice for us to *regard* it as real, *believe* in its real existence. The mere *presence before the mind* of a perception and the *belief* in its real existence are for him utterly distinct, and this seems to me no less true of our *regarding* sensations and reflexions as *impressions* than our believing in the real existence of something we merely *think* (for example, fire) because it comes to mind in connection with an impression (smoke filling the room) associated with it by constant conjunction (see 786ff)".

⁵¹See (T. xvii): "Tis still certain we cannot go beyond experience; and any hypothesis, that pretends to discover the ultimate original qualities of human nature, ought at first to be rejected as presumptuous and chimerical".

The idea of fire, which, through long habituation, is associated with the smoke now filling the room, is less intense than the impression-ofsmoke, but still more vivid than the idea of water that is not associated with any present impression, say, of a nearby fire hydrant. The idea of water, in this instance, is not, so to speak, in any position to be intensified. The inference here is *existential*, in that it changes our view of the world from one in which no fire threatens into a world in which one does. The inference is a lived association of the imagination, through which the intensity of an idea is increased. This "intensity"^C is its phenomenological warrant, saying that it "exceeds probability, and may be receiv'd as a superior kind of evidence" (T. 124). Once the smoke has dissipated, so does the vivacity of the idea of *this* fire; that idea again melts back into the flux of the imagination.

Rather than following Waxman into a deeper alienation, we may follow Hume closer to the world and treat impressions as changing *the manner* in which we conceive ideas (T. 96). Since ideas are causally connected to impressions, they become more or less intense through their intercourse with impressions. The vividness, liveliness, or brightness of an idea is not an on-off characteristic, but one susceptible of degrees and continually changing along with lived experience. Hume compared the vivacity of ideas to that of colours. This is an important metaphor. Thinking in this way short circuits what otherwise become tortuous departures from ordinary ways of thinking, which serve no useful purpose—other than to maintain an outmoded metaphysics.

After all, it makes sense to say, "That paint is just the colour of (verisimilar to) red brick." We might even sensibly, although unidiomatically, say, "That perception (paint) is similar to another perception (red brick)". On Waxman's interpretation, however, we would have to say: "That perception of red brick is the same colour as (verisimilar to) the real red-brick-in-itself." Since the "red-brick-in-itself" has no colour—being beyond "mere" perception—it cannot serve such a function of comparison. Neither does it adequately serve to explain

^C See (T. 137ff.), for example: "It remains, therefore, as the only reasonable opinion, that these similar views run into each other, and unite their forces; so as to produce a stronger and clearer view, than what arises from any one alone. This is the manner, in which past experiments concur, when they are transfer'd to any future event".

experience, since it requires a causal inference from what is perceived to what cannot, in principle, ever be perceived. Since no access is possible, we will never be able to compare paint to brick adequately—a sorry state of affairs for home decorating!

This is not to say that using Hume's account we will always be able to agree, as cases of trying to agree about matching paint with curtains or with furniture will attest to. Nonetheless, at least we may do so in principle. And, oftentimes, we do agree; at least phenomenological method helps us to understand that experience, instead of making us even more sceptical about it. Waxman's way of talking, on the other hand, takes us too far from ordinary language. It requires that we speak of, for example, the "unshakeable conviction that cows fall within a nexus of real objects outside, but causally connected with, the perceptions of his/her senses and memory" (1994, 138).

This is the sort of intellectualist doctrine of double existence that Hume went through a lot of trouble to deconstruct,

(that) opinion concerning colours, sounds, tastes, smells, heat and cold; which it asserts to be nothing but impressions in the mind, deriv'd from the operation of external objects, and without any resemblance to the qualities of the objects (T. 226).

Again, please notice that there is no phenomenalist spectre here: "External" objects, as Hume calls them, are those supposed a priori entities that are completely inaccessible to immediate experience. Waxman's attempt to appropriate Hume in the defense of traditional metaphysics fails; the intellectualist doctrine that the mind "composes reality" (1994, 139) runs completely contrary to Hume's claim that the uniting principle is "unintelligible" (T. 169).

After all, as Hume wrote:

A stone or piece of metal raised into the air, and left without any support, immediately falls: but to consider the matter *a priori*, is there anything we discover in this situation which can beget the idea of a downward, rather than an upward, or any other motion, in the stone or metal? (E_1 , 29).

As Hume argued, the simple fact of association is a limit beyond which reason cannot penetrate. There is no reason, a priori, why perceptions must be associated the way they are; the association is the result of *experience*. This is why the uniting principle is "unintelligible". Since causality constitutes reality—of mind as well as of body—there is nothing more that can be said with assurance. Pushing beyond that boundary requires that we abandon the conviction derived from causality; in doing so, we enter the realm of the imaginary.

Recall that our most fundamental associations are causal. It is the constant conjunction of impressions and ideas that gives birth to the lived association that establishes our ideas as *of* impressions.⁵² The constant conjunction, Hume wrote:

of our resembling perceptions, is a convincing proof, that the one are the causes of the other; and this priority of the impressions is an equal proof, that our impressions are the causes of our ideas, not our ideas of our impressions (T. 5).

To put this differently, the connection we take for granted most of the time—that, say, the idea of the refrigerator in the kitchen is of the refrigerator, is itself a causal connection. We cannot explain why this is the case, anymore than we can explain why it is that perceptions of snow and of cold (or of bread and of nourishment) are connected rather than some other combination. The only recourse we have is to further causal explanation, which, in turn, relies upon further associations.

Hume's first principle is itself an illustration of his contention that causal relations are required to "persuade us of any real existence" (T. 109). It is our experience of causal relationships that persuaded us

that ideas are preceded by other more lively perceptions, from which they are derived, and which they represent (T. 7).

Without that lived relationship, that is, from the point of view of reason alone, the mind is "nothing but a heap or collection of different perceptions" (T. 207). From the perspective of reason alone, from the perspective of the philosophical relation, "they are the successive perceptions alone which constitute the mind" (T. 253). It is only lived experience, the natural relation, that makes a history out of this chronicle. In lived experience the different and successive perceptions "are linked together by the relation of cause and effect" (T. 261).

⁵²This does not imply any simple-minded notion of representation, such as point-by-point "agreement" (whatever that is) with an independently existing "reality" (whatever that is). It does mean that this relationship allows us to go about our everyday activities with assurance that, say, when we get ready to go home, our ideas of where our car is and where our home is will be representative enough to get us there reliably.

In summary: Causality engenders belief. Belief is not something different from precedent ideas, which we add to them. Ideas cannot be totally disassociated (although they may be distinguished) from impressions.^D Ideas gain liveliness and brightness in our conception from their association with the brightest of perceptions, namely impressions.⁵³ Ideas receive force and vivacity from impressions. It is the degree of vivacity that constitutes an idea as a belief. Beliefs may turn out to be true or to be false; for example, my belief that my car is in the parking garage may be legitimate, since it received its vivacity from the impression made last time I looked. It may still be false, since, while I was not looking, someone may have stolen it. The impression of its being gone or being stolen is in principle accessible to experience; it is just that I was not in a position to receive that impression. My belief, therefore, would be false.

The distinction Hume makes among intensities of impressions is one that we all make continually, if implicitly. It is a common distinction, thematized as a principle.⁵⁴ Hume was right to say that the *necessity* of the connection "can belong only to the mind that considers them" (T. 168); the connection is habitual and is established through the repeated experience of union that disposes the imagination to infer.

THE UNACKNOWLEDGED PARADIGM

Trouble with causality begins when the natural relation, which establishes habit, gets discounted as "merely" psychological or "merely" contingent or "merely" historical. When any science or philosophy employs the philosophical relation as its paradigm and denigrates the natural relation, it thereby loses the part of the causal relationship that provides its meaning. In the rarified atmosphere of such methodology the

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^D See, for example, (T. 230): "Now the difficulty still remains, how to form an idea of this object or existence, without having recourse to the secondary and sensible qualities".

 $^{^{53}}$ We may follow Hume in defining belief as "a lively idea related to or associated with a present impression" (T. 96).

 $^{^{54}}$ There is an *intensity* about impressions, which distinguishes them from ideas. Hume was right about this:

[&]quot;Every one will readily allow, that there is a considerable difference between the perceptions of the mind, when a man feels the pain of excessive heat, or the pleasure of moderate warmth, and when he afterwards recalls to his memory this sensation, or anticipates it by his imagination. These faculties may mimic or copy the perceptions of the senses; but they never can entirely reach the force and vivacity of the original sentiment" (E₁, 17).

glue of the universe cannot but harden and shatter. Hume rightly alleged that the causal relation "can never be an object of reasoning" (T. 170). To put the matter somewhat differently, the causal connection is not part of the cognitive meaning of the objects themselves.

Hume showed that there is no *logically* necessary connection between any two objects. Any two objects may be compared, in the imagination, in terms of their constant conjunction. Without the existential connection, then, there is no basis other than purely statistical contingency for expecting one outcome as opposed to others. It follows that there is no more reason to expect, say, fire to heat water the next time one wants coffee, than the balance of probabilities suggests from the mere sum of the occasions in the past when this conjunction occurred against the infinite number of possible circumstances in which the conjunction might not occur. Without that lived *sense* of necessary connection that carries past experience forward, causality "degenerates into probability" (T. 180). Such a science does not serve to elucidate but rather to make practice incomprehensible.

In short, if we do not treat the natural relation as "a superior kind of evidence" (T.124), one which "traces the way to our thought, and in a manner forces us to survey such certain objects, in such certain relations" (T. 125), the only recourse left is *chance*, which, as Hume observed,

can only destroy this determination of the thought, and leave the mind in its native situation of indifference; in which, upon the absence of a cause, 'tis instantly re-instated (T. 125).

What James baptized "the epistemological chasm" between perception and object instituted by rationalistic abstraction shows no sign of being bridgeable. I suggest, therefore, that a new paradigm is in order. It is time to own up to the natural relation, the unacknowledged paradigm to which we all, as surviving human beings, appeal continually in our daily activities. Hume established a universal, "common sense" basis for thinking causality. His analysis is both useful and workable; his notion of causality is more adequate to the needs of the human sciences than the rationalist conception. Not only does it acknowledge the usefulness of the philosophical relation for speculative research purposes, it also provides the basis for understanding our irrepressible sense that our actions make a difference—a feature that has been notably missing and assumed dead in objectivist theory.

THE END OF THE "PHILOSOPHICAL" PARADIGM

From the sole fact that social psychology is practiced, one is outside the objectivist ontology, and one can remain within it only by restricting the "object" one gives oneself in a way that compromises the research (Merleau-Ponty, 1968, 24).

The abstracted relation of constant conjunction is an unsuitable paradigm for philosophy and the sciences. Constant conjunction is no more separate from lived experience, than one side of a door is from the other. Objectivist thinking trivializes lived experience as well as the world from which it is inseparable, treating first-hand experience as if it had nothing of significance to add to theoretical knowledge. Accepting the philosophical relation as the paradigm of causality has robbed us of agency, of connection among our experiences, a connection that is not only prerequisite to properly *human* sciences, but also to the "hard" sciences. Treating only the philosophical relation as important and dismissing the natural relation as uninteresting⁵⁵ sets students of human nature adrift. As James put the point:

The famous world of universals would disappear like a soap-bubble if the definite contents of feeling, the *thises* and *thats*, which its terms severally denote, could be at once withdrawn. Whether our concepts live by returning to the perceptual world or not, they live by having come from it. It is the nourishing ground from which their sap is drawn (1977, 245).

Suspended far above the earth, like Swift's scholars in their cloud-city, such thinkers think universals remote from the lived experience upon which, nonetheless and notwithstanding, they depend for sustenance. This tendency on the part of modern science to ignore its context in experience forms a "blind spot" of the mind's eye. The conceptual knowledge so valued by objectivism is like a map, which—unlike the fulness of the landscape—remains superficial in its abstractness and falsifies experience through the discreteness of its elements. Far from making matters more intelligible, such a method is the source of quite gratuitous and unintelligible artefacts.

There is an alternative. Hume's first principle espouses a deep appreciation for concrete experience. It may not be going too far to say

⁵⁵See Anthony Flew (1986).

that Hume foresaw one of the chief outcomes of objectivist thinking: nihilism, that philosophical abyss of "perfect and total indifference essential to chance" (T. 125) characteristic of some extremes of postmodern thinking. Without any standard of judgment for the everyday assurances upon which we all rely, reason finds itself in a "wretched condition" (T. 264).⁵⁶

Hume's analysis of probability shows how entirely rejecting arguments drawn from our experience of causality renders science merely statistical (T. 138-42). If we treat causal relations as merely a matter of calculative reason, we are left with no alternative but, by a "voluntary act of the imagination" (T. 140) to transfer the proportion in which conjunctions occurred in the past to the future along with the proportion in which they did not. This practice by itself produces no conviction one way or the other, since we can always also imagine things being otherwise. When we take the philosophical relation in abstraction from its context of the natural relation, we remove our lived experience from the picture. It is not surprising, then, that we can find only statistical connection among things under those circumstances. When we deny the personal component in our understanding of the world, we are left with the "entire indifference" that is essential to chance, that is, to perfect and unmitigated contingency.

On the other hand, when two things are connected in the natural relation, it means that we "can readily foretell the existence of one from the appearance of the other" (E_1 , 76). This produces a conviction, which is an "immediate feeling" acquired only through lived causal *inference*⁵⁷, the "carrying over" of past experience into the present. We might say that causal reasoning is metaphorical reasoning, in that it brings together hither to unrelated events in a way that changes our experience of the world.

Causal inference occurs in first-hand experience and is not absolutely certain, since things could be otherwise. Even giving up absolute certainty, however, does not leave us prey to relativism. As a basis for

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⁵⁶In the conclusions to Bk I, Hume expresses the *angst* that overcomes one who faces up to the finiteness of reason.

⁵⁷From *infero*, "to carry into" or "to bring forward".

causal reasoning, we may replace the notion of unchanging essences "underlying" change^E with that of reliable regularities in phenomena. We need not, in other words, negate causes and leave ourselves "in a perfect indifference among those events, which are suppos'd contingent" (T. 128). The idea of causes mixed among chance occurrences guides reasoning toward uncovering reliable regularities among the irregularities in experience. Hume's observation that underwriting all practical reasoning there must always be the idea of a mixture of causes among the chances (T. 126) is just the sort of a compromise between "an abstract monotony and a concrete heterogeneity" (1977, 319) that James called for.

We may combine Hume's "moderate scepticism" (T. 224) with his insistence upon the practical—as opposed to the theoretical. This combination yields the an idea of causality that incorporates James' notion of *indeterminism*:

Indeterminism says that the parts have a certain amount of loose play on one another, so that the laying down of one of them does not necessarily determine what the others shall be. It admits that possibilities may be in excess of actualities, and that things not yet revealed to our knowledge may really in themselves be ambiguous. Of two alternative futures which we conceive, both may now be really possible; and the one becomes impossible only at the very moment when the other excludes it by becoming real itself. Indeterminism thus denies the world to be one unbending unit of fact. There is a certain ultimate pluralism in it; and, so saying, it corroborates our ordinary unsophisticated view of things. To that view, actualities seem to float in a wider sea of possibilities from out of which they are chosen; and, *somewhere*, indeterminism says, such possibilities exist, and form a part of truth (1977, 591).

Regularities in experience produce the assurance that underwrites our everyday as well as our knowledge-seeking activities. Experience of "infallible" regularity makes for the greatest vivacity of the connections among certain ideas and, therefore, fashions our understanding of cause and effect relationships. This vivacity underwrites the *assurance* that Merleau-Ponty called *perceptual faith*.^F When we replace this lived sense

^E See, for example, (T. 266): "Nor is it possible for us to reason justly and regularly from causes and effects, and at the same time believe the continu'd existence of matter". I suggest that here Hume was implying that the notion of matter as essence should be jettisoned. He thoroughly deconstructed it, showing that it leads to contradictions, while providing an alternative account of causality.

F "The methods of *proof* and of *cognition* invented by a thought already established in the world, the concepts of *object* and *subject* it introduces, do not enable us to understand what the perceptual faith is. precisely because it is a faith, that is, an adherence that knows itself to be

of assurance with the sort of necessity that is held to accompany the "hidden" ideas of reason, we are attaching a name to what we do not know and then attaching an idea that is totally incompatible with actual experience to that name. Why *must* there be some principle "behind" lived experience, to which it is conforming?

This manner of thinking leads to just the sort of false philosophy that was anathema to Hume. The natural tendency to look for a logos in phenomena gets entirely out of control when we try to get beyond every possible experience. We end up creating intricate and arcane "proofs" for something that is by definition impossible ever to have any real assurance about—since a priori principles are by definition inaccessible to direct experience. As Hume argued (T. 144), even the Cartesian "certitude" gained from the intuitive clarity of logical connections degenerates into probability whenever there is a "long chain of connected arguments, however infallible the connexion of each link may be esteem'd", since the force and vivacity of the original impréssion deteriorates over distance. Any such ideas can never get what is required to become beliefs; we are thereby sentenced to interminable doubt.

Rejecting long chains of argument as unconvincing, Hume concluded:

Where reason is lively, and mixes itself with some propensity, it ought to be assented to. Where it does not, it never can have any title to operate upon us (T. 270).

Hume was right to insist that only the natural relation has sufficient authority to sign the warrants issued by the philosophical relation; only the natural relation permits us to "*infer* one event from the other; which we are enabled to do at present, after so long a course of uniform experience" (E_1 , 78-9). Following Hume, we may reject absolutist thinking without abandoning ourselves to the free and directionless play of "the wretched condition, weakness, and disorder of the faculties" (T. 264). Hume's practical principles give us a means for refining and correcting the "numerous infirmities" (T. 265) common to human nature. When experience of connectedness is universally acknowledged, we may regard it as "a full *proof*" (E_1 , 110-11) and expect that connection in the

beyond proofs, not necessary, interwoven with incredulity, at each instant menaced by non-faith" (1968, 28).

future "with the last degree of assurance". In other cases, we are wise to proceed with more caution.

A CONFLICT OF INTERPRETATIONS

The natural relation is, if you like, another "sense", which discerns causality among constant conjunctions. Because there is no doubt only when there is no conflicting experience, an infant drawn to the pleasurable qualities of fire (its beauty and its warmth) has no doubt that continuing to move closer will continue to increase its pleasure—until the fire teaches it otherwise. When the child retracts its hand from the flame, it does not do so as a result of a reasoned calculation, but because of a *feeling*.

Someone might want to argue that the phenomenological dimension of causality, the natural relation, might be thought of as a sort of secondary quality to the philosophical relation's status as primary quality. One might suggest, in other words, that *constant conjunction* is a transhuman relation while *necessity* is purely a human product. Someone might hold that constant conjunctions among objects occur entirely independently of whether there is or ever was anyone to perceive them, while necessity does not "really" exist but is something that humans ascribe to objects in constant conjunction.⁵⁸

In the first place, such claims rely for their sense upon the very lived experience of which they claim to be independent. In the second, Hume and Berkeley both have adequately deconstructed the distinction between primary and secondary qualities.^G It presupposes, in the first place, that constant conjunction is less "psychologically" based than

⁵⁸This is a variant of the claim that it is the a priori necessary connection that leads to the empirical inference and not—as Hume maintained—that it is the lived inference that leads to the idea of necessary connection.

^G See Hume (T. 192-3): "Now 'tis evident, that, whatever may be our philosophical opinion, colours, sounds, heat and cold, as far as appears to the senses, exist after the same manner with motion and solidity, and that the difference we make betwixt them in this respect, arises not from the mere perception". See also Berkeley (1954, 41): Your concessions, nowhere tended to prove that the secondary qualities did not subsist each alone by itself, but that they were not *at all* without the mind. Indeed, in treating of figure and motion we concluded they could not exist without the mind, because it was impossible even in thought to separate them from all secondary qualities, so as to conceive them existing by themselves . . . I am content to put the whole upon this issue. If you can conceive it possible for any mixture or combination of qualities, or any sensible object whatever, to exist without the mind, then I will grant it actually to be so".

necessity: it presupposes that constant conjunction is somehow more "objective" than causality, that the latter is more "subjective", more "psychological". On this view the most we can say is that, in reality, objects are merely juxtaposed, merely constantly conjoined. It is only by supposing that space exists somehow entirely independently of ourselves, however, that this story can be told. It is only by treating perception as a product of independently existing objects that this view can be maintained. And, as I have tried to show, such suppositions are untenable. Perception is always already of an object; they are interdependent.

It is the obsession with objectivism that has brought us to the extreme of treating even our own bodies entirely as objects (Merleau-Ponty, 1962, 70 ff.). We treat

our eyes solely as bits of matter inhabiting the same objective space as that in which we try to situate external objects, and we nurture the accompanying belief that we are producing the perceived perspective -(or it is produced) by the projection of the objects on our retinas. These sorts of thinking all hold themselves to the point of view of the "outside spectator" (Merleau-Ponty, 1963, 162).

The sort of "craving for rationality" (James, 1977, 322) illustrated in this passage attempts reconciliation of perception and object by "fusing the manifold into a single totality" (1977, 322). This "solution" finally causes us to lose contact with perceptual experience, to view it as secondary.

On the other hand, Hume's phenomenological reduction of causality⁵⁹ "digs" into experience, finds the common phenomenological ground of both the natural and the philosophical perspective: a pattern of constant conjunction and inference, which does not predominantly belong to either:

When any object is presented to us, it immediately conveys to the mind a lively idea of that object, which is usually found to attend it; and this determination of the mind forms the necessary connexion of these objects. But when we change the point of view, from the objects to the perceptions; in that case the impression is to be considered as the cause, and the lively idea as the effect; and their necessary connexion is that new determination, which we feel to pass from the idea of the one to that of the other (T. 169).

⁵⁹Madison (1981, 147) describes the phenomenological reduction: "It is necessary to step out of immediate or natural experience, suspend the attitude of the outside spectator, and turn natural experience into the very object of reflection precisely in order to become conscious of it".

In this passage, Hume shows us how, in the philosophical relation, our focal awareness is upon *objects* and the inference (the "conveying" or "determination" of the mind) is relegated to peripheral awareness. In the natural relation, the context of perception is brought to focal awareness; we feel the determination that constitutes the necessary connection. Hume indicates how the two relations arise from two ways of talking⁶⁰ about the same phenomenon. There is a phenomenological common ground between these two perspectives: constant conjunction and inference. Since there is a common ground between the two perspectives and since the shift between the two is accomplished in and through language, Hume maintained that there is no basis for positing a radical difference between fact and value (T. 171).^H

Nonetheless, Hume was entirely right to insist that the natural relation is the more fundamental of the two relationships, since it incorporates the lived context from which the philosophical relation emerges and is an abstraction. Without the natural relation to underwrite the assurance that is required by any worthwhile notion of causality, the most that can be offered is statistical regularity. This is not to denigrate the importance of statistical regularity, but only to say that it is not causality. Even radical sceptics do not, once they leave their closets, behave as if their reliance on causation is a case of betting on statistical regularities. Such thinkers do not, for example, each time they take a breath, behave as if they are unsure as to whether, this time, air will support life or suffocate them. Like the rest of us, even radical sceptics rely on the reality of causal relationships and belie their scepticism. Ironically, without the assurance that is the natural relation, experimenters would be unable to act so as to contrive the very experiments by which they purport to make the natural relation redundant.

Even radical sceptics do not spend their weekends or vacations worrying whether the sun will rise tomorrow, although they may, along

⁶⁰ "There may be two definitions given of this relation, which are only different, by their presenting a different view of the same object, and making us consider it either as a *philosophical* or as a *natural* relation; either as a comparison of two ideas, or as an association between them "(T. 169-70).

^H "The same course of reasoning will make us conclude, that there is but one kind of *necessity*, as there is but one kind of cause, and that the common distinction betwixt *moral* and *physical* necessity is without any foundation in nature".

with their fellows, worry whether the weather will be sunny for their golf game or picnic. The point is that no one would ever make it out of bed in the morning if one did not take causal relationships for granted, if one did not have the assurance that past regularities have established. This lived assurance, please notice, must not be confused with the "necessary connection" of analytical reasoning. This is precisely Hume's point. There is nothing in experience that warrants attaching the analytical sense of necessity to the idea of causality. This being so, there is no conflict between causality and freedom; relying upon the constant conjunctions of the past, we may expect recurrences, but there is no warrant for a dogmatic insistence upon the unchanging "nature" of those connections. Without the ability to recognize resemblances and to extend the assurance we call "the uniformity of nature" to "every phænomenon of the same kind" (T. 173-4), the lived novelty that every present moment presents us with would overwhelm us. The repetition of lived experiment becomes habit: the capacity that renders it possible to become proficient at activities that otherwise would be constantly interrupted. This would be impossible if we had always to wait for the constant repetition from

which "the first idea of [the causal] relation is deriv'd" (T. 173). The ingrained habits of causal relationships make scientific practice possible in the first place.

Someone might ask whether causality is really, really, real*irrespective* of our experience of the natural relation. To this way of thinking we should respond that this someone is asking the wrong question. As Hume insisted, objects considered as entirely divorced from the context of lived experience can "give us no *idea* of power or necessary connection" (E_1 , 64). We cannot legitimately be accused of subjectivism. A. Michotte's experiments on the perception of causality (1963, 263) led him to conclude that the fact that the sense of necessity is a feeling does not entail that it is purely subjective, since *the phenomenon (feeling)* is *characteristic of the event*. The objective (event) has a subjective lining (feeling); the subjective event is what is characteristic of that sort of objective event.

Lived experience gives us, and is all that ever could give us, the causal relations with which we manage our affairs. If we need better or more sophisticated ways of compiling evidence, then the world is such that we

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can. because of the assurance expressive of past causal relationships, contrive better or more sophisticated experiments to gather that evidence. What the proponents of the philosophical relation seem to forget is that, without the *sense* of necessity of the natural relation, all the constant conjunctions in the world could never amount to more than just more of the same-old, same-old constant conjunctions.

To sum up: The natural relation is the kernel of causality. Hume described in meticulous detail the process that gives rise to the experience of causation. Without the natural relation, "causation" loses its meaning in one of two ways: Either the universe splinters into an array of disconnected parts⁶¹ or, upon the substitution of analytic necessity in place of the assurance derived from the natural relation, the universe is melded into one relentless, mechanical whole. Neither alternative does justice to everyday experience in which freedom and causality coexist (and in fact interdepend) happily.

It may at first be unnerving to recognize the importance of the personal in the causal relationship, since along with the recognition comes the awareness of the uncertainty of existence—its fundamental contingency—and its accompanying experience of *angst*, which we would all rather avoid. That, however, is the price of freedom.

⁶¹See A. Michotte (1963, 223): "The perception of causality is thus quite literally the perception of an act of production, or, to be more exact still, *an act of production immediately perceived*... Again, since production is an instance of the natural relationship, it requires no further elaboration in order to acquire significance, but immediately carries this significance." The expressions of this experience, far from investing it with meaning simply translate into conceptual terms what, at the prelinguistic level, *already has meaning*. It is the causal impression which plays a large part in giving ordinary objects the meaning they have for us.

NECESSITY AND THE PAST

Hume's conception of causality has an additional benefit. It gives us a way to come to meaningful terms with temporality—another aspect of lived experience that rationalism attempts to escape. The natural relation is past-entailing; this means that it makes fundamental reference to past existences. A past-entailing idea, according to Donald Livingston, is one that is about the present in the light of the past (1984, 101). Without the past the present would not be, logically, what it is. Livingston writes:

We could not say of our man without a past that he is a father, priest, friend, senator, police officer, lover, or thief. The reason is that among the conditions for applying these predicates is that certain statements about the past are true (1984, 101).

Livingston notes that one standard objection to Hume's first principle is the very fact that it requires reference to past existences. The viewpoint from which this objection is launched wants to do away with the past:

The conviction behind the standard objection that the past is a strange sort of reality which must be somehow conceptually transformed into something other than what it is, is very deep in modern philosophy (1984, 94).

The natural sciences, likewise, have traditionally treated temporality as a disposable characteristic of reality; they recast causal statements into the tenseless idiom of equations. Causality simply cannot, however, be reduced without remainder to tenseless concepts. What gets lost in this translation, unfortunately, is yet another necessary feature of what it means for something to be a cause of something else. Part of what it means to say that two objects are causally linked is that the past is linked to the present in such a way that, as Hume argued, "Without *A*, *B* would not have occurred". Some authors complain that Hume had no right to say this of causality, that he does not show how we can get there from constant conjunction, that he gives us no justification for the inference.

Of course not. In the first place, Hume was not suggesting that we get from a mere sum of constant conjunctions to this conclusion. This complaint misses Hume's most important lesson about causality. It is not a logical inference, but an existential carrying over of the past into the present, without which the present would not be such as it now is. Hume's repeated denial of the place of reason in causal inference makes it evident that, as I have already suggested, causality is not a logical but an existential meaning. Causality is the lived association among events that gets incorporated as assurance about the the way the world is; it is the carrying over from past to present of the lived experience of "infallible" (i.e. invariable) constant conjunction. Causality is an existential inference, a lived association among ideas and impressions, which changes the world. (More about this "changing the world" in Chapters three and four.)

Hume made explicit what is implicit in practice: What is past does not disappear without a trace. The practice of causality requires that there has been a past without which the present would not be what it is. To hold someone responsible for causing a fire, for example, requires that there was a past event (the fire) without which the present (e.g., the burned out remains of a house) would not be what it is but otherwise (say, the house as it was). In this way, causality is inherently backwardlooking. Causal relationships transcend what is immediately accessible to sensory experience, drawing past and present together. Causality is the condition that warrants belief in the reality of things outside the scope of immediate sense experience.¹ That condition, which is accessible to perception, makes what is not immediately accessible to sense experience count as other than purely imaginary.

Causality is not only backward-looking. It also faces the future, anticipating dimensions of the invisible as arenas of future sense experience. Causality, therefore, is a condition of human *action*, since by means of it we draw upon what we have learned from past actions (sequences of perceptions) in planning future ones. Without causal relations to generate and to maintain belief in the reality⁶² of what is not immediately perceived (but is, please notice, in principle perceivable)—for example, my car and the underground garage where I left it last evening—I could not carry out any plan (say, to get my car and drive to the supermarket).

¹ See (T. 74): "Of those three relations, which depend not upon the mere ideas [i.e. identity, situatedness, cause and effect], the only one, that can be trac'd beyond our senses, and informs us of existences and objects, which we do not see or feel, is *causation*".

 $^{^{62}}$ The effect of the intensity of belief is "to raise up a simple idea to an equality with our impressions, and bestow on it a like influence on the passions" (T.119).

"Power" is another case in point. It alludes to someone's having caused some series of events and to the anticipation of a similar series in the future. Without a series of such events having occurred, the notion of power cannot emerge; "power" is also future-entailing, in that when we say that someone has a certain power, it means that we can reasonably anticipate such a series of events in the future, under appropriate circumstances.

To summarize: Causality binds the past firmly to the present; the present would not be how it is without what is past having been how it was. Causality contains the past within it; when we say that A caused B, the past is integral to the meaning of what we say. In speaking of A, we do not intend a present idea but a past reality. If we say, for example, that HIV causes AIDS, we do not only mean that HIV is present, whenever there is AIDS, we also mean that, if HIV had not *done* what it did, AIDS would not now be present. We anticipate this relationship in the future when we believe that, whenever HIV is present, eventually AIDS will be also.

"Causality" does not mean mere change, as in thinking the stream of events mechanistically as wheels turning within wheels. The natural relation makes explicit a sense of transformation, which is our warrant for saying, for example, that the priest *changes* wine to blood. In this case, we mean that without the priest's actions the wine would not have become blood. Similarly, when we choose one route home as opposed to another, we insert our will into the stream of events and alter the whole stream of circumstances from what it otherwise would have been.

This may not be immediately obvious, since the idea is deeply ingrained that "the" world is out there and is what it is independently of our activities. Consider, however, that without the act of collecting together the requisite materials and the act of igniting them a fire would not have come to occur in just the place we wanted it. We act with the assurance established by past causal relationships when we gather paper and twigs and arrange them and set a match to them. Without the changes made by us right here and right now in the stream of events, this particular *fire* event would not have occurred. When we say that we made *B* happen, we mean that *B* would not have happened had we not *acted* as we did. There would be no consumption of oxygen and production of carbon dioxide at this site, for example, and no transformation of cellulose into heat and light, and so on.

Only by including the natural relation can we do justice to the *sense* of transformation that is integral to the meaning of causality. Without the natural relation, the *sense* of activity, of making a difference, we do not have causality but merely concomitant variation; so, when Bertrand Russell said that science does not need causality, he was wrong. Causality may not be required in concomitant variation, but that, clearly, is not sufficient. Scientists need to *act* upon what they know in order even to begin to do science. Scientists are, after all, human beings; as such, they act so as to bring about what they desire.

As Tom Settle writes:

Scientists see what they see in their laboratories because they have prepared their apparatus in a very particular way, and they could not understand what they see if they left out of the reckoning their own preparatory work (1989, 397).

Causality is presupposed by its practitioners in the experiments that permit the quantification of constant conjunction as concomitant variation. Even scientists depend in their practice upon the common sense of *volition*, which distinguishes between doing and thinking about doing.

THE SENSE OF VOLITION

The causal relationship is a structure of consciousness, one which is neither purely a human product nor purely other than human. The paradigmatic causal relation is *volition*. Volition, like other causal relationships, is at bottom "mysterious and unintelligible" (E_1 , 66). In other words, we have no more insight into the association of the perception of acting and its results than we do into any other association of perceptions. Nonetheless, as I have argued, such association is a phenomenological fact. Hume identified volition as the source of the idea of power (E_1 , 64-5), since reflection upon our own activities informs us of the "command which is exercised by will, both over the organs of the body and faculties of the soul" (E_1 , 64).

As Hume noticed:

This influence (volition), we may observe, is a fact, which like all other natural events, can be known only by experience, and can never be foreseen from any apparent energy or power in the cause, which connects it with the effect, and renders the one an infallible consequence of the other (E_1 , 64-5).

Once again, Hume is emphasizing that causal relationships are established in and through lived experience and cannot be foreseen—by no matter how careful scrutiny---by trying to find some "energy" or "power" in the cause from which the effects might be deduced or even seen, a posteriori, as unquestionably contained in the cause prior to the effect's having come about. Even our own sense of our own wills as causes are no exception. How often do our actions surprise us, even though we have the most intimate sense of connectedness between cause and effect in our experience of volition. I do not mean to say that we do not feel necessity when we act; rather, we cannot know absolutely what we will do from what we have already done. To put this differently, in the case of causal relationships, we have no access to the sort of intuitively immediate necessary connection that, we agree, holds between analytically connected ideas (such as "bachelor" and "unmarried man"). One might wonder whether this presents a problem for Hume's theory, since the point of a theory is to explicate circumstances and not to render them inexplicable.

Hume would maintain, however, that, although we must endeavour to trace things up to first principles so far as we can, when we confront the limits of reason, we must be content that we have done all that is possible in that regard; otherwise, we are led astray into a false philosophy. Moreover, I want to argue that he would have to admit that the discovery of the fundamental contingency of causal relationships means that we gain from his discovery an incomparable benefit: the knowledge that we are indeed free. Let me hasten to add, that, as Hume insisted (T. II, III, i) this does not, of course, mean that there is no union between motives and actions; to be free does not mean that one's past exerts no influence whatsoever over one's present actions. To the contrary, as Hume was concerned to show, in practice we rely upon constant conjunctions and the inferences between them—these are what causality amounts to, "this uniformity forms the very essence of necessity" (T. 403).

Nonetheless, Hume was perhaps misleading in the manner of his insistence upon necessity in actions. I say "perhaps", since what he said

must be seen in the light of what he was trying to do: to introduce a new understanding of necessity.⁶³ He wanted to provide a theoretical justification for something that in common life we take for granted: that there is a causal connection between the character and dispositions of persons and their actions, one that permits us to assign blame or merit. Hume was engaged in establishing a way of understanding⁶⁴ how it is that actions "infix" themselves upon us, in other words, how it is that there is a durable and constant consequence, in ourselves, of every one of our actions.

It is Hume's contention that people acquire merit or demerit on the basis of the necessary connection between character and actions. Actions "infix" as character and, conversely, character determines actions, in a mutually reinforcing relationship. If merit or demerit are earned due to the causal connection between character and actions, then, I think that Hume must admit some sense in which we are in control of the connection. This leads me to say that Hume would want to maintain that we are at liberty—not in spite of causal relationships but, precisely, because of them. Our capacity to reflect upon causal relationships puts us at liberty to act so as to change our character. In any case, whether or not Hume would agree, this is what I want to argue.

Hume wanted to overcome the "subversive" thinking associated with the "fantastical system of liberty" (T. 404), which viewed freedom as "a negation of necessity and causes" (T. 407). His desire to defend his own view of necessity led him to assert⁶⁵ that "there is a *false sensation* or *experience* even of the liberty of indifference, which is regarded as an argument for its real existence" (T. 408). Hume admitted (T. 408) that there is an experience, albeit somewhat uncommon, of a certain "looseness or indifference" in the relationship between events, but he dismisses that perception as false, since, in spite of such feelings of

⁶³⁽T. 409): "according to my explication of it".

⁶⁴Hume felt that the doctrine of free will, as propounded by religious authorities, ended up subverting all laws, both divine and human. By equating free will with a negation of causes, as "chance", we end up no more accountable for actions that are designed and premeditated than for those that are the most casual and accidental.

 $^{^{65}}$ In apparent contradiction to his first principle: Volition is a relation that we "know by consciousness" (E₁, 64), which, he adds, "never deceives" (E₁, 66).

having a real choice, "a spectator can commonly infer our actions from our motives and character" (T. 409).

Furthermore, Hume added that:

Even where he cannot, he concludes in general, that he might, were he perfectly acquainted with every circumstance of our situation and temper, and the most secret springs of our complexion and disposition (T. 408-9).

This is a compelling argument. We feel free when we act, but when we reflect upon our actions, we see that causal relationships determined the outcome. Hume put his finger on a conflict here, between immediate perception and reflection, between the two fundamental "sides" of experience. He thought that, since we cannot reasonably deny causal relationships, we must deny the truth of the perception of freedom. I want to argue that this is a false (albeit a natural) dilemma. Chapter three sets out a way of thinking that serves to deliver us from this dilemma. At this juncture, I want to suggest we undertake a phenomenological reduction of this process of reflection, to reveal at the very centre of causal reasoning an irreducible experience of freedom, in this case, in attributing causal relationships.

First of all, please recall that, in reflection, we abstract from the richness of lived experience. Next, we must bear in mind that causality is inherently backward-looking. When we reflect on causal relationships, we individuate, from the richness of lived experience, the constant conjunctions that are candidates for counting as causal relationships. To do so we concentrate upon resemblances and thereby tend to overlook⁶⁶ differences. When we look upon past actions as *faits accomplis*, the process of abstraction moves us away from lived experience to ideas; what was in actuality replete with differences gets assimilated to a pattern.⁶⁷ As Peter Evans (1995) puts it: "We are always trying to conceptualize a particular sequence as one example of a larger set of similar sequences" (3). When we get drawn into our ideas and forget the richness and, especially, the lived contingency of experience, we come to

 $^{^{66}}$ After all, as Hume observed of human nature in general, it is natural to imagine things to be entirely the same, which are not immediately distinguishable (T. 417, for example).

⁶⁷As I will argue in Chapter four, however, even the apparently fixed character of the past has much of the looseness of structure characteristic of present events.

feel that we "can never free ourselves from the bonds of necessity" (T. 408).

In lived experience, it is common to find side by side what may, for (some) logics, be mutually incompatible categories. (Chapter three will show how such an opposition does not entail dualism.) When we lose touch with the fundamental contingency of lived experience, we act like spiders gone mad: Taking ourselves for prey, we wrap ourselves up in our own causal thinking and forget that it was we who spun the web and from whom that web emerged in the first place.

Causal thinking is so important to our survival and the experience of contingency so conducive to anxiety that it is only natural that we tend to overlook the lived experience of looseness. Nonetheless, it is always present, for example, in the very act of choosing to attribute this (as opposed to that) causal relationship.⁶⁸ Once again, this is not to say that we can attribute causal relationships willy nilly; it is, however, to say that such attributions are underdetermined by experience. The sense of looseness among events, as Hume realized, is the lived experience from which the idea of freedom or liberty is born. This is not to say, of course, that every action is not subject to further reflection and to still further causal analysis; what is at issue is at every such moment, no matter how far we take the analysis, the lived sense of looseness is perceivable. Attention to differences permits us to become more aware of the looseness among events, to recall how, as Hume admitted, the will moves "easily every way, and produces an image of itself even on that side, on which it did not settle" (T. 408).

In any case, for Hume, "causality" does not mean analytic necessity; therefore, to say that one's character causes ones actions is not to say that one cannot change one's character. To put this differently, just because events have proceeded in a certain way in the past is no guarantee that they will always do so in the future. We anticipate that they will, but there is no analytic necessity involved in their being

⁶⁸Hume alluded to this point although he did not make anything of it (T. 408): "The necessity of any action, whether of matter or of the mind, is not properly a quality in the agent, but in any thinking or intelligent being, who may consider the action, and consists in the determination of his thought to infer its existence from some preceding objects: As liberty or chance, on the other hand, is nothing but the want of that determination, and a certain looseness, which we feel in passing or not passing from the idea of one to that of the other".

connected. Especially in the case of human action, we know that we may be wrong in our anticipations of what someone else will do. Recall that, for Hume, the necessity (the principle of causality) is a result of the inference (the lived relationship) and not vice versa.

The necessary connection of events, as Hume argued, has "been allow'd to belong to the will of man" (T. 409). This is why, as Hume of course admits, "we feel that our actions are subject to our will on most occasions" (T. 408). As much as, for example, behavioural scientists might be able to anticipate responses, we can and often do surprise them. Hume would, of course, have to admit that habits can be changed, that customs do change, and that tradition is not always triumphant over innovation. Why is that? We can offer a good Humean reason: the nature of causality. Although, for example, the sight of someone "lighting up" may always have led to the desire for tobacco in us, Hume has shown that there is no logically necessary connection between these two events. Just because it has always been the case that "when we have the prospect of pain or pleasure from any object, we feel a consequent emotion of aversion or propensity" (T. 414), this does not mean that we cannot *imagine* that things are otherwise. We can and we do. Although, in practice, we habitually rely upon a host of inferences from cause to effect, we also have a capacity to *imagine* alternative conjunctions; this is, precisely, the strength of the philosophical relation's abstraction from the context of experience.

Perhaps because of his preoccupation with showing how causality applies first and foremost to human action,⁶⁹ Hume did not appreciate how his own first principle might be applied to the question of human liberty. Causal necessity in human action, for Hume, belongs to uniformities embedded in habit, custom, and tradition. Since it is founded on the "experienc'd union of like actions with like motives and circumstances" (T 409), causality is in this sense contingent; any two relatives can be imagined to be differently related. I want to make it clear at this juncture that accounts maintaining that freedom is merely compatible with causality are unsatisfactory. What I will try to show is

⁶⁹See (T. 409): "I submit myself frankly to an examination of this kind, and dare venture to affirm, that the doctrine of necessity, according to my explication of it, is not only innocent, but even advantageous to religion and morality".

how freedom and causality are mutually reinforcing; the more causal relationships we can attribute, the more freely we may act.

At the risk of sounding paradoxical, there is in Hume's account an element of contingency in causal relationships. This should not surprise us too much at this juncture; the two sidedness of experience should lead us to expect to find contingency on the other side of necessity.⁷⁰The constant conjunctions of phenomena, and the lived relationships among them are, at bottom, mysterious and unintelligible. The continuous upsurge of phenomena is a living miracle, from which reality emerges moment by moment.

Since the inference of the natural relation just is the necessity of causal connectedness, and since we cannot see beyond the simple fact of connectedness to some hidden and absolute guarantee of the continuance of any particular causal relationship, there is in causal relationships—no matter how uncontroverted the experience of conjunction might be—an irreducible and undeniable looseness, a certain "slippage". Contrary to what one might think, that site of slippage need be neither an exception to nor a negation of causality. Instead, as I will try to show, Hume's claim that causality belongs to human will permits us to account for freedom in the very midst of necessity, because necessity—like freedom—is not absolute. The fact that we cannot penetrate to the bottom of either freedom or necessity need neither surprise nor dismay us; rather, it is reason for hope. I will argue that, in practice, freedom and causality are mutually reinforcing; the more causal relationships we ascertain, the freer we become.

This account, of course, stands resolutely opposed to positions that maintain that there "must be" some a priori reason, that is, some inalterable principle---whether "mental" or "physical"---inexorably fixing experience into absolutely intelligible regularities. Such accounts draw upon (and make explicit) our tendency toward recursion, the human capacity to reflect upon even our own causal attributions and to draw even them within the circle of new causal attributions. Such accounts forget their own basis in finite lived experience and wander astray into a

⁷⁰This is in keeping with Merleau-Ponty's notion of the perceptual faith is, which, please recall, is an "adherence that knows itself to be beyond proofs, not necessary, interwoven with incredulity, at each instant menaced by non-faith" (1968, 28).

fairyland when they claim that that there is no real novelty, that somewhere there "must be" some "eternal idea" or "eternal logarithm" inexorably unfolding lived experience according to some entirely intelligible "plan".

Such accounts go too far when they take the fact that we reflect causally even upon our own attribution of causal relationships as proof of some ultimate and absolutely unchanging necessity ruling the universe, for this is something that we do not experience. Such accounts go astray when they take what we do experience as proof of something that not only has never been experienced but also, in principle, can never be experienced. That move is, precisely, what Hume's first principle rejects. Such accounts transfer the determination of the thought (the natural relation) to external [entirely independent, and unperceivable] objects, and suppose a real intelligible connection between them (T. 168). By refusing to admit that "our line is too short to fathom" (E_1 , 72) these "extraordinary effects" (E_1 , 69), such appeals to the a priori enter into the domain of false philosophy.

In sum, to paraphrase Hume, causality is a quality, which only belongs to the lived experience that considers it.

CHAPTER 3

CAUSALITY AND CHIASM⁷¹

The phenomenological world is not pure being, but the *sense* which is revealed where the paths of my various experiences intersect, and also where my own and other people's intersect and engage each other like gears. It is thus inseparable from subjectivity and intersubjectivity, which find their unity when I either take up my past experiences in those of the present, or other people's in my own (Merleau-Ponty, 1962, xx, emphasis added).

Plato Rules, Eh?

Since the time of Plato, idealism—which treats mind and ideas as more real than sense experience—enjoyed an unbroken, if not untroubled, rule. Even Cartesian dualist thinking, which aimed to understand the world, is characterised by that way of conceiving body or matter. As Hume commented:

The *Cartesians* in particular, having establish'd it as a principle, that we are perfectly acquainted with the essence of matter, have very naturally inferr'd, that it is endow'd with no efficacy, and that 'tis impossible for it of itself to communicate motion, or produce any of those effects, which we ascribe to it (T.159-60).

For the Cartesian schema, matter is entirely inactive. This way of thinking is helpless to understand adequately what Hume rightly observed is "evident to our senses" (T. 159): for example, physical motion. This unfortunate consequence follows from treating matter and mind as substances. Since they draw a hard and fast boundary between their opposing, distinct, and independent domains,⁷² these definitions prohibit, from the very outset, any understanding of mind as interacting with matter. They leave no alternative but to treat matter and mind as entirely external to one another, a circumstance that results in having to choose one as real and the other as illusory if one attempts

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⁷¹See OED (1990) under "chiasma": "the point at which paired chromosomes remain in contact after crossing over during meiosis".

 $^{^{72}}$ Metaphysically, this way of thinking is much in keeping with the ancient Greek view that the sublunar world was constituted entirely differently from the world of the sun and stars. It is also in keeping with the Platonic myth of the metals, in which those individuals exemplifying reason were constituted differently from those exemplifying the passions. The commonalities of outcome of these metaphysically-based views are, I think, worth contemplating.

reconciliation—hence the unending battles between realist and idealist viewpoints.

MERLEAU-PONTY'S TOPOLOGICAL PRINCIPLE

Merleau-Ponty is perhaps right in wanting to oppose all systematic and objectivist metaphysics which attempt to *explain* the situation man finds himself in by linking it up with certain eternal a priori. The origin of rationality, that is, the ground of the possibility of perceptual and intellectual meaning, is to be found in the primitive fact, itself without grounding, that man is "thrown" into the world and that the world appears to him as though by miracle; the only reason for there being meaning is that man exists in point of fact, and thus there can be no explanation for this fact since it is presupposed by all explanations." (Madison, 1981, 165).

In his first published work Merleau-Ponty introduced what became his lifelong enterprise: to find a way to understand the relations of consciousness and nature⁷³ (1983, 3). Merleau-Ponty sought a way of thinking that did not fall prey to what Hume correctly diagnosed as insuperable problems of "the modern philosophy" (T. I. IV.). Like Hume, Merleau-Ponty was not interested in trying to solve the so-called "mind-body problem";^A that is, he was not carrying on the project of modern philosophy and trying to find a solution within its logical framework and methodology. He held that there was no way of thinking a solution given the premises under which it operated.^B

Madison makes the point concisely:

Putting the point in a smaller nutshell, "the mind-body problem" is an artefact of the style of thinking that treats body and mind as substances. Rather than trying to solve this problem, Merleau-Ponty did for philosophy what Poincaré did for geometry; he developed a new

 $^{^{73}}$ "By nature we understand here a multiplicity of events external to each other and bound together by relations of causality" (1983, 3).

A See (1968, 207): "Show that since the *Gestalt* arises from polymorphism, this situates us entirely outside of the philosophy of the subject and the object".

^B On an analogous point, see (1968, 212): "I say that the Renaissance perspective is a cultural fact, that perception itself is polymorphic and that if it becomes Euclidean, this is because it allows itself to be oriented by the system".

philosophical enterprise from different premises. Cultivating the science of experience begun by Hume and furthered by Husserl, Merleau-Ponty took experience entirely seriously. His phenomenology resolutely faces up to the implications of the primacy of perception.

Of his method, Merleau-Ponty wrote:

There is a third (method), which involves coming into contact with the facts, understanding them in themselves, reading them, and interpreting them so as to give them a meaning. We will have to vary the phenomenon in order to disclose a common signification from these variations. And the criterion for this method will not be a multiplicity of facts which will serve as proofs for predefined hypotheses. The proof will be in our fidelity to the phenomena, that is, in the precise hold which we will have of the materials used, and, to some extent, in our "proximity" to pure description (1973, 8).

Merleau-Ponty's method takes Hume's first principle much further than empiricists are willing to travel. In accordance with Husserl, Merleau-Ponty described Hume as going

in intention, further than anyone in radical reflection, since he genuinely tried to take us back to those phenomena of which we have experience, on the hither side of any formation of ideas (1962, 220).

Merleau-Ponty's lifework may be described, not inaccurately, as a cultivation of what is radical in Hume's thinking. Merleau-Ponty's entire corpus is devoted to bringing to awareness and expression "those phenomena", which Hume's work uncovered but to which he was unable to give a proper name. Exercising what he took to be his right to incorporate Hume in his viewpoint,^C Merleau-Ponty used the results obtained by twentieth century psychology to undermine its own empiricist presuppositions.⁷⁴ He radicalized Hume's attempt to get

^C See (1964, 29), Merleau-Ponty's defense of his thesis against the objections of Michel Bréhier: "Hume is one of the authors Husserl read the most. For my part, I read Montaigne and Hume very sympathetically, though I find them too timid in the return to the positive after their sceptical criticisms".

⁷⁴See, for example, (1962, 7n): "There is no justification for dodging the issue, as does Jaspers, for example (*Zur Analyse der Trugwahrnehmungen*) by setting up in opposition, on the one hand a descriptive psychology which 'undermines' phenomena, and on the other an explanatory psychology, which concerns itself with their origin. The psychologist always sees consciousness as placed in the body in the midst of the world, and for him the series stimulus-impression-perception is a sequence of events at the end of which perception begins. Each consciousness is born in the world and each perception is a new birth of consciousness. In this perspective the 'immediate' data of perception can always be challenged as mere appearances and as complex products of an origin. The descriptive method can acquire a genuine claim only from the transcendental point of view. But, even from this point of view, the problem remains as to how consciousness perceives itself or appears to itself as inserted in a nature. For the philosopher, as for the psychologist, there is therefore always a problem

philosophers to notice the *lived body* by ontologizing Hume's distinction^D between the body thought of as parts external to each other and the body as living experience.

This distinction is difficult for the one habituated to thinking him or herself as an object, as, for example, a collection of atoms. We must instead recognise the body as an expressive space (1962, 146), but not as one expressive space among others; rather, it is "our general medium for having a world" (1962, 146). One instance of the distinction is Merleau-Ponty's suggestion that, when we shake hands with another, "the hand is not a bundle of flesh and bone, it is the palpable presence of the other person" (1973, 116). Another of Merleau-Ponty's influences, Gaston Bachelard, wrote of the lived body as of "une *ontologie directe":*

C'est donc bien souvent à l'inverse de la causalité, dans le retentissement ... l'image poétique aura une sonorité d'être (1964, 2).

The view Merleau-Ponty espoused is also difficult for a mind wedded to the view that the other is a human product. His rejection of the objectivist view does not replace it with an account of the world as the work of, for example, a transcendental consciousness (1962, 147). Understanding the phenomenological distinction between internal and external, which is exemplified in the distinction between *body* and *lived body*, requires a gestalt switch in thinking from the one perspective to the other and back again so as to loosen the grip of those perspectives and to recognize them for what they are: different styles or systems of thinking.

Hume was the first (in Western philosophy⁷⁵) to accomplish this gestalt shift, with his two *definitions* of the causal relation (T. 169-70),

⁷⁵It appears that many of the meditational practices of Tibetan Buddhism are designed to bring about this way of understanding. See for example Padma Sambhava, *The Tibetan Book* of the Great Liberation: Or The Method of Realizing Nirvana Through Knowing the Mind,

of origins, and the only method possible is to follow, in its scientific development, the causal explanation in order to make its meaning quite clear, and assign to it its proper place in the body of truth. That is why there will be found no *refutation*, but only an effort to understand the difficulties peculiar to causal thinking".

D See (T. 230-1): "Tis easy to observe, that tho' bodies are felt by means of their solidity, yet the feeling is a quite different thing from the solidity; and that they have not the least resemblance to each other . . . Let us put two cases, *viz*. that of a man, who presses a stone, or any solid body, with his hand, and that of two stones, which press each other; 'twill readily be allow'd, that these two cases are not in every respect alike, but that in the former there is conjoin'd with the solidity, a feeling or sensation, of which there is no appearance in the latter".
which. he noticed, *make us consider*^E it either as a philosophical or as a natural relation. His two definitions express two basic interpretations of experience; they express two fundamental styles of thinking and make it apparent that language is the dimension in which we perform the gestalt shift from one to the other and back again. Hume made explicit the fact that we shift from the lived experience of causality to the objective view in language.

Recall his two definitions of the causal relation:

There may be two definitions given of this relation, which are only different, by their presenting a different view of the same object, and making us consider it either as a *philosophical* or as a *natural* relation; either as a comparison of two ideas, or as an association between them (T. 169-70).

In this passage, Hume pointed out the fact that language is the dimension in which the gestalt switch from subjective to objective perspectives occurs. He asserted that the definitions that we give of the causal relation present different "views" or accounts of that relation and, as a result, we consider it as either a comparison (external relation) or as a lived association (internal relation). The way that we use language changes our way of thinking of the relation.

Merleau-Ponty made Hume's point even more explicit:

This mediation of the objective and of the subjective, of the interior and of the exterior—what philosophy seeks to do—we can find in language if we succeed in getting close enough to it (1973, 102).

The two fundamental styles of thinking provide two ways of organizing and reorganizing our habituation in reality. We might say that causality is first and foremost a speech act: a selective use of the language of individuals and resemblances. On the one hand, under the abstract, "philosophical" way of thinking, we treat objects as if they were isolated from their surrounding context in experience. As a result, we interpret perception as a product, as externally related to other externally related

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Sardar Bahadur W. W. Laden La trans. (New York: Oxford University Press, 1954) Ye-shes rgyal-mtshan, *Mind in Buddhist Psychology*, Herbert V. Guenther and Leslie S. Kawamura trans. (Emeryville, California: Dharma Publishing, 1975).

^E Merleau-Ponty followed Hume in this view (1973, 50): "As a phenomenon of expression, language is constitutive of consciousness. From this perspective, to learn to speak is to coexist more and more with the environment."

objects. On the other hand, the "natural" way⁷⁶ includes the surrounding context and, in the process, tends to interpret objects as subjectively produced. Either way of thinking, when taken as "the" way, handles the other by reductive or eliminative strategies.

As Hume's deconstructions of naïve realism and of what he called the "modern" philosophy's ways of handling oppositional categories (such as mind and body—which lie comfortably intertwined in everyday experience) clearly show, however, those categories grow recalcitrant and disorderly when entirely separated in theory. Happily, Hume's analysis of causality opened the dimension that permits us to come to terms with, if not neatly reconcile,⁷⁷ the opposition. Just as the third dimension permits us to shift a left handed two dimensional shape to the right handed version of the same shape—like turning a glove inside out—the language of the causal relation permits us to move from objective to subjective and back again.

Hume re-established the natural perspective as primary^F since it is, after all, universally and undeniably the case that observations of objects leading to the discovery of rationality in nature (natural "laws") have always been in someone's experience.^G

Madison sums up the epistemological implications of the primacy of perception:

To think perception as the unreflected life of consciousness means to recognize that perception is an absolutely fundamental knowledge for which there is no explanation and no justification, other than its own de facto existence (1973, 161).

Of course, along with the rejection of the rationalist sense of knowledge as eternal and unchanging goes the idea that knowledge, once

⁷⁶It may be objected that the so-called "natural" way is not really natural at all, that paying attention to objects is the natural state of consciousness and that reflection is the more philosophical mode of the two. In defense of this way of labelling the two modes, I would argue that Hume is thematizing (systematically making explicit) what is implicit in the natural mode, which does, admittedly focus upon the world. The philosophical mode, as Hume calls it, is an abstraction from rather than reflection upon the natural mode.

⁷⁷The opposition cannot be entirely reconciled in the neat fashion desired by rationalist method because experience is fundamentally ambiguous.

F See (T. 94): "Tho' causation be a *philosophical* relation, as implying contiguity, succession, and constant conjunction, yet 'tis only so far as it is a *natural* relation, and produces an union among our ideas, that we are able to reason upon it, or draw any inference from it". ^G See, for example, $(E_1, 29)$: "The mind can never possibly find the effect in the supposed

cause, by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it".

....

attained, is not subject to revision. If, as Madison suggests, perception is a fundamental knowledge, and perception is constantly changing, then our knowledge of the world changes also. This is not to say that such change is arbitrary, since phenomenology's point is that there are regularities in the world, upon which we do in fact rely; furthermore, we are justified in that reliance. Of course, it is also the case that we all-toooften err; when we anticipate from past experience what the future will bring, we are often wrong. This is not because our past perceptions were erroneous, however. Because knowledge is finite, our expectations sometimes go beyond what our experience can actually justify.

If, as Madison also suggests, perception is unintelligible at its root, then it follows that we should often be surprised. Hume made mention of this characteristic of perception, in his observation that the effect is totally different from the cause (E_1 , 29). If this is so, then, we can never and should not expect to find the effect in the cause. We should not, then, expect to be able to "predict"; this does not mean, however, that we cannot be fully justified in *anticipating* and that our anticipations will not very often be fulfilled. It does mean that empirical knowledge can never be absolutely certain. This unpredictability of experience makes subjectivism ring false. The "side" of an object that may next present itself is beyond our capacity to imagine, unless we rely upon what we have already experienced. In order to take the possibility of surprise into account, we need a way of thinking around the view that objects are entirely humanly constituted.

DIFFERENT "VIEWS" OF THE SAME OBJECT

Hume's mitigated⁷⁸ scepticism provided a prophylactic against the "a priori" virus. He did not infer an unperceivable object producing our perceptions of it. This issue illustrates how Hume's thinking is

 $^{^{78}}$ Referring to the "Cartesian doubt", Hume argues, "were it ever possible to be attained by any human creature (as it plainly is not) would be entirely incurable; and no reasoning could ever bring us to a state of assurance and conviction upon any subject". He added: "It must, however, be confessed, that this species of scepticism, when more moderate, may be understood in a very reasonable sense, and is a necessary preparative to the study of philosophy, by preserving a proper impartiality in our judgements, and weaning our mind from all those prejudices, which we may have imbibed from education or rash opinion" (E₁, 150).

phenomenological (as opposed to empirical or transcendental⁷⁹). He went to "phænomena"^H for answers to his questions. If looking and seeing did not provide them, then he openly confessed (e.g., T. xviii) his inability to probe further with assurance. This led him to articulate the need to *presume* as much stability as past experience warrants in order to have a basis for reasoning.

Presumptive stability is a highly significant idea. Hume's way of thinking does not require absolute stability of concepts or the relations among them. It provides a phenomenological basis for reasoning: relying on the patterned stability of experience.⁸⁰ It thereby remains open to change. Merleau-Ponty, whether he was aware of it or not, incorporated into his own philosophy Hume's understanding of the gestalt switch from subjective to objective thinking; Merleau-Ponty treated "topological space as a model of being" (1968, 210). Specifically, Merleau-Ponty incorporated Hume's understanding into his notion of *reversibility*, his topological metaphor for thinking the relationship among the oppositions in experience.

If we follow Merleau-Ponty in his application of Hume's first principle to phenomena, we will notice that the most fundamental physical experience, namely touch, has as its most fundamental characteristic its reversibility:

This structure exists in one sole organ——The flesh of my fingers=each of them is phenomenal finger and objective finger, outside and inside of the finger in reciprocity, in chiasm, activity and passivity coupled. The one encroaches upon the other, they are in a relation of real opposition (Kant)——Local *self* of the finger: its space is felt-feeling (1968, 261).

We can ourselves examine the experience of touch from inside and outside; we can actively feel another part of our bodies or we can

⁷⁹For an example of a transcendentally empiricist interpretation of Hume, see Gilles Deleuze, *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*, Constantin V. Boundas trans. (New York: Columbia University Press, 1991).

^H Hume uses this term often. See, for example, (T. 317, 321, 327, 343, 366, 430, 432, 433, 436, 446, 453).

⁸⁰Hume's principles as developed by Merleau-Ponty might fruitfully be applied in the philosophy of science's attempts to understand chaos theory and fractal geometry, for example. Hume's insight into the role of language in shifts from one way of thinking to another provides a way to think through—as opposed to merely undergoing—paradigm shifts. There is no room to explore this matter in detail, but, at appropriate junctures in this dissertation, I will allude to some implications of phenomenological principles for thinking paradigm shifts.

passively be felt by another part of our bodies. There is no need to go to the sort of extremes exhibited in, say, Derridean thinking, that of insisting that each of these perspectives is so different from the other that we cannot speak of "experience" as a whole.

As James wrote, of the tendency to take categorical distinctions as absolute:⁸¹

When I see a thing *M*, with *L* to the left of it and *N* to the right of it, I see it as one *M*; and if you tell me I have had to 'take' it twice, I reply that if I 'took' it a thousand times I should still see it as a unit. Its unity is aboriginal, just as the multiplicity of my successive takings is aboriginal. It comes unbroken as *that M*, as a singular which I encounter; they come broken, as *those* takings, as my plurality of operations. The unity and the separateness are strictly co-ordinate (1977, 219-20).

In this passage, James observed that, when we reflect upon everyday experience, wholeness-of-something lies unabashedly alongside brokenness-of-the-same-something. As Hume noticed, the oppositions do not arouse concern in common life. Why not? In the first place, our corporeal spanning of space is an lived fact. It is philosophers who, shocked by oppositions lying *in flagrante delicto* in experience, insist upon normalizing them into conforming with the laws of reason. Secondly, as I argued earlier, the past-entailing nature of many concepts means that differing perspectives are necessarily incorporated within a whole—as opposed to a totality—by what amounts to a *temporalizing* logic of those concepts; the concept of an *elevator*, for example, includes the idea of movement from one floor to another, which in turn entails the passage of time.

Merleau-Ponty's perspective does not conceive inclusion as a reuniting of what is essentially separated, since neither wholeness nor separateness is treated as absolute, but as relative to each other in that what each means is interconnected with what the other means at the existential as well as at the linguistic level.⁸² In other words, the linguistic meaning becomes embodied in the existential and the existential is expressed in the linguistic. As Merleau-Ponty wrote (1962,

⁸¹"Absoluteness"here is to be sharply distinguished from "reality", since, as Hume noted, things that are distinguished by reason may or may not be distinct in reality. It does not follow from the fact that things are distinct in reality that they are *absolutely* distinct. ⁸²And at the linguistic because at the existential level, since language seeks to bring to expression what is implicit in experience (the primacy of perception, or, Hume's first principle).

294): "The novelty of phenomenology does not lie in denying the unity of experience, but in finding a different basis for it than does classical rationalism".

Wholeness must be respected as much as separateness if we are to do justice to human experience. Both Hume and Merleau-Ponty would agree with James' respect for common life:

When a common man analyzes certain *whats* from out the stream of experience, he understands their distinctness *as thus isolated*. But this does not prevent him from equally well understanding their combination with each other *as originally experienced in the concrete*, or their confluence with new sensible experiences in which they recur as 'the same.' Returning into the stream of sensible presentation, nouns and adjectives, and *thats* and abstract *whats*, grow confluent again, and the word 'is' names all these experiences of conjunction (1977, 224-5).

We experience ourselves as wholes, as individuals who, as Merleau-Ponty maintained, embrace everything (1962, 343). This implies that we cannot be adequately understood as merely a collection of objects externally related to each other, a view that those who reject the natural relation are stuck with.

As Bachelard wrote:

L'espace saisi par l'imagination ne peut rester l'espace indifférent livré à la mesure et à la réflexion du géometre. Il est vécu. Et il est vécue, non pas dans sa positivité, mais avec toutes les partialités de l'imagination (1964, 17).

I have argued that Hume showed the bankruptcy of classical and modern attempts to deal with this circumstance. I want now to turn to Merleau-Ponty's radicalization of Hume's premises, which yielded a topological model for understanding, which permits oppositions to retain the distinctness characteristic of them while at the same time coping with the difficulties posed by reason's failure to find a priori connections among them.

A NEW TWIST TO THE THINKING OF PHILOSOPHERS

Everyday experience is neither entirely subjective nor entirely objective; rather, it moves and jumps and flips between these categories. Nonetheless and notwithstanding its discontinuities, experience is also a whole, an ongoing unity.^I The problems we have had in reconciling

¹ Hume argued that reason on its own cannot discover real connections (T. 636): "All our distinct perceptions are distinct existences, and *the mind* never perceives any real connexion among distinct existences" (emphasis added). James also pointed out the problem for reason

oppositions arise from conceiving oppositional categories as essentially and absolutely separated. Instead of continuing to try to solve the problems deriving from that premise, we might do better to conceive categories as inhabiting portions of a sort of möbius loop. A fundamental characteristic of a möbius loop is two sidedness which is, nonetheless and curiously, one sidedness.⁸³

If oppositions were irredeemably separated, the (possible) world we inhabit would be analogous to a two-dimensional world existing on one surface of a link for a paper chain. If this were our world, however, we would only ever experience it from one of the basic perspectives. We would only experience it either subjectively or objectively but not both. Perhaps there may be some whose experience is limited in this way. There may be those who do not relate to the two sidedness of experience that I describe.⁸⁴ If the first paper link were subdivided, the separated links that would result would be just like the initial link: two-sided, with no access from one side to the other.

Arguing that the other surface is illusory or that it is really nothing but the identical side is insufficient to do justice to experience. When we try to continue along one side, the revolving door of experience inevitably, often imperceptibly, eventually shifts us to the other. There is no satisfactory way of comprehending this circumstance from a twodimensional world. This lived access to both sides of experience indicates that standard ways of handling oppositions are inadequate.

^{(1977, 218): &}quot;I adopted in a general way the common-sense belief that one and the same world is cognized by our different minds; but I left undiscussed the dialectical arguments which maintain that this is logically absurd. The usual reason given for its being absurd is that it assumes one object (to wit, the world) to stand in two relations at once; to my mind, namely, and again to yours; whereas a term taken in a second relation can not logically be the same term which it was at first".

⁸³"If reflection is to justify itself as reflection, that is to say, as progress towards the truth, it must not merely put one view of the world in place of another, it must show us how the naïve view of the world is included in and transcended by the sophisticated one. Reflection must elucidate the unreflective view which it supersedes, and show the possibility of this latter, in order to comprehend itself as a beginning" (Merleau-Ponty, 1962, 213). ⁸⁴Merleau-Ponty described the situation that is the outcome of such a disability(1973, 69):

⁸⁴Merleau-Ponty described the situation that is the outcome of such a disability(1973, 69): "Thus, we arrive at the following paradox: the normal subject would be the one who would not really consent to becoming himself except in contact with other people, who would recognize the enrichment that comes from discussion. The abnormal subject would be the one who would refuse this dialectic of the self. He would persist in considering language as only a kind of abstract logic."

Since, clearly, our immediate perspective is always limited, a more adequate way to understand lived experience must face up to temporality and finitude. The temporality of experience mitigates the finitude by permitting a "concatenation" of perspectives. Reasoning is a temporal correcting of perspectives⁸⁵ aiming at making them consistent overall, which occasionally requires transcending previous wholes to a new perspective. Merleau-Ponty's topological metaphor⁸⁶ for experience allows us to think the oppositions as inhabiting a "whole", by incorporating a *twist* in its structure. By conceiving experience as a möbius loop, we are enabled to understand how we move from one side of experience to the other—from, for example, the body as a dimension of my own existence to the body as a physiological thing.

Merleau-Ponty's ontological *element*, the *flesh*, is that undeniable and inescapable sense of presence, which is common to all perceptions. Even ideas—in the fact that they are "there" as opposed to "not there"—share this *sense* and, hence, the status of perception. As Hume and Merleau-Ponty both noticed, philosophy has not before had a word for what Merleau-Ponty baptised *flesh*. If we pay attention to perception, we notice that perceptions are followed by ideas. The flesh constantly, as it were, *dehisces*. The deeper we delve into experience and the more distinctions we make, the more perceptions issue from its insurpassable fecundity. Since its most basic trait is *dehiscence*, we may think of flesh as the principle of dehiscence. Each new distinction opens new dimensions of thinking; we may, therefore, think of flesh as dimensionality itself.

⁸⁶The use of *metaphor*, or as Hume argued *analogy*, is the basis of reasoning (T. 209, 283, 343, 624). It is the means by which we transcend present perception in causal reasoning.(T. 142, 147). As Madison writes (1982, 308): "A metaphor generates insightful understanding precisely because it forces one to be creative. . . . [Metaphorical language] performs an extralinguistic, existential function in that it provokes a change in the way we view things, it brings about a transformation in our thinking.".See also (1982, 311): "Being or Reality transcends all determinations and everything one can say about it directly are metaphors that communicate their truth not so much by what they say as by what, in their saying, they do". Those who take a single metaphor as ultimate reality are like those monolingual persons who take language so much for granted that they cannot distinguish words from things. Like primitive people who believed that putting a curse on someone's name could harm him, persons unused to foreign languages tend to find something perverse in the way "those foreigners" talk.

⁸⁵For how vision accomplishes this, see Merleau-Ponty (1962, 232-3), where he discusses, how the sight of a single object is not simply an outcome of focusing the eyes, but is anticipated in the act of focusing—that , in other words, "the unity of the object is intentional"—not a notional unity, but a bodily unity.

Please notice that flesh is an ontological notion, one that is not a priori but phenomenological. Merleau-Ponty's indirect ontology meets Hume's condition that no more be attributed to the cause than is visible in its effects; in other words, Merleau-Ponty's flesh meets Hume's standards (E_1 , 148) for a true philosophy. To simplify "it" in order to aid our understanding, we may conceive of the dimensionality of flesh as a structure having fundamentally two "sides", which do not coincide with each other; instead, each encroaches upon the other (1968, 261). Like a möbius loop, its two sides are one "not in the sense of synthesis, of the originally synthetic unity, but always in the sense of *Uebertragung*, encroachment, radiation" (1968, 261). Please note that the separateness is topographical, as it is in the möbius loop, rather than ontological, as it is for dualist thinking.

This is a fruitful way of thinking of experience. First of all, as Madison writes, it leaves behind

all notions of being in itself, while at the same time it keeps (Merleau-Ponty) from falling back into the transcendental trap, into an immanentist philosophy which thinks that it has eliminated being in itself by merely bracketing it and by defining being as being-for-us (1973, 208).

This new style of thinking cannot rightly be called either idealist nor realist. The flesh avoids both of those extremes. By generalizing Hume's insight into causality, we may approach perception from two fundamental sides, depending upon our way of talking and yet conceive flesh as the "single stuff" out of which body and mind emerge. We may conceive of this presumptive "whole" as in principle chiasmatic (in sense experience as well as in language⁸⁷).

The proliferation of subdivisions in the flesh produces more and more möbius loops in complicated interrelations. This metaphor enables us to grasp intuitively how we perceive constant conjunctions without ever being able completely to penetrate entirely the complexity of the interrelationships⁸⁸ among things. We need no longer expect to explain

⁸⁷Merleau-Ponty wrote, of the oppositionality of both language and perception: "The Saussurean analysis of the relations between signifiers and the relations from signifier to signified and between the significations (as differences between significations) confirms and rediscovers the idea of perception as a *divergence (écart)* by relation to a *level*, that is, the idea of the primordial Being, of the Convention of conventions, of the speech before speech" (1968, 201).

⁸⁸As Merleau-Ponty wrote (1962, 338): "My perception brings into co-existence an indefinite number of perceptual chains which, if followed up, would confirm it in all respects and accord

connections transparently. This is especially true if we acknowledge that experience is the constant context, the product, and the source of subdivisions and, therefore, that the twists arise from our own attempts to understand the whole from an always partial perspective. In other words, our attempts to grasp the other side of experience from the side we presently inhabit produce the twists and turns that knot experience.^J

Flesh offers a way to think the existence of the other, a task that dualism cannot manage to accomplish convincingly. Merleau-Ponty put it this way:

There is a limit to presence "in the flesh": we never occupy the same place as others. By definition, if we were in their place, we would be them (the distinction between our position, *hic*, and theirs, *illic*) (1973, 42).

Merleau-Ponty's topological thinking provides an intuitively apt and theoretically respectable way to conceive of the existence of the other: We may think our body as "a body encountering its counterpart in another body which itself realizes its own intentions and suggests new intentions to the self^{*89} (1973, 43). Rather than thinking ourselves as disembodied minds imprisoned inside machines dressed up to resemble humans, Merleau-Ponty's *flesh* frees our native ability of immediate (unreasoned) recognition, which animals and children display when they encounter each other.

The möbius strip metaphor has many further advantages. It permits a working relationship with temporality. Consider Madison's conception of Merleau-Ponty's lived-body/perceived world system:

Let us see what in this context the perceived thing and the perceiving subject must be. If a "compact" exists between them, and if the lived body forms together with the perceived world a *system* or *circular*

with it. My eyes and my hand know that any actual change of place would produce a sensible response entirely according to my expectation, and I can feel swarming beneath my gaze the countless mass of more detailed perceptions that I anticipate, and upon which I already have a hold".

J Hume was aware of the difficulty that reflection poses for the human sciences. See T. xix: "Should I endeavour to clear up after the same manner [as in natural philosophy] any doubt in moral philosophy, by placing myself in the same case with that which I consider, 'tis evident this reflection and premeditation would so disturb the operation of my natural principles, as must render it impossible to form any just conclusion from the phænomenon. We must therefore glean up our experiments in this science from a cautious observation of human life, and take them as they appear in the common course of the world, by men's behaviour in company, in affairs, and in their pleasures".

⁸⁹Merleau-Ponty derives this understanding from Husserl, following him in insisting that the operation is not logical but rather vital.

structure, then the two terms of this dialectical system imply each other and are correlative, that is, neither has existence and meaning without the other ... "The sensory 'properties' of a thing together constitute one and the same thing, just as my gaze, my touch and all my other senses are together the powers of one and the same body integrated into one and the same action" (Merleau-Ponty, 1962, 317-8) (1981, 30).

In this passage Madison argues that, because subject and object form a system of oppositions, they are interdependent at both the level of experience and at the level of language. Using the möbius loop metaphor, we may conceive of subject and object arising from the dehiscence of experience; since flesh is fundamentally two-sided, we can expect subject and object, and all of the oppositions following upon this distinction, to arise interdependently. As much as distinctions serve to separate, the fundamental contact between oppositions is never entirely lost. Oppositions may rest conformably side by side conceptually as they do in experience, while yet remaining distinguishable by reason in virtue of the length of the "loop", which enables thinking to make both their juxtaposition and their opposition systematic and, therefore, understandable.

We may understand that, even though finitude limits perception to one side of experience or the other, nonetheless, the past-entailing meaning of causality temporally constitutes wholeness. As Merleau-Ponty might say, causality, requiring the past for its meaning, knits together "events", which are "shapes cut out by a finite observer from the spatio-temporal totality of the objective world" (1962, 411). In addition, we may say that, although the past is truly "gone", nonetheless and notwithstanding this fact of experience, the present carries the past within it due to the reality-constituting nature of the causal relationship. In other words, since causal relationships carry over the past into the present, nothing is ever entirely lost; traces of the past are visible, are sedimented into the way that things presently are.

It seems clear that the phenomenological manner of thinking experience is superior to the dualist. Not only does it give reason its due as well as satisfying its need for systematic understanding, the phenomenological style of thinking does justice to the lived experience upon which reason depends for its abstractions and for validation of its theoretical excursions. Thinking experience as a möbius loop preserves its curious oppositionality, and, nonetheless, allows us to reconcile its

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oppositions as a temporally constituted whole. The metaphor transforms what, for dualism, must be mutual exclusion into a living, reciprocal relationship of mutual contact.

AN UNSURPASSABLE PLENITUDE

Perception and language are both temporal processes amenable to the möbius strip metaphor. The metaphor permits an intuitive understanding of the synchronic *move* from side to side of experience in a way that preserves both sameness and difference. As well, it is adequate to the diachronic dimension of experience; as much as we need to think objects as wholes, which have an objective unity, we need also to recognize differences (as well as samenesses) in them between one time and another.

We want, for example, to be able to say that this is the same river I drank from yesterday. Nonetheless, the concept of river requires that, today, it is not constituted by the identical waters I drank yesterday. There is an ambiguity in the concept that cannot be entirely disambiguated. Likewise, of the idea of returning to the same place or of reflecting upon an experience just past; putting ourselves into the picture, we may take up Merleau-Ponty's (1968, 204) suggestion that we think of reflection as an inventory of the departure from as well as the return to the place: a record of a voyage whose documents we carry in ourselves.

The möbius strip metaphor permits us a way out of the recursion that plagues attempts to understand identity. Since difference and sameness are no longer isolated from each other, we may capitalize on ambiguity, on the fact that differences as well as similarities inhabit all experiences. We may think of recurrences, for example, as patterned similarities occurring along with the inescapable differences inherent in temporality. We may think of returning to the same place as an experience of almost, but never quite coinciding with the place as it was.⁹⁰ The past place is "transparently visible" through the present; the situation is analagous to seeing a "pebble through the mass of water which moves over it" (Merleau-Ponty, 1962, 418). We might borrow chaos theory's metaphor of the *strange attractor*, to incorporate conceptually the infinite possibility

⁹⁰See James Gleick (1987, 140-1).

for returns within the finite place of return, by thinking of the samedifferent opposition as forming a complex of surfaces of which each is close to the other but never crosses over the other or repeats itself.

Merleau-Ponty's metaphor permits us to understand Hume's distinction between the *philosophical* relation and the *natural* relation (T. 170) as the language motivated shift between different accounts of the same experience. As Polanyi's noticed: "Externality is clearly defined only if we can examine an external object deliberately, localizing it clearly in space outside" (1962, 59). To put this differently, defining an object as external requires that we remove it (in imagination or language) from its context in perception—as we do in the philosophical perspective. In doing this, we leave ourselves—the fact that objects are always objects of someone's experience—out of the picture.^K We foreground the constant conjunction of objects at the expense of the inference between them.

On the other hand, from the natural perspective, we include the lived experience of association between events. In other words, the natural relation brings the inference into the spotlight, giving an account of the habit or determination of the mind to move from certain experiences to certain ideas or from certain ideas to certain other ideas.^L Both accounts share a common phenomenological structure; the philosophical relation and the natural relation have constant conjunction in common.⁹¹ Both cases share a phenomenological structure: constant conjunction.

^K This point is, in part, what I take Hume to have been getting at when he wrote (T. 67): "A like reasoning will account for the idea of *external existence*. We may observe, that 'tis universally allow'd by philosophers, and is besides pretty obvious of itself, that nothing is ever really present with the mind but its perceptions or impressions and ideas, and that external objects become known to us only by those perceptions they occasion. To hate, to love, to think, to feel, to see; all this is nothing but to perceive".

^L This permits a phenomenological manner of understanding the "correspondence" between ideas and the world in which we may want to say that truth consists. See, for example, (E₁, 54-5): "Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces, by which the former is governed, be wholly unknown to us; yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature. Custom is that principle, by which this correspondence has been effected; so necessary to the subsistence of our species, and the regulation of our conduct, in every circumstance and occurrence of human life. Had not the presence of an object instantly excited the idea of those objects, commonly conjoined with it, all our knowledge must have been limited to the narrow sphere of our memory and senses; and we should never have been able to adjust means to ends, or employ our natural powers, either to the producing of good, or avoiding of evil".

⁹¹In this way Hume's reduction illustrates Merleau-Ponty's point that there can be no *final* reduction, since, to understand causality we need appeal to the concept itself. As I have argued, it is causal relations that structure reality, both of mind and of body. Since

Hume put it very straightforwardly:

Necessity may be defined two ways, conformably to the two definitions of *cause*, of which it makes an essential part. It consists either in the constant conjunction of like objects, or in the inference of the understanding from one object to another ... both these senses (... indeed, are at bottom the same) (E_1 , 97.)

In this passage, Hume performed a phenomenological reduction of the causality, revealing that the phenomenon of causality is the natural relation. To put this differently, the experience of which "causality" is the idea is the natural relation. He then went on to analyse the natural " relation, showing that, in both the philosophical and natural relation,^M the "cement" is the same, namely, the first-hand experience that is the " inference of the understanding or imagination, which constitutes the (practical as opposed to analytical) necessity of the relationship. This, of course, does not mean to say that the necessity is ultimately arbitrary or "unreal" or "illusory", since, for Hume (T. 172), the causal relationship is, precisely, the condition of reality. Moreover, to make such a claim, which goes beyond what is accessible to experience, is to venture into territory to which Hume's mitigated scepticism refuses to grant a visa.

Problems arise when a most general fact—the lived experience of the inference that characterizes the natural relation—becomes occluded, as it does when the language of the hard sciences foregrounds objects and ignores (and even devalorizes) the first-handedness of the relationships between them. Forgetting that first-hand experience is the basis even of scientific observation, the rhetoric of the physical sciences⁹² treats the philosophical relation as the sole reality. Is it any wonder that such a ~

⁹²For some penetrating analyses of this rhetoric, see Gross (1990) and McCloskey (1985).

consciousness belongs to the category of mind, and since it is the experience of causal relationships that constitutes the associations that form the category of mind, it cannot be the case that causality belongs fundamentally to an a priori structure of consciousness. To put this differently, causality, speaking archeologically, lies at a deeper level than both body and mind. It cannot be the case, therefore, that consciousness constitutes the world. Rather the case is as Hume observed it to be, causality is the condition of the reality of both body and mind.

^M Subjecting the natural relation to analysis is, of course, a process of abstraction; as a result, it yields a sort of philosophical relation again, in which the inference counts as another constant. Perhaps this is why Merleau-Ponty's admiration of Hume was qualified by criticisms. Perhaps this sort of move was what led to Merleau-Ponty's criticism that, although Hume took us prior to the formation of ideas, he "went on to dissect and emasculate this experience" (1962, 220).

language has difficulty forging (as opposed to "observing") those relationships once again?

THE SENSIBLE THAT HOLLOWS ITSELF OUT

Build a doctrine of the negative on these phenomena. The positive and the negative are the two "sides" of a Being; in the *vertical* world, every being has this structure . . . to see the other is essentially to see my body as an object, so that the other's body could have a psychic "side." The experience of my own body and the experience of the other are themselves the two sides of one same Being . . . the other is the *horizon* or other side of this experience (Merleau-Ponty, 1968, 225, final emphasis added).

Experience has two opposing sides. There is always the other; we somehow occupy and yet fail to to occupy both sides. Both sides share a common pattern. We experience constant conjunctions and temporal successions of impressions and objects, of objects and ideas, of impressions and ideas, of ideas and ideas, and of every combination thereof. Such patterns, in turn, give rise to lived causal relationships and, therefore, to real existence (T. 172). This "uniting principle among our internal perceptions" (T. 169), at bottom, "is as unintelligible as that among external objects". In other words, we cannot get beyond perceptions and the associations among them to explain them any further—phenomena constitute the limit, "and it is a satisfaction to find some analogies, by which it may be explained" (E_1 , 54).

If we translate Hume's insight into causality into Merleau-Ponty's terms, we may say that Hume initiated a way of thinking the object as ^{*} arising in the midst of the subject. The natural relation is the condition \cdot of reality for both "mind" and "body". Vivacity is transferred from impression to idea, giving "strength and solidity to the related idea" (E₁, 54). In all conclusions concerning matters of fact and existence, this "customary transition" is "the whole operation of the mind" (E₁, 54). The principle of connection is known to us by experience (T. 169); in fact, the connecting principle is and always has been in first-hand experience— and nowhere else. The constant conjunction of perceptions along with the determination of the mind just is what constitutes physical necessity (T. 171). To put this differently, we experience, so to speak, a "pre-established harmony between the course of nature and the succession of ϵ our ideas" (E_1 , 54).⁹³ The principle of that correspondence is *custom* (E_1 , 55): the habitual inference, or carrying over of the past into the present. To put this differently, custom or habit just is the past inscribed or sedimented in the living present.

Since it is constant conjunction and the determination of the mind that constitute necessity, it follows that "there is but one kind of cause, and that the common distinction betwixt *moral* and *physical* necessity is without any foundation in nature" (T. 171). To put this differently, although experience has opposing dimensions, they are not inaccessible • to each other. The other is not inaccessible to us, as would be the case if subjects inhabited a two-dimensional world on one side of a sheet of paper and objects another world on the reverse. Just as it reveals to us ourselves as object and as subject, the lived connection we call "causality" is the condition that reveals the other to us.

Recall that both Merleau-Ponty and Hume rejected the metaphysical inference from experience to some in principle imperceptible object. Hume insisted that to avoid false philosophy, we must not attribute to any cause any power or any quality other than that which is observable in its effects. Attempts to go beyond experience and to posit something entirely different from what is accessible to perception must, therefore, result in false philosophy. Merleau-Ponty likewise insisted that accounts that claim to penetrate to the so-called "substrate" of experience are always interpretations of what is in fact experienced.⁹⁴ Things such as, for example, The Unconscious, have always been visible only in their effects; they must always be interpreted indirectly from what can be observed directly, that is, from phenomena. Since this is the case, it is critical to tread carefully along the margins of perception, lest we sink into a metaphysical quicksand from which centuries of thinking may fail to extricate us. Like the Buddha, in our meditations we should keep one hand always in contact with the earth.

⁹³It is important to bear in mind here, that, for Hume, "the course of nature" meant impressions, not some reality in itself outside of experience. For this reason, we can observe the parallel of which he spoke as a sort of "pre-established harmony". His appeal to that idea is a rhetorical appeal to a *locus communis* of the time and serves to show how such an idea might be interpreted in a non a priori fashion.

⁹⁴Madison (1973, 192-203) elucidates this idea in detail.

Merleau-Ponty's "flesh" is an *indirect* ontological principle,⁹⁵ which adheres to Hume's maxim, putting our conceptions firmly in contact with the lifeworld. It avoids the error of causal representation theory, that of positing a relation without a relative. As Hume argued, only two directions are possible:

We are oblig'd either to conceive an external object merely as a relation without a relative, or to make it the very same with a perception or impression (T. 241).

In this passage, Hume was suggesting that one alternative is to posit an object-in-itself, something entirely beyond experience that, nonetheless, somehow causes our experience. He noticed that this inference leads to a dead-end, one fatal consequence of conceiving perception as purely a human product. If we conceive of perception in this way, we have no recourse but to try to establish an entirely noumenal object in the (in fact, hopeless) hope of "breaking out" of the solipsism that we have inadvertently established in the first place by means of our initial supposition. The hoped-for inference to an entirely objective thing-in-itself turns out to be a relation without a relative.^N

The remaining option is to make the object the very same with perception, but, as I hope it is clear by now, making objects the very same with perceptions or impressions does not entail subjectivism; neither does it entail making perception into an object. Incorporating Hume's results into his notion of *flesh*, Merleau-Ponty makes the object the very same with perception and yet avoids isolating subject from object. The flesh is inherently temporal and can therefore be said to be fruitfully ambiguous between subject and object. This topological conception allows Merleau-Ponty to say that, as much as the object (the being-touched) is immersed in the subject (the touching being), the

 $^{^{95}}$ If we can show that the flesh is an ultimate notion, that it is not the union or compound of two substances, but thinkable by itself, if there is a relation of the visible with itself that traverses me and constitutes me as a seer, this circle which I do not form, which forms me, this coiling over of the visible upon the visible, can traverse, animate other bodies as well as my own. And if I was able to understand how this wave arises within me, how the visible which is yonder is simultaneously my landscape, I can understand a fortiori that elsewhere it also closes over upon itself and that there are other landscapes besides my own" (1968, 140-1).

^{1).} ^N See, for example (T. 239): "But tho' in this view of things we cannot refuse to condemn the materialists, who conjoin all thought with extension; yet a little reflection will show us equal reason for blaming their antagonists, who conjoin all thought with a simple and indivisible substance".

subject is immersed in the object. When I see red, for example, the idea that I exist isolated from redness-in-itself, which I then somehow see, is an abstraction based upon dualist presuppositions, one which treats even the grammar of the sentence relating isolated atomic components. From the phenomenological perspective, I-see-a-red-thing. *My* perception is (always already) of an object; perception and object arise simultaneously, interdependently. Body and mind can, of course, be distinguished; this does not mean that we must conceive them as isolated. The distinction we make is a distinction of reason, for convenience (but, this is, of course, not to say "arbitrarily").

Consider how Merleau-Ponty put it:

Define the mind as the other side of the body——We have no idea of a mind that would not be *doubled* with a body, that would not be established on this ground (1968, 259).

In this passage, Merleau-Ponty's use of "body" does not allude to the "objective" body of science, nor to the "body" thought by Descartes to belong to his soul, both alike in being abstractions that ignore the phenomenological, lived body, which cannot be circumscribed. The lived body is "of a piece" with all other flesh:

I cannot posit one sole sensible without positing it as torn from my flesh, lifted off my flesh, and my flesh, itself is one of the sensibles in which an inscription of all the others is made, the sensible pivot in which all the others participate (1968, 259-60).

Contra Descartes, we do indeed see others, not just their "clothing", their "behaviour". We perceive others directly; our perception is of the other. We perceive each other's feelings; we do not (ordinarily) mistake the colouring of shame for that of anger or of arousal. The fact that we sometimes do err only accentuates the more common experience, of sympathy. Merleau-Ponty's metaphor allows us to understand error, as the consequence of the fact that, although we may "almost coincide", we never quite do so. We do not even coincide with ourselves; for human being-in-the-world, there is always the "not-quite" of reflexivity, of reflection, of language. We do not experience a total fusion with another, but this does not mean that we need think ourselves totally isolated. There is contact. Merleau-Ponty's paradigm of touched-touching is the paradigm of the "almost":

The touching is always on the verge of apprehending itself as tangible, misses its grasp, and completes it only in a *there is* (1968, 260).

When we try to experience touching and touched simultaneously, we instead find ourselves in a gestalt shift from one experience to the other—a shift that makes us miss our grasp and always leaves us facing the other. We find the same experience when we try to see ourselves looking in the mirror. The process is one of dehiscence, which produces layer upon layer of reflection both "within" and "without"—like a tree, which produces external and internal layers and simultaneously grows upwards as well as downwards.⁹⁶

Merleau-Ponty maintains it is *because* of the dehiscence that there is, in fact, also contact. Without dehiscence, in other words, contact is not possible. He extends this to an account of perception; the chiasm makes possible a me-other exchange, an exchange between the perceiving and the perceived. The very differentiation just is perception; perception is an act of distinguishing between, say, the object and its background. The differentiation between figure and ground produces a third term: the separation that is perceptual meaning (1968, 197). The separation between myself and the tree that I observe is the perception. As I argued earlier, a boundary always has two sides; therefore, the other side of divergence is contact, perception. The direct, immediate, and inescapable contact that is the flesh runs through all that we experience; therefore flesh temporally constitutes the whole.

CONCLUSIONS

Merleau-Ponty's *flesh*, when applied to understanding our experience of causation, overcomes the helplessness of a priori metaphysics when faced with the lived fact of causality. As John O'Neill puts the point:

The philosophical puzzles of how we are in the world (ontology) or of how the world can be in us (epistemology), which have dictated quite particular analyses of the logic of language and thought, are transcended in the phenomenological conception of embodiment as a corporeal intentionality, a mode of knowledge and expressive form (1973a, xxxi).

⁹⁶See Merleau-Ponty (1973, 12): "Language introduces itself as a superstructure, that is, as a phenomenon that is already witness to another order".

Flesh permits us to think experience as a process of rendering meaningful accounts that are distinct yet, nonetheless, not isolated from each other. Flesh permits us to incorporate both objective and subjective accounts within the style of being that we call human. Rather than thinking perception and the world of objects as separate and opposing—as, for example, *illusion* and *reality* or even as, say, *parallel realities*—Merleau-Ponty's topological notion admits both dimensions as two sides of a sort of möbius strip—for example, as visibility visible.⁹⁷ The möbius loop metaphor permits us to conceptualize our actual lived access to the other side, how each side runs imperceptibly into the other, one side of experience, when followed to its limit, "flips" to the other.

Flesh incorporates and generalizes Hume's discovery of the two sidedness of causality. We may speak of the same cup we drank from yesterday, while shrugging off the headaches that the "ship of Theseus" gives to those who account for themselves as constituted of *time slices*. *Reversibility* incorporates and makes it possible to systematically understand the shifts and changes in our lived experience of temporality in a way that atemporal models of time cannot. *Intersubjectivity* is the natural outcome of the reversibility of flesh; the other as object has a subjective side. The objective side of experience is the locus of our contact with each other.

Moreover, and most importantly, at any moment we can *perform* a gestalt switch between subjective and objective ways of thinking; lived experience is voluntarily reversible from the one dimension to the other and back again. Just as the "twist" in a möbius loop cannot be absolutely located, the freedom of reflection, of language, which permits us to perform the gestalt switch that puts us in control of causal relationships, cannot be "located" so as to confine it entirely for the purposes of explanation. Although the twist is indisputably "there", right in front of us, nonetheless whenever we "grab" it between our fingers, it somehow "escapes" our grasp and remains enticingly—and just as indisputably—*elsewhere*.

⁹⁷For a detailed discussion of the difference between Merleau-Ponty's early attempts to overcome dualism by means of *radical duality* and his late thinking, which expresses the subject-world relation as *reversibility*, see Madison (1973, 206-19).

The Perpetual Conversation

we must look for Reality—for that which is analogically common to all realities—in the very process of belief formation" (Madison, 1982, 298).

A child toddles out of her home in Toronto into her tiny backyard. Trees wave their leafy branches and a summer breeze cools her skin. For the child, trees are not yet understood as a circumscribing of a certain absolute space, limited once and for all by certain conditions.^O A sudden realization of the meaning of what she sees and feels transforms her world in a moment. The trees are *gesturing* welcome, fanning her in the heat of the afternoon.⁹⁸ The natural relation has opened an interpretation of the lifeworld. To put this differently, the natural relation, produced by the constant conjunction of trees and breeze, constituted an existential meaning for the child.

For the child, a tree has a general capacity to formulate a constant type of gesture, of handling all the transpositions that may be necessary—just as she does. Naturally, the child does not think in these terms, which are an adult, philosophical expression of the child's capacity to conceive trees as like herself. The child has, nonetheless, made an appraisal of her experience, an appraisal that brings order to her experience. Prior to her realization, we might say that her experience

^O See Merleau-Ponty (1973, 61): "With his global language, the child makes himself understood by the other, who plunges into his consciousness and grasps the totality of the phenomenon through the rational order of his words. This comes from the fact that, as in drawing, where children do not project the object to be represented on a single plane, in language they do not project the signification only on the plane of logical speech". ⁹⁸"Both primitive man and the infant, in a naïve anthropomorphic attitude, consider it quite plausible that every change and event is the outcome of the action of a being acting in the same way as they themselves do. They believe that animals, plants, mountains, rivers, and fountains, even stones and celestial bodies, are, like themselves, feeling, willing, and acting beings. Only at a later stage of cultural development does man renounce these animistic ideas and substitute the mechanistic world view for them. Mechanicalism proves to be so satisfactory a principle of conduct that people finally believe it capable of solving all the problems of thought and scientific research. Materialism and panphysicalism proclaim mechanicalism as the essence of all knowledge and the experimental and mathematical methods of the natural sciences as the sole scientific mode of thinking. All changes are to be comprehended as motions subject to the laws of mechanics" Von Mises (1949, 23-4). See also Merleau-Ponty (1973, 58-9): "It is rare that the child is conscious of not having understood (5 percent). It sometimes occurs that the child who is explaining a mechanism does not even specify which mechanism is in question. He disrupts the logical, causal, and temporal order by going directly to the facts without investigating the causes. There is a reversal of the 'because'; the child uses it to attach cause to effect and not the inverse . All this is part of the verbal syncretism" (1973, 60).

of trees and breeze was random⁹⁹ or even, perhaps, chaotic. Her appraisal was an act¹⁰⁰—perhaps aptly described as an heuristic surmise¹⁰¹ as opposed to a guess—of coming to know the world.^O In telling her story she would speak of having discovered something about the world: that trees wave to her, as humans do.

Some days later, she tells her mother of how the trees wave at her and make a breeze. Another appraisal changes the meaning of this experience for her; her mother takes her outside of the yard and points out that the breeze is coming from behind the trees. She says that it is actually the breeze that causes the trees to dance. She has appraised her experience differently from the way in which her daughter did hers. The child accepts her mother's judgment and the world again changes for her, from one in which trees actively wave into one in which trees are passively moved by the activity of the wind.

Someone might object that what is "really" happening is that the child's *understanding* of the world changed, not the world. In general, this way of thinking exemplifies Merleau-Ponty's observation (1968, 189) of the "retrograde" action of knowledge. Once we begin to think in a new way, we cannot revert to an earlier way of thinking; as a result, we tend to think that this is how things "really" were and that we had previously been unable to see the truth. In particular, the objection rests entirely

 $^{^{99}}$ In the sense that randomness consists in the absence of any significant pattern. See Polanyi (1962, 37).

^{100&}quot;Hume viewed human beings fundamentally as agents, as doers, immersed in both a physical world and a social world along with other agents. Hume saw mankind's primary task as practical, not theoretical. This is not only a radical shift in perspective, but it is an intrinsically social view of man. Instead of attempting to scrutinize our thought process in the hope of uncovering principles of rationality which could be applied to directing our action, Hume reversed the procedure. He began with our practice, our action, and sought to extract from it the inherent social norms. Efficient practice precedes the theory of it." Capaldi (1989, 23). See also Hume, (T. xix-xxiii); (E_1 , 8-9); (E_2 , 172). "This novel Humean starting point has been previously identified by Capaldi as Hume's common sense philosophy and by Livingston as Hume's appeal to common life" (Capaldi (1989, 25)).

¹⁰¹See Polanyi (1962, 36).

^O Consider T., 173: "There are no objects, which by the mere survey, without consulting experience, we can determine to be the causes of any other; and no objects, which we can certainly determine in the same manner not to be the causes. Any thing may produce any thing. Creation, annihilation, motion, reason, volition; all these may arise from one another, or from any other object we can imagine. Nor will this appear strange, if we compare two principles explain'd above, that the constant conjunction of objects determines their causation, and that properly speaking, no objects are contrary to each other, but existence and non-existence. Where objects are not contrary, nothing hinders them from having that constant conjunction, on which the relation of cause and effect totally depends".

upon the mistaken view that "the" world is something purely objective, constituted separately and entirely independently of human perception or understanding. As Chapter one argued, in general, however, this view is inadequate to lived experience. Chapter two attempted to show how it is inadequate to the lived experience of causation in particular and introduced some principles for a different way of thinking, which we are now engaged in working through. This alternative way of thinking rejects both objectivism and subjectivism; instead, it enlists Hume and Merleau-Ponty to show how the process of creating reality is interactively reciprocal between self and the world. This way of thinking permits us to think object and subject as interrogating one another in a two-sided process of "creation that is at the same time a reintegration of Being" (Merleau-Ponty, 1968, 197).

-- Sensation is itself a moment of intersubjectivity, of reciprocal encroachment between subject and object. As Merleau-Ponty wrote:

I cannot envisage this form which is traced out in the nervous system, this exhibiting of a structure, as a set of processes in the third person, as the transmission of movement or as the determination of one variable by another. I cannot gain a removed knowledge of it. In so far as I guess what it may be, it is by abandoning the body as an object, *partes extra partes*, and by going back to the body which I experience at this moment, in the manner, for example, in which my hand moves round the object it touches, anticipating the stimuli and itself tracing out the form which I am about to perceive (1962, 75).

In this passage, Merleau-Ponty envisaged sensation as a moment of communication between oppositions,^p in which a transformation of both occurs: "Sensation is literally a form of communion" (1962, 212).

Consider how the natural relation reorganizes the field of experience (e.g., vision), so that cause and effect meet the eye in a specific way so as to *make sense* of things. Polanyi writes: "A mental effort has a heuristic effect: it tends to incorporate any available elements of the situation which are helpful for its purpose".¹⁰² The child's experience of the

^P See also Merleau-Ponty (1973, 67-8): "Lagache has shown that all speech is a double action. When I listen to another speak, I am not silent; already I anticipate his spoken words, and already have my answer, at least in outline form. Inversely, for the person who is speaking, there is an implicit belief in my comprehension... The function of language is only a particular case of the general relation between self and others, which is the relation between two consciousnesses, of which each one projects itself *in the other*".

¹⁰²See Polanyi (1962, 62): "Köhler has described this for the case of a practical effort, made by an ape in the presence of an object which may serve as a tool. The animal's insight, he says, reorganizes its field of vision so that the useful object meets his eye as a tool. We may

natural relation, stimulated by her groping attempts to understand the constant conjunction of two events, creatively brought the individuated elements together in a meaningful relationship. She too would think that all along the trees had been waving to her but that she had been unaware of it.

The child was not, of course, explicitly aware of the process I have just been describing; nor was her mother; nor did they need to be. Much of what we do, we do not and cannot make entirely explicit. Polanyi disclosed the enormity of the "tacit dimension", in which much of what is human inheres:

The unspecifiability of the process by which we thus feel our way forward accounts for the possession by humanity of an immense mental domain, not only of knowledge but of manners, of laws and of the many different arts which man knows how to use, comply with, enjoy or live by, without specifiably knowing their contents. Each single step in acquiring this domain was due to an effort which went beyond the hitherto assured capacity of some person making it, and by his subsequent realization and maintenance of his success. It relied on an act of groping which originally , passed the understanding of its agent and of which he has ever since remained only subsidiarly aware, as part of a complex achievement 1962, 62).

We might want to say that the child mistook the sequence of events because of her limited experience, which was expanded by her mother's when she explained the way things "really" are. In any case, the mother's appraisal altered the child's world.¹⁰³ To learn as the child did is to submit to the encroachment upon one's private sector of authority, of tradition, of the culture in which one grows. It is to submit the subjective to the encroachment of the objective side of experience. To refuse such encroachment is to begin to carve a new and what may become a separate reality alongside the common property world.

As Merleau-Ponty wrote:

The normal person does not find satisfaction in subjectivity, he runs away from it, he is genuinely concerned with being in the world, and his hold on time is direct and unreflecting, whereas the sufferer from hallucinations simply exploits his being in the world in order to carve a private sector for himself out of the common property world (1962, 342-3).

add that this will hold not only of objects which are made use of as tools, but also of the performer's own muscular actions which may subserve his purpose". ¹⁰³Merleau-Ponty (1973, 51): "Just as the child learns to know himself through others, he

¹⁰³Merleau-Ponty (1973, 51): "Just as the child learns to know himself through others, he learns to know others through himself; he also learns to speak because the surrounding language calls up his thought, because he is enticed by its style until a single meaning emerges from the whole". Merleau-Ponty added to this comment upon the distinction between the normal and the abnormal, that the sufferer from hallucinations "constantly runs up against the transcendence of time" (1962, 343). This is a highly significant comment. Perception is, of course, a temporal process; it is exposed to the risks of time (1962, 343), to the risks of being judged, in the light of future perceptions, as having been *false*. Perception is a continuous "making explicit", in which past experience is continuously reinterpreted and corrected in the light of present experience. As a temporal process, perception could never be, by definition, in full possession of self or of object.

The difference between the hallucinator and the normal person on Merleau-Ponty's account is transcendence, the momentum that carries us beyond subjectivity (1962, 343). Transcendence allows us to posit before ourselves an object *at its distance*, standing *in relation to* other objects (ibid.). To put this differently, transcendence permits us to see the other as *other*. Declining to be carried beyond subjectivity, by insisting upon seeing the other only in one's own terms, the world becomes "hallucinatory". By systematically refusing intersubjectivity, by systematically choosing one's own private property world⁹ over the common property world, one trades "perception" for "hallucination".

This is why Merleau-Ponty argued that the hallucination does not count as a perception (1962, 341 ff). In the process, the hallucinator becomes increasingly exiled from the common property world. As Merleau-Ponty observed:

Unlike the normal person, in these moments the hallucinator shuts the door to perception in favour of the hallucination. The hallucinator knows that his or her hallucination is not "flesh and blood", but refuses transcendence. In doing so, he or she submits to the rule of his or her phantasms, since the choice gives the hallucination the value of reality. This can be so only so long as hallucination and perception are modalities of one single primordial function, through which we arrange round about us a setting of definite structure, through which we are enabled to place ourselves at one time fairly and squarely in the world, and at another marginally to it (1962, 341-42).

⁹ Hume attributes the ability to transcend subjectivity to sympathy. See (T. 579): "Now we have no such extensive concern for society but from sympathy; and consequently 'tis that principle, which takes us so far out of ourselves, as to give us the same pleasure or uneasiness in the characters of others, as if they had a tendency to our own advantage or loss".

Merleau-Ponty concluded from all this that hallucination can have the value of reality only because, in the normal subject, reality itself suffers through an analogous process. The world of the hallucinator, as one mode of being, is analogous to the world of the normal person; both worlds come to be through an analogous process. Human existence is a risky process, perception is constantly at risk. We all continually arbitrate conflicts and negotiate the boundary between the common property world and the private property world.

WHAT DO I KNOW?

Day after day the child watched the trees waving and felt the wind blow her hair. She saw her family and her friends wave and felt the breeze from her mother's fan as she read stories to her on hot summer evenings. Her imagination made the inference from the trees to the wind. Perhaps for her trees had greater reality because she *saw* them and only *felt* the wind. Perhaps it was a need to understand the world as familiar and friendly that made her think of trees as waving. For the child, her interpretation of trees as producing breeze had the value of reality. The momentum that carries us beyond subjectivity "gives us our place in the world prior to any science and any verification" (Merleau-Ponty, 1962, 343).

Later, the child encountered the transcendence of time; her mother taught her that she had mistaken the sequence and that, therefore, her experience of the causal relationship between wind and trees was mistaken. The child accepted her mother's correction on the same basis that she had accepted her own insight, on the faith born of the natural relation^R. The child's trust of the (m)other permitted her to transcend subjectivity to the intersubjective world of culture and custom. Her act of

^R As Hume put the point (E_1 , 55): "This operation of the mind, by which we infer like effects from like causes, and *vice versa*, is so essential to the subsistence of all human creatures, it is not probable, that it could be trusted to the fallacious deductions of our reason, which is slow in its operations; appears not, in any degree, during the first years of infancy; and at best is, in every age and period of human life, extremely liable to error and mistake. It is more conformable to the ordinary wisdom of nature to secure so necessary an act of the mind, by some instinct or mechanical tendency, which may be infallible in its operations, may discover itself at the firs appearance of life and thought, and may be independent of all the laboured deductions of the understanding. As nature has taught us the use of our limbs, without giving us the knowledge of the muscles and nerves, by which they are actuated; so has she implanted in us an instinct, which carries forward the thought in a correspondent course to that which she has established among external objects".

transcendence altered her place in the universe: her understanding of $herself^{104}$ as well as of the world. What she gained in the direction of objectivity, she gave up in the direction of subjectivity.

As Polanyi observes:

The act of knowing includes an appraisal; and this personal co-efficient, which shapes all factual knowledge, bridges in doing so the disjunction between subjectivity and objectivity. It implies the claim that man can transcend his own subjectivity by striving passionately to fulfil his personal obligations to universal standards (1962,17).

Human knowledge cannot escape its fundamental basis in lived experience. As much as what we know is inevitably limited by our finitude, it is also by the same token open to the possibility of continuous refinement.

According to G. Spenser Brown's (1969) topology, different universes follow from different initial acts of severance; in other words, different universes of discourse emerge from differently articulated oppositions. Different universes follow from different definitions based upon different distinctions of reason. We will look more closely at Brown's topological algebra in Chapter four. For now, it is enough to note that it indicates that the engine of distinctions draws along the track behind it a certain sort of universe. Science, for example, treats wind as a movement of air between areas of different temperatures. Oxygen and carbon dioxide are gases, which are components of air. Trees produce oxygen from carbon dioxide in sunlight. The temperature of the molecules of oxygen flowing from the tree differs, perhaps only minutely, from the temperature of those in the surrounding air. The perhaps minute differences in temperature produce minute movements of air. Movements of air of sufficient momentum to concern us are known as winds.

When does the difference in temperature between molecules—for example, between these oxygen molecules—begin to produce movements in the surrounding air? Is it when the molecules leave the leaves? If so, does it begin when they are halfway out or all the way out? Or does it begin when they first encounter other molecules outside the leaves? If so,

¹⁰⁴See Merleau-Ponty (1973, 38): "Does the acquisition of these words play the role of effect or cause in relation to the consciousness of self? There is evidently a reciprocal action; the word defines the notion. But the child would not know how to understand the meaning of pronouns if his experience did not already involve reciprocity with other people".

do other molecules, say those on the extreme outer edges of the leaves, also produce movements of air because they differ in temperature from those in the surrounding air? Or is the entire tree, since it is a different temperature than the surrounding air, implicated in the production of wind? If so, the child's initial intuition has a basis. Perhaps it was not her trees alone that were waving; perhaps all the trees of the world, in concert, chose that moment to express themselves and she was the only one who noticed.

A change in the interpretation of one experience ripples through the world, transforming it.¹⁰⁵ What criterion do we use to judge one interpretation to be "more true" or "better" than the other? In the case of the child and her mother, the mother's interpretation might account for more experiences than the child's; it might reconcile previously unreconciled or even excluded portions of experience. It might allow the anticipation of future experiences in a way that the child's did not. This is all pretty vague, however. The question is improper; we should not ask what is "the" criterion, since interpretation is not an exact science. The proper question is, rather, how is it that we in fact choose between interpretations. The answer is, by *feeling*— as Merleau-Ponty might say, by the sense that is both felt and revealed. Some stories are more satisfying than others; some stories are satisfying in ways that others are not. It is a matter of sense, and, I might add, of common sense; we recognize the "engaging of the gears". The point is that we all recognize a better interpretation. If this were not so, we could never agree, for example, to the superiority of some metaphors over others, say, to the superiority of the double helix metaphor over that of the single helix for gene structure.

Equally important, however, is the fact that an interpretation is better than another only within a particular context and relative to certain interests. The idea that there is anything like "the" last word on what is the best interpretation of everything ignores the irrepressibility of

¹⁰⁵Merleau-Ponty (1973, 91) suggested that there is an interplay between parts and presumed whole in perception as well as in language, anticipating the notion of the hermeneutical circle. In interpreting, we make an assessment (from the part that we know) of where the whole must be going in order to put what comes next in a context. When what comes next does not fit that expectation, we make a new assessment of the whole that makes the parts fit together more satisfactorily, and so on.

creativity, of which I have tried to show that causality itself is an expression. Since causality is the condition of reality, this means that reality arises from the constant conjunctions that occur in the reciprocal interplay between oppositions. As such, causality is a creative expression of meaning.

CONCLUSIONS

The causal relation is an experience of transcendence, an experience, as Merleau-Ponty wrote, "of a world seen within inherence in this world, by virtue of it". The objective arises *within* the subjective, in virtue of the subjective capacity to notice similarities and, thus, to observe constant conjunctions. On the other hand, the causal relation is produced in the midst of the world from the constant conjunction of two objects and a human subject. Both subjective and objective perspectives are intimately intertwined. As often and as far as the object arises, the subject is always already there to meet it; likewise, as much as our experience is always ours, it is also of a world, which is always already there.

The world of science—which proclaims itself to be "the real world" and which seeks to bring all the others under its explanatory power—is merely one world among many. "The world", as Merleau-Ponty paraphrased Hume,^S "is still the vague theatre of all experiences" (1962, 343). The world continually escapes any conception or system of conceptions we may employ to explain or to understand it. As Madison writes:

Reality is limitless, but it is reduced to manageable proportions when it is viewed in the light of our own experience. As far as our ability to understand goes, Protagoras was right in saying that man is the measure of things; our experience is the only means we have for sounding out the depths of being (1982, 307).

Our perspectives may become more comprehensive by including more and more views, but, nonetheless, the connection between our world and the whole world is always presumptive. We move without knowing which muscles or nerve paths should intervene. The world is the flesh of our

^S See (T. 253): "The mind is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety of postures and situations . . . The comparison of the theatre must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place, where these scenes are represented, or of the materials, of which it is compos'd".

flesh; we know it as a child knows its mother. Like children, we act upon our presumptions until the world teaches us otherwise, again and again.

To summarize: The world is a "horizon", always beckoning us toward more to be seen. "The world" is a horizon, always already *other* and indicating the limits of our perspective. We radiate outward into the world; the world, likewise, radiates into us, in an endless, open, and ongoing process of creative discovery.

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CHAPTER FOUR

IMPLICATIONS AND APPLICATIONS

Every science secretes an ontology; every ontology anticipates a body of knowledge. It is up to us to come to terms with this situation and see to it that both philosophy and science are possible (Merleau-Ponty, 1964a, 98).

And indeed, when we consider how aptly *natural* and *moral* evidence cement together, and form only one chain of argument betwixt them, we shall make no scruple to allow, that they are of the same nature, and deriv'd from the same principles (Hume, T. 406).

* **•** You are Here

The secret of the world we are seeking is contained here, in our contact with it, paradigmatically, in *volition*. Since the paradigm of causality is volition, and since volition is irredeemably personal, causality cannot plausibly be held to be a priori, to entirely escape lived experience. Conceiving reason (mind) as absolutely different and separate from the personal (body) in the attempt to fully explain experience breeds intractable problems. As I argued in Chapter three, this way of thinking proliferates hordes of irreconcilable distinctions. Spenser Brown's (1969) topological algebra makes it evident why this is so; let us consider it more closely.

CREATING INTUITION

Distinction is perfect continence (Brown, 1969,138).

It is not enough to say (Bergson): a coming and going. It is necessary to understand between what and what, and what makes up the interval between them (Merleau-Ponty, 1968, 189).

Brown's topological algebra shows how different universes follow from different initial acts of severance, how the initial act of individuation, of distinction, is of fundamental significance.¹⁰⁶

¹⁰⁶Merleau-Ponty (1973, 64-5) illustrated how initial definitions become a sort of engine, which draws a certain sort of world in its train: "Access to the study of illness has remained masked for quite a while by a long series of prejudices. Classical ontology, founded on the absolute distinction between the material body, the soul situated inside this body, and the external environment playing the role of stimulus, in effect, resulted in turning scientists from the study of verbal hallucination. From the moment it was admitted that all perception is only the retaining in consciousness of a sensorial stimulus, one found oneself obliged to presuppose an autostimulation of the central nervous system in the case of hallucination.

Brown wrote:

The skin of a living organism cuts off an outside from an inside. So does the circumference of a circle in a plane. By tracing the way we represent such a severance, we can begin to reconstruct, with an accuracy and coverage that appear almost uncanny, the basic forms underlying linguistic, mathematical, physical, and biological science, and can begin to see how the familiar laws of our own experience follow inexorably from the original act of severance (1969, v).

To put Brown's claim in other words, different universes of discourse emerge from differently articulated oppositions based upon different initial individuations.¹⁰⁷ Where we draw our initial boundary—and how we conceive of the boundary itself—is of utmost importance, since once an initial distinction is drawn, all other distinctions on one side or the other of the boundary serve only to "deepen" the "space" created by the initial distinction, as opposed to crossing over to the other side of the initial distinction. As Brown's algebra indicates, recrossing the initial boundary results in, or is the same as, erasing it. Consider, for example, the distinction between mind and body; further distinctions made within the category of body only serve to dig us deeper and deeper into body and never to cross back over the initial boundary to mind. As a result, when we conceive body and mind as different in substance, as separated by an ontological gulf, there is no way ever to bridge the expanse.

The impossibility of a bridge may become clearer by considering an analogy with Zeno's paradox, in the light of Brown's topology. The act of dividing the racecourse in two (distinguishing between mind and body) creates a boundary and spaces on either side of it. Further iterations of this act always occur *within* one or the other space created by the initial division and since—mathematically speaking—the iterations may be continued indefinitely (indeed infinitely), we never will reach, much less cross over, the initial boundary. What we do is dig ourselves increasingly deeper and deeper within the space created by the first division. (On this view, Zeno's paradox may be an early precursor to the reiterative

From there we get the idea that hallucination is the revival of a weaker perception . . . A whole neurology, even a whole psychology, came out of the initial ontological position. But since then the facts have proven that neither this neurology, nor this psychology, is valid". ¹⁰⁷ In this, his account is in accordance with Merleau-Ponty's claim (discussed in Chapter three (section, "The Sensible that Hollows Itself Out")), that consciousness just is differentiation. The separation between myself and the tree that I observe is the perception. A boundary always has two sides; therefore, the other side of divergence is contact, perception.

mathematics known as fractal geometry.) Now this fact can be applied to our advantage,¹⁰⁸ but it can also work to hamstring our thinking if we fail to recognize what we are doing and if we fail to take the concept of the boundary into consideration. We have the alternative of using Brown's topology creatively, of deploying it in the service of Merleau-Ponty's metaphor.

In order to illustrate the advantages of this strategy, I want first to set up a comparison with the dualist approach. Consider that way of understanding the mind-body distinction as treating the categories as if each were confined to opposite sides of a piece of paper, with no third dimension of communication between them. Next, consider what occurs as a result of forgetting the two sidedness of that boundary. Conceiving the initial distinction as absolute means that, if we wish to make a threedimensional form, we must join the paper with like sides together, in such a way as to end up with a link for a paper chain. In this case, each new distinction results in a further division of the initial link, a process which proliferates only more and more separate links. To put the metaphor into logical terms, the isolation of the two categories (the two sides of the initial distinction) is not only never overcome, any further distinctions serve only to proliferate the disparity.

If we wish to forge the separated links somehow into an overall unity, we have no alternative but to make them into a chain, which requires damaging all but one link. I submit that this metaphorical result is apt to what actually happens in dualist practice. It is really not too surprising that dualist presuppositions produce not only differing but discrete theories, each of which either competes with all the others for the highest position in the hierarchy of Truth (e.g., the intellect over the senses) or submits to the authority of another (e.g., the mind as the epiphenomenal product of quantum reality). Those systems that submit become "weaker" links, since their integrity is compromised. Otherwise, unshared individuations must proliferate unshared causal relationships and, since causality is a structure of reality, the result is unshared realities.

 $^{^{108}\}mathrm{As}$ is illustrated by the fact that databases using Brown's topological algebra have been used by NASA to store information received back from exploratory space probes.

Furthermore, in 1967 Bertrand Russell recognized that the logic developed by Brown made the Theory of Types (a stopgap measure) unnecessary and encouraged Brown early on in his work.

Let us now consider how Brown's topology might be brought within Merleau-Ponty's topological metaphor. The metaphor recognizes that a boundary, since it divides a space in two, itself has two sides and, therefore, the space on one side is always relative to that on the other. Moreover, the space on one side encroaches upon and is in contact with that on the other, since the boundary is not only the distinction but also the contact between them. The result is that there is no dichotomy between the sides created by the initial boundary, just as there is no ultimate dichotomy between the sides of a möbius loop, even though two sides are always distinguishable. In addition, just as dividing a möbius loop produces more loops, which always remain within the initial loop, both sides of distinctions conceived in this manner retain the initial twosided-one-sidedness. Most importantly, all subsequent distinctions produce meanings that unfold within the initial distinction, requiring no damaging of "links" to bring them together. Interestingly, the loops that are generated are intertwined in a way that defies hierarchical structuring.

Recalling what Merleau-Ponty (1968, 197)¹⁰⁹ had to say about perception as differentiation, we may translate this metaphor to say that the universe of meaning emerging from this style of differentiation is one of the interdependent reciprocity of mind and body. The metaphor is fruitful. The distinctness of each side of any opposition is reciprocal with the other; the one encroaches upon and is encroached upon by the other. Although the distinction between the two sides of a möbius loop can always be made locally, it cannot be made globally, since the twist has no absolute location. As I observed in Chapter three, the "twist" in a möbius loop cannot be absolutely located; although the twist is indisputably "there", right in front of us, nonetheless whenever we "grab" it between our fingers, it somehow "escapes" our grasp and remains enticingly—and

 $^{^{109}}$ As I argued in Chapter three (section, "The Sensible that Hollows Itself Out"), the differentiation between figure and ground produces a third term: the separation that is perceptual meaning. The separation between myself and the tree that I observe is the perception. A boundary always has two sides; therefore, the other side of divergence is contact, perception. Likewise, agreeing with Saussure, Merleau-Ponty maintained that differentiation in language produces linguistic meaning, so to speak, in the *between*. As Merleau-Ponty wrote: "The others' words make me speak and think because they create within me an other than myself, a divergence by relation to . . . what I see, and thus designate it to me myself" (1968, 224).

just as indisputably—*elsewhere*. This means, for example, that we cannot claim the absolute temporal priority of impressions over ideas, as we might expect from Hume's lack of concern over the famous "missing shade of blue". We need not be concerned either, to find that ideas themselves may be said to be perceptions and to cause impressions, and that impressions do not escape being shaped by ideas. As I will argue (in the section, "Justice and the Tyrant"), the elusiveness of the twist has important implications for the tyrant's power project.

DOMINATION AND DIFFÉRENDS

Across the boundary of the space occupied by one of an opposing couplet, such as mind-body, the opposing member's space unfolds while the boundary is, nonetheless, retained intact. These schematics may be conceived as loops generated from an initial loop, or they may for some purposes be better conceived as *folds* produced within a *torus*. The metaphor is readily applicable to structures of languages as well as to structures of organisms. We will consider its application to the structures of organisms later on (in the Section "The Interrogation of Science and the Science of Interrogation"). Applying it to language illustrates that the differences that serve to delineate boundaries among people and among languages are fecund.

Let us consider Elizabeth Hanson's (1991) study of how the torture and execution of Edmund Campion and the priests tried with him proliferates simultaneously the language of religious meaning and the language of externally related bodily parts along the rhetorical hinge of "rack and rope", which marks "the boundary that defines both discoverer and withholder of secrets" (1991, 72). The rivalry between the categories of subject and of object "divides the truth of martyrdom from the problematic spectacle of the body" (1991, 70). Hanson writes:

The experience Briant describes is clearly that of receiving the stigmata. But where Briant tells of a private miracle, Allen offers an unimpeachably factual account of the effect of torture on Briant's body. Where Briant's declaration that he felt he was "wounded in the palme" makes clear the religious significance of his sensation, Allen's statement that he thought "there was a value broken in his hand" presents Briant's experience as a simple misunderstanding about a physiological consequence of his racking (1991, 71). Hanson observes that Allen's account alienated Briant's meditation on Christ's wounds from the sensation in his palm, assisting Allen's Protestant readers in overlooking the religious meaning that Briant intended to convey. The very process of struggle over the boundary, the struggle to dominate truth that is demanded by absolutist principles, proliferates both respective languages and the worlds opened by them.¹¹⁰

Perhaps the recognition of the ultimate futility of struggles to dominate completely, together with the availability of a new way of conceiving of ourselves and our relationship to each other and to the world, might eventually bring to an end the deployment of torture as a means to truth. To put this differently, since there is a constant conjunction between attempts to dominate and the proliferation of *différends*, we can say that attempts to dominate cause *différends*. If we wish to overcome *différends*, we must, therefore, cease attempting to dominate.

JUSTICE AND THE TYRANT

Merleau-Ponty's *flesh* makes evident the interrelatedness of torturer and victim, indicating why such struggles are so futile:

What replaces the antagonistic and solltary reflective movement (the immanence of the "idealists") is the fold or hollow of Being having by principle an *outside* (1968, 227).

In this passage, Merleau-Ponty replaced the twin solitudes of mind and matter by the notion of fields that *just are* integrated: Each inside always already has an outside and, likewise, each outside has an inside that is the other. As Merleau-Ponty phrased the point: "To see the other is essentially to see my body as an object, so that the other's body could have a psychic side" (1968, 225). The reversibility of flesh frees us from thinking ourselves as shut up in some retreat (or prison) "behind" body. Although we each are "other" to each other, we are nonetheless connected to each other by perception. It is the very differentiation that is also the perception. We are each coextensive with the flesh of the other and there is no problem of incarnation.

Reversibility and the fecundity of differences play a significant role in illuminating the condition that the tyrant's power project creates for him

¹¹⁰This study is a concrete example of what Jean-François Lyotard (1983) argues theoretically concerning the *différend*.
or her or itself. "The tyrant" may be an individual or a group of individuals in the service of self-interest or it may be either of these in the service of an ideology. On the road toward absolute power, the tyrant individuates himself or herself or itself as absolute subject from the other as absolute object. To put this differently, the tyrant enters into a course of action that progressively refuses the other's claims to the common property world until it is usurped and dominated by the tyrant. In forcing the other to submit in this way, the tyrant tries to have everything his or her or their own way and to close the door to intersubjectivity.

In the process, the tyrant enlarges his or her private sector at the expense of what, nonetheless, always remains *outside* his or her or their grasp: the *inside* of the other. As is indicated by Hanson's study, the tyrant never succeeds in gaining complete control of the other, since the very struggle proliferates their respective languages and the worlds opened by them. In order to gain complete control, the tyrant must kill the other; but this defeats the tyrant's purpose, since, to have someone to control, the tyrant needs the other. As a result, the tyrant's attempts totally to dominate the other are continuously frustrated. The very meaning of one's life as a tyrant arises from its dedication to the task of dominating. The tyrant is thereby condemned to a life of unending frustration.

Added to endless frustration is the fear that the other will reassert his or her or their claim to the common property world. Of course, this circumstance is inevitable, since the other as *living* has, in principle, an inside 'and cannot, therefore, ever be made entirely into an object. The subject's claim to the common property world is inseparable from the process of living, of perception. Since the subject's claim to the common property world cannot be entirely given over to the tyrant except in death, the tyrant's struggle for power cannot, therefore, but proliferate *différends*. The existence of the other is required by the tyrant; at the same time, however, the proliferation of *différends* is the cause of ceaseless frustration and fear. What worse condition could there be? The meaning¹¹¹ of the life resulting from the project to which his or her or their existence has been dedicated is endless frustration and fear. The greater the tyrant's success, the greater the consequent frustration at being unable to triumph completely. The tyrant as absolute subject is defeated, not by the other as absolute object, but by the other as a living subject whose very subjectivity the tyrant needs even while its existence denies the absoluteness of the subjectivity of the tyrant, which the tyrant also needs. The two needs are performatively, in other words practicallyspeaking, contradictory.

Not only are the tyrant's attempts simply frustrated, however, but the fears are also justified, since (as we have seen in Hanson's argument) the struggle might just end up lending strength to the other. Furthermore, the tyrant's actions themselves may, in the end, put an end to the tyrant's control. (For one example of such an outcome, see Hume's account of Henry III below, in the section "Marvellous Relations".) In any case, the other as subject always and inevitably eludes the domination of the tyrant. To put it differently, the tyrant's subjectivity may encroach upon but never can encompass the other. To put the point differently again, the tyrant's attempts to dominate inevitably run up against the transcendence of the other.

¹¹¹Sartre's (1956) description of the relationship between self and other as subject to object seems to me to be fit the present case perfectly. This is a conclusion from what I have argued in detail elsewhere. See, for example: "The Other is first the permanent flight of things toward a goal which I apprehend as an object at a certain distance from me but which escapes me inasmuch as it unfolds about itself its own distances. Moreover this disintegration grows by degrees; if there exists between the lawn and the Other a relation which is without distance and which creates distance, then there exists necessarily a relation between the Other and the statue which stands on a pedestal in the middle of the lawn, and a relation between the Other and the big chesnut trees which border the walk; there is a total space which is grouped around the Other, and this space is made with my space; there is a grouping in which I take part but which escapes me, a regrouping of all the objects which people my universe . . . I apprehend the relation of the green to the Other as an objective relation, but I cannot apprehend the green as it appears to the Other. Thus suddenly an object has appeared which has stolen the world from me ... The appearance of the Other in the world corresponds therefore to a fixed sliding of the whole universe, to a decentralization of the world which undermines the centralization which I am simultaneously effecting" (343). What Sartre's account, which is based upon Descartes ontology, fails to understand (and what the tyrant cannot understand) however, is that it is not the other as object that decentralizes the world, but, precisely, the other as subject, because, as subject, the other does also apprehend the green. What the tyrant cannot accept, due to his or her or their vocation, is that self and other apprehend the green in common.

We may conclude that the tyrant's power project is ultimately limited by the fact that "the [lived] body is our general medium for having a world" (Merleau-Ponty, 1962, 146). Whether we live as "civilized" people in North America, as "primitive" people in a jungle in New Guinea, as the greatest tyrants or as the most abject slaves, the lifeworld is commonly held by all of us. To be embodied is to have a world, to be party to the lifeworld, which is fundamentally and inescapably shared and cannot, therefore, be usurped completely by another. From this we may conclude that, while, as objects, we may be dominated and controlled by external forces, nonetheless and notwithstanding this condition, as subjects, we remain free to reflect upon and to manage the causal relationships that we discover among objects.

More importantly, our freedom is dependent upon our understanding of causal relationships and our understanding of causal relationships is dependent upon our freedom to investigate them; freedom and causality are mutually reinforcing. Most importantly, as I have tried and will continue to try to show, causal relationships are inventive discoveries; they emerge from the active interaction between ourselves and the world. Born of the human capacity for imaginative individuation and association, together with the spontaneous inferences of the natural relation, causal relationships make the ambiguity of experience productive, permitting us to harness the unending upsurge of phenomena for practical purposes.

The Silent Persuasion of the Sensible

Same problem: how every philosophy is language and nonetheless consists in rediscovering silence (Merleau-Ponty, 1968, 213).

The *Lebenswelt*, or lifeworld, is phenomenology's principle theme. The concept of the lifeworld recognizes the fundamental duality (as opposed to dualism) of human experience. It serves to ground synergetic cooperation among persons and theories and illuminates the endless cycle of frustration that the pursuit of domination produces. The lifeworld is perhaps phenomenology's greatest contribution to knowledge. Because it expresses an existential (as opposed to ideal) universality among diverse phenomena, the lifeworld is not an a priori concept. Unlike such concepts, "the lifeworld" does not allude to something real

and inaccessible to experience, which somehow serves to explain it. Instead, phenomenology takes up Aristotle's central theme; as Merleau-Ponty expressed it, phenomenology recuperates and formulates "a Logos scattered out in our world and our life and bound to their concrete structures" (1964a, 105). The lifeworld alludes to those structures of common life that we take for granted in all of our activities. Taking the lifeworld for granted, we think we know it. Thinking we know it, we forget to see it. Forgetting to see it, we forget how to see it. "The lifeworld" invites us to revisit common life; it challenges us to open our vision¹¹² so that we may see what we see.

The lifeworld is first and foremost a way of agreeing. James gave us an excellent metaphor for thinking the lifeworld as agreement:

Although 'A feeling only is as it is felt,' there is still nothing absurd in the notion of its being felt in two different ways at once, as yours, namely, and as mine. It is, indeed, 'mine' only as it is felt as mine, and 'yours' only as it is felt as yours. But it is felt as neither by itself, but only when 'owned' by our two several remembering experiences, just as one undivided . estate is owned by several heirs (1977, 231, emphasis added).

Common sense jointly owns the lifeworld. Merleau-Ponty made a remarkably similar point, from the perspective of ideas:

We all reach the world, and the same world, and it belongs wholly to each of us, without division or loss, because it is *that which we think we perceive*, the undivided object of all our thoughts (1968, 31).

We may say, then, that the lifeworld is an undivided estate, which we all own and which is the common object of all of our ideas. As such, the lifeworld is a *locus communis* for further agreements, about, for example, what things or events count as constantly conjoined. Agreeing about similarities permits agreement about constant conjunctions, which is the basis for agreement about causal relationships. The operative word here is "agreement". Causality and, hence, reality is by agreement. This sounds radical and in a way it is. In another way, it merely makes explicit what has in fact been the case all along, although we have been unwilling, or perhaps afraid, to admit it.

Hume's and Merleau-Ponty's phenomenological investigations have provided the means to reconceive personal experience from being isolated to being reciprocally integrated and structured. Objects are not isolated

 $^{^{112}{\}rm Readers}$ interested in a thorough going response to this challenge are directed to David Michael Levin (1988).

and discrete. An object is a *Gestalt*, which, as Merleau-Ponty wrote, inhabits

a region, a domain, which it dominates, where it reigns, where it is everywhere present without one ever being able to say: it is here (1968, 205).

In this passage, Merleau-Ponty indicated a way of thinking of objects that does not conceive them as isolated from other objects and from ourselves as subjects. If we pay close attention to experience, we can see that he was describing what is the case for all of us.

First of all, subjects are integral to but also, of course, distinguishable from *Gestalts*. Distinguishing between figure and ground is an *act*: someone's distinguishing between meaningfulness and randomness.¹¹³ To put this differently, the figure is figure against a ground that is random by contrast, to someone who perceives the distinction between them. Recalling what Merleau-Ponty (1968, 197)¹¹⁴ had to say about perception as differentiation, we may interpret what Merleau-Ponty (1964, 49) observed of *melody*, that it is a figure of sound, which does not mingle with background noises. Background is distinguished from melody, melody emerges as a *Gestalt* in an act of perception; the emergence of the meaning that is melody (along the boundary from which emerges the meaning that is my hearing it) is perception itself. Repetitions of such reciprocal acts of distinguishing develops them into habitual behaviours.

Secondly, pattern recognition requires the capacity to see resemblances and to make associations. Consider observing a "moving object" in the computer game, "Life" (See William Poundstone (1985)). The "object" emerges as a *Gestalt* in the interaction between the observer and the fluctuation of light and darkness, which we program as "on" and "off" pixels. The "object" may be said, curiously enough, to be constituted by a series of collections of "off" pixels; this is not the end of the story, however, since the "off" pixels that constitute the "object" are only

¹¹³See Polanyi (1962, 38).

¹¹⁴Recall again, from Chapter three (section, "The Sensible that Hollows Itself Out"), the differentiation between figure and ground produces a third term: the separation that is perceptual meaning. The separation between myself and the tree that I observe is the perception. A boundary always has two sides; therefore, the other side of divergence is contact, perception.

perceivable by contrast to the "on" pixels. It is by no means trivial to say that the "life" object only exists in virtue of what it is not, that its existence necessarily includes what it is not.

The "life" object allows us to observe in a simplified and controlled way the *Gestalts* of perception in general. To use Merleau-Ponty's words, every object

is a crystallization of time, a cipher of transcendence——At least if one understands them as a certain spread (*écart*) between being and nothingness, a certain proportion of white and black, a certain sampling of the Being in indivision (sic) a certain manner of modulating time and space (1968, 208).

We may elucidate Merleau-Ponty's point using an example: First of all, the "life" object is a *Gestalt* that dominates a region. It may be seen to "dominate" a region of the screen, while we may not point to a section of the grid to locate "it" in any absolute fashion. Since we can point to it as it travels, we can of course, in a sense, "locate" it. Since, however, we cannot point to a set (or a collection of sets) of coordinates (even at a particular time) and say that the object is circumscribed by that set of coordinates, we cannot locate it absolutely. The "object" requires its background in order to exist and its background extends indefinitely. The "object" is, I emphasize, not reducible to a mere sum of parts temporally scattered across the screen, because the object is more than any sum of temporally scattered groups of "offs".

As a *whole*, the "life" object incorporates by excluding the random portions between its samplings. To put this differently, the meaning "object" emerges only in contrast to what it is not, its context; therefore, the object cannot be absolutely separated—although of course it can still be distinguished—from its context. To try to conceive the object as entirely separate is to try to harden the boundary between object and background, from which the meaning "object" as well as the meaning "background" emerges; it is to try to tear the boundary apart. It is to forget that the boundary connects as well as separates. It is to forget that the object derives its very existence from the contrast and, therefore, we cannot entirely eliminate the context from that existence—even in theory.

To eliminate the context would be to lose the basis for the distinction and, therefore, to lose the perception-meaning. This is what Merleau-Ponty (1968, 197) was getting at when he treated forgetting as a loss of distinction, when he wrote that consciousness disappears by disarticulation. Individuation is primary; without a transcending whole modulating the field, providing so to speak, a "direction" and an order, we cannot decide which parts *belong* together (and are thus separated from other "parts") and, so, everything blends back together into an undistinguished flux.

Perception of the whole is more fundamental than perception of isolated elements, since "elements" are elements only of a whole. Recall Hume's argument to this effect (discussed in Chapter one, section "Hume's Phenomenological Reduction"). A melody, for example, is not a sum of notes, since each note is only part of the particular melody in virtue of its interrelationships with the whole. Moreover, one can no more totally isolate an object from its field or domain or from the perception of it than one can isolate an "active region" of on-off fluctuations of pixels from a computer screen, ¹¹⁵ from the program modulating the pixels, or from the first-hand perception of the active region as an object.

In summary: Objects include the "between" by excluding it; objects are not entirely isolated (while they may yet be distinguished) from each other or from the perceiving subject. Cause and effect cannot, therefore, be considered in total isolation from each other and from the perceiving subject.

CAUSALITY AND RECIPROCITY

We have arrived at a crucial point for understanding the paradigm of causality that these pages are articulating. It is important to bear in mind that a *Gestalt* is not a totally independent and "objective" occurrence, but an *event* of relation (Merleau-Ponty, 1968, 206) between a perceiving body and a sensible.¹¹⁶ Such events cannot be adequately understood merely in terms of external relationships between isolated objects.

To begin: Madison argues (1981, 8) that the so-called "conditioned" is always already implicated in the conditions. In the case of vision, for

¹¹⁵See William Poundstone (1985).

¹¹⁶Merleau-Ponty added (1968, 208): "It is a question of that $\lambda 0\gamma 0\sigma$ that pronounces itself silently in each sensible thing, inasmuch as it varies around a certain type of message, which we can have an idea of only through our carnal participation in its sense, only by espousing by our body its manner of 'signifying'".

example. the manner in which the eye is "set" to respond has as much to do with what gets seen as what there is to be seen. To put the point differently, the primacy of the natural relation means that conditions never can totally explain the conditioned. Since the objects under study are always already part of someone's lived experience, they are "what" they are as a result of "who" is observing them. The "what" and the "who" cannot entirely be separated, nor even totally disambiguated.

Let us attempt to understand this difficult point using Merleau-Ponty's (1968, 21) paraphrase of Hume's two definitions of causality, which, please recall, emphasize the primacy of the natural relation. Following Merleau-Ponty, we may say that certain conditions (the cause) are the *occasion for* the release of the conditioned (the effect). We may say this instead of maintaining that there are causal conditions, which make it inevitable that the conditioned occur—Hume made the implausibility of this claim all-too-apparent.

Consider Madison's account of this point:

What exists is a reciprocal conditioning or constitution between stimulus and reaction where the reflex is a response to a global constellation of stimuli, but also where the stimuli form a whole only by being subject to "the descriptive norms of the organism." (SB, 28) A cause is therefore a cause only in regard to an organism which "constitutes" it as such (1981, 8).

On the phenomenological account of causality, we may say that cause and effect are reciprocally constituted, in a process from which emerges their relationship (and this of course includes "them" themselves, since "things" are always already related). Consider, for example, the case of the zygote undergoing meiosis.¹¹⁷ From a phenomenological perspective, we can say that the process of division creates a relationship (the common boundary) between the resultant cells. To put this differently, the relationship between the resultant cells as well as the resultant cells themselves all emerge in the process of division of the original cell. If we

¹¹⁷This is the sort of case in which some philosophers like to see "problems of identity" (see, for example, Denis Robinson, 1985, 1989). One proposed solution to such problems is to treat "matter stages" as stages of "the same matter" if they are "suitably causally related to one another", which requires, of course, that one be temporally prior to the other. Of course, problems of identity arise from this view, since, when a zygote undergoes meiosis, there are then two cells, both of which have equal claim to the "identity" of the prior zygote. The phenomenological approach to such cases does not give rise to these sorts of problems, since it does seek absolute and unchanging ways of talking about relationships and identity. This is not the place to elaborate such issues, except to say that they may readily be addressed.

do not maintain that identity is unchanging, but recognize it as temporally constituted (and therefore ambiguous)¹¹⁸, there is no difficulty understanding what is right before our eyes.

Madison is right to conclude (in the above-quoted passage) that a cause is a cause only in regard to an organism which "constitutes" it as such. Please notice that Madison puts "constitutes" in quotation marks, to indicate that he is not making any transcendental idealist claim that perception of the object is entirely constituted by the subject. To say this would be in opposition to the claim about reciprocal constitution. His claim directs our attention to the role of the perceiving organism in the reciprocal relationship.

Merleau-Ponty summed up the point concisely elsewhere:

I would never see anything clearly, and there would be no object for me, if I did not use my eyes in such a way as to make a view of a single object possible (1964a, 66).

Like Hume, Merleau-Ponty and Madison insist that we recognize that causality is not some "thing" entirely independent of perception. Each resultant cell in our example might rightly see the other as its cause or its effect, depending upon whether each was perceiving itself as identical with 1) its new form and the other with the prior zygote or 2) with the prior zygote and the other with its new form. In addition, each might equally well claim continuing identity with the prior zygote, while nonetheless maintaining the novelty of its own present identity. The ambiguity of the lived experience of identity, with which a careful reading of Hume¹¹⁹ will show that he was very familiar, is productive of all of these views. Furthermore, each of them can, arguably, be maintained consistently—*if* we do not try to derive them from what Hume called a

¹¹⁸One of Hume's points is that in every situation in which we observe natural objects, we can consistently make discriminations that move our intuitions in the direction of unity and those that move our intuitions in the direction of multiplicity. Hume's metaphor of identity as a mathematical mean (T. I, IV, VI, for example, 255) treats the language of identity as mediating between such opposing ideas. He frees the idea of continued identity from the presupposition of a continuing, unchanging, substance, which, I argue (M.A. Thesis, unpublished, SFU) is the source of all the commonly recognized difficulties. ¹¹⁹Hume addressed in a thoroughgoing manner the problems of identity arising from

¹¹⁹Hume addressed in a thoroughgoing manner the problems of identity arising from presupposing an unchanging substance. For the "ship of Theseus" problem, see Hume's consideration of the rebuilding of a church (T. 258); for his argument that a fiction of homogeneity accompanies the traditional notion of continued identity, see (T. 205); for his conclusion that problems of identity are grammatical problems, see (T. 262); for his argument that identity requires change, see (T. 257-8).

fiction, namely, a premise about some unchanging substance underlying the identity of objects.

This means that the organism is integral to the event of causation. How and what one sets oneself to see is integral to how and what one sees. This extends to reflection upon the past. Consider the common experience that once something has been seen (or thought), one finds it again in the same field in which one did not find it before. To put the point differently, one cannot undo oneself from causal relationships. These considerations indicate how wholes may be said to control to some extent the fate of their parts¹²⁰ and, and how this paradigm of causality is thereby hospitable to biology's and evolutionary theory's needs for a paradigm that legitimates downward causation.

Of course, since one person or group may individuate wholes differently from another, then, constant conjunctions will often differ. In order to establish a causal relationship that may count as scientifically acceptable, universal agreement about what counts as constantly conjoined must be established. This criterion of *intersubjectivity* permits us to circumvent the dangers of relativism, without falling into the opposite extreme of dogmatic insistence upon "The True". As I argued in Chapter three (section, "The Perpetual Conversation"), those who try to individuate any which way they choose carve an, eventually hallucinatory, private sector out of the common property world and eventually do run up against temporality¹²¹: the transcendence of the other. This limits domination by the many as well as the few. Let us delve further into what all this means.

POSED ON THE VISIBLE

We can expand our experience of social relationships and get a proper view of them only by analogy or contrast with those we have lived. We can do so, in short, only by subjecting the social relationships we have experienced to an *imaginary variation* (Merleau-Ponty, 1964a, 100).

In a recent TV program about a current "fad", we saw a young woman applying makeup in front of a mirror, preparing for a night with the secret society of which she is a member: a club of "vampires". She spoke:

¹²⁰Such as, for example, is said of viruses, who may initiate a process of mutation of their genetic material, in order to adapt to a hostile environment. ¹²¹Recall the arguments concerning the transcendence of the other from the section

¹²¹Recall the arguments concerning the transcendence of the other from the section ("Creating Intuition"), which discusses the inevitable frustration of the tyrant.

"This is the moment of change; when I put on this headdress I become Eurydice, a vampire".

How are we to understand this? Department-store makeup coloured her face; her "headdress"—a heavy silver chain, from which hung jangling silver coins—adorned her brow. These everyday items of the lifeworld wield no such power according to today's science. Science adheres to a specific standard for personal acts of appraisal on the part of those initiated into its practices, one that rejects such possibilities as being too improbable to be entertained as true.

In the case of the young vampires, a sort of creativity in perceptive faculties is at work. Their "aberrant", personal acts of appraisal carve a separate "reality" (or a number of separate "realities") alongside the common property world.¹²² According to the young woman's testimony, donning their vampire attire makes a difference, an experiential difference, for this woman and others like her—both men and women—who are also members of her "vampire" community. For the young woman and her friends, the meaning of donning their makeup and costume is a particular transformation of themselves and of their worlds.

There is no sound reason for writing off these meanings, for treating the kind of causal understanding at work in these sorts of practices as a matter necessarily to be, at best, dismissed or, at worst, relegated to the clinic—whether criminal or otherwise. Since the causal relations ascribed by these people¹²³ derive like all others—from constant conjunctions—

¹²²See Merleau-Ponty (1962, 341 ff, for example, 341-42): "Though hallucination is not a sensory process, still less is it a judgement. It is not given to the subject as a construction, and has no place in the 'geographical world', in the being, that is, which we know and judge, in the network of facts subject to laws, but in the individual 'landscape' through which the world impinges upon us, and by means of which we are in vital communication with it. A woman patient declares that someone looked at her at the market, and that she felt the gaze fall upon her like a blow, but could not say whence it came. She cannot bring herself to say that in common property space there stood a flesh and blood person who turned his eyes towards her-and it is because of this refusal that the arguments that we can bring against her leave her completely unmoved. For her it is not a matter of what happens in the objective world, but of what she encounters, what touches her or strikes her . . . The hallucination is not a perception, but it has the value of reality, and it alone counts for the victim . . . This can be so only so long as hallucination and perception are modalities of one single primordial function, through which we arrange round about us a setting of definite structure, through which we are enabled to place ourselves at one time fairly and squarely in the world, and at another marginally to it".

¹²³These are analogous to causal claims in Voodoo possession. According to the 1993, Nemesis Productions' film, *Voodoo*, there is a constant conjunction between a certain sort of

what we need, I suggest, is to include them—as different varieties of human reality.¹²⁴ We need to take the quotation marks off their "realities" and to include them in our understanding of what "Reality" means. Doing this does not force us into relativism.¹²⁵ Instead, it opens a door into the multi-dimensionality of Reality, enriching and not diminishing Reality as does relativism.

This is a significantly different move to calling such realities "subjective". Doing so leads directly to relativism. The suggestion that such "realities" lack the "Objective Reality" to which, "of course", the rest of us adhere invites the rejoinder that even our so-called "Reality" may be seen to be "subjective" in just the same way. Such thinking seeks an easy way out, seeks (in a cavalier manner) to merely dismiss the worlds of such practices from Reality instead of seeking to understand what they have to teach us about how mainstream reality gets formed.

Merleau-Ponty (1962) argued persuasively that normal experience is significantly analogous to such "aberrations". In working through this analogy, we first of all, of course, must distinguish hallucination from perception. For someone who now counts as an hallucinator, hallucination nonetheless has the *value* of reality. This is so and can only be so because both hallucination and perception are modalities of a single function common to us all. To use Merleau-Ponty's words: "This fiction can have the value of reality only because in the normal subject reality itself suffers through an analogous process" (1962, 342).

The dread that the threat of violence from alternate realities such as Voodoo or vampirism produces is, in fact, more evidence that they too share the common property world—otherwise one could, so to speak, lock one's subjective or idealist door against them and have nothing to fear. It may also arise from the (albeit tacit) recognition of the fact that all realities "suffer through an analogous process" to those of aberrant realities. The possibility of understanding "aberrant" human practices as

¹²⁴For an analysis of this phenomenological manner of understanding the relationship between realities and Reality, see Madison (1982).

reversal of rhythms in Voodoo drumming and the subsequent possession of dancers. For an enlightening comparison between modern science and "primitive" magic, see Madison (1982).

¹²⁵For a thoroughgoing investigation of this claim, see Madison (1982).

variations of our own presents a challenge and an opportunity to develop more human sciences.

Just to set the record straight at this juncture, I do not mean to say that, as such, alternative realities are necessarily worse or better than each other. What I am saying here does not necessarily imply any particular hierarchy of values, nor—nonetheless and notwithstanding does it prohibit such considerations. Those issues can (and will) be discussed separately, but their discussion would take the present enquiry too far afield. At the moment, all I am proposing that we do is to consider seriously—and by this I mean in practice as well as in theory the implication that each of us, to the extent that we perceive differently from others, inhabits a different reality. Our separate realities are, nonetheless, rooted in the lifeworld.

To fail to take this implication seriously is dangerous at any time, but is especially so given present local and world circumstances. Left to themselves or deliberately excluded from serious consideration, alternate realities might choose or be forced to go underground and might develop hostilities and animosities that end up posing real threats to the common property world. Any private sector that is persecuted, dismissed, or excluded in some way might well turn the tables and exploit being-inthe-world to increase its own dominion. It would not be surprising to see such excluded realities viciously and unrepentantly attacking the common property world to do so. Do we any longer really have any choice but to acknowledge the role of creativity in the fabrication of reality?

Of course creativity is dangerous, since its ways are by definition not tried and true. We have not in the past and do not now, however, spare ourselves any danger by denial. Rather, we have increased and now continue to increase the danger to our practical and to our ethical lives by refusing to acknowledge the source of our rationality in the nonrational. Even if violence of some form does not occur, there is an even greater stake at risk in the game of denial. The private sector is the source of creativity, of novelty. Some might be willing to risk continuing to relegate to the darkness of denial the frightening dimensions of human experience, and to thereby cut themselves off from the roots that grow deeply into our common past in art. myth, allegory, and religion. Some might feel it is worth the price of cutting themselves off at the same stroke from the very part of us that is also the source of our greatest accomplishments and is the wellspring of what is uniquely human.

This decision has a consequence even more serious than these for those who, like Plato, would banish artists from the Republic. When we refuse to acknowledge the creative dimension in ourselves, we lose contact with the process that continuously forges self and world—that is, *reality*—from the flux of lived experience. If we deny the process common to both hallucination and perception, we lose contact with the manner in which we continuously arrange the world around us. We then have no alternative but to cling desperately to those structures of experience that have in the past been called "essences", in the vain hope that, if we cling tightly enough, things will not change.

Notwithstanding any attempts on our part to prevent it, however, things inevitably change. In our desperation—like the hallucinator and for the same reasons—we will inevitably run up against the transcendence of time. Clinging to structures-that-have-been is, to put the point succinctly, just another sort of hallucinatory means of carving out a private sector from the common property world.

Madison puts the point to contemporary science:

Perhaps, therefore, science can exist only to the degree that scientists deceive themselves as to the true status of scientific entities. But again, perhaps an awareness of the purely as-if character of such entities would not interfere with their postulation and utilization and thus with the progress of science. To be sure, science, as it is generally conceived to be, is not, like a game, a matter of creative fantasy but of obsessional hallucination; it is more like the deadly games played by schizophrenics (1982, 327).

By recognizing the creative, personal component in the constitution of reality, we free ourselves from the need to continue the deadly games of obsessional hallucination. Since, as Hume clearly showed, causation continuously experiments in the laboratory of everyday life, we lose nothing by giving up on clinging to "essences". We stand to gain much more by transcending such unchanging and eternal "objectivity"¹²⁶ to the temporality and contingency of intersubjectivity.

¹²⁶It is curious to see, from a phenomenological perspective, how truly (and convolutedly) subjective is such purported objectivity, since it lives by denying the validity of the common *sense* (intersubjectivity) upon which its own claims to transcend common sense nonetheless depend for their meaning.

We are thereby set free each moment, in which, as Merleau-Ponty wrote:

one witnesses the event by which there is something. Something rather than nothing and this rather than something else. One therefore witnesses the advent of the positive: this rather than something else (1968, 206).

We may draw upon the metaphor of meiosis (introduced in the section, "The Silent Persuasion of the Sensible"), to conclude that, in each present moment the world emerges together with and alongside us. We may say, along with Merleau-Ponty, that each moment there is an event by which there is something—this very something rather than something else—and by which, we may add, there is someone, this very someone, and by which there is also a relationship of *sense* between them.

Living in the Truth

A blind man's world differs from the normal person's not only through the quantity of material at his disposal, but also through the *structure* of the whole¹²⁷... If we take as an example the structure 'light-illuminated · object' we shall find only somewhat vague analogies in the realms of touch. This is why a patient operated upon after being blind for eighteen years tries to touch a ray of sunlight (Merleau-Ponty, 1962, 225).

The fact must be faced: Neither philosophy nor science has succeeded in penetrating beyond Hume's phenomenological reduction: perceptions arise and are associated. In spite of having always *in fact* worked within the confines of contingency, our attempts to know the world have met with considerable success—a circumstance that I believe can be bettered by finally incorporating our limitations within our philosophies.

After all, our most successful theories have been guided, aided, and abetted all along by what has been taken for granted and forgotten: the lifeworld. At our best, we acknowledge our rootedness in it. At our worst, as Hume wrote:

We are got into fairy land, long ere we have reached the last steps of our theory; and *there* we have no reason to trust our common methods of argument, or to think that our usual analogies and probabilities have any authority. Our line is too short to fathom such immense abysses. And however we may flatter ourselves that we are guided, in every step which we take, by a kind of verisimilitude and experience, we may be assured that this fancied experience has no authority when we thus apply it to subjects that lie entirely out of the sphere of experience (E_1 , 72).

 $^{^{127}}$ Merleau-Ponty's contention is given narrative life by André Gide (1977), in his short novel, "The Pastoral Symphony".

We have always been finite. This is one meaning of Merleau-Ponty's reminder that perception is always already there. The world never has and, we have good reason to believe, will never be made totally explicit, totally transparent to our understanding. Since we have never overcome that limitation, since we have all along been working within the vagaries of phenomena and have managed to come this far in achieving knowledge, why should we not now at long last give up insisting upon a fairy tale: that knowledge depends upon or, even less plausibly, is itself access to the inaccessible?

PHYSICS, THE "FAIRY-TALE", AND THE PHILOSOPHICAL RELATION

The fairy-tale of knowledge as dependent upon or as access to the inaccessible is no straw man; mathematicians and physicists still routinely suppose that this is what they are up to.¹²⁸ Even Stephen Hawking, a leading proponents of physics (indeed, if we are to believe the dust jacket (1988), "one of the great minds of the twentieth century") makes use of this style of argumentation in his "Short History" (1988). Let us study how the argument develops; Hawking writes:

The next category is the electromagnetic force, which interacts with electrically charged particles like electrons and quarks, but not with uncharged particles such as gravitrons (70).

Here, Hawking individuates "the electromagnetic force" from "electrons", "quarks", and "gravitrons" so that later he may attribute causal relationships:

The electromagnetic attraction between negatively charged electrons and positively charged protons in the nucleus *causes* the electrons to orbit the nucleus of the atom, just as gravitational attraction *causes* the earth to orbit the sun (lbid., 70-1, emphasis added).

These passages subscribe to the philosophical paradigm of causality; Hawking's choice of language particulates objects, describes them as if they are entirely external to each other and, what is more significant, to himself as observing scientist. To put this differently, Hawking writes as if he were in a position entirely outside of the universe and of time. He forgets that, just like the rest of us, the lived body is his medium for having a world. Just like the rest of us, his thinking—no matter how

¹²⁸See, for example, Ronald L Graham and Joel H. Spencer (1990, 112), who assert: "Ramsey theorists are probing the ultimate structure of mathematics, a structure that transcends the universe".

mathematically and technically adept—cannot penetrate beyond the facticity of the flesh. He forgets that, just like the rest of us, he cannot deny the role that the languages we use (and this includes mathematical languages) play in the way that the world is for us.

Hawking implies that, once they have accomplished their unified theory and turn their attention to the philosophical question "why", scientists will again show us that this question as well is "too technical and mathematical for the philosophers, or anyone else except a few specialists" (ibid., 174). Of course, he gives us the hope that this too, like the hoped-for complete theory, "should in time be understandable in broad principle by everyone, not just a few scientists" (ibid., 175).

Philosophers do not, contra Hawking (1988, 174), have to be fully conversant with all the technical and mathematical details of the advance of scientific theories, which after all, as he himself admits, have even become too much for scientists themselves to keep up with, except, of course, for a few specialists. Hawking forgets that, as philosophers, we deal with principles in science that are common to everyone, including scientists. As phenomenologists, moreover, we deal with the lived association of phenomena, upon which scientists must and do continue to rely, every time, for example, they interpret the signals from their equipment or co-relate data from one source with that from another.

Hume showed us that what is always at issue is the particularization and specification of constant conjunctions. The point is that those are accessible to anyone who can look and see. We may have to take scientists' word for the mathematics, and we may not be fully conversant with the reasoning that legitimates this or that co-relation; nevertheless, in broad principle, physics is already understandable by everyone, not by just a few scientists.

Hawking himself admits that the usual methods of science are not appropriate to answering the "why" questions:

The usual approach of science of constructing a mathematical model cannot answer the questions of why there should be a universe for the model to describe (1988, 174).

Consider how Hawking's language changes when he begins to write about the "why" questions: Why does the universe go to all the bother of existing (ibid., 174, emphasis added)?

It is highly significant that, to talk about such questions, even Hawking must abandon the characteristic use of "objective" language and shift to the language of subjects, to which "motivation" and "volition" belong

THE VIRTUAL MIND OF GOD

A person, seasoned with a just sense of the imperfections of natural reason, will fly to revealed truth with the greatest avidity: While the haughty dogmatist, persuaded that he can erect a complete system of theology by the mere help of philosophy, disdains any farther aid, and rejects this adventitious instructor. (Hume, Dialogues, 227-8).

Let us next consider how the phenomenological principles defended in these pages permit us to subject to critique the style of thinking that views one of its virtual products, a unified scientific theory, as the "ultimate triumph of human reason" (Hawking, 1988, 175). So far from an awareness of the finitude of lived experience has this manner of thinking strayed that one of its leading practitioners claims that with the completion of scientific theory "we would know the mind of God" (ibid.). Such an uncritical acceptance of objectivism (of what they treat as a privileged access to Absolute Truth) leads Hawking and his cohorts into what Hume would call a "fairy-land"; I am alluding to the land where, far from the reach of merely human eyes, virtual "particles" (in fact, mathematical entities postulated to avoid breaking the "law" of conservation of energy 129) make their home.

Hawking and other like-minded physicists make just the sort of inference against which Humean scepticism protects us: an inference from what is observed to what is in principle unobservable (and, hence, accessible only to a "special science"). This style of inference was commonly deployed in Hume's day by practitioners of religious metaphysics, to "prove", for example, that the creator of our universe was all good, all powerful, and all knowing.¹³⁰ Hume's objection to this style

¹²⁹See, for example, James S. Trefil (1983, 76-81), who explains that to avoid having the mass energy of pions appear out of nothing-and thus violating the law of conservation of energy-pions are held to be created and reabsorbed too quickly for us to detect the pion's presence. As Trefil argues: "Such a process would not violate the conservation of energy, since there would be no experiment that could be done, even in principle, that could show the energy of the proton to change spontaneously" (1983, 79). ¹³⁰Hume's *Dialogues Concerning Natural Religion* subject this style of thinking to a

thoroughgoing critique.

of thinking rests upon the view that, once we leave common life behind, we have no basis upon which to reason with confidence.

Remarkably similar to the linguistic sleight-of-hand performed by certain clerics of Hume's day, which Hume submitted to his fiercest critiques, is the manner in which scientistic rhetoric makes inferences from particular effects to causes whose qualities are entirely unlike, even incompatible with those effects. Consider, for example, what Hawking has to say about the virtual particles called, suggestively, "gravitrons"; he asserts that they "certainly do produce a measurable effect—they make the earth orbit the sun!" (1988, 70). Notwithstanding the obvious strength indicated in the cause by these effects, Hawking goes on—in his very next sentence— to assert, of these same gravitrons, that they make up "gravitational waves, which are very weak—and so difficult to detect that they have never yet been observed"!¹³¹

Now, I submit that this inference—to what is purported to be an underlying, unchanging, eternally selfsame substance causing both of these phenomena—is unacceptable. As Hume argued, against the religious claim that there is "a whole connection of general laws", which act so as to rectify presently-existing evil phenomena with good phenomena in other regions or times of the universe:

No! These arbitrary suppositions can never be admitted, contrary to matter of fact, visible and uncontroverted. Whence can any cause be known but from its known effects? Whence can any hypothesis be proved but from the apparent phenomena? To establish one hypothesis upon another is building entirely in the air; and the utmost we ever attain, by these conjectures and fictions, is to ascertain the bare possibility of our opinion; but never can we, upon such terms, establish its reality (Dialogues, 199-200).

I want to suggest that Hawking's incompatible statements about gravitrons and his insistence upon the reality of mythical particles is what one is inevitably driven to under the physics paradigm of causality, because—in a search for "complete" explanations—it ignores the natural relation. It is high time that physics gives up its high-priestlike claim to having special "objectivity" (read, access to the "mind of God", which

¹³¹See also R. Podolny (1986, 75-9). Podolny describes pions as so ephemeral that "it is absolutely impossible, according to up-to-date conceptions, to discover such particles experimentally, to register them in some way. They leave no traces in physical instruments". Nonetheless, he insists (ibid., 76), like Hawking, that virtual particles must be real, since what does not exist cannot affect anything and virtual particles have real effects.

implies that it has the last word); it is high time that physics accepts its finitude.

If we were to agree to accept finitude within science (and within philosophy), we might divert energy from attempting the impossible toward achieving what can be achieved, which is what we have been achieving all along anyway and which is not inconsiderable. This would not mean giving up what is important, theoretical means of anticipating phenomena; after all, physicists have already come to terms with the ambiguous status of photons. All that is required is giving up the presupposition of eternal, unchanging, substance as "The Reality" behind "mere phenomena". More about this later.

I believe that the time has arrived to incorporate within our theoretical enterprizes the temporality that is at the heart of the self. Philosophy and science as conventionally practiced have failed to deal adequately with causality because they have attempted to escape finitude and temporality. We need not construe our historically conditioned prejudices as distortions of "The Real"; the constant evaluation and revaluation of presuppositions enables us to see better, to correct the always partial character of earlier insights. By incorporating temporality into theoretical thinking, therefore, Merleau-Ponty's phenomenology became a theory adequately equipped to cope with causality as we experience it.

The perspective of partes extra partes, because it destroys the sense of wholeness that is more primary and more natural requires something to replace it and invents a priori principles, such as *essence*, *identity* and *substance*. Hume and the rest of the phenomenological tradition have not only given us respectable reasons to reject the hypothesis of an unknown and inaccessible something, but something workable with which to replace it.

To sum up: Phenomenology enables a science more sensitive to our actual experience of how the mind cuts across the inside\outside distinction and our intuition that to know is genuinely to achieve the presentation of things in the world. To put the matter differently, Hume and Merleau-Ponty have provided the means to find our way back, reflectively, to the world of common sense and to make it new, refining and correcting it in the light of a disciplined interrogation.

THE FLESH OF THE GESTALT

This flesh that one sees and touches is not all there is to flesh, nor this massive corporeity all there is to the body. The reversibility that defines the flesh exists in other fields; it is even incomparably more agile there and capable of weaving relations between bodies that this time will not only enlarge, but will pass definitively beyond the circle of the visible (Merleau-Ponty, 1968, 144).

The real emerges *between* perceptions; we are in immediate contact with the real; it is not hidden behind or beyond lived experience. Views at different scales are not mere "phenomenal projections" of a real "In Itself"; neither is the macroscopic world a less real manifestation of the microscopic world. There is no hierarchy here; Reality lies *between* the scales. Reality is their common *point d'appui*, the boundary, which links while also dividing. The reversibility of the flesh signifies the ambiguous character of this *between*, from which the object and the subject emerge and which sustains the relationships between them. To perceive one's own body as one's own, for example, is also to perceive it as visible for another's vision.

Merleau-Ponty had some thoughts on scale, which are well worth considering:

It is a question of understanding that the "views" at different scales are not projections upon corporeities—screens of an inaccessible in itself, that they and their lateral implication in one another are the reality, exactly: that the reality is their common inner framework, their nucleus, and not something behind them: behind them, there are only other "views" still conceived according to the in itself projection schema. The real is between them, this side of them. The macrophenomenon and the microphenomenon are not two more or less enlarged projections of a real in itself behind them: the macrophenomena of evolution are not less real the microphenomena not more real. There is no hierarchy between them (1968, 226).

The assumption that the lower the level we investigate, the closer we are to what is most real (namely the atomic or sub-atomic level) underwrites the belief that there must be a real difference in kind between what are treated as mechanistic and what are treated as phenomenological levels. This is simply false.

The modern view of nested hierarchies of phenomena, entities, and related theories suggests that any legitimate scientific question can be aimed at any focal level, as long as that level is clearly specified and the causal links to other levels are recognized. To understand context, constraint, and mechanism, investigators then examine adjacent levels. Questions couched in terms of 'why' require an upward, and often longer or larger scale, examination of context. Questions couched in terms of 'how,' that is, by what mechanism, look downward at least one level" (Pickett et al., 1994, 132-3)

Constant conjunctions and reliable correlations between perceptions of whatever sort indicate a site for investigation of causal relations. Whether from scale to scale, from mind to body or body to mind, from person to person, or from event to event, the switch from one perspective to another is accomplished through the dimension of language. The way that language is used produces worlds from the lived experience of differences as well as of the connections between scales.

Consider, as one illustration of this claim, a passage from a recent textbook on molecular biology, which concludes with the observation that three elements of bacterial gene control serve mainly to

allow the single cell to adjust to changes in its nutritional environment so that its growth and division can be optimized. Although some genes in metazoan organisms also can respond directly to environmental changes, the most characteristic and biologically far-reaching purpose of gene control in eukaryotes is the regulation of a genetic program that underlies embryologic development and tissue differentiation (Darnell et al., 1990, 230).

The focal "whole" in this passage is the single cell. Possessions and activities are ascribed to the cell; as subject, the cell is said to "have" genes, to "regulate" a genetic program, and to "adjust" to changes in nutritional environment. Genes are said to have "far-reaching" goals.

At a "deeper" level of description, the process is described in more "objective", more mechanical terms:

One of the helices in each Cro monomer fits very comfortably into the major groove of the DNA structure. A space-filling model of the structure of Cro bound to DNA shows how closely the dimer can bind to the double helix of DNA by fitting into two adjacent major grooves (Darnell et al., 1990, 238).

At this level, the language of mechanism dominates. The parts of the Cro monomers are said to "fit comfortably" together, their "adjacent major grooves" fit together like two gears or two pieces of a jigsaw puzzle. This is the language of external relationships, the language of the philosophical relation. These two passages yield two sorts of patterns, two sorts of individuations, two sorts of causal relationships. In the first passage, the language treats the cell as a whole: a subject in charge of its processes, having long-term purposes. The second passage—in which the processes are treated as mechanical—is considered to be the more real level in a hierarchy of reality. Why do we think this? At the "lower", the "more real" level, the language of the philosophical relation dominates, which treats the process as much as possible as happenstance (albeit regular) occurrences between objects; that is, the language avoids as much as possible the vocabulary of goals and volition and, of course, of perception. This is the level at which, supposedly, everything that occurs is explainable in terms of *mechanical contact*. This is, after all, what modern science has as its objective, to show us that lived experience can be explained, without remainder, in terms of mechanism: inexorable laws that regulate the contact between ultimately senseless bits of matter.

At this stage of our investigation, it should not be too surprising to discover that total avoidance of the language of action is not possible, since action (and, therefore, volition) is inherent to what "causality" means. Significantly, even molecular biology's use of the language of "cause" must treat one or another of its "objects" as a *subject*. Molecular biologists speak, for example, of the "binding of the inducer" as *changing* the shape of the repressor protein (Darnell et al., 1990, 237). This is already a departure from the purely mechanistic language of object in intimate contact with object, by which science purports to be able to give us a complete explanation. It is already a move toward the language of volition, of subject and object, where no such intimate contact is in evidence.

This is more significant than, perhaps, it may seem, since the success of the modern scientific enterprize depends upon its ability to maintain the "philosophical" perspective without recourse to the natural. If it cannot, then it also cannot claim to have explained *everything* in terms of mechanism. The point is that, as soon as the language of the subject enters, so does the language of freedom. Mechanism depends upon external relations, upon the language of object in intimate contact with object, upon the sustainability of the philosophical relation in isolation from the natural relation. And this is, precisely, what I am trying to show is not only not being sustained but, moreover, cannot be sustained, because the meaning of causality requires both relationships. One might even go so far as to say that mechanism is just volition from which the *sense* has been removed. Consider another passage (ibid., emphasis added) from this textbook, which illustrates how the language of action ("action of two kinds of effectors—inducers and corepressors" (ibid.)) brings along with it the language of volition:

Some repressor proteins in their native states *bind* to DNA. Therefore, with no inducer present, such a repressor *binds* to its operator . . . When an inducer is present, it *combines* with the repressor, which *causes* the repressor to *change shape*. As a result, the repressor *disengages* from the DNA molecule and the promoter region becomes accessible to RNA polymerase.

In this passage, we see that the language of subjectivity is inherent to the language of action, that the language of action brings along with it the language of volition. Repressors "bind" to their operators; inducers "combine" with repressors. Actions of inducers "cause" repressors to "change shape". There is a **gap** here in the explanation, a gap that is not completely filled with mechanism, a gap in the explanation that is occluded by the use of the language of subjectivity. The point is that the process has not been "completely" explained; the fact that a "complex has the right shape for binding to the operator" (ibid.) does not explain why it binds when it does—at this moment rather than that, or even why it binds at all, even if it is "the right shape". After all, jigsaw puzzle pieces are "the right shape" to bind with each other, but they do not do so spontaneously. There is, I insist, a gap in the explanation, which the language of subjectivity, of volition—in which we may say that "a repressor" [chooses to?] "binds" with its operator-fills and, in its use, occludes the simple fact of the lack of mechanism in that explanation.

I want to reiterate once again, at this juncture, that the philosophical relation cannot be sustained in isolation form the natural. Thinking in terms of mechanism depends upon the lived experience of volition for its meaning. When we try to isolate the philosophical relationship from the natural and insist that it is the more real of the two, we cannot but leave the everyday world of lived experience and enter into a fairyland. Enchantment with "trips" to fairyland is all-too-common; the so-called "real world" gets pushed further and further away from the lifeworld. As Hawking writes:

The theory of quantum mechanics is based on an entirely new type of mathematics that no longer describes the real world in terms of particles

and waves; it is only the observations of the world that may be described in those terms (1988, 56).

In this passage, Hawking totally removes what is "really real" from our lived observation; he removes reality entirely beyond any interference from the spectator, who is left only with "descriptions of observations" of the world, not even with observations. What is "really real", gets described in passive vocabulary by other, this time Russian physicists:

Vibrational processes in solids are much varied. Not only atoms or molecules can vibrate around their equilibrium positions. A simple rule can be formulated: *if a classical oscillatory process is possible in a condensed matter, the quasiparticle corresponding to it is a boson* (M.I. Kaganov and I.M. Lifshits, 1979, 35).

Avoidance of the language of goals and of volition is characteristic of the language of physics; it is symptomatic of the attempt to isolate the philosophical paradigm of causality completely from its roots in firsthand experience. It is significant that, in this sort of account, the language of causality has given way for the most part to the language of statistical probability. With this language, scientists may record regularities and may devise sophisticated mathematical means to anticipate the regularity of those regularities. At the end of the day, however, even they are limited in their claims to reality by what is accessible to us all: the "revealed truth" (Hume, *Dialogues*, 227) shining forth as and in *phænomena*.

A REBIRTH OF WONDER

Philosophy's role is ever to seek alternatives, and to criticize comfortable conclusions. Hence, there can be no totalizing syntheses. However, the world offers enough intelligibility and direction to encourage our expectancy that further investigation and reflection will yield further rationality (Cobb-Stevens, 1990, 200).

Adequately appreciating common life requires a practice-focused reform of scientific understanding, one that recognizes the limitations of the metaphor of mechanism. Stephen Toulmin, who has undertaken (1982) such a reformation in scientific thinking, writes:

The problem will often be to discover just how far a particular representation of light as, for example, particulate in nature can be taken in the interest of explaining the phenomena of optics, or just how far a particular reading of, for example, the constitutional theory of "protected speech" can be taken in the interest of protecting political demonstrators (113).

Toulmin's way of understanding the scientific enterprise is a radical departure from the way of thinking exemplified by Hawking as his cohorts and by those who imagine, for example,¹³² that finding a constant correlation between certain drugs and certain states of consciousness means that the latter are totally explained by brain states. Such thinkers treat the objects of their attention as if they are utterly "given", utterly uninterpreted. To put this differently, such explanations ignore the acts of individuation that foreground "brain states", "states of consciousness", and "drugs" as objects in the first place—to which causal relationships are then ascribed.

Madison (1982) diagnoses such ways of thinking as suffering from the "inversion syndrome":

It would represent the error of attempting to explain understanding in terms of something that itself is a product of a particular form of understanding (1982, 118).

If we apply Madison's diagnosis to the case at hand, we might say that the error involved is that of attempting to explain a state of consciousness (say, mentally alert) in terms of something that is a product of another form of understanding (that is, the idea of *brain states*. The "facts" being correlated, say, absorbing caffeine and a certain sort of mental alertness are themselves products of understanding, as is the idea of *brain state*. We may find that absorbing caffeine and mental alertness are constantly correlated; we may find that a certain sort of mental alertness is constantly correlated with a measurable "state" of brain activity.

How does this permit us, however, to claim that the brain state explains the mental alertness? It is only if we buy the idea that what is being registered on the instrument is more real than what we are presently experiencing. Otherwise, we might just as plausibly claim that the mental alertness explains the brain state, that is, the mental alertness is what causes the instrument to register what it in fact registers. If it is the scientist him or herself who is hooked up to the instrument, then he or she is both the source of the readings and doing the readings. In this case, it is more obvious that the scientist is using one form of his or her own understanding in an attempt to explain

¹³²For example, see Foss (1987).

another. "Mental alertness" and "brain state" are two different ways of understanding the same event; one includes the first-hand experience subject and the other does not.

These two ways are suited to different purposes, but, it is important to bear in mind that all acts of individuation belong to interested subjects, who have goals and beliefs with which particular manners of individuation are consistent. All of this personal context is conveniently backgrounded by the enframing action of objectivist argumentation. The fact that there are differences among manners of initial individuation does not entail any hierarchy among systems. Any system of thought requires initial individuations. It follows that claims of relationships of superior-inferior based upon purported closeness to "ultimate reality" are no longer credible.

DON'T PANIC

There is no cause for a red-alert on the part of physics. Nothing besides claims to access to the mind of God need be given up; nothing else need change radically. Physics still has its legitimate claim to mathematical rigour. Granted, the human sciences will be free to determine for themselves to what extent the physics model of causality is useful in their enquiries and to develop alternative models suitable to their own perspectives. Nonetheless, rational soundness need not be sacrificed by giving up an unrealistic, interpretationless objectivity as the ideal for the natural sciences. In fact, admitting the role of imaginary entities in making their mathematics work will free scientists from the embarrassments arising from insisting on the verity of implausibilities, such as Hawking's inconsistent claims for gravitrons illustrate.

The benefits to science will outweigh the costs of replacing a priori with phenomenological principles.¹³³ After all, the physical sciences can legitimately boast of highly sophisticated methods for the observation and quantification of phenomena; these methods already admirably describe the logos visible in phenomena. Giving up the idea of unchanging substance and following phenomenological principles,

¹³³For example, giving up on the idea that either light is particulate or it is wavelike in favour of accepting its ambiguity has permitted computer scientists a promising application: that of using its wavelike qualities as a switching device (dampener) to return electrons (its particulate qualities) from an excited to an unexcited state.

scientists will be less tempted to demand more adherence to formal and geometrical arguments than the nature of the case permits. To put this differently, they will be less likely to insist on the reality of the fairies they must invoke to make the mathematics work. Openly admitting the importance of the imaginary in their explanations of the universe will free scientists to focus their attention more fully on the empirical world which is, after all, what all along they have been attempting to understand.

Given the desirability of generality in science, the value of lowering the critical barriers between human and natural sciences is to be found in the avenues of interchange that will thereby be opened to articulate principles that have the potential for unifying apparently disparate areas and concerns. Obviously, the more general principles are more useful for this purpose than those that keep to a narrower scope. I submit that Hume and Merleau-Ponty have bequeathed us principles of the widest generality, which yield an alternative paradigm of causality strong enough to permit us to lower the critical barriers between human and natural sciences while being flexible enough to retain their integrity intact.

THE INTERROGATION OF SCIENCE AND THE SCIENCE OF INTERROGATION

Science is not a collection of facts, nor is science something that happens in the laboratory. Science is something that happens in the head; it is a flight of imagination beyond the constraints of ordinary imagination (Raymo, 1991, 3; cited in Pickett, Kolasa, & Jones, 1994, 26).

Superstition is much more bold in its systems and hypotheses than philosophy; and while the latter contents itself with assigning new causes and principles to the phænomena, which appear in the visible world, the former opens a world of its own, and presents us with scenes, and beings, and objects, which are altogether new. Since therefore 'tis almost impossible for the mind of man to rest, like those of beasts, in that narrow circle of objects, which are the subject of daily conversation and action, we ought only to deliberate concerning the choice of our guide, and ought to prefer that which is safest and most agreeable (T. 271).

What I can conclude from these disillusions or deceptions, therefore, is that perhaps reality does not belong definitively to any particular perception, that in this sense it lies *always further on;* but this does not authorize me to break or to ignore the bond that joins them one after the other to the real (Merleau-Ponty, 1968, 41).

Reciprocal relationships are simply not plausibly contained by the physics paradigm of causation: the collision of well delineated particles,

which directly and unambiguously impart momentum. As ecologists Steward T. A. Pickett, Jurek Kolasa, and Clive G. Jones have recently asserted:

Multiple conditionality and probability ... are likely to be widely encountered in ecological laws. Note that the laws of classical physics have an unstated assumption that the objects of interest can be considered well delineated and reducible to idealized mass points, between which material interactions are directional, with one-to-one mapping of cause and effect. Laws having the same formal structure as those of classical physics may be problematical when applied to concrete biological phenomena because of the obvious mismatch in discreteness, degree of idealization, straightforward directionality, and simple causality (Pickett et al, 1994, 70).

Under phenomenological guidance, we do not expect to isolate a single agent as "the" cause of a circumstance. Instead, we may articulate multiple conditional laws. We may individuate constellations of conditions with the proviso that infallible constant conjunction be present if causal relationships are to be ascribed. Otherwise, we can rely upon the statistical regularity of certain conjunctions while searching out the particular constellations that (we presume) will yield constant conjunction.

Phenomenology, as initiated by Hume and as developed by Merleau-Ponty, provides a conceptual framework for the integration of existing data, perspectives, scales, approaches, models, or theories that are apparently disparate. Integration within particular sciences, as Pickett, Kolasa, and Jones argue (1994, 9), "is clearly a desirable goal that can advance the discipline of ecology as a whole, without impairing progress within subdisciplines". They argue (ibid., 11) that integration is not likely to proceed rapidly if it depends solely upon empirical advances.

These authors suggest that theoretical principles able to transform the various contexts and languages from being clear but unworkable (which they contend is due to the unworkability of Cartesian oppositionalities¹³⁴) to being clear and workable provide a valuable service to researchers in all disciplines. Such theoretical principles are precisely what phenomenology has to offer. In the first place,

¹³⁴See Pickett, Kolasa, Jones (1994, 162): "Because organisms and the systems containing them can change plastically and elastically, the viewpoint of reciprocal control would seem to be the null model for the mode of interaction in ecology. Despite this, the Cartesian independent-dependent variable paradigm has prevailed in ecology".

acknowledging ambiguity permits the oppositionalities of experience to be faced head on and accepted—without, however, abandoning reason's requirement for clarity and distinctness. A möbius strip is, after all, a mathematical form—as is its multi-dimensional counterpart, the torus,¹³⁵ of which human bodies (among other living organisms) are noteworthy cases.

Constant conjunction might itself be used as a translation mode between scales and between categories. As a matter of fact, it already is used this way constantly in our everyday lives, and has been used by each of us since the time that, as infants, we noticed the correlations between sensory modes, such as vision and touch, which serve to associate them, and such as we make in correlating perception through a telescope and with the naked eye. It follows from this that the same criterion can be used, for example, to legitimate integration between scales. It is appropriate to the upward and downward repeating patterns of fractal geometry.

Since it may be the case, when we look and see, that infallible constant conjunctions occur between phenomena at one scale and those at another, it follows that we then have a working and workable basis for claiming causal relationships between those scales, even if such causal connections cannot be traced in a linear fashion through all the twists, turns, and—yes—gaps, in the conceptual and perceptual loops and folds from one level to the other. After all, we never stop to question the gap between, say, the visual and the tactile when, as we work, we keep the computer screen in our visual field while we reach for a sip of coffee or, for that matter, press keys on the keyboard. And yet such correlations prove reliable. Since constant conjunction among phenomena, even those that "belong" to different theories or different scales, indicate a site for the investigation of causal relations, the phenomenological model of causality provides a workable framework for understanding clearly how • oppositions of any sort function as a whole. In summary, the phenomenological model of causality offers a way to integrate differing

¹³⁵Atomic theorists seem still to be content with the image of the fundamental bits of the universe as hard, impenetrable bodies, like billiard balls. What if, however, atoms were conceived as, like us, pliant and torus-shaped bodies? Then, like ourselves, those components might be conceived as having two sides: a wave side (internal relations) and a particle side (external relations).

perceptions, theories and vocabularies without hierarchizing them and without sacrificing the integrity of any—a task that objectivist thinking has found intractable.

Hume put the general point concisely:

In reality, all arguments from experience are founded on the similarity which we discover among natural objects (E1, 36).

Once similarities are observed, connections can be made. Now we can take seriously and in the right way Hume's principle that causality just is infallible constant conjunction and the inference among perceptions. To use Hume's words again:

From causes which appear *similar* we expect similar effects. This is the sum of all our experimental conclusions (E_1 , 36).

Now that we understand how to interpret this conclusion, it is clearly not destructive but constructive. Hume was not belittling causal knowledge as "merely" custom or habit; to the contrary, he was showing us that causal inference is what we have in fact always relied upon and that it is so reliable that it is a condition of reality. I believe that Hume has given causal inference a legitimate warrant for our confidence and that our scientific enterprises thereby have gained the most solid basis they have ever had.¹³⁶ He has shown us that history, habit, and custom are ways of carrying the past forward, of saving what is valuable to aid in coping with the contingencies of the future.

Please consider, moreover that the dimensionality of the flesh gives us a way of making what is already clear within systems and subsystems workable. Along with each major distinction, or dehiscence, a new dimension of exploration is opened within perception as well as within conception—a new interior/exterior space with all the delights and all the dangers that have always intrigued us. Such spaces may be conceived as folds within a torus, as divisions in what is always already divided. This idea of dehiscence within an organism is appropriate to the way that, for example, blood vessels divide and subdivide, producing a massive surface area that carries oxygen to each cell in the body. The idea of dehiscence is entirely appropriate to the iterated processes that form

¹³⁶Since the search for eternal, unchanging essences and unquestionable premises shows no sign of nearing its goal.

fractal shapes, which so remarkably resemble organic forms. The dimensionality and reversibility of flesh makes intuitive the envisaging of the relationship of fluxes between systems, of seeing commonness of disturbance.

The notion of the reversibility of the flesh is entirely appropriate to the world, since there is a two-sided thickness to phenomena, which is expressed when Merleau-Ponty suggests that vision is at the same time being visible. This thickness of phenomena is not unstructured, but—as fractal geometry and chaos theory have enabled mathematicians to articulate—itself reveals a logos: forms within forms and scales within scales. The idea of a two-sided boundary that turns back upon itself is intuitively apt to thinking how the so-called "strands" in water interweave and flow past one another. The "rolling" of surfaces about one another, the unfurling of ferns, the creasing of mountain ranges—to all of these Merleau-Ponty's topological metaphor is hospitable.

The metaphor is fruitful for thinking conceptual relationships as well. Subcategories and subfields within a science, for example, may be understood as bundles of intertwining loops always generating more loops, which are always already linked within the initial loop of the initial conceptual division (which will, of course, be founded upon perceptual divisions, if we follow Hume's first principle). Moreover, all of our ways of understanding, which depend upon the initial, fundamental distinctions between self and world, subject and object, and mind and body, may be reconceptualized as fundamentally intertwined. Whenever and wherever we find infallible constant conjunctions, we may, therefore, trust our senses, when they tell us that reality is shining forth *here*.

THE DOUBLE GROUND OF THE LIVED, OR, THE EVAPORATION OF "THE MIND-BODY PROBLEM"

I change, therefore, nothing in the receiv'd systems, with regard to the will, but only with regard to material objects (T. 410).

The phenomenological paradigm has many benefits, not the least of which is that rethinking the relationship between mind and body permits us to retain the language of beliefs and desires. Merleau-Ponty's topological metaphor is an armature for a consistent and coherent theoretical account of what we have always known in practice:¹³⁷ bodies and minds not only interact, they interact reciprocally. It is a principle that permits equal emphasis on both individuality and processing and, as such, provides the basis for integration of structure and flux. The *flesh* is in this way the basis for a philosophy of ambiguity that may dismiss charges of being an ambiguous philosophy; for it makes ambiguity *productive*, by confining the unsurpassable plenitude of individual imagination within the humble finitude of the body and its inherence in the lifeworld.

Thinking experience as continual dehiscence into oppositions permits us to conceive causality as a mo(ve)ment of transcendence, in which subjectivity emerges (or is thrown) into the clearing of intersubjectivity. On this view causal interactions are processual, involving both a creative dimension (a human product) and an adequative dimension (to a nonhuman circumstance). It is no more difficult on Hume's terms to think bodies interacting than it is to think mind and body interacting. The surprising results of causal interactions—that is, the occasions of their unpredictability—may be treated as analogous to the creative dimension in volition and the expected reliability as analogous to its adequative dimension.

To those who would object that I am going too far here, I would reply that I am merely working out some implications of what Hume had already indicated over two hundred years ago:

Let no one, therefore, put an invidious construction on my words, by saying simply, that I assert the necessity of human actions, and place them on the same footing with the operations of senseless matter. I do not ascribe to the will that unintelligible necessity, which is suppos'd to lie in matter. But I ascribe to matter, that intelligible quality, call it necessity or not, which the most rigorous orthodoxy does or must allow to belong to the will. I change, therefore, nothing in the receiv'd systems, with regard to the will, but only with regard to material objects (T. 410).¹³⁸

From the perspective of the natural relation, necessity is intelligible. Through acting, we make actual something that was possible. On the other hand, from the perspective of the philosophical relation, the

¹³⁷When they leave their "closets" as Hume puts it, and return to common life.

¹³⁸See also (E₁, 97): "Surely we ascribe nothing to the actions of the mind, but what everyone does, and must readily allow of. We change no circumstance in the received orthodox system with regard to the will, but only in that with regard to material objects and causes. Nothing, therefore, can be more innocent, at least, than this doctrine".

action—including the *sense* of causation—is dissociated into parts viewed as external to each other. To put this differently, from the perspective of the philosophical relation alone, action becomes merely behaviour and loses human significance.¹³⁹ The arising of the inference becomes just as ultimately unintelligible, just as irrational, just as historically contingent as any other constant conjunction.

It is only the human context of understanding, the question of *why* this action occurred that renders it intelligible. That requires a consideration of wholes, that is, of subjects. When the natural relation is excluded from consideration, the question of *why* this, as opposed to another, action was taken leads us into a regress to which any stop seems arbitrary. When the natural perspective is included, the question of *why* can be addressed by considering, for example, the subject's character, projects, capacities, and limitations. When the natural relation is included, the role that insight and imagination play in all human action cannot be denied. In the next section, we will investigate how Hume deployed these possibilities, which are inherent to the perspective of the natural relation, in becoming the first to write a national history (Peardon, 1933).

We have now come full circle, to view our place in the world—and the place of the world in ourselves—with new eyes. Let us now turn our attention to the historical way of viewing our place in the world, to which Hume himself turned when his philosophical writings met with incomprehension.

History as a Succession of Events that Furnish Themselves with Meaning

Mankind are so much the same, in all times and places, that history informs us of nothing new or strange in this particular. Its chief use is only to discover the constant and universal principles of human nature, by showing men in all varieties of circumstances and situations, and furnishing us with materials from which we may form our observations and become acquainted with the regular springs of human action and behaviour. The records of wars, intrigues, factions, and revolutions, are so many collections of experiments by which the politician or moral philosopher fixes the principles of his science (E₁, 83).

¹³⁹For a study of the epistemological issues accompanying this divergence in languages, see Elizabeth Hanson, (1991).

Now if the transcendental is intersubjectivity, how can the borders of the transcendental and the empirical help becoming indistinct? For along with the other person, all the other person sees of me—all my facticity—is reintegrated into subjectivity, or at least posited as an indispensable element of its definition. Thus the transcendental descends into history. Or as we might put it, the historical is no longer an external relation between two or more absolutely autonomous subjects but has an interior and is an inherent aspect of their very definition. They no longer know themselves to be subjects simply in relation to their individual selves, but in relation to one another as well (Merleau-Ponty, 1964a, 107).

All that we postulate in our attempt to understand history is that freedom comprehends all the uses of freedom (Merleau-Ponty, 1973c, 21).

Perhaps the most important implications of the phenomenological paradigm of causality are those that address what is uniquely human (as opposed to animal or inanimate) in experience, those for the human sciences. Hume himself applied his understanding of causality to writing his *History of England;* it seems a natural next step, therefore, to investigate the ways in which he himself saw fit to apply his discoveries. This consideration is especially important as a rebuttal of the suggestion¹⁴⁰ that Hume "sold out", that he abandoned philosophy in his later life as a result of the poor reception (or sales) of his *Treatise* and *Enquiries*.

Hume was interested in practical applications of his philosophical principles from the outset, a fact that is not at all surprising considering his dedication to common life. In fact, he saw in rhetorical terms the drawbacks of theoretical thinking. In his first philosophical work, he asserted:

The same argument, which wou'd have been esteem'd convincing in a reasoning concerning history or politics, has little or no influence in these abstruser (metaphysical) subjects, even tho' it be perfectly comprehended (T. 185).

A careful study of Hume's *History* reveals Hume making use of the conclusions concerning causality and human nature reached in the *Treatise*. He realized that a theoretical argument, which "requir'd a study and an effort of thought, in order to its being comprehended" (T. 185), strained the imaginations of readers and hindered "the regular flowing of the passions and the sentiments" (T. 185). It was then probably not overly surprising to him—disappointing though it may have been—that

¹⁴⁰See, for example, Thomas Preston Peardon (1933, 21).

the difficulty of what he was articulating theoretically in the *Treatise*, and later in the *Enquiries*, was beyond the ken of many of his contemporaries.

When applied to his *History*, however, Hume's causal theory gained him a wide audience—especially in the land of the *philosophes*—and made him "the first to come within measurable distance of writing a 'national history,' that is, a general account beginning with Caesar's invasion, incorporating not only politics, but something of economic, social and intellectual life as well" (Peardon, 1933, 20). Moreover, Hume's insight into the significance of *perspective* permitted him to see, for example, that much of what "might seem legal and constitutional to a Stuart monarch would be correctly regarded as an attack on public liberty in the next century" (Peardon, 20). As such, his insights into the writing of history formed an advance guard to the work of some current interpretive historians.

In the first place, Hume held (H. I, 25) that what distinguishes history from a mere meaningless annal of persons or events are the circumstances and the causes, which permit us "to connect the events in some tolerable measure"¹⁴¹ (H. I, 25). As the single most important means that we have of making sense of events, by "rendering them either instructive or entertaining to the reader" (H. I, 25), causal relations transform past events from being otherwise useless to being useful.

In the second place, Hume's reflection upon the relationship between individuation and causal relations has enabled and, more importantly, legitimated diverse readings of history. Fernand Braudel's story of "the slow, longterm history of geographic and economic structures" (Kellner, ix), François Guizot's use of "poets to illustrate their time, and their time to explain them (ibid., viii), Spengler's vision of history as "essentialized versions of cultures . . . governed by the logic of the rhetorical figure that represents things by presenting a part that is presumed to embody the essence of the whole" (ibid., ix), and Hayden White's study of "the relationship of tropology to historical discourse" (ibid., ix) are some examples of the diverse sorts of causal enquiries to which Hume's insight provided the legitimation.

¹⁴¹Hume's use of the phrase "in some tolerable measure" indicates the sort of ironic distance from the writing of history that is in the forefront of contemporary hermeneutical approaches to history.
Hume has been criticized by Peardon (1933) as having an "extreme narrowness" of outlook as an historian, ¹⁴² as lacking any synthesizing principle, for thinking that human nature is always much the same and that history is a "repeating decimal" (ibid., 22). This seems to me an unfair assessment of his *History*, one that presupposes what history "must" be and fails to appreciate just what Hume was up to. Since at least the days of the *Treatise*, Hume was interested in the human as *agent*. The quest for a new basis for continuity in human nature through time ("the regular springs of human action and behaviour") was paramount to Hume, given his intent to establish a human science in spite of rejecting classical notions of substance and of essence. Contra Peardon, it was *causality* that synthesized Hume's *History*, and which enabled him to work at the very level of generality that Peardon (1933, 23) calls "superficial".

We should not, then—pace Peardon (1933, 22)—belittle Hume's desire to explain how the events of each period resulted from individual action but did not necessarily arise from human design. His was a project of forensic rhetoric, which wishes to understand events in terms of individual character and its consequences and, therefore, Hume's failure to emphasize more strongly the role of the deep-lying emotions of men, religious impulses, mass movements, economic conditions, or geographic environments-which Peardon (1933, 22) finds reprehensible-is not a failure in Hume but a deliberate choice. This is not, of course, to deny the importance of those elements for historians or to say that Hume's history is the only correct sort. Hume was until his death a student of rhetoric. His decision to focus his attention on how character operates in history permitted him to apply his understanding of causality to the centuries of knowledge accumulated by rhetoricians about human nature. We may not agree with what Hume regards as the "chief use" of history, but we cannot fail him for failing to do everything, especially since he pioneered wholly unknown territory.

¹⁴²J.B. Black, cited by Peardon (1933, 22).

MARVELLOUS RELATIONS

The perusal of a history seems a calm entertainment; but would be no entertainment at all, did not our hearts beat with correspondent movements to those which are described by the historian (E_2 , 223).

We can find no difficulty when we come to apply this doctrine to the will. For as it is evident that these have a regular conjunction with motives and circumstances and characters, and as we always draw inferences from one to the other, we must be obliged to acknowledge in words that necessity which we have already avowed, in every deliberation of our lives, and in every step of our conduct and behaviour (E_1 , 94).

Whatever truth we may have is to be gotten not in spite of but through our historical inherence (Merleau-Ponty, 1964a, 109).

That Hume brought his study of cause and effect to bear in writing *The History of England* is not difficult to discern. In the *Treatise*, for example, his forensic interest demonstrated how "our actions have a constant union with our motives, tempers, and circumstances" (T. 401). His *History* scrutinizes how each player's motives, tempers, and circumstances contributed to his or her actions and, as a result, to the events of the day.

Of William the Conqueror, for example, Hume wrote:

Born in an age when the minds of men were intractable and unacquainted with submission, he was yet able to direct them to his purposes; and partly from the ascendant of his vehement character, partly from art and dissimulation, to establish an unlimited authority (H. I, 225).

Hume's account of the accession to the throne by Henry I also makes use of this sort of explanation. He argued, of the population at the time, that they were so insensible to the rights of their sovereign (who, by birth and by preceding arrangement with his now deceased brother, should have acceded to the throne) so as to "disjoint, without necessity, the hereditary succession,¹⁴³ and permit a younger brother to intrude himself into the place of the elder" (H. I, 254). Such a people as this, ruled by such a king as this, Hume argued, could expect neither that the king would respect their privileges nor that he would restrain his power to honour his promises to them, if they stood between him and something he desired.

 $^{^{143}\}mathrm{For}$ Hume's defense of the rights of succession on causal grounds, see (T. 510-513, including fn.)

Hume's understanding of causality as "deriv'd from the constant conjunction of two objects" (T. 171) enabled him to attribute causal origins for, as well as departures from, beliefs—for example, that of the touch for the king's evil:

Edward the Confessor was the first that touched for the king's evil: The opinion of his sanctity procured belief to this cure among the people: His successors regarded it as a part of their state and grandeur to uphold the same opinion. It has been continued down to our time; and the practice was first dropped by the present royal family, who observed, that it could no longer give amazement even to the populace, and was attended with ridicule in the eyes of all men of understanding (H. I, 146).

Hume was not afraid to make use of his conclusion (T. 171) that mind and body are not different insofar as causality is concerned. It underwrites his treatment of the character of monarchs as causally contributing to the events of the time.

Of William the Conqueror, for example, Hume wrote:

Whether we are to account for that measure (provoking and alluring the English to insurrections) from the king's vanity or from his policy, it was the immediate cause of all the calamities which the English endured during this and the subsequent reigns, and gave rise to those mutual jealousies and animosities between them and the Normans, which were never appeased, till a long tract of time had gradually united the two nations, and made them one people (H. I, 195).

His forensic approach made it entirely appropriate for Hume to conclude each chapter with an assessment of the character of the key player (usually a monarch) in the events he had just recounted. Of William, for example, Hume observed that he was "naturally a great economist" (H. I, 221), a situation that led to the conclusion that "no emperor or prince, in any age or nation, can be compared to the Conqueror for opulence and riches" (H. I, 222). On the other hand, William was "extremely addicted" (H. I, 222) to hunting, a circumstance that led to his enacting more severe penalties for killing a deer, boar, or hare than for the killing of a man (H. I, 222-3).

Finally, Hume's insistence upon the ultimate failure of the light of reason fully to penetrate the opacity of experience shows up in his *History* as the inability of human reason to foresee many of the important consequences of actions (H. I, 300). The ease with which the French king could ultimately conquer some provinces of England, for example, was not foreseen at the time that the king of France was overcome with terror at the "rising grandeur of Anjou or Plantagenet" (H. I, 300). What the

French king failed to take into account was the consequence of the jealousy produced in the powerful vassals of Henry III by his favours to the French king's men.

The opacity of experience is made to account for how events may be the result of human action without being of human design. Hume made use of this opacity to portray as an irony of history the manner in which the very attempts to maintain domination by the king and his confidants brought liberty to England. Hume tells us that the illegal administration of Peter, bishop of Winchester, was

one chief cause of that great combination of the barons, which finally extorted from the crown the charter of liberties, and laid the foundations of the English constitution (H. II, 17).

On Hume's account, the character and actions of Henry III were also implicated in bringing the barons to combine against "this odious ministry" (H. II, 17). That monarch's arbitrary principles led him, for example, to trust and promote to office and command foreigners, who invaded the rights of the people and drew upon them hatred and envy from every quarter in the kingdom. Hume gives us an example of how the very actions of this monarch, aimed at maintaining his own power at the expense of the other, resulted in frustration due to the other's subjectivity, which remained opaque to him. As a result of the very actions designed to protect his dominion, Henry III instead brought about the birth of political freedom in England.

"THE" PAST IS ALSO A CONCEPTUAL CONSTRUCT

History is itself a product of history ... It is history turning back upon itself, presuming that we are theoretically and practically able to take possession of our life and that clarification is possible ... We discover that we possess a power of radical choice by which we give meaning to our lives, and through this power we become sensitive to the uses that humanity has made of it (Merleau-Ponty, 1973c, 21).

I suggested in the previous section that Hume's insight into causality enabled an ironic view of the writing of history, which was an advance guard to current interpretive historians. I also suggested that his understanding of the role of individuation in causal relations legitimates diverse readings of history. I want now to consider these claims in more detail. Perception is two-sided. The two sidedness of the causal relation is illustrated by our ability to see ourselves as both the products and the producers of history. Flexibility of individuation means that innumerable sorts of accounts of ourselves as products or as producers may be generated in the pursuit of understanding. Since "the past" includes who we were, and since who we were includes innumerable ways of interpreting the past, it follows that we have no fixed *essence* in the classical sense. It also follows that "the" past is not fixed in the way that we might think. This does not mean that either "we" or "the past" dissolve into a maelstrom. Instead—and this is precisely what Hume . pointed out—our "essence", like "the past", is discernible as regularities pervading the "experiments" of life. In general, we may observe that we routinely tell stories about ourselves, that is, about our past; this is itself a regularity that is thematized in Charles Taylor's definition of humans as self-interpreting.

We may observe constant conjunctions between certain sorts of actions and certain sorts of motivations or characters. The attribution of causal relations among, for example, events, actions, and characters transforms mere chronicles into history, permitting the past to make a different difference to the present than solely the difference of having been what it was at the time, which is simply carried on through process and habit into the structure of the present. The past event as embodied in the present because of the choices that were made at the time is not anywhere near all there is to the matter.

Whenever we write history, we discern causal relations among past events that were not evident at the time; therefore, we may say that historical reflection alters both past and present. This, perhaps surprising, conclusion follows from the personal component of causality. Please bear with me while I explain how. Contrary to what we may think, ' "the" past is a conceptual construct, in part constituted from historical reflections. Historical reflection alters the past whenever what has come to pass since an historical event sheds new light on that event, making possible new interpretations of it.¹⁴⁴

¹⁴⁴See, for example, Martin Malia, *The Soviet Tragedy: A History of Socialism in Russia,* 1917-1991 (New York: The Free Press, 1994, 111 and 221).

Such new interpretations might even radically alter the meaning of that event and, therefore, radically alter future actions. Without that new interpretation of the past, to put the point somewhat trivially, the actions based upon it would not be possible. The point is not trivial, however, since a new interpretation makes possible new associations, based upon new perceived similarities (and new perceived differences) among events. After all, we know the context better than those who lived through the events; furthermore, we are already aware of the consequences. New associations make possible the ascription of new causal relations, and new causal relations, likewise, make new actions possible. Since causal relations structure reality and since actions have consequences both intended and unintended, yet more alterations of both past and future are made possible. It is not a question of coinciding with what has been lived but rather of finding meaning in what has been done.

Take, for example, the case of someone who had believed that the Crusades¹⁴⁵ were a glorious and fully justifiable war on religious infidels to regain territory sacred to Christianity. Imagine that person as having recently seen a TV program on the Crusades, which had reinterpreted that event in the light of present day understanding of motivations and with contemporary sensibilities about cultural and religious differences. The history that has occurred since the earlier interpretation makes it possible to reshape the historical event from something unquestionably accepted as something to be imitated under appropriate circumstances to something open to question and subject to critique. The facts of the matter, in other words, take on entirely new meanings, which is the same as to say that the event has changed.

To those who are now rising to object to this conclusion, I submit the following argument: To count as the same cause, an event must always have the same effect. In the case of the Crusades, the event in the first case had the effect of inspiring imitation; in the second case of producing repugnance. From one perspective, we can say that the person having seen the TV program was changed by it and now has a different response to the same event. We then count the event as the same, and as having

¹⁴⁵See also Hume's account of the Crusades (H. I, 234-239).

two different effects on two "different" people (or, if you prefer, on two different "time slices" of the same person).

On the other hand, we live in the truth; we like to say that the past event was "really" as we presently conceive it to have been and that it was the prejudice of the time that prevented our seeing it rightly. In that case "the event" only now causes our repugnance; the inspiration was not caused by the event per se but by the ingnoble passions of a past age. Or, we could say that our present adherence to different principles changed the event itself from one that was admirable to one that was ignoble. I could go on; analysis in terms of time is especially fecund. One overall implication of Hume's analysis of causality is that there is no single, completely transparent, and entirely unambiguous Truth of the matter. To put this differently, let us not mistake a conceptual system aimed at understanding experience for experience itself. Let us not mistake the map for the landscape. There are many true ways of conceiving of experience. To put this differently again, no one conceptual construct is determined by how the world is.

All this does not of course mean that there is some absolute "way" that "the world" is and that conceptual systems cannot encompass. Conceptual systems are not something separate from or over and against experience to which they could be ultimately compared. The point is the transcendence of time, in short, human finitude. I prefer to follow Merleau-Ponty and speak of conceptual systems as forms of expression of experience. This sort of reflection may make some readers somewhat queasy, since it foregrounds the ambiguity of experience and the consequent instability of language. We are now in a position to appreciate the importance of Hume's concern to establish continuity in human nature; the tendency toward instability gets ballasted by the overall constants in human action observed by the rhetorical tradition, to which Hume appealed for his principles of human nature. (This is not the place to elaborate on the rhetorical connection, but it will find articulation elsewhere.¹⁴⁶) What is important is that Hume brought to our attention certain constant conjunctions ("constant and universal

¹⁴⁶Readers interested in pursuing this topic are directed to Perelman, for example, (1989) "Act and person in Argument".

principles of human nature" (E₁, 83)), upon which we are justified in relying since, as he noticed, they have not changed through the course of human history as we know it. Such constants may serve us, as they did Hume, as hermeneutical touchstones to quell some of the anxieties that Hans Kellner (1989) has observed to have motivated a recent focus in historiography "upon a loss of identity in intellectual history" (280).

The temporal nature of existence makes new associations possible and, therefore, makes possible the attribution of new causal relations. The perspectives that permit new individuations and new constant conjunctions, which in turn are implicated in new causal relations, have a much more recent history than the "original" event, for example, the Crusades. The newly uncovered causal relations, to put this differently, alter history as well as ourselves (since who we are is, of course, inextricably bound up with who we were) but they alter both in a way that may be characterized as "controlled uncertainty". Historical reflection, then, may legitimately be understood to alter both past and present, both events and ourselves.

To sum up, a new way of seeing things, as Merleau-Ponty noticed, has a "retrograde" (1968, 189) or, we might also say "retroactive" effect on the past, since it brings new causal relationships to light and since we can no longer go back to the previous way of thinking. The present way of thinking, therefore, becomes the truth in and from which we live and the old way is rendered false.

We now have an alternative to maintaining that the new view was actually the truth of the matter all along, that it was just the prejudice of the age that made us unable to see it until now. Facing up to the personal component in causal relations permits us to acknowledge that our present view is not likely the last word either and stands as a "prejudice" to the future. As Merleau-Ponty wrote

Each perspective is there only to prepare for others. It is well founded only if we understand that it is partial and that the real is still beyond it. Knowledge is never categorical; it is always open to revision . . . As the questions come from us, the answers in principle cannot exhaust historical reality, since it does not depend on them for existence (1973c, 10).

The historician cannot look at the past without giving it meaning. Nonetheless, what is past does not depend on our questions or our answers for its existence. This is part of what it means to run up against the transcendence of time, which permits us to see how it is the alteration in the relationship^A between ourselves and the world from which new truths, or new worlds, emerge.

It is interesting that Merleau-Ponty's general point about retrograde effects is anticipated in Hume's particular comments on political authority:

Time and custom give authority to all forms of government, and all successions of princes; and that power, which at first was founded only on injustice and violence, becomes in time legal and obligatory. Nor does the mind rest there; but returning back upon its footsteps, transfers to their predecessors and ancestors that right, which it naturally ascribes to the posterity, as being related together, and united in the imagination (T. 566).

History is as much about the present as about the past, since it is always in the (light of the) present that we (re)write what the past means. If we were not involved in the spectacle, we would not be spectators. To use Merleau-Ponty's words:

It is at the heart of my present that I find the meaning of those presents which preceded it, and that I find the means of understanding others' presence in the same world (1964, 97).

All this has important personal as well as national ethical implications, since what events mean to us impacts on how we subsequently act; for example, as Hume wrote:

A man, who wounds and harms us by accident, becomes not our enemy upon that account, nor do we think ourselves bound by any ties of gratitude to one, who does us any service after the same manner. By the intention we judge of the actions, and according as that is good or bad, they become causes of love or hatred (T. 348).

We continually tell ourselves stories in order to make sense of events. Individuation and causality are the fundamental principles upon which these stories operate. The manner in which we individuate a "person"

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^A See, for example, (T. 348): "Nothing is more evident, than that any person acquires our kindness, or is expos'd to our ill-will, in proportion to the pleasure or uneasiness we receive from him, and that the passions keep pace exactly with the sensations in all their changes and variations . . . If the general of our enemies be successful, 'tis with difficulty we allow him the figure and character of a man. He is a sorcerer: he has a communication with dæmons; as is reported of *Oliver Cromwell*, and the *Duke of Luxembourg*: He is bloody-minded, and takes a pleasure in death and destruction. But if the success be on our side, our commander has all the opposite good qualities, and is a pattern of virtue, as well as of courage and conduct. His treachery we call policy: His cruelty is inseparable from war. In short, every one of his faults we either endeavour to extenuate, or dignify it with the name of that virtue, which approaches it. 'Tis evident the same method of thinking runs thro' common life".

from his or her past actions and attribute relations to him or her, for example, as one who deliberately or accidentally has harmed us, fixes our response to him or her. In either case and relatively speaking, the fact of damage may not change, but the meaning—our relationship to the event and, as a consequence, to the person—does. In considering whether someone has or has not harmed us, we may run through the events under both interpretations and see for ourselves how the relationships alter from one view to the other. We choose an interpretation of what is ambiguous and thereby reduce its ambiguity. Once we have settled upon an interpretation, our actions flow from it (We might accept an apology or begin litigation, for example). Our actions, as it were, give the drama of the whole enterprize its last act.

Once a course of action is initiated, an interpretation becomes reinforced and the world settles into that sort of world. (Of course, the process could become open again, since that course of action is itself a source for reflection. This means that, in principle, we are always free to change the curriculum of our lives.) It follows that causal relations restructure the past and the present, as well as the future. To use Merleau-Ponty's words: "History is a strange object, an object which is ourselves" (1973c, 11). We understand the past by making it enter into our own lives (ibid.). Since the sort of world we have is—perhaps to a greater extent than we had been aware—dependent upon the sort of individuations we make, it follows that we have a part in creating the very necessities under which we are constrained to act.

Our freedom consists, at least in part, in how we choose to interpret events, according to which principles, and the meaning we choose to derive from them. In this also consists our slavery, if we simply and unthinkingly accept someone else's interpretation. An event may have any number of meanings; it is our action that brings, for example, good out of evil. Choice, however, requires both courage and resoluteness; in choosing for ourselves, we take up the responsibility for our history and for our future. In any case, we cannot escape the consequences of our actions; whether on the road to becoming a tyrant or a sage, we cannot escape taking our history upon ourselves in every deliberation and in every step of our conduct.

Conclusions: A Genius for Ambiguity, or, Causality as Organized Uncertainty

Superficially considered, our inherence destroys all truth; considered radically, it founds a new idea of truth (Merleau-Ponty, 1968a, 109).

Merleau-Ponty died before he could develop his deeply original, topological idea for a relation to Being that would form itself within Being (1968, 215). These pages begin a response to his call. I have brought Hume and Merleau-Ponty closer together; I have made an explicit link between Merleau-Ponty's notion of the flesh and Hume's insight into the fundamentally two-sided nature of the causal relationship, from which I believe it stemmed.

Hume's insight into the two sidedness of lived experience is readily discernible in the *Treatise* although, of course, Hume did not express it in this way. His grasp of the linguistic nature of understanding is also visible there. The twentieth century phenomenological-hermeneutical manner of thinking about language has enabled me to contribute this interpretation of Hume, to apply it to Merleau-Ponty's unfinished project of replacing the outmoded understanding of causality, and thereby to initiate a new paradigm. When placed together in the crucible of reflection, Hume's phenomenological reduction of causality and Merleau-Ponty's notion of the flesh produced a paradigm that promises to emancipate the human sciences from their bondage to the service of the physics model.

The manner of this emancipation is highly ironic: In the view of one of those whose claims suggest that scientists are the "high priests" of reality, the twentieth century has seen philosophy "reduced" to the analysis of language (Hawking, 1988, 174) and it is now up to science to find answers to all the important questions. Hawking implies that they would already have done so except that, up to now, scientists "have been too occupied with the development of new theories that describe *what* the universe is to ask the question *why*" (ibid.).

As it turns out, the twentieth century philosophical involvement with language—far from being the "comedown" that Hawking (ibid., 175) supposes—has permitted me to argue that even physics is a cultural artefact, which presupposes and is every bit as dependent upon the natural relation and the linguistically mediated shift in perspective as are

the other sciences and the arts. The upshot is that causality is no longer (should we say, "never was"?) the sole property of physics. It is my hope that the new paradigm will be deployed to intervene in the status quo and to displace that monopoly.

The natural relation is presupposed in all scientific thinking about causality; it underwrites the actuality of all scientific practice. In addition, language is the dimension in which the theoretical shifts from subjective to objective perspectives are accomplished. I conclude that causality is a universal principle, more fundamental than any scientific principle and, is therefore properly a philosophical issue.

TO REDISCOVER OURSELVES FINALLY FACE TO FACE WITH THE WORLD ITSELF

Vision ceases to be solipsist only up close, when the other turns back upon me the luminous rays in which I had caught him (Merleau-Ponty, 1968b, 78).

Say that the things are structures, frameworks, the stars of our life: not before us, laid out as perspective spectacles, but gravitating about us '(Merleau-Ponty, 1968b, 220).

The structures that we are would melt right back into the flux without constant conjunctions, such as—to use an example from Hume—*bread* and *nourishment*. These structures form a tissue, we might say a fabric of constant conjunctions. This is why Merleau-Ponty's principle, flesh, is so apt. Constant conjunction is a way that things have of touching each other, whether those things be as solid as material objects or as ethereal as ideas and feelings. I have argued for understanding perception as a certain divergence: a certain dissonance that is a surface of separation but is also the place of union, of introjection. I have suggested, following Merleau-Ponty (1968, 216), that we think of distinctions not as indicating isolated *parts* of space , but as producing cuts in topological space.

I have suggested that we may conceptualize the boundary that separates mind from body as also the locus of their folding into each other as kneading a piece of dough folds its surfaces into itself.¹⁴⁷ One

¹⁴⁷See James Gleick (1987, 51): "The process mimics the work of a mechanical taffy-maker, with rotating arms that stretch the taffy, double it up, stretch it again, and so on until the taffy's surface has become very long, very thin, and intricately self-embedded". Of Smale's horseshoe, another topological transformation, Gleick observes: "A space is stretched in one direction, squeezed in another, and then folded. When the process is repeated, it produces a kind of structured mixing familiar to anyone who has rolled many-layered pastry dough. A pair of points that end up close together may have begun far apart".

way of thinking of occurrences at these boundaries is to think events of transcendence as occurring *between*, say, experiences of mind and of body.

We may also say that causation occurs when things encroach upon each other, and where things reverse. We may think a moment of causation as, therefore, a moment of mediation, of *reversal*, which Merleau-Ponty wrote:

is not only a me other exchange (the messages he receives reach me, the messages I receive reach him), it is also an exchange between me and the world, between the phenomenal body and the "objective" body, between the perceiving and the perceived: what begins as a thing ends as consciousness of the thing, what begins as a "state of consciousness" ends as a thing (1968, 215).

From another perspective, we may say that when outside encroaches upon inside or inside upon outside, we experience causation. At the very heart of perception—the experience of volition—the divergence between self and not-self forms the union of self and not-self in causal relations. It is the divergence that permits the union or, to say this differently, the union requires the divergence. Whether from the perspective of body or of mind, in perception the self is introjected and folded within the not-self and vice versa. As Merleau-Ponty might say, the body emerges in the midst of the mind and the mind in the midst of the body; they remain enfolded in an embrace.

The manner in which Merleau-Ponty on one occasion described this curious topology could have been written by James; the passage deserves to be quoted at length:

Man taken as a concrete being is not a psyche joined to an organism, but the movement to and fro of existence which at one time allows itself to take corporeal form and at others moves towards personal acts. Psychological motives and bodily occasions may overlap because there is not a single impulse in a living body which is entirely fortuitous in relation to psychic intentions, not a single mental act which has not found at least its germ or its general outline in physiological tendencies. It is never a question of the incomprehensible meeting of two causalities (in the objectivist¹⁴⁸ sense), nor of a collision between the order of causes and

¹⁴⁸Merleau-Ponty distinguishes between the two sorts of association (1968, 240): "The 'associations' of psychoanalysis are in reality 'rays' of time and of the world.

For example the memory screen of a yellow-striped butterfly (Freud, The Wolf Man) reveals upon analysis a connection with yellow-streaked pears that in Russian call to mind *Grusha* which is the name of a young maid. There are not here three memories: the butterfly—the pear—the maid (of the same name) 'associated.' There is a certain play of the butterfly in the colored *field*, a certain (*verbal*) Wesen of the butterfly and of the pear—which communicate

that of ends (ditto). But by an imperceptible twist an organic process issues into human behaviour, an instinctive act changes direction and becomes a sentiment, or conversely a human act becomes torpid and is continued absent-mindedly in the form of a reflex (1962, 88, emphasis added).

Using the phenomenological model of causality permits us to say, along with Merleau-Ponty, that we perceive the things themselves, that we are the world that thinks itself, that the world is at the heart of our flesh (1968, 136, Editor's note).

In summary: Individuations are the basis of causal relationships. It follows from this that different ways of thinking (in that they are based upon different distinctions) produce different realities. Those differing realities are rooted in the common ground of the lifeworld, the world that is revealed in sensory experience.

TAKING OUR HISTORY UPON OURSELVES

Because of the fact that the order of knowledge is not the only order, because it is not closed in on itself, and because it contains at least the gaping blank of the present, the whole of history is still action, and action . is already history (Merleau-Ponty, 1973c, 11).

The frameworks and structures that we and everything else bear are a living record of past causal relations. Thinking as well as perceiving involves making distinctions; in turn, those very distinctions are the basis for constant conjunctions. Since causality is "a constant conjunction of objects, and subsequent inference of the mind from one to another" (E_1 , 93), constant conjunctions (of whatever sort) are candidates for the attribution of causal relations. Inner and outer events, constantly conjoined, are candidates for the attribution of causal relations. We are always and already engaged in making reality.

Accepting the view that oppositions, such as body and mind, are linked reciprocally, through causality, means that we must face up to the extent of our responsibility for the way the world is. Because things have "a certain loose play on one another, so that the laying down of one of them does not necessarily determine what the others shall be" (James, 1977, 591), when we act we actualize one of a number of possible ways

with the language Wesen Grusha (in virtue of the force of incarnation of language)——There are three Wesen connected by their center, belonging to the same ray of being. The analysis shows in addition that the maid spread open her legs like the butterfly its wings. Hence there is an overdetermination of the association——Perhaps valid in general: there is no association that comes into play unless there is overdetermination, that is, a relation of relations, a coincidence that cannot be fortuitous, that has an ominal sense".

the sector of the world that we dominate could be. When we act in concert, we effect a greater difference.

Of course, as I have been arguing, this does not mean that we can have things just as we like them, since everyone—and, perhaps, even everything—in the world is in the same position. When I said earlier that reality (and Reality) is by agreement, therefore, I clearly did not mean to discount reality (or Reality) to "mere" agreement, ¹⁴⁹ any more than Hume meant to degrade causality to "mere" constant conjunction. Entirely to the contrary, there is nothing "mere" about it. Understanding experience in this way leaves one, as Merleau-Ponty wrote (1962, xiv) "filled with wonder" at the world. Understanding experience in this way undermines the "know-it-all" attitude that breeds contempt for the world and, in the end, nihilism.¹⁵⁰

It was with such wonder in the face of the universe that Hume noticed:

Had not the presence of an object instantly excited the idea of those objects, commonly conjoined with it, all our knowledge must have been \cdot limited to the narrow sphere of our memory and senses; and we should never have been able to adjust means to ends, or employ our natural powers, either to the producing of good, or avoiding of evil. Those who delight in the discovery and contemplation of *final causes*, have here ample subject to employ their wonder and admiration (E₁, 55).

Because the phenomenological model of causality I have introduced in these pages incorporates both the finitude and the temporality that characterizes the lifeworld, it is appropriate to conceptualizing *living* (as opposed to dead and dissected) experience. Thanks to Hume's incisive insight, this paradigm legitimates our expectation that the future will resemble the past but, nonetheless, frees us from the "absolute certainty" that it will inexorably conform to an eternal essence. The world is thereby set free, to "play".¹⁵¹

At the end of the day, "volition" means "to fabricate reality". As well as maintaining the world, therefore, causal relations also recreate it. That "fabric", I have argued, is neither wholly a human product nor wholly a product of other than human forces. As Merleau-Ponty noticed,

 $^{^{149}}$ For a detailed accounting of the rhetorical and hermeneutical legitimation of this claim, see my (1994).

^{150&}lt;sub>See</sub> Levin (1988)

¹⁵¹Evidence of this "play" has been recorded in the scientific ideas of mutation, the uncertainty principle, and chaos.

"Everything is both manufactured and natural in man" (1962, 189).¹⁵² Nonetheless, this manufacturing occurs within first-hand experience. As an event of transcendence, however, causation takes us beyond solely personal or even beyond solely human experience.

In the past, we thought the boundary between ourselves and the world as separating us from it; now we may think that boundary as also connecting us to the world. The fabric has two sides, which are distinguishable, yet, connected. The topological model of causality initiated in these pages allows us a workable way of thinking each separation, each distinction, we experience as further uniting body and mind, as finding that union ever more deeply within the world; it increases our awareness of how the thickness of perception comes from its fecundity.

We may now think mind and body as interacting in the fabrication of reality. Although, like the two sides of a möbius loop, mind and body never coincide, neither is there any time when one is absolutely distinct from the other. Since there is no determinate place where the "twist" is located, it is always both over there and right here almost within our grasp.

A LOGOS FOR THE LEBENSWELT

Grau, teuer Freund, is alle Theorie Und grun des Lebens goldner Baurm. Goethe

From now on, the absolute condition of a valid philosophy is that it pass by way of the present (Merleau-Ponty, 1964a, 105).

When the fruit is ripe, a touch will make it fall (James, 1958, 150). Under the phenomenological paradigm of causality, we can afford to be generous with language; we can at last cease trying to censor the language of body and mind from our philosophical (as opposed to our "folk-psychological") conversations. We need only change our way of thinking about them, from isolated and totally knowable substances to

¹⁵²He adds (ibid.): "There is not a word, not a form of behaviour which does not owe something to purely biological being—and which at the same time does not elude the the simplicity of animal life, and cause forms of vital behaviour to deviate from their preordained direction, through a sort of *leakage* and through a genius for ambiguity which might serve to define man... Behaviour creates meanings which are transcendent in relation to the anatomical apparatus, and yet immanent to the behaviour as such, since it communicates itself and is understood".

intersubjectively constituted processes, of which our knowledge is always limited and correctable.

In thereby enabling an understanding of knowledge as finite and as involving the integration of diverse perceptions, this paradigm permits the sciences to become more human as well as putting them on a par with (although obviously not rendering them the same as) the humanities' investigations of what it means to be human. To put this differently, these pages have tried to establish causality as a condition of reality. I have argued that causality is universal to human experience; therefore, it is common to and presupposed by all the sciences. The result is a levelling of all of the sciences with one another and of the sciences with the humanities.

A new order is already emerging among the sciences. The explicit recognition of the ambiguity of experience (in keeping with what physics itself has encountered in the uncertainty principle and the underdetermination of theoretical constructs) means that many diverse systems for understanding reality may be legitimated. Although this paradigm frees the human sciences from their bondage to the physics paradigm, we will not cease to study ourselves as objects, since we undoubtedly exist in that dimension as well. Neither will the natural sciences lose their importance, since they seek to understand the lifeworld and are, in fact, the most important systematic source of our understanding of it.

Nonetheless, the new paradigm provides the human sciences with an integrated set of principles and an alternative perspective, from which to subject the natural sciences to investigation and critique; after all the styles of individuation and the causal relations they attribute are cultural products as surely as any. To sum up, the phenomenological paradigm of causality lowers the critical barriers among the sciences and illuminates the boundary beyond which the project of physics is unsuited to travel.

In addition, these pages have suggested a way to legitimately integrate diverse orders of perceptions and, therefore, their respective theories and vocabularies—a task that has so far proven intractable. Constant conjunction among phenomena, even among those that "belong" to different theories or different scales, indicate a site for the investigation of causal relations. I hope that this model of causality might yield practical means to assess the durability of the cement holding together all sorts of relationships: natural as well as moral, physical as well as mental. I believe that this paradigm provides a workable way to conceive nonphysical dimensions as in causal contact with the physical; in order to investigate the nature of any interactions, we can look and see whether, where, to what extent, and with what consequences imaginary objects encroach upon physical and vice versa. The idea of reversibility provides a topological manner of conceptualizing how such diverse domains are causally connected.

Moreover, and most importantly, since at any moment we can *perform* a gestalt switch between subjective and objective ways of thinking, the phenomenological paradigm permits us to understand the freedom of reflection that permits us to perform the gestalt switch, which, in turn, gives us some control over causal relationships. Since the twist cannot be "located", so as to confine the natural relation entirely within the philosophical for the purposes of explanation, lived experience is always reversible from the one dimension to the other and back again; it is fundamentally free.

Finally, I understand that saying that causality just is constant conjunction and an inference of the understanding makes it just about as radically contingent as you can get. I maintain, however, that this view does not see the world as ultimately out of our control. Recall that the paradigmatic case of causal necessity is volition, in which we make necessity out of contingency. The lived experience of causation, in cases in which we exercise our freedom to make new choices, is a lived experience of metaphor, of an inference between two heretofore unrelated events. Freedom means openness to change, to the possibility that the future will differ from the past.

The difference at issue is the one between predictive certainty and justified anticipation, between dogmatic certainty and organized uncertainty. After all, our anticipations of what someone close to us, even ourselves, will do in any given circumstances are often wrong. Although we have sometimes been unwilling to admit it, we have all along been working within the constraints of finitude and temporality and there are many advantages to admitting it. Not the least of the advantages of accepting the phenomenological paradigm is that it makes causality universally accessible. Notwithstanding its universal accessibility, treating the natural relation as primary provides a secure basis for scientific enquiry, since it requires that constant conjunction be universally recognizable in order to count strictly as an instance of causality.

To put this differently, the structures in phenomena that are common to us all are comprehended in the lifeworld. Although contingent and historically emergent because dependent upon lived experience, the tendency toward an infinite explosion of causal relations is constrained, curiously enough, by the very same principle, in its guise as nature, custom, and tradition. In other words, causal understanding can count as knowledge because it has bounds: the limits prescribed by what the past has taught us all. Nonetheless, causal understanding is also rendered limitless, made open to what the future holds in store. To summarize: The new paradigm of causality that these pages have initiated seeks to justify and to rehabilitate the ambiguity of the order of the lived as the root of the objective, by making the ambiguity of lived experience productive.

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