

## Translator's Introduction

Van den Berg's "Two Laws of Thermodynamics"

(Duquesne University Press 2004)

### About the Author

It is a rare occasion to read an essay on an historical development in physics written by a historian who is also a noted authority on psychiatry and psychology and who, moreover, has made it his life-work to develop an understanding of the human condition inspired by the work of Gaston Bachelard, Husserl and Heidegger.

Van den Berg is the author of some thirty-five books on topics ranging from architecture to entomology and from psychotherapy to theology. Several of these have been translated into English and into half a dozen other languages and many have seen numerous reprints. His books 'The changing Nature of Man' and 'Medical Power and Medical and Medical Ethics' became international bestsellers. All are written in a very direct and vivid style that confront the reader with the sharp contours of a human situation or the outlines of a problem but that at the same time open a vast terrain for new thought. The marvellous clarity of the texts is a pleasing entrance way into a world where the reader must nevertheless clear a path and find a way.

A recurrent trait of Van den Berg's historical writing is his capacity to bring together the most heterogeneous cultural elements of a

particular period so that they begin to form a comprehensive and mutually clarifying whole. His view of an historical period is symphonic. A dominant theme plays itself out in architecture and is then taken up and elaborated by a political theory, after which it may gain new life in a particular fashion design or in a scientific discovery or a breakthrough in mathematics. All these varied cultural activities appear in this work as so many instruments contributing to the creation of a symphonic whole. To discover this whole we are required to assume the role of a good audience that has come to observe, to listen and to bear witness to a bygone age. The coherence and the unity we find or fail to find in the world of history is ultimately a function of our ability to properly address it and to make it speak to us and reveal itself.

The author's long and productive academic career spans more than half a century. He was born on the eve of the First World War and grew up amidst the political and ideological ferment of the years preceding the Second World War. He began his professional life as a teacher of mathematics, but then decided to study medicine and to specialize in psychiatry. He completed these studies and became chief assistant to the famous Dutch psychiatrist Rumke at the psychiatric clinic of the University of Utrecht. He received his PhD degree in 1946 with a thesis on phenomenological and existential anthropology. He then traveled for further study to Paris where he participated in the post-war philosophical and literary renaissance that was then in full swing in the

French capital. He became part of the circle of Henri Ey and Jean Wahl and studied with Gaston Bachelard whom he befriended and who came to exert a major influence on his later work. In turn, Bachelard was influenced by his younger friend. He cited Van den Berg's *The Phenomenological Approach in Psychology* in his introduction to *The Poetics of Space* and referred to the author as "this learned Dutch phenomenologist". Subsequent to his studies in France van den Berg travelled to Switzerland where he worked in the clinic of Manfred Bleuler and met Ludwig Binswanger.

When he returned to Holland after his extended study tour he opened a private practice in Utrecht and shortly thereafter began his academic teaching career as a lecturer in psychopathology at the University of Utrecht. In 1951 he obtained a chair in pastoral psychology and three years later he joined the University of Leiden where he taught phenomenological psychology and psychiatry.

Most of Van den Berg's writing of that time dealt with medical and psychiatric topics, but his phenomenological orientation pulled him inexorably into the orbit of an interdisciplinary understanding of human situations and in the direction of a philosophical anthropology. His inaugural address on the relationship between psychology and religion opened a lifelong dialogue with theology that led to the publication, in 1995, of his *Metabletica van God* (Metabletics of God). *The Changing Nature of Man*, was published in Dutch in 1956 and in English in 1961. It makes a significant contribution to psychology and psychotherapy, but

it can also be read with profit as a treatise on education, history and sociology. In final analysis, the text transcends the limits of any particular disciplinary context and can best be appreciated as a series of great poetic meditations on the human condition that grows more enchanting and revealing with each subsequent reading.

The late fifties saw the publication of yet another interdisciplinary study entitled *Het Menselijk Lichaam* (The Human Body). It explored the historical transition from ancient to modern medicine and from a traditional exploration of the 'closed' human body to a modern anatomical and physiological exploration of the opened body.

To do justice to this intellectual revolution within medicine the author felt compelled to move beyond the limits of medicine proper to explore the larger historical world in which this revolution took place. This larger historical world was being transformed by the discovery of the New World at the same time that it was being assailed by new religious sensibilities, by changed relationships between the sexes, by different ways of dressing and behaving and by new trends in the fields of literature, painting and architecture.

In reading these texts one learns that it is not possible to gain a proper insight into the historical developments within a particular discipline without placing these within the context of a larger cultural world. To understand a particular breakthrough in medicine or physics we must bring it into a relationship to broader historical currents that affect human relationships to self and other as well as to the material world.

Van den Berg's phenomenological history or "metabletics" refuses us the protection of a particular academic niche but forces humanists and human scientists to interact within a wider cultural landscape. Neither does it permit us to enclose ourselves within the safe cocoon of our own time and circumstance in the mistaken belief that our own contemporary convictions and hobby horses can safely take the place of all that was thought and understood before our time. It disabuses us of the phantasms of a progressive history that automatically registers improvements as it steadily moves from an inferior past towards its crowning achievement in the present. Quite to the contrary, Van den Berg's metabletic history invites risky encounters with distant times and places and with sensibilities and achievements that are neither inferior to, nor merely anticipatory of our own.

### Metabletics, Metabolism and Metaphor

Van den Berg's essay on the two laws of thermodynamics makes use of what the author has variously described as a phenomenological or "metabletic" approach to the writing of history. The term metabletics is coined from the Greek verb *metaballein*, which means "to change", "to turn around", and "to alter". It refers to an abrupt change in one's goals, one's direction or one's way of life. It implies an abrupt change

in which the new state of affairs leaves little or no place for the old state of affairs and in which the present absorbs or radically distances itself from the past. Our word "metabolism" still evokes this abrupt and complete change undergone by plants and animals as they are eaten and digested and as they are made to form part of the body of an alien organism. In this process of metabolism the "old" life form loses every trace of its former identity as it is gradually being transformed into a "new" life form. *Meta-ballein* refers literally to the act of throwing (*ballein*) something across a spatial or temporal interval (*meta*), in such a way that the path of transformation is lost and cannot be traversed in an opposite direction. Metabolism refers to a fateful, unidirectional change that leaves no memory of its passing.

In that sense it evokes most clearly the image of death, understood here as an absolute and irrevocable loss of one's identity and of one's place in the world. To better understand this fateful metabolic transformation we need to contrast it with an opposite trend that preserves identity and places it on a new foundation.

We might compare the Greek verbs *metaballein* and *metapherein* and their English derivatives, "metabolism" and "metaphor". Both *metapherein* and *metaballein* refer to a displacement or transport from one site to another. Both invoke the passage of time and imply a "before" and an "after", be it in radically different ways. Both imply the transport of something from one context or one world to another. *Metapherein* and metaphor refer to a transport across a threshold or a

bridge that interconnects two separate and distinct, but never isolated or mutually exclusive realms. The Greeks used the verb to refer to money management, to transferring funds from one account or one particular purpose to another. In horseracing it referred to the alternative use of the goad, first to one and then to the other of a team of horses. Within the context of bureaucracy it referred to the transfer of officials from one post to another, while in rhetoric it could point to the displacement of a particular word from a known to an unknown or novel context. In the art of translation it referred alternatively to the Greek word or concept and to its equivalent in the foreign tongue. *Meta-pherein* means literally 'to carry something from one place to another'. *Meta-pherein* and metaphor create a path that links two domains via a threshold so that it can be travelled and re-travelled in both directions. The word that has been translated in another language can be re-translated in the original tongue, the official assigned a different post can thereafter be reassigned to his previous one, and funds allocated for a different purpose can subsequently be reassigned to their previous uses.

*Metaballein* and metabolism moves in a very different direction. Instead of honouring a threshold between neighbouring persons it destroys all distance and difference and dissolves one individual into another. Instead of founding an inhabited world it constitutes a constant threat to it and this threat can be overcome only with the help of metaphor. The movement implicit in metabolism signals the end of

history unless it is contextualized and contained by the work of metaphor. Metaphor opens history since it creates a threshold and a path leading from one temporal domain or one historical period to a preceding or succeeding one.

To read a story means to participate in a metaphoric transport that links the beginning to the end and the end to the beginning. It is this constant mutual reference of beginning and end that preserves the identity and the integrity of the narrative characters and events as they undergo changes in the course of the story. Narrative fails when it does not link a beginning to an end or when it does not succeed in preserving the identity of the characters throughout the course of the story. Narrative also fails when the reader does not observe the courtesies of the threshold and neglects to maintain a proper metaphoric distance from the characters and situations making their appearance in the narrative. Reading becomes distorted either by identifying too closely with the characters, or alternatively, by failing to enter into a meaningful relationship with them.

Metaphor traverses a distance; it moves something, a character, a thing, a situation, from one to the other side of the river in such a way that the path it follows forms a bridge linking the two shores. Metaphor navigates between two worlds and unites them into a meaningful whole. Metabolism, on the other hand, erases the distance between two



different worlds. It collapses narrative and ends all history by effaces the difference between a beginning and an end. It is a ship that makes the river disappear as it crosses from one shore to the other.

Metabolism burns the bridges built by metaphor. Metaphor gives and metabolism bars access to an intersubjective world of neighbourliness, of conversation and story-telling.

We think here of metaphor as the governing principle of the lived world since it establishes a threshold between two different worlds. It creates a time and a space within which friendships can be formed, love can blossom, families can become established and cities can be built.

Metaphor creates a world in which a host can to meet a guest, a stranger can meet a native, a man can encounter a woman and a child can come to love and trust an adult. It creates a world where the living may remember the dead, where mortals can address the immortals and where heaven and earth do not collapse into one another but form a meaningful whole.

Metabolism, when unopposed and unrestrained moves in the opposite direction; it creates a literal and material unity that recognizes nothing beyond itself and accepts no law or rule beyond those of natural necessity. As such it opens upon a world of pure violence in which there is no room for a moral law.

We think of the lived world as a world of metaphoric couples, that is, as

the dwelling place of neighbours, hosts and guests, natives and foreigners, the living and the dead and gods and mortals. By contrast, we think of the modern natural scientific universe as forming a severe, material and literal unity. In the place where the lived world shows us the historicizing and metaphoric unity of couples the universe shows us an a-historic and metabolic unity of mutually devouring objects and forces.

The scientific study of a natural universe sheds a unique and revealing light on the lived world we inhabit. Yet, we should not confuse the two or reduce the one to the other. To approach the universe as origin and destiny of our lived world or to approach natural science as the ultimate harbour of our thought can only undermine and ultimately destroy the world in which we actually live our lives. It means to accept metabolic change as the ultimate truth of our world and to ignore that the unity of a human world is metaphoric and applies to couples.

Both metabolic and metaphoric change form part of the human world. Death, disease, suffering, stupidity and forgetfulness all remind us of our fragile and mutable existence. They all reveal that the human body is destined to disappear without remainder into the body of the earth. Yet every threshold that links separate domains, that safeguards and treasures the distinct qualities of those who cross it, reminds us of a very different, specifically human way of joining and bringing together. Every mistake we make, every stumble on our path reminds us of the

metabolic truth of a biological death. But every act of love and friendship, every thoughtful remembrance of the dead, every prayer or sacrifice offered to the gods and every attempt to transmit our cultural treasures from one generation to the next reminds us of a different truth. It is this latter truth that holds our world together. Every sound work of art, every well-made and useful thing, every story told or written and every work of science or technology that illuminates our world points beyond the merely metabolic truth of death and decay in the direction of a world made lucid by metaphor.

Humanity cannot maintain itself without extending a welcome to the past and to the future. It can prosper only when it cultivates thresholds that bind together an inside and an outside, and that can both keep distinct and hold together a past, a present and a future.

Both metabolic and metaphoric ways of joining play an important role in our life. Yet we all recognize instinctively that metabolism needs to be contained by metaphor. It is for that reason that our social customs embed the act of eating and digestion within a larger metaphoric context of hospitable encounters and table conversation. To eat or drink outside that context incurs the danger of becoming swallowed up in a metabolic world of compulsion and perversion.

Our history contains periods of radical or metabolic change where for a moment all vital contact seems lost between a present and a preceding way of life. Van den Berg's metabletic history searches out such moments of radical historical change when a present time appears to

have devoured its own past and obliterated the traces of a previous way of life. What is lost at these moments is the very possibility of a dialogue with an alternative way of understanding our world.

We may think of metabletic history as an effort to restore to a hermetic present the metaphoric unity of past, present and future.

In the essay that follows Van den Berg describes such a radical change that took place towards the end of the eighteenth century. This revolutionary change not only sought to erase differences between individuals, classes and functions, it also eroded distinctions between animals and human beings and between living beings and inanimate things. These radical changes severed relations with preceding ways of approaching and understanding the natural world. It is in this changed climate of revolutionary thought that it became possible to formulate the laws of thermodynamics.

## In the beginning was the Word

What is noteworthy about Van den Berg's investigation is the range of the historical facts and situations he manages to assemble into a meaningful narrative whole. As modern readers we are accustomed to works that follow historical developments within a particular cultural domain such as art, architecture, economics or political ideologies. Only rarely do we come across a work that makes an attempt to link advances in chemistry to political ideology or that brings trends in

ladies' fashions into a meaningful relationship to an ongoing military conflict.

We are accustomed to thinking about our cultural life as intrinsically changeable and so we are not surprised to learn that Renaissance architecture differs in essential respects from Gothic or Baroque architecture, and that Elizabethan tragedy follows principles that are not applicable to classic Greek or French tragedy. We also readily accept the fact that the natural sciences themselves are subject to historical change so that a sixteenth century conception of material reality is not directly comparable to that of the seventeenth or the twentieth century.

Yet we think about the natural and physical world itself as governed by immutable natural laws and as being beyond the reach of historical change.

Van den Berg enlarges our notion of what can become subject to historical change, expanding it to include material substances such as water and iron, wood and bread. He refuses to relegate the material world to some ideal domain wholly beyond the shaping power and creative ferment of an ongoing human and divine conversation. He introduces us to a historical world in which the material substances themselves and not merely their appearances are subject to historical change. Historical change refers here not merely to a temporal and material rearrangement of the world but to an ongoing, constantly shifting human and divine conversation that binds a mortal human

world to a world beyond.

The author refers to the elemental change in the material world that took place towards the end of the eighteenth century as “transubstantiation”. We will return to that theme a little later on.

The important point to be made here is that the revolutionary struggle for social and political equality in the eighteenth century did not remain limited to the political or social sphere but had its repercussions within the material world as well. Van den Berg points out that prior to the French Revolution social inequality had not been perceived as a malleable social fact but as an inalterable feature of the human landscape. This acceptance of inequality was not limited to the social realm or to interpersonal relations; it also formed part of the natural and material landscape. The eighteenth century looked upon water, bread or wood as local products that manifested the particular characteristics and qualities of the landscapes and localities of which they formed a part. The water of the Thames, the Danube or the Seine were therefore not directly comparable to one another, in the same way that the marble from Mt. Pentelicos in Attica was not quite the same as that from Paros in the Cyclades. Nor was it always a self-evident truth that the bodies of human beings born and raised in one part of the world could be directly compared to the bodies of people from other places and regions.

The story is told that when the famous British physician Thomas

Harvey presented his discoveries about the function of the heart and the circulation of blood to a distinguished audience of German physicians he applauded for his efforts but also firmly told that what was evidently true for the bodies of Englishmen did not apply to the bodies of Germans. The idea of a universal medicine based on a generic human body at one time sounded as strange and improbable as the proposition that it was the selfsame and identical chemical compound water that coursed through all the rivers of the world. Van den Berg reminds us that Lavoisier's *Traité élémentaire de chimie*, the book that introduced the idea of universal chemical compounds, was published in the year 1786 on the eve of the French Revolution and at the time of the storming of the Bastille. It made its appearance at the very moment when the ideas of a classless society and of a universal humanity began to take hold of the body politic. The author points out that the idea of "equality" formed the core of the revolutionary slogan 'Liberty, equality and brotherhood' and stood at the center of a new political doctrine and a novel anthropology. This idea extended its influence far beyond the social and political realm and also influenced our understanding of the physical and material world. Or perhaps it was the other way around: a new appreciation of universal and material relations began to extend its influence within the social realm.

It is evident that a historian whose work is guided by principles derived

from the natural sciences will write a different kind of history than a colleague who is guided by the biblical precept that states that "In the beginning was the Word". For the former, historical change is but a subspecies of a more basic change taking place in the natural universe. His attempts to understand historical change eventually leads him back to the natural and physical world and his intellectual task becomes one of explaining human events and human motivations in terms that most closely resemble the formulations and descriptions used by natural scientists.

Within this perspective the human world makes its appearance as a mere fragment of the much larger and more enduring natural universe studied by astronomers and geologists. Within this light the whole of human history presents itself as but a minor and perhaps insignificant incident in the unending melee of material objects and natural forces. Historical change becomes here a sub-species of an ultimate and all-encompassing metabolic change that rules the material universe. That universe itself appears in this light as an ultimate instrument of equality in which everything moves towards confluence and dissolution of difference. It assumes the form of a gigantic, constantly churning stomach in which the rich variety of human persons, times and events is preordained to disappear without remainder.

By contrast, a history that is guided by the biblical precept of creation begins with a divine word and takes the form of a cosmic conversation. That history begins with an encounter between heaven and earth and



between a mortal self and a divine other. Such a history begins when a first face lights up in the presence of another and when a first creative word opens a conversation and establishes a bond that lays the foundation for a human world.

Let it be noted, incidentally, that a world that is governed and held together by the word is a world that remains intrinsically mutable since everything within, all things material and spiritual, make their appearance within the light of an ongoing conversation.

I am reminded here of Van den Berg's 1996 lectures at the University of Leuven in Belgium that ended on a very enigmatic and thought provoking note. He cited the well-known first sentence of the Gospel according to Saint John, "In the beginning was the Word (logos) and the Word was with God and the Word was God". He then added the following commentary:

"The words: "In the beginning" refer back to Genesis 1, 1 where we read: "In the beginning God created heaven and earth". It was thus in the beginning, but it did not stay that way. What remained was: "The Word was with God". What disappeared was: "The Word was god". (*Geen Toeval*, (1996) Pelckmans, Kok, Agora, Kampen, p. 155 translated by author)

The Word that created a relationship between heaven and earth remained the Word that was *with* God in the sense that it remained

divine while it suffused the whole of creation with wisdom and endowed it with purpose. But a word spoken or a word given is modified by the way it is heard or understood and as it begins to form an ongoing relationship. For a word to become effective in creation it must be *offered* as a gift and a pledge, it must be made to pass a border and cross a threshold. It is only in this way that the Word can unite two separate domains into one conversational and metaphoric whole. When we stand within this perspective we see all historical events as eventually pointing back to the threshold that was crossed by the creative Word. It is this threshold that holds together all subsequent worlds, times and persons.

Van den Berg then added the following remark:

“Between the Logos that began to suffuse reality and God Himself a border or threshold was put into place. Before this border I come to a halt and remain standing: out of respect, but also with some regret.”

(op. cit. p. 155)

The ultimate gesture of the historian is not one of defiance before an obstacle he cannot overcome. It is a gesture of respect before a limit that has no place in a natural universe and that falls outside the scope of the natural sciences. Like a good guest he comes to a halt before a threshold that he cannot cross without the help of the host. He comes

to a halt before a limit that holds host and guest together and that unites heaven and earth. Only a world that is united in this manner is endowed with history.

## A Phenomenological Historiography

The author conceives of his work as phenomenological historiography.

He wants to describe the significant events of a human world that we inhabit, in which we have a stake and that we call our own.

When he speaks of the "lived world" he speaks of a world that was born in dialogue and founded by the word. It is a world whose fundamental dynamism derives from a metaphoric rather than to a metabolic activity.

Van den Berg has compared his manner of writing history to that of a portrait painter. He wants to create a vivid and accurate sketch of a particular era. He wants to engage that past era into a lively conversation and thereby shed light on his own life and circumstance. He seeks to remember the past because it is his best means to consciously live and understand the present. His historical interest can never be wholly separated from his commitment to a contemporary world in much the same way that the contemplation of a portrait can never be completely separated from a reflection on one's own life.

The author is particularly struck by the vivid interdependence of every aspect of a painting. He notes how even a minor change in hue or the

slightest modification of a figure impacts dramatically on the appearance of the whole and changes its meaning.

He writes:

“Instead of metabletics we might speak of historical phenomenology or phenomenological historiography. It is not a simple matter to describe phenomenology but an example might suffice here. Let us think of a painter in the process of creating a portrait. He looks alternatively at his model and then at his work in progress. Let us assume that he is not yet satisfied with his portrait, that something essential is still missing. He takes another good look at his model and then adds just a slight new touch to his portrait. It is this one touch that changes the entire work in progress. It puts all that he has painted thus far in a new light.

It would be difficult to argue from a natural scientific point of view that the previously painted traits had been fundamentally and literally altered by the addition of the last stroke of the brush. But the phenomenologist is not a natural scientist. He proceeds in a different manner. From his perspective all the traits of the portrait have changed, have become other than they were before” (Van den Berg, J.H. (1989) *Hooligans* Callenbach, Nijkerk p.17-18; translated by the author)

The author then illustrates how this process of portrait painting is directly applicable to his manner of writing history. He tells us how he went about studying the French-German war of 1870-1871. He set out to paint a portrait of the era that would best represent the various and particular historical traits that he has been able to observe. Yet, in the course of painting this portrait he becomes aware of something he had not seen before. He has learned that at the time of the war an important breakthrough occurred in the field of mathematics. This new information may at first glance appear to have little bearing on the theme of the portrait and the pursuits of the war. Yet the painter cannot neglect it since it has altered his perception and changed what he felt and knew about the era. A little later he learns that a new Parisian fashion, the so-called *cul de Paris*, had conquered Europe around the same time. It would seem farfetched to suggest a meaningful relationship between the appearance of a new Parisian fashion and the outbreak and the conduct of a war. Yet, to the portraitist-historian this minor historical fact cannot be ignored since it formed part of that era and as such sheds its own inimical light on it. It should therefore find its place on the canvas of the time.

It goes without saying that a historical account thus considered remains always incomplete and demands forever to be repainted and rewritten. All that one may reasonably expect of a painter or of a phenomenological historian is an ever renewed effort to portray with a keen eye, with thought and charity an ever changing and ultimately

mysterious human world.

Van den Berg's thesis about the mutability of material substances raises questions about the role he assigns to the natural sciences in our thinking about ourselves, our neighbours and our world. His general position is that these sciences have much to teach us about natural and human reality, provided that we do not take them collectively as an *ultimate* framework for our thought, or misuse them as a final guide to moral and civic actions. These sciences are helpful in our daily struggles with material nature but they cannot give us absolute or final answers as to how we should understand our world or how we should regard water, bread, wood or steel.

The historian, the psychologist or the sociologist working within a natural scientific framework has no choice but to understand the world he seeks to describe as *ultimately* revealed by geology, astronomy, physics, chemistry and biology.

The metabletic historian, on the other hand, works within a very different horizon that is opened by the miracle of personal encounters. It places at the beginning of history a mutual revelation of self and other, of a host and a guest. It describes a human world that is founded on a covenant. This historical world is held together, not merely by anonymous forces and natural laws. It is embraced and maintained by a first word that was pledged and by a conversation that was begun when heaven and earth were united and a first couple began to inhabit the earth. It will not end until there are no human

beings left to hear the word and to maintain the conversation.

An inhabited world is made whole and coherent by a bond between a host and a guest. Only a world that recognizes and treasures that bond and that practices hospitality in all its spheres can form a fertile ground for science and technology. Only a world that makes the meeting of hearts and minds its central concern can give birth to works of art, poetry and history.

Natural science permits us to understand the rainbow as a natural phenomenon. But natural science can prosper only in a world where it is still possible to see the rainbow as a pledge of truth and as a symbol conjoining heaven and earth.

## About Natural Scientific Psychology

Van den Berg clarifies his understanding of the natural sciences with an example drawn from the field of experimental psychology. He asks us to imagine an experimental psychologist using himself as a subject in a natural scientific study of depth perception.

The psychologist begins his work by distancing himself from his own ongoing lived experience of depth perception and by transforming it into an object of naturalistic observation. He experiments with his own bodily reactions to changing laboratory conditions and in that way gathers data which he then subjects to various thematic and mathematical analyses. He then terminates his investigation by writing

a report on his experimental observations and conclusions.

The experimental psychologist is aware of the limitations that are inherent in his work. He knows that his descriptions and measurements should be seen within the context of a much larger, ongoing scientific enterprise. He is fully aware that he has not been able to study depth-perception from all possible naturalistic angles and under every conceivable material circumstance. He accepts these limitations while consoling himself with the thought that he has made a contribution to a scientific enterprise that some day in the far future will yield a nearly complete understanding of depth perception.

What van den Berg finds missing from this account is the psychologist's realization that his experimental study concerned only an objectified and naturalized depth perception and entirely ignored the question concerning the relationship between an objectified and a lived world. It thereby overlooked the need to integrate the objective study of a natural phenomenon within the larger context of an ongoing, actually lived human world.

Van den Berg writes:

"the psychologist made use of this depth perception; he inhabited it, when he travelled from his home to his laboratory. He again depended upon it when he conducted his experiments and made his calculations. He remained anchored within it when he returned home from work and



sat down with his family to dinner. It formed an inalienable part of him as he saw those around him and was seen by them.”

This failure to reintegrate an objectified and universalised world within the larger lived world from which it arose should not be attributed to an oversight of the psychologist or to a particular flaw in his experimental design. This oversight is inherent in the natural scientific quest itself and in the heuristic fiction that the lived body and the inhabited human world are first and foremost material things that belong to and are entirely enclosed within a natural scientific universe. This heuristic fiction reveals aspects of the human world that otherwise would remain hidden. But it also obscures other, essential dimensions of human life that cannot be revealed within the context of natural scientific narratives and practices.

To understand natural science as a revealing but limited heuristic fiction does not diminish its value, nor should it lessen our esteem for its brilliant accomplishments. Such an understanding upholds the integrity of a scientific narrative by clearly distinguishing it from religious, literary, philosophical or political narratives and preventing brilliant science from being transmogrified into bad poetry or destructive myth.

The universe of science can shed light on the world we actually inhabit only as long as we maintain a creative distance and difference between

subject and object, between person and world, between the one who sees and the things seen. Thought and perception do not copy a natural world, they form together a dual, metaphoric unity of host and guest, of subject and world and thereby give access to a meaningful world. The psychologist exploring his own depth perception should maintain a maintaining a metaphoric distance and difference between a naturalized and objectified depth-perception and the depth-perception that forms of his lived world. It is this latter depth perception that forms part of the inhabited domain and that helps create the platform from which it becomes possible to view a natural world and to undertake scientific studies.

The failure to maintain a metaphoric distance between self and other, heaven and earth or between a lived world and a natural universe, translates into losing the means to integrate scientific findings within a larger religious or philosophical narrative. It shows itself in the example of the psychologist who thought his task was finished once he had succeeded in translating a psychological phenomenon into the language of biology, mathematics or physics.

We are reminded here of the apocryphal story told by Galileo's assistant Vincenzo Viviano about the discovery of the law of isochronism of the pendulum. ( Koyre, Alexandre (1966, 1973) *Etudes d'histoire de la pensee scientifique*. Paris, Gallimard p. 289-320) It tells how Galileo came to his important scientific insight while he sat in the

cathedral of Pisa awaiting the celebration of the Mass. His attention was drawn to the swinging motion of the chandeliers as they were pulled down and then hoisted up again by the sacristan who was busy lighting the lamps. Galileo became fascinated by the swinging motion of the chandeliers and began to observe and time their oscillations. He measured this with the help of his own steady pulse and noted that the time needed for the completion of one complete oscillation was the same at the beginning of the process, when the swing was the fastest and the widest, and at the end when the chandeliers had almost returned to rest.

What interests us here is not the discovery of the law of isochronism itself but the circumstances that gave birth to it. Galileo's discovery depended on a creative leap of the imagination that permitted him to imagine the magnificent chandeliers of the cathedral as so many abstract pendulums cleaving an equally abstract and universal time and space. To be able to conduct his scientific observations the great scientist had to imagine a natural and temporal world that was in fact very different from the ceremonial and religious world he inhabited at the time of the discovery. He had to imagine a natural universe in which there was no place for chandeliers, for Masses, for sacred ceremonies, buildings or histories. In order to find access to what was to become a modern, natural scientific universe Galileo had to imagine a new space and time. He had to distance himself from the space and time of the cathedral and from the divine narrative and the sacred

actions that gave it form and content. He also would have to take his leave from the civic, historical and political space of his hometown and even from the familial and amicable space and time in which he lived his personal and intimate life. In order to see the chandeliers as mere abstract pendulums whose movements were ordered solely by universal and natural law Galileo was required to embark on an audacious journey that for the time being would separate him from his church, his family and his hometown. Like the great seafaring explorers before him, Galileo journeyed to distant shores and discovered worlds that were stranger even than the ones discovered by Columbus and Cortez.

The discovery in the cathedral of Pisa should not be understood as an ultimate homecoming to an ultimate reality but as a journey to a far corner of the world that would not be complete without a homeward journey. It would not properly come to an end until the abstract pendulums of a universalised and naturalized world would have found their proper place alongside the swinging chandeliers of the cathedral of Pisa. It would be vain and tendentious to characterize Galileo's new way of understanding the chandeliers as representing some absolute *progress* over his earlier, religious understanding. There is nothing in his discovery that would authorize us to see chandeliers exclusively as modified pendulums or to understand the cathedral as a mere prototype of Galileo's laboratory. Neither should it inspire us to *replace* an attitude of religious worship or of ritual celebration with an attitude

of scientific inquire. The human task is here not one of substitution, of replacing one way of seeing and understanding by another one, but rather one of making place in our personal and communal life for the cultivation of both attitudes. That human task is ultimately one of creating a meaningful and metaphoric whole out of the many diverse practices and attitudes that reveal our world and make it inhabitable.

The importance of Galileo's discovery lies in the fact that it enlarged the repertoire of the human imagination and that it created a different way of seeing and understanding our world. The challenge of every adventurous journey and of every great discovery is that of homecoming. It is this homecoming that marks the difference between provoking a destructive revolution and building a viable civilization. It appears evident that in order to conceive of and observe a natural scientific universe one needs to inhabit a human world. The inhabited world constitutes the ultimate foundation on which rest all possible human observations and speculations. It forms the point of departure for all scientific, artistic and religious thought and practice. The heavens of astronomy and the mountains and seas of geology are accessible only to someone who is at home in the lived world, who has been cradled by a cultural life, who knows friendship and collegiality, who is upheld by divine, parental and conjugal love. These features of a strange and distant world can be explored only by someone standing on the shoulders of previous generations of explorers and thinkers and

by someone offering his own shoulders for future generations to stand on.

The mountains of geology and the stars of astronomy become meaningful only when the abstract universalised world of which they form a part enters into a vivid dialogue with the lived world. These abstract features of a geological or astronomical landscape remain stillborn until the time that they find their assigned place alongside the mountains explored by hikers and cultivated by farmers and the stars admired by poets and lovers.

### The lived world and the natural univers.

In their insightful study of Van den Berg's work Vandereycken and De Visscher have paid close attention to the recurring theme of the modern destructive tendency in the human sciences to constantly elevate a second, abstract "underlying" reality over the primary reality unfolding before our very eyes. They draw a clear distinction between a lived or inhabited world and an objectified natural universe. The first of these is in constant flux and is governed by a primary structure that mediates between self and other and between person and world. The second is governed by natural laws that govern infinitely repeated and fundamentally inalterable conditions. (Vandereycken, W. and De

Visscher, J. 1995. *Metabletische perspectieven. Beschouwingen rondom het werk van J.H. van den Berg*. Acco, Leuven)

To describe the lived world we must enter into a poetic or painterly perspective that opens upon a constantly changing physiognomic world of mutating relationships that are marked by spontaneity, surprise and discontinuity. To find access to a natural universe we must let ourselves be guided by an objectified or secondary perspective that leads us past the distractions of ephemeral and constantly changing every day realities. The universe we discover in this manner accords no privilege to persons or to faces. It makes no ontological distinctions that have their root in dialogue; it leaves no place for thresholds and repels all attempts at inhabitation.

This understanding which plays such a large role in Van den Berg's writings also plays a central role in the work of his teacher and colleague Gaston Bachelard.

We should recall that Bachelard described the birth of the modern sciences as a progressive de-poeticized of daily life and as a gradual ascendancy of the concept over the image. He understood his poetics as moving in a direction opposite to that of scientific abstraction and naturalization. The first lines in the introduction to his *Poetics of Space* read as follows:

"A philosopher who has evolved his entire thinking from the

fundamental themes of philosophy of science, and followed the main line of active, growing rationalism of contemporary science as closely as he could, must forget his learning and break with all habits of philosophical research, if he wants to study problems posed by the poetic imagination” (Bachelard, G. (1958) *The Poetics of Space*. tr. Maria Jolas, New York, The Orion Press, 1964, p. XI.)

This message was not lost on Van den Berg at a time when he sought to distance himself from the naturalizing and geometrizing tendencies in psychiatry and psychology and sought to find his way back to a lived or inhabited world of personal relations. The same road that led Bachelard to explore the poetic imagination would lead Van den Berg to develop his physiognomic and phenomenological conception of history. In his psychiatric practice it would steer him away from all attempts to anchor his observations in a secondary world of material realities and encourage him to explore the lived world of his patients.

From early on in his career Van den Berg resisted the pervasive cultural tendency of his day to disregard ordinary, lived, and first order reality while searching for a more fundamental, underlying second order reality. He tells how as a medical intern he was introduced to play therapy. He observed the therapist in the playroom with a little boy who mixed sand and water in a bucket and then gleefully plunged



his hands and arms into the mud. The scene evoked memories in the young medical student of his own childhood and of times he spent at the beach building sand castles while feeling temporarily released from the parental edicts about cleanliness and propriety. Van den Berg was therefore shocked when afterwards the therapist addressed the students to tell them that the child they had observed suffered from an 'anal fixation' and that the play with sand and water actually represented a play with faeces. (Van den Berg, J.H. 1996 *Geen Toeval* Pelckmans/Kok Kampen. P.14-15)

It seems that from very early on in his career the author wanted to elaborate a psychology that would not abandon the lived world in search of de-poeticized abstractions and that would remain faithful to the infinite riches of every day life.

If we try to further sharpen our focus on what distinguishes a natural universe from a humanly inhabited world we must pay attention to the manner in which they come into being and begin to form a coherent whole. A natural universe comes into being as the result of an *accidental* process, that is, of an accidental «falling together» (*ad-cadere*) of its component parts. The natural history of the universe is the history of a fall (*casus*), its dynamics is one of events running their natural course from high to low, from difference and diversity to literal and material unity, from flames to ashes. The coherence and unity of a universe refer back to chance events that are the result of an accident.

By contrast, the unity and coherence of a lived world can only be understood in terms of a miraculous encounter in which one person becomes present to another and in which together they begin to form a metaphoric, dual unity. There where the universe demands to be understood in terms of chance events that "fall together", there the lived world requires to be understood in terms of creative acts that actively and consciously "bring together" a human world. A universe "happens", but a human world can come into being only by being brought together, that is, by being created and by being assiduously cultivated.

The history of the lived world begins with a miraculous and personal encounter. We find access to this world by responding to an invitation; it is founded on a covenant, on a pledge of love and friendship, on a word given and a word received. We enter the lived world as we enter a house, by paying our respects to a threshold, by honouring a pledge and by freely entering into a reciprocal relationship of host and guest, child and parent, husband and wife. We enter it as friends, as neighbours, colleagues and fellow citizens. In doing so we contribute to its coherence and help give it meaning. We leave that world by giving our blessings to those we leave behind and by transferring our task to succeeding generations. We abandon it by surrendering it to "the elements" and letting it fall apart.

Van den Berg stresses the miraculous nature of human and divine

encounters and implies thereby the miraculous nature of the lived world itself. He describes two such encounters in his book of essays, *The Changing Nature of Man*. The first of these concerns an anecdote from Freud's *Three Contributions*. It tells the story of a small boy staying the weekend with his aunt and becoming scared at night in his unfamiliar surroundings. The child cries for help, "aunt, please say something. I am scared; it is so dark." The aunt asks a bit teasingly how her talking could lift the darkness and the boy answers with the unforgettable line: "Aunt, when you talk it gets light." (Van den Berg, J.H. (1961) *The Changing Nature of Man*. New York, Delta Books; p. 195.).

To the child the familiar voice of the aunt means light in the darkness. It restores a covenant; it re-establishes in a miraculous manner the lived order that supports the human world and makes it inhabitable. The order of the lived world should not be confused with that of a natural universe. The order of a natural universe can be grasped in the form of a material or logical principle or law that once it is understood grants us mastery over a natural domain. But the order that brings light to the dark room issues from a restored pledge and of a renewed offer of hospitality. That light and that order emanate from a dependable and loving relationship. It is in the light and the ordered circumstance of that relationship that the child is able to find his place in the world. It is from that place and while standing in that light that he may explore the miraculous nature of the lived world or, on the other

hand, learn to investigate the natural order of a material universe.

Van den Berg derives a second anecdote from André Gide's autobiography *Si le grain ne meurt* (*If it Die*). It tells of one of the author's earliest memories of a splendid walk in the countryside with his beloved nurse. Gide recalls that on that particular day his nurse appeared radiant with happiness and he had asked her what made her feel that way. She answered innocently, "Nothing in particular. But isn't the weather gorgeous?" Gide recalls that when he heard those words "the whole valley became filled with love and happiness."

It was as if the smile of the nurse granted the boy new access to a landscape that up to that point had been perhaps no more than an indifferent expanse. The smile and the words of the nurse miraculously transformed it into a valley filled with promise and delight. The flowers became more colourful, the shadows grew suddenly deeper, the blue vault of the sky became more impressive and the sun more radiant. This metamorphosis came about through nothing more substantial than a few words, an eloquent gesture and a smile. But these few words and that smile gave new life to an interpersonal bond capable of ordering the world anew and making it more available and inhabitable.

The child crying out to his aunt in the darkness sought reassurance of a relationship that for a moment he feared might be lost. He tapped, as it

were, the ground to test its solidity and to make sure that it could bear the weight of his existence. The child of the second anecdote perhaps felt somewhat estranged from his nurse because of a happiness in which he did not share. He also sought reassurance about the firmness of the ground underfoot and the solidity of a personal bond. Once she shared that happiness, once that bond was re-established and that foundation secured, an indifferent earthly expanse became miraculously transformed into a promised land that awaited his exploration. The landscape *offered* itself to be inhabited so that the hills invited the child to skip or roll down its slopes, the trees bade him to climb up their branches and the butterflies asked to be observed and chased.

All these possibilities of the landscape were directly linked to the hospitable presence of a near-dwelling or *neighbouring* person. If the nursemaid had suddenly fainted or for some other reason broken off all further contact with the boy the invitation and the promise would have been withdrawn from the landscape. Its hills would have stopped all incitement to running and rolling and the butterflies would have disappeared beyond the reach of the boy. The colour and the golden light would have drained away from the world. And if the aunt had not answered the child's call, all comfort and warmth would have disappeared from the child's bedroom.

A humanly inhabited, lived world finds its prototype in a welcoming home. It unites and holds separate two neighbouring domains, that of

the self and the other, and that of an inside and an outside. The dynamism of this world takes the form of an unceasing, metaphoric exchange between these domains that is governed by a threshold. This threshold makes possible the cultivation of both an inside and an outside. It makes possible the cultivation of an inside world of friendship, of family and religious bonds, of citizenship and collegiality. But it also makes possible the systematic exploration of an inhospitable outside world, of a natural universe or a no man's land, where things accidentally *fall together* rather than being hospitably *brought together*. A truly human world is born only there where the knowledge of how things *fall together* stands in the service of the larger, humanizing and cultural task of *bringing* that world *together*.

### Sacred and Profane transubstantiation

Van den Berg concludes his essay with an enigmatic reference to the Christian doctrine of transubstantiation. He restates his belief in the close relationship between the French Revolution and Count Rumford's discovery of the law of the conservation of energy. He makes it clear however that he does not think about that relationship in terms of a materialistic theory of cause and effect. Neither does he accept a romantic and individualistic theory that would make Count Rumford's individual genius solely responsible for his scientific discovery. He sees both the Revolution and the simultaneous advances in physics as announcing and exemplifying, each in their own way, a more

fundamental and more general change in the relationship between heaven and earth, mortals and immortals, divinity and humanity. This changed relationship affected not only hearts and minds but it also changed the nature of the material world in so far as it was revealed in the light of that relationship. It was Rumsford's genius that first detected this changed nature while he supervised the manufacture of cannons in Munchen.

We should remind ourselves that the modern rejection or negation of an ongoing conversational relationship between heaven and earth constitutes by itself a metabolic change that necessarily affects our understanding and perception of the natural world.

Van den Berg understands the fundamental change that took place in the Western world around the time of the French Revolution as a *profane transubstantiation*, that is, as a miraculous change that took place 'before or outside the temple' (*pro-fanum*). He implies that this miraculous change bears a certain resemblance to the miracle of a divine encounter taking place inside the temple.

The miracle within the temple celebrates the creation of a human world; it celebrates the bringing and the "coming together" of an inhabitable world in which there is place for both divinity and humanity, for both heaven and earth. It reminds the faithful that the human world was born in a festive encounter in which a divine being came down to earth, broke bread with mere mortals, entered into a new alliance and opened a conversation in the light of which all things

mortal and immortal were transformed and endowed with new promise.

The *profane* version of that miraculous change is born in a movement away from the temple. This movement, this human initiative, forgets for the moment its own ties to a divine and human world. It momentarily puts a deaf ear to a divine and human conversation. This centripetal movement away from the very centre of the inhabited world leads to the discovery of a strange no-man's land governed by purely functional, purely material interactions. It is this uninhabited and uninhabitable wilderness that forms the subject matter of the modern sciences.

Profane transubstantiation refers here to the literal, material and metabolic change that constitutes the dynamic of a natural universe. Divine or sacred transubstantiation refers here to the metaphoric change that *brings together* and creates an intersubjective cosmos. Metabolic history appears in this context as an attempt to safeguard the integrity of both the sacred and the profane transubstantiation taking place within and without the temple. Its essential task would be that of drawing both together within the metaphoric whole of an inhabited place and a lived world.

Left to its own devices and completely cut off from what takes place in the temple, profane transubstantiation becomes reduced to mere metabolic activity that levels and degrades whatever it touches. Such isolation degrades the viable cosmos and transforms it into a churning



stomach or a black hole in which disappears all that marks us as human. History's primary task becomes here one of re-establishing forgotten links, not only between the past and the present, but also between a profane and sacred transubstantiation. Its main task would be that of mapping and describing the various ways in which a past and a present, an inside and an outside, a profane and sacred transubstantiation can be brought together to form an inhabitable, metaphoric whole.

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