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**CRITICAL DEVELOPMENT AND THE TAO OF HOLISM**

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## Critical holism and the Tao of development

for Vincent Tucker  
Jan Nederveen Pieterse<sup>1</sup>

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**Abstract.** Social science captures only a narrow slice of experience. Critical holism may be a more comprehensive approach. Vincent Tucker arrived at this synthesis through sociology of health. While contrasting modern medicine with holistic healing, he also criticizes holism and adds a critical and sociological approach. Wholeness functions like a kaleidoscope of sensibilities. As a notion wholeness is evocative and descriptive, whereas to holism there is a programmatic element. Modern medicine is part of modernity and its contradictions. There have been attempts to reconcile these contradictions in ecology, history of science, subatomic physics, and new science. Since development is applied modernity, modernity's contradictions are reproduced within development as unresolved tensions. The antidotes to high modernism tend to suffer from the reproduction of dichotomous thinking; skipping levels; and framing contemporary dilemmas in anachronistic terms. Wholeness in development should not be expected from a shortcut towards an undivided whole in a divided world, but should be sought in a new balance: a combination of wholeness and difference. One way of framing this is the Tao of development, which means acknowledging paradox as part of development realities. Development participates in the perplexities of the human condition and is not outside or beyond them. Critical holism as a balancing act may take such forms as a multidimensional, multifaceted approach, a *chiaroscuro* social science, a combination of objective and subjective dimensions of development, and combining multiple time frames.

Life is poetic and harsh, momentary and evolutionary, personal and abstract, physical, emotional, mental and intuitive. Human experience is layered and multifaceted, but social science, circumscribed by a Cartesian and Newtonian matrix of knowledge, captures only a narrow slice of experience. Disciplinary boundaries further narrow and theories bend the range. Development processes likewise take place across dimensions—on a physical level, in an ecological framework, as shifts in social relations, changes in emotional landscapes, on a mental plane, in a political field, a historical context, on a moral plane and a universe of meaning. Given the partial nature of development theories—which reflect disciplinary territories—and policy interventions—which, in addition, reflect political and institutional interests—the development field is carved up in many ways. How then to arrive at a comprehensive approach? Opting for a holistic approach may produce syntheses that are too quick and whose centre of gravity is located outside social science, for instance in ethics, so they yield commentaries with outsider status. One can identify the world of development as 'a totality of fragments', and the world of capitalisms as one of 'difference within a structured totality' (Pred and Watts 1992: 11); yet that does not tell us very much. In

fact the notion of 'fragments' implies some kind of pre-existing wholeness. Responding to this dilemma is the context of this paper. This is a reflexive paper that is concerned with questions of general methodology and philosophy of development.

### **Remedying remedies**

This treatment is inspired by Vincent Tucker's work on critical holism which he developed in relation to sociology of health. He combines sociology of health with critical development studies. In criticizing the role of transnational pharmaceutical industries and their commercialization of health he arrives at a new combination of concerns—holism and critical thinking, or holism with a bite, holism with an attitude. Part of this is an anthropological sensitivity to cultural dimensions of development (Tucker 1995), a personal engagement with healing (which included following a holistic health course and taking a degree in holistic massage) and interests ranging from music to psychotherapy.

Tucker's starting point is modern medicine, or the biomedical approach: the 'clinical gaze', 'a pill for every ill' (1997: 37), 'a magical fix for all ailments' (30), and the idea that 'health = doctors + drugs' (1996a: 17); a hegemonic system sustained and propagated by medical professionals and pharmaceutical industries. All along his interest has been not only in the politics of dependence in the South and Ireland, but also in the possibilities for dependency reversal (Tucker 1996c) and, likewise, in alternatives to conventional medicine. In this respect his approach differs from treatments of modern medicine which are primarily critical (e.g. Nandy 1995; Kothari and Mehta 1988). Modern medicine is contrasted to an emerging 'new holistic health paradigm' (1997: 32) which is considered at several levels. 'The emergence of the holistic paradigm will require not only a change in the practice of medicine and health care, but also in the knowledge system and the model of science on which it is based. It will also require changes in the institutional fabric of health care.' (1997: 32) At the same time his approach is concerned with extending holism itself: 'it also addresses weaknesses in holistic thinking and practice by incorporating into the model perspectives from more critical traditions of public health' (1996a: 1). For instance, Fritjof Capra's work, 'like most approaches to holism, is less well developed when it comes to incorporating social, economic and cultural systems into the model' (1997: 42). Hence Tucker distinguishes between

two versions or tendencies in holistic thinking. One focuses primarily on the individual organism. Most holistic health practice belongs to this tendency. It differs from biomedicine in that in its diagnostic techniques and therapies it takes into account a broader range of systems, which include the biological, the energetic, the psychic, the interpersonal and the spiritual. While it is more cognisant of the social and environmental factors which impact on the health of

the individual, and take these into account in its diagnosis, it does not provide ways of analysing or intervening in these macro systems. The second version of holism derives from the more sociological approach of Engels and Virchow... It also derives from the public health tradition. It encompasses economic and political systems as well as biological and environmental systems and is based on the notion that health and illness are not simply biological phenomena but are socially produced. This more sociologically informed holism has been further developed by Marxist political economy and radical development theory... (1997: 42)

Tucker then initiates a further move. While the sociological tradition 'adds a critical edge often missing in holistic health practice', 'it has little to contribute to our understanding of the personal and interpersonal dimensions of illness and wellbeing' (1997: 43). Finally: 'The critical combination of these two perspectives, which forms the basis of an expanded and more critical notion of holism, can provide a comprehensive alternative to the biomedical model.' (1997: 43)

Vincent Tucker's synthesis involves multiple movements: from biomedical reductionism to holism, from individual holism to sociological holism, from sociology and political economy to holism in personal, interpersonal and spiritual dimensions. The components of critical holism are spelled out in several places: 'a critical synthesis of holistic medicine, political economy, development theory, environmentalism and feminism', 'a theoretical synthesis of holistic theory, Marxist political economy and culture critique' (1996: 3); 'critical holism encompasses social, economic, political and environmental systems including world systems' (1996: 41). In health practice this yields the following combination: 'A holistic perspective on health promotion, while not excluding biomedical interventions, may include public health practices, environmental campaigns, political action, educational activities and complementary forms of medicine. It will include not only changes in personal life style, but also collective action to challenge organisations and institutions... which act in ways detrimental to public health.' (1997: 45)

This is a high-wire synthesis. While it is developed in relation to health it addresses gaps in our knowledge which are of general relevance. Its triple movement—providing remedies and remedying not only the original deficiencies but the shortcomings of the remedies as well—is welcome medicine in relation to development studies and social science generally. It involves a developed sense of balance. Thus, we all know, not only intellectually but viscerally, the limitations of modern medicine. We may acknowledge the merits of holism, while its weakness is also evident—no critical edge, no political economy. The reverse applies to political economy—materialist savvy and sociological finesse, but no emotional or spiritual depth. If in a combined movement all

these are brought together, balancing the limitations of each with the strengths of others, we have a bridge of uncommon strength and sophistication. This has been Vincent Tucker's contribution. In passing, Tucker notes that his critical holism paradigm 'also provides a basis for elaborating a general theory of human development' (1996a: 1), so it is worth probing what would be the general ramifications of this synthesis. Generally, the limitations of a position or paradigm are often remedied by switching to another position while the limitations of *this* position are not addressed. People often move from one ideological fix to another. The result is the usual pendulum swing alternating between extremes—a common spectacle in everyday politics and theory, and an everlasting merry-go-round of limited options.

Critical holism is an uncommon synthesis. Criticism and holism refer to different modes of cognition. This makes it a welcome synthesis: without a critical edge, holism easily becomes totalizing, romantic, soggy. Without holism, criticism easily turns flat, sour. If we re-code these sensibilities, perhaps the synthesis becomes easier. To 'criticism' there are several strands: it refers to the exercise of analytical faculties; it means a repudiation of 'faith' and dogmatism in the Enlightenment tradition; it entails a commitment to class struggle in marxism; an emancipatory knowledge interest in critical theory; and equity and social justice in dependency theory. Key elements of criticism then are analysis, anti-dogmatism, and social justice. How does this tally with holism as a concern for the whole, the totality? If we take criticism in its affirmative sense it means acknowledging dimensions which have been *left out*. Through criticism an *inclusive* knowledge is to be achieved, which represents those elements which are outside or not acknowledged in the status quo. Accordingly, also criticism is an attempt at healing in the sense of restoring wholeness—by acknowledging and rendering visible that which has been ignored, left out. In a broad sense both criticism and holism then refer to modes of healing: from the point of view of completeness in a societal sense by way of emancipation and justice, and from the point of view of wholeness in a multidimensional sense.

Conventional therapies implicitly refer to 'wholeness' through the notion of deficiencies. Through 'additives' or supplements, food or vitamin deficiencies can be remedied. Only, here wholeness is confined to the physical sphere, which permits medicalization and 'fixing'. Modern medicine recognizes psychological dimensions of health, as in psychosomatic illness; but these are compartmentalized away in domains such as psychology, psychiatry, neurology. (Here the idea of multiple layers is well established—such as the id, ego, superego in psychoanalysis—but this hardly feeds back into conventional medicine.) The difference between holistic and conventional therapies is that the former acknowledge emotional, psychological, spiritual (at times also moral and social) levels of being as dimensions of health and wellbeing, and seek



to integrate them into the healing process.

### **Wholeness, holism**

Once the whole is divided, the parts need new names.

(Lao Tsu [6<sup>th</sup> C BC] 1973: 29)

According to the *Bloomsbury Dictionary of Word Origins*, 'Whole is at the centre of a tightly knit family of English words descended from prehistoric Germanic *khailaz* "undamaged".' (Ayto 1990: 573) Other members of this family include *hail* 'salute', *hale*, *hallow*, *heal*, *health* and *holy*. 'Etymologically, *health* is the "state of being whole"... The verb *heal* [OE] comes from the same source.' (277) '...*Holy* originated as a derivative of the prehistoric Germanic adjective which produced modern English *whole*, and so its etymological meaning is perhaps "unimpaired, inviolate".' (285) In other words, in Germanic languages there is a connection between health, healing, holiness and wholeness. A similar connection exists in other language groups, as in Latin *salvus* 'healthy', *salus* 'bliss, health', Irish *slan* 'healthy, whole', Greek *holos* 'whole', old Indian *sarva* 'undamaged, whole' (de Vries 1963: 257). 'Saviour' (Dutch 'heiland') means 'healer' and connects to the Greek *soter* (de Vries 96). The Dutch *genezen* (healing, healed) refers to Gothic *ganisan* 'saved, healthy, holy', which may be connected to Greek *neomai* 'I come back, come home'. According to an etymologist (de Vries 82), this would give the meaning of 'coming home safely'.

Health, then, refers to a state of wholeness, and healing is restoring a person to wholeness. Viewed in this light 'holistic healing' becomes a tautology for apparently all along health basically means wholeness and healing 'making whole'. This tautology makes sense only in distinction to conventional medicine. Holism, in this light, appears to be a cerebral attempt at *recovery* of interconnections lost in the course of analysis, in the process establishing different connections.

*Holism* is defined as 'the theory that whole entities, as fundamental and determining components of reality, have an existence other than as the mere sum of their parts' (Random House Dictionary of the English Language, quoted in Craig 1992: 4). 'Jan Christiaan Smuts gave the word currency in his 1926 book *Holism and Evolution*, where he advocated the exploration of matter, life, and mind in relation to each other, rather than as isolable realms of existence. Since then, *holistic* has been applied to approaches and attitudes, in the humanities and the social sciences as well as the sciences, that privilege the study of a system over analysis of its parts.' (Craig 4-5) In Smuts' work wholeness and holism are used interchangeably. His book follows an essay of 1912, 'An Inquiry into the Whole'. *Holism and Evolution* is a high-minded work that was influenced by the Cambridge Platonists, Bergson's vitalism, and ideas of evolution from Darwin to de Vries (van Meurs 1997). Holism in this work derives

from Greek *holos* and stands for 'the activity of the Whole'. 'Holism that is the ultimate activity which prompts and pulsates through all other activities in the universe' (Smuts, quoted in van Meurs 115). The first chapter deals with 'The Holisation of the Whole' which refers to assimilation and homogenization processes (van Meurs 118).

Apparently there is slippage between wholeness and holism. As a notion wholeness is evocative and descriptive; whereas to holism there is a programmatic element. What now comes into the picture is *systems* thinking. This is part of the analysis recovery syndrome. Once the analytical mode has generated distinctions and separations, systems thinking is an attempt to piece together again that which has been taken apart. The attributes of *system*, however, are unlike the properties of *wholeness*. Holism is a step forward in relation to the Enlightenment habit of taking everything apart but it is short of wholeness. Humpty Dumpty put together again is not the same Humpty Dumpty. *Esprit de système* is not the spirit of wholeness. More precisely, there are different notions of *system*. It derives from the Greek *synhistanai*, 'to place together', so to understand things systematically means to put them in a context and to establish the nature of their relationship. This relationship may be thought of as calculable and machine-like, as in mechanistic notions of system; or as approximate network relations, as in general systems theory (Capra 1996: 27f.). In social science the notion of system ranges from structural functionalism à la Parsons, and world system theory, to the complex multidimensional systems approach of Niklas Luhmann. To illustrate Luhmann's view, in his words: 'Sociology can only describe society in society... It is a science of the social system and a social system of science. To make matters even more complex, as a science and, as a social system, sociology is also an internal observer of whatever system it participates in.' (Quoted in Lee 1997: 15) One problem of systems approaches is that they imply a closure of the field; they achieve understanding (and manipulability) by enframing the field, and even reflexivity may not remedy this.

It makes sense then to distinguish between *wholeness* and *holism* as perspectives with related but separate lineages: wholeness refers to a comprehensive field which may be divided according to spiritual criteria (there are divisions also in mystical or magical universes); holism is the systemic or scientific recombination of fragments in a new totality. From a historical point of view, wholeness resonates with neolithic and older sensibilities, while holism brings to mind the technology and mindset of the industrial era. While there are continuities between wholeness and holism, 'This is not to say that the differences between modern holistic thinkers and earlier ones are easily reconcilable' (Dunn 1986: 3). Both are relevant angles, each with their range of applicability.

The slippage between wholeness and holism leaves room for a politics of holism. In combination with ideas of evolution, holism can apparently be taken into any political direction. Jan Smuts is a case in point. A Cambridge graduate, back in South Africa Jan Smuts became a general, minister of defence and mining in the new republic and prime minister from 1919 to 1924 and during World War II. A pro-British Boer and an empire builder in the tradition of Cecil Rhodes, he was part of the Milner Group, and as a member of the British Imperial War Cabinet he was a party to the Balfour Declaration which partitioned Palestine, and an active negotiator in the Partition of Ireland (Quigley 1966; Nederveen Pieterse 1990: 275-9; Sampson 1987). Smuts endorsed segregation and introduced pass laws. His views on the 'native question' in South Africa were much like those of Rhodes. Africans 'if left to themselves and their own tribal routine... do not respond very well to the stimulus of progress'. Therefore, in white areas 'the system should only allow the residence of males for limited periods, and for purposes of employment among the whites' (quoted in Minter 1986: 43).<sup>2</sup>

To wholeness there are obviously many dimensions. Wholeness is evoked in mysticism, myth, religion. Faces of wholeness in the theatre of the gods are Pan, who gives us the word for 'all', Okeanos or the world stream, Varuna the encompasser. Wholeness carries intimations of the unity of being as in *unio mystica*, oceanic feeling, cosmic consciousness (Mehta 1989). Religion is replete with 'whole' metaphors such as the tree of life, wheel of life, dharma, 'Thou art That' and other references to the inner interconnectedness of phenomena. Paradise is a state of wholeness and the fall means the loss of wholeness. Paradise regained is wholeness regained. In Christian theology 'the whole of creation' envelops the non-human world. A conventional difference between mysticism and religion is that, in the former, wholeness may be a matter of experience, while in religion it becomes a point of doctrine, so that religion relates to mysticism as abstraction does to experience. While some religions superimpose a 'monotheistic consciousness', 'our psyches are "polytheistic" by nature' and contain an inner pantheon (Ahmed 1997: 33, 36). Wholeness is woven into personal experience—in life's transitions, in love, in experiences of pain and healing, in peak experiences. The paradox of wholeness is the powerful and demanding materiality of life and the immaterial nature of the full realization of life. Wholeness includes 'life beyond', but there is no life beyond without life within. The materiality of life makes transcendence possible and at the same time constrains it, casting a spell of material life, that is shattered only at life's edges—in peak experiences or in the face of death.

It is not difficult to read philosophy from Plato to Aquino, Hegel to Heidegger as elaborations, systematizations of sensibilities originally set forth in vision, revelation,

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<sup>2</sup> Note the reference to 'system' in this quotation. As Minter notes (1986: 42), several biographies try to white-wash Smuts' reputation as a humanitarian philosopher-statesman. An example is van Meurs 1997 who presents him as an obstacle in the way of the architects of apartheid.

religion, although to say so is of course sacrilege in reverse. At least, this is the argument of the *philosophia perennis* (à la Huxley 1946). Neo-Platonism, one of the strands in idealistic philosophy, connects Eastern religions with Western philosophy (Nederveen Pieterse 1994). What comes to mind is Hegel's view of world history as a rendezvous with the unfolding *Geist*. Richard Rorty is reproached for his 'undifferentiated, monotonous holism' (Bhaskar 1991: 100), which involves yet a different meaning and facet of holism.

As a theme wholeness functions like a kaleidoscope of sensibilities. Among lineages of holism Vincent Tucker mentions ecological thinking in biology which spread to social science. Related currents are Gestalt psychology, psychotherapy and Buddhist thought (1997: 41). In social science wholeness is thematized in several ways. Marxism represents a commitment to the 'whole', within a materialist ontology. Harrod's plea for 'a re-search for a lost completeness' refers to a return to critical political economy, in other words to the marxian whole (1997: 108). Gestalt psychology led Ruth Benedict (1935) to a view on cultures as wholes or 'configurations' organized around core meanings. Parsons' social systems approach has been mentioned already. Louis Althusser viewed societies as structured wholes.

In the social sphere wholeness is often associated with romanticism and nostalgia, as in the idealization of 'tradition', communitarianism and the idealization of 'community'. In politics it can involve homogenizing projects of 'totality', as in some types of utopian politics, or nostalgia for a lost political 'unity'. In this light, a dose of difference can be quite a relief. A different and concrete angle on wholeness is the social exclusion approach (e.g. Bhalla and Lapeyre 1997). In liberation theology's 'preferential option for the poor' this sensibility is stated affirmatively. For the architect Robert Venturi, part of postmodern sensibilities is 'the obligation toward the difficult whole' (quoted in McHale 1992: 3).

### **Modernity and its contradictions**

The question of modern medicine is a subset of a larger problem—the question of modernity and, within modernity, the contradictions of modernity. In particular the contradiction between the 'two cultures', the scientific-technological and humanistic cultures, the worlds of science and art. The core of scientific culture is often traced back to Descartes and his project of 'certain knowledge' on the basis of mathematics as a universal scientific method. Or 'the world according to mathematics'. The mathematical mind abstracts, generalizes, dichotomizes and is given to formalism (Davis and Hersh 1986; cf. Passmore 1978).<sup>3</sup> Critiques of Cartesianism (in the

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<sup>3</sup> 'The computerization of the world represents an advanced stage of Cartesianism. Within that stage, programs become autonomous. We have even been given intimations of automated concept formulation and of action instigated as a consequence of such automation.' (Davis and Hersh 1986:

company of Bacon and Newton) go back a long way, among others to the Neapolitan philosopher Giambattista Vico: 'Mathematics is created in the self-alienation of the human spirit. The spirit cannot discover itself in mathematics. The human spirit lives in human institutions' (quoted in Davis and Hersh 1986: x; cf. Pompa 1990). This general current of dissent is as old as 'the other West of William Blake and Paracelsus' (Nandy 1995: 60). A different twist to this kind of dispute is the argument between Habermas and Lyotard on the virtues of the Enlightenment and the debate on postmodernism.

There is something jarring about the way the tension within modernity is usually conceptualized and represented on either side of the argument. Viewing the relationship between scientific and humanistic cultures in terms of a *dichotomy* itself follows a Cartesian paradigm. Representing this tension as a dualistic, polarized relationship gives either side the opportunity to profile its position and in the process exaggerate the issue. It is clearly a superficial representation from the outset. Viewing this relationship as a *continuum* of views which meet and diverge on multiple levels is much more adequate. In addition this involves a one-sided representation of the Enlightenment, which is a much more complex historical field than is granted in conventional views.<sup>4</sup> This is worth keeping in mind when considering the long-standing attempts to bridge these worlds and reintegrate the sciences and humanities. Siu wrote *The Tao of Science* which attempted such a reintegration in 1957, long before Capra's *The Tao of Physics*. Generally elements of this fusion include the following.

- *Ecology*. Ecological knowledge as part of a general systems approach (Bateson 1972) and deep ecology (as in Arne Naess).
- *History of science*. Joseph Needham's work on the history of Chinese science and technology and its influence on Western science is part of a wider body of work documenting the historical connections between 'Western knowledge and Eastern wisdom'. The Enlightenment also includes figures such as Leibniz and Goethe who bridged Western and Eastern sensibilities. Later on Werner Heisenberg was influenced by Indian philosophy through conversations with Tagore and Niels Bohr was inspired by his visit to China (Weber 1982: 218). On a conceptual level, Kuhn's work on scientific revolutions (1970) debunked the self-representation of progress in science, and through the notion of paradigm shifts introduced a meta level of critical analysis of scientific procedures and gatekeeping.

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303) Current developments in global currency trading are an example of such automated action: triggers built into trading programmes set in motion series of financial operations whose ripple effects can upset financial systems. For a more developed argument see Yurick 1985.

<sup>4</sup> A standard omission in representations of the Enlightenment is that it was not only an epoch of rationalism, but also of romanticism and besides that these also occurred in combination. For instance, what to say of these statements of Diderot: 'what makes me angry is that the passions are never regarded from any but the critical angle. People think they do reason an injury if they say a word in favor of its rivals. Yet it is only the passions, and the great passions, that can raise the soul to great things.' ... 'The language of the heart is a thousand times more varied than that of the mind, and it is impossible to lay down the rules of its dialectics' (quoted in Gay 1977: 188, 189).

- *Physics*. Subatomic physics has generated a stream of findings that upset Descartes' certain knowledge, including Heisenberg's uncertainty principle (according to which the instrument of measurement affects the outcome, also known as the observer effect). In the 1920s Alfred North Whitehead developed an inclusive notion of reality beyond dualisms such as those of mind and matter: 'In a certain sense, everything is everywhere at all times. For every location involves an aspect of itself in every other location' (quoted in Siu 1957: 157). In quantum physics this has been taken further in David Bohm's work on the implicate order (1980). Several of these reorientations have been grouped together under the heading of the holographic paradigm (Wilber 1982), building on Dennis Gabor's work on holography.
- *New science*. This includes developments such as catastrophe theory, chaos theory, complexity theory, fuzzy logic, the theory of emergence, self-organizing systems (Prigogine), and new trends in biology and mind-brain research (Karl Pribram 1971).

Some of these reorientations turn on a fusion or complementarity of 'Western knowledge and Eastern wisdom'. What is the status of this fusion? To what extent is the new science a marginal concern? Not quite so marginal if we think of developments such as chaos theory. The butterfly effect, or sensitive dependence on initial conditions, may be interpreted as an instance of the implicate order in action. Subatomic physics finds application in nano technology and advanced materials research. Chaos theory has found wide application (Gleick 1988), also in business (Peters 1988) and social science (Eve et al 1997; Anderla et al 1997). What several accounts suggest is that on the other side of science we come out at findings that intimate an interconnectedness of being similar to what has been intuited in mysticism—arguably, a complementarity between 'moonshine physics' and ground floor mysticism.<sup>5</sup> In this view, the splitting process carried all the way through, to the subatomic quantum and quarks, arrives at the ultimate unity of all being, or the universe as a 'sea of quarks' (Adachi 1995). At these deeper strata, contradictions such as those between the sciences and the humanities, unravel. They turn out to be 'regional contradictions', dualisms that make sense within a certain limited context, but do not hold in the larger field. It is true, of course, that the world of everyday action is not a world of quantum or quarks; yet on the level of the foundational claims of science and epistemology it does matter that the Cartesian and Newtonian premises pertain within a narrow range only. This argument cuts two ways. By this wide-angle logic, while to all human faculties and expressions there may be a 'territorial drive' and an urge toward functional autonomy, all are part of the whole and cannot be denied their potential to contribute to wholeness. Also

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<sup>5</sup> The complementarity between new physics and mysticism is disputed among others by Wilber, who deems it a false complementarity and at most concedes that new physics *accords* with mysticism (1982: 166-179). While mysticism addresses all levels—physical, biological, mental, subtle, causal and ultimate—physics only pertains to a single level (159).

mathematics—in Plato’s words, god ever geometrizes. Also computers—without computers the intricate calculations that led to chaos theory could not have been generated. In other words, ‘both reductionism and holism are necessary’ (Capra in Weber 1982: 241). New science does not replace but supplements Newtonian science.

Typically, the new paradigm demonstrates that knowledge gained under the old paradigm is true *under specific boundary conditions*. Thus, the rules of motion put forth by Newton are not demolished by Einsteinian physics, but are shown to be a special case of a larger, more inclusive physics. ... Chaos and complexity do not ‘overthrow’ former conceptions and scientific knowledge, but merely supplement them. (Eve 1997: 275)

### **Development and high modernism**

The contradictions of modernity are of profound relevance to development studies. Considering that development is applied modernity, all the contradictions of modernity are reproduced within development as dramatically unresolved tensions. Development theory is now being torn between paradigms—mainstream, alternative and post development (Nederveen Pieterse 1998), or between internal and external critiques of development. What then is the relevance of these disputes over modernity for development studies and of attempts to reconceptualize or bridge these concerns? Arguably, the most fundamental question concerns the meaning of development, which in turn boils down to the question what is evolution.

The social sciences have a long lineage, but as sciences they go back less than two hundred years. Development thinking goes back to 19<sup>th</sup>-century political economy, but modern development thinking is no more than fifty years old. In relation to the complexities of social life, development as applied social science at times gives the impression of navigating the ocean in a rowboat, or of a Lego imitation of collective existence, in which mechanistic notions of social dynamics in tandem with political and hegemonic interests push and shove for taking the driver’s seat. Really-existing development has been an arena of ideological posturing or pragmatic reformism, either way involving brutal simplifications and crude interventions. At times, in relation to the collective body, development interventions seem like performing surgery with a chainsaw. All the same, in some conditions surgery with heavy equipment beats no surgery at all, although even that depends on which side of the operation one is on.

Development knowledge is fragmented and characterized by discipline-centrism. ‘The development process is compartmentalised by each discipline to suit its own areas of specialization, research methods, and theoretical frameworks’ (Brohman 1995: 303). Within this division of labour there has been a definite hierarchy. ‘Development in its halcyon days was mainly economic development. Other disciplines entered the area

apologetically or stealthily—as the supplementary knowledge of social structures facilitating or hindering economic growth, as insights into the psychological factors motivating or discouraging economic growth, as information about the political factors influencing economic decisions.’ (Nandy 1995: 146) Meanwhile divergent theories have often been applied in different policy spheres and economic sectors at the same time, making really-existing development a patchwork of zigzag premises and policies.

Development thinking is steeped in mathematics—a world of numbers, indicators, statistics. Neoclassical economics is a formidable instance of applied Cartesianism. Part of this is a rendezvous with intellectual and managerial power—power to classify, administer and change the world. The theoretical and methodological characteristics of neoclassical economics—the assumptions of universal applicability, measurability, objectivity, formal modelling—make it a powerful instrument. Reductionism along with disciplinary fragmentation have made expert regimes and technocratic interventions possible, and have generously contributed to development policy failures. According to a former president of the American Economic Association, ‘When you dig deep down, economists are scared to death of being sociologists. The one great thing [they] have going for [them] is the premise that individuals act rationally in trying to satisfy their preferences. This is an incredibly powerful tool because you can model it.’ (Charles Schultze in Brohman 1995: 302) Conventional development is a politics of measurement, a matter of ‘fixing’ within limited spheres, achieving desired change by manipulating indicators and modifying numerical relationships, such as the ratio of external debt to GDP, or debt to exports. The gap between economic development and social and cultural development, or the hard and soft dimensions of development, is reproduced in the institutional division between the Bretton Woods institutions and UN agencies, in which the former hold the purse strings. Indeed, this mathematical universe is inhabited in many different ways. For the sake of macroeconomic and financial management—by the IMF and Bank of International Settlements. With a view to economic growth in combination with sustainable development and poverty alleviation—by the World Bank. With a view to human development, emphasizing indicators of schooling, health, housing, sustainability—by the UNDP and other UN agencies. What they share is a commitment to social engineering.

The American psychotherapist Thomas Moore proposes to add another ailment to psychology’s list of disorders: ‘I would want to include the diagnosis “psychological modernism”, an uncritical acceptance of the values of the modern world. It includes blind faith in technology, inordinate attachment to the material gadgets and conveniences, uncritical acceptance of the march of scientific progress, devotion to the electronic media, and a life-style dictated by advertising. This orientation towards life also tends toward a mechanistic and rationalistic understanding of matters of the



heart.’ (1992: 206) Modern development has suffered from a severe case of psychological modernism, has erected monuments to modernism, placing technological progress over human development. In Latin America the work of the *cientificos* is not yet complete. In Asia ‘laboratory states’ have used science as an instrument of power and reason of state (Visvanathan 1988). Modernization and development, including critical marxist development thinking, have been ‘scientist’ in temperament. ‘Science became the integrating myth of industrial society’ (Berman 1984: 187), so it became the guiding light of development policy. Rationalization was the key to modernization, so it became the master key to development. This is the familiar Enlightenment headache syndrome. We now turn to the countermoves.

### **Shortcuts and other remedies**

Do you think you can take over the universe and improve it?

(Lao Tsu [6<sup>th</sup> century BC] 1973: 29)

Rather than another round of diagnosis, what the situation calls for is a scrutiny of remedies. Often what is presented as the way ahead is no more than a shortcut—the ailment may be diagnosed correctly, but the remedy is not examined. Some medicine turns a headache into a migraine, or provides only temporary or local relief. So in considering remedies for the culture of high modernism we may apply Vincent Tucker’s recipe of remedying remedies. Some of the problems affecting the antidotes to high modernism are: the reproduction of dichotomous thinking; shortcuts and skipping levels; and neolithic nostalgia, or framing contemporary dilemmas in anachronistic terms.

Positions and counterpositions in the development field often operate on the basis of simplistic dichotomies—such as modernization versus ‘tradition’, science versus indigenous knowledge, the impersonal versus the personal, the global versus the local. Also, critiques of development modernism often take the form of dualisms which in effect replicate the dichotomous thinking of modernism. Does it make sense to subject modernity to the same simplistic treatment to which the project of modernity has subjected social life? We need to distinguish between the *project* of modernity and *really-existing modernities* (or the sociology of modernity), which are far more complex than blueprint modernity. Opposition to modernization has been *part* of modern experience and the dialectics of modernity include modernism (as a cultural politics which at times runs contrary to modernity), critical theory and reflexive modernity.

The world of post development ranges from militant development agnosticism and rejectionism to the New Age development thinking of the Schumacher College, which offers courses on ‘Systems thinking and learning for change’ and ‘Buddhist

economics'. There is an aesthetic island effect to this project. It describes itself as 'A truly Green oasis, a centre for deep green values expressed beautifully by people from all over the world' (1997). On either end of the spectrum, adherents of post development use statistics to make their case. 'For example, it has been estimated that a single edition of the *New York Times* eats up 150 acres of forest land.' (Rahnema 1997: 379) According to Gustavo Esteva, 'if all countries "successfully" followed the industrial example, five or six planets would be needed to serve as mines and waste dumps' (1992: 2). In other words, also post development inhabits a mathematical universe. The opponents of abstraction, generalization, dichotomization and formalism often apply abstraction, generalization, dichotomization and formalism in order to make their case. This is also the case in the development field. While presenting itself as an external critique, the post development critique is external to (some of) the goals and not necessarily to the premises or the means of development. Some of the points of reference of post development—opposition to reductionist science and modernity (Nandy 1988, Alvares 1992)—are unreflective and dichotomous in their logic. They exhibit a similar polarized and dualistic thinking as in modernization theory (which dichotomizes 'tradition' and 'modernity') and thus tend to fall into the trap of *modernization in reverse*. The question, however, is to *overcome* dichotomies, and not merely to change the direction of the current.

Majid Rahnema criticizes 'compulsory actomania' and the 'mask of love' in development aid. In his view what goes behind solidarity or 'charity' is 'the great fear we have of becoming fully aware of our powerlessness in situations when nothing can be done' (1997: 392, 393). Who are we to intervene in other people's lives? He recalls the Chinese notion *wu-wei*, which is variously translated as 'non-intervention' or 'action through non-action' (397). What is odd in Rahnema's treatment is that he proceeds to explain this Taoist notion by setting forth the Confucian 'arts of governance' and 'aesthetic order', as if unaware of the tensions between Taoism and Confucianism (which run as deep as those between mysticism and official religion) and of Confucianism's comeback as an ideological crutch for authoritarian regimes. It may be argued that 'non-intervention' is a superficial translation of *wu-wei*. A relevant passage in the *Tao te Ching* is

Tao abides in non-action,

Yet nothing is left undone. (Lao Tsu 1973: 37).

Again what is offered as the road ahead is merely a shortcut, a synthesis that is too fast, too easy, that does not do justice to the multiple dimensions of existence, each of which involves tensions which require engagement in their own right and appropriate to the level at which they are experienced. This is holism *without* a critical edge.

A polemical polarization which is similar in structure is taking shape in relation to

globalization. Some who identify globalization with corporate, market-driven transnationalism opt, in reaction to globalization, for localization and, in reaction to free trade, for 'new protectionism'. An example is the volume *The case against the global economy and for a turn toward the local* (Mander and Goldsmith 1996). This position reduces globalization to economic globalization, confuses opposition to neoliberalism with opposition to globalization, and thus mixes up the current *form* of globalization with the underlying *trend* of globalization. This involves setting up a false dichotomy between the global and the local. The global and the local require and sustain one another in many ways. Examples of 'interpenetration' of the global and the local are: 'glocalization' and 'insiderism', or the thesis according to which transnational corporations can enter foreign markets effectively only if they become insiders; the argument according to which flexible specialization leads towards the relocalization of operations so as to be close to consumers, suppliers, competitors and high-skilled labour; the dialectics of globalization which show, for instance, that transnational corporations may well end up as active promoters of localism (Miller 1997); and a host of cultural studies which show that the global and the local are embedded in one another. A further argument is that 'the local' itself is a construction, a performative stance which owes its meaning and dynamics to its relationship to wider units, including the global (Boon 1990). So on several counts the contrast between the global and the local does not work as a clear-cut distinction or as a dichotomy, because for either to function it requires the other.

'Identifying with the whole' is a formidable challenge. Taking shortcuts is tempting. Part of the remedy for modernism is to recover lost sensibilities, a 'resurrection of subjugated knowledges'. Or, 'rediscovering traditional knowledge' (Fals-Borda 1985). This may involve reconnecting with spiritual sources sidelined and bulldozed by the incursions of colonialism and modernization, for instance reinvoking the shaman (Nandy 1989). Max Weber already pointed to charisma as a way out of the 'disenchantment of the world'. However, the problem with charisma is that it makes no distinction between Hitler and Gandhi. The shaman stands in contrast to the scientist and the priest, but that is only half of the story; the other half is the distinction between the *brujo* or wizard and the *curandero* or healer. A recourse to cults is another option, with obvious limitations: 'cults can have either a tranquilizing or a liberating effect on people, depending, among others, on the leadership's inspiration and the social context' (Huizer and Lava 1989: 15). Morris Berman made a point about the 'flip side of Cartesianism' which, even if he overstates his case, is still valid:

Why not abandon Cartesianism and embrace an outlook that is avowedly mystical and quasi-religious, that preserves the superior monistic insight that Cartesianism lacks? Why not deliberately return to alchemy, or animism, or number mysticism? ... The problem with these mystical or occult philosophies

is that they share ... the key problem of all nondiscursive thought systems: they wind up dispensing with thought altogether. To say this is not, however, to deny their wisdom. ... My point is that once the insight is obtained, then what? These systems are, like dreams, a royal road to the unconscious, and that is fine; but what of nature, and our relation to it? What of society, and our relationship to each other? ... In fact, it is but the flip side of Cartesianism; whereas the latter ignores value, the former dispenses with fact. (188)

'The commitment toward the difficult whole' is ill-served by binarisms. What is needed is a combination of wholeness *and* difference, as in Vincent Tucker's synthesis. Shortcut holism may just produce neolithic nostalgia—revisiting arcadia which yields only temporary comfort, island paradises which provide only local relief, politics of ecstasy which produce a hangover. Recovering the wisdom of ages is needed, but not as a shortcut. What is needed, rather than simply flipping over to another extreme, is a new sense of balance—between science and art, fact and value, analysis and meaning. Nowadays this means bridging the development gap and <sup>6</sup>crossing sensibilities ranging all the way from neolithic to postindustrial settings. It involves recognizing multiple dimensions of existence and, accordingly, multiple modes of cognition, which need to coexist rather than compete. The assumption that only a single mode of cognition should prevail implies skipping levels.

### **Towards the Tao of development**

Vincent Tucker's critical holism cannot be readily translated into a *general* theory of development because, unlike in health, there is no holistic practice in development. Alternative development practices tend to be local and short of a holistic approach. While there is a mysticism of the human body, both a theory and a practice (holistic medicine), there is no equivalent holism of the social body. This is the missing element. There are, so to speak, 'a thousand points of light', but they are scattered about, like 'ten thousand things'—local alternatives, cultural and spiritual alternatives, rival theories, counterpoints and countercurrents,<sup>6</sup> but there is no unifying, overarching paradigm like there is in relation to health. The appeal of critical holism is that it places holistic theorizing and practice in relation to collective existence on the agenda and thus renders it imaginable: at least steps can be taken in its general direction.

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<sup>6</sup> Besides alternative development literature (Nederveen Pieterse 1998) see e.g. Henderson 1996, Whitmyer 1995, Roszak 1976.

Since social science in its epistemology has been a follower of natural science, would it not be logical that it also follows *new* developments in science, including new science? It would be, except that the extent of specialization has narrowed the nexus between the two. The present situation in social sciences and development studies is an uneven combination of trends—towards polemical antagonisms, partial recombinations, and occasional syntheses.

Critiques of Cartesian science have deep roots also in the South. Both science and critique of science movements have played a role in development activism and popular movements (e.g. Zachariah and Sooryamoorthy 1994). One trend is to view science as a religion<sup>7</sup> and as power. Suspicion of Enlightenment science is also a leitmotiv in radical ecological thinking (e.g. Shiva 1988). Science here stands for Cartesianism, Newtonian mechanism, positivism, an instrument to achieve mastery over nature. At times this presents a caricature of science which ignores ongoing developments in science and new science. Why should critique of science and of science-as-power mean being anti-science? This would be a Luddite view and at times 'anti-development' comes across as 20<sup>th</sup> century Luddism. Meanwhile science, of course, is a major instrument of ecological monitoring. The 'Limits to Growth' takes the form of a mathematical argument. 'Green accounting' uses scientific measures to arrive at a realistic costing and pricing. Critique of science is part of reflexive modernity. What this means is the integration of multiple knowledges within a larger framework.<sup>8</sup>

Positivism is no longer the dominant temperament in social science except in economics and number-crunching sociology. Increasingly the lead paradigm in social science is constructivism. In development studies, one-sided disciplinary perspectives are gradually in retreat and being relegated to the status of partial knowledge. A development economist can no longer afford to ignore politics, sociology, gender, ecology, culture; nor can a political scientist or sociologist afford to ignore economics. Most *problems* now faced in development require a combined approach, such as structural adjustment, currency instability, corruption, the environment, gender, poverty, conflict prevention, complex emergencies, post-conflict reconstruction. Many *policies* which are now initiated involve partnerships of different parties, joint efforts of government agencies, social organizations and firms. Clearly the 'partnership' gospel itself prompts new forms of critical engagement; but even so the field is changing profoundly. To make synergies possible in policy they must become part of

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<sup>7</sup> 'Positivism is just a crank religion' (Chris Mann in Dunn 1986: 2).

<sup>8</sup> Capra gives another example of this integration of multiple knowledges: 'From the very beginning it was clear to me that there was no reason to abandon the biomedical model. It could still play a useful role for a limited range of health problems within a large, holistic framework, as Newtonian mechanics was never abandoned but remains useful for a limited range of phenomena within the larger framework of quantum-relativistic physics.' (1988: 171) Cf. Abraham et al 1992.

development thinking. Also, now that participation and empowerment have become part of the mainstream, even if primarily in rhetoric, the bottom-up, ground-up sensibilities and local culture that were the domain of grassroots, activist and anthropological approaches need to be integrated into mainstream discourse. Many new *concepts* that are current in development talk imply a combination of disciplines: good governance, accountability, human development, institutional development. New theoretical perspectives are likewise interdisciplinary, such as new institutional economics, public action. We witness both a return to and renewal of political economy, and new combinations such as ecological economics (which is more than simply resource economics) and sociology of economics. Economic sociology shows, for instance, that markets are socially embedded and politically constituted and vary culturally, and yields novel notions such as social systems of production (Hollingsworth and Boyer 1997). At the same time these reorientations tend to be ad hoc and only dimly reflected in general theoretical reorientations or in everyday research, which remains empiricist. Disciplinary knowledge still ranks as foundational knowledge. Interdisciplinary research is more widely applauded than it is practised. A multidisciplinary approach refers to a combination and an interdisciplinary approach to an interaction of disciplines; a holistic approach is a step further. Holistic means integrated from the outset, which implies a revisioning of each discipline (a new view of economics,<sup>9</sup> etc.) and not just an adding up.

An example of holistic science is Gregory Bateson's synthesis, which Berman refers to as 'a non-Cartesian mode of *scientific* reasoning', 'a methodology that merges fact with value and erodes the barrier between science and art' (1984: 232). For Berman this represents a general point of reference: 'I see our immediate future in a post-Cartesian paradigm, not in a premodern one' (271). The difference between Bateson's holism and the archaic tradition, according to Berman, is its 'self-conscious character' (272). Berman's *Reenchantment of the World* likewise is a *self-conscious reenchantment*. This is not as clear with Toulmin who advocates not the abandonment of modernity or a return to pre-modernity, but *humanizing modernity* and a return to the oral, the particular, the local, the timely (1990: 180f).

Considering that one of the problems of conventional development thinking is linearity, a relevant option is the application of chaos theory to development. In social science chaos theory can be used as the basis of a nonmodern social theory (Lee 1997) and with a view to public policy (Elliott and Kiel 1997; Anderla, Dunning, Forge 1997). A preliminary point is that there is no ready translation of chaos theory from natural to social systems (Elliott and Kiel 1997: 72). Also, chaos does not mean randomness or the absence of order; it refers to the unpredictability of the outcome of processes on

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<sup>9</sup> According to Hazel Henderson (1996), economics is not a science but politics in disguise.

account of small differences in conditions. The butterfly effect, or sensitive dependence on initial conditions, has its place in folklore:

For want of a nail, the shoe was lost;  
For want of a shoe, the horse was lost;  
For want of a horse, the rider was lost;  
For want of a rider, the battle was lost;  
For want of a battle, the kingdom was lost! (Gleick 1988: 23)

Chaos theory suggests distinguishing between different spheres of collective existence:

- those in which Newtonian dynamics prevail, and where robust policy interventions may be effective;
- those in which nonlinear dynamics predominate and where 'gentle action' is appropriate;
- in addition chaos theory suggests an ecological perspective: 'If chaos theory is right, a myriad of interactions in the nonhuman world is required to support and sustain the human world. Perhaps the Gaia hypothesis is undergirded by the mathematics of chaos to a degree even its originator might be surprised to learn of.' (Eve 1997: 279-80)

Thus, some spheres would lend themselves to intervention: 'In those cases where a stable and predictable response is known, related policy is eminently sensible. In areas such as tax expenditures where consumers and corporations do behave as Newtonian machines in response to interest rates or tax abatements, public policy is quite effective in altering behavior.' (Elliott and Kiel 1997: 77) Whether this would apply in countries in the South with 'soft states' is an open question. Neoclassical economics with its assumption of atomistic individuals exercising rational choice, proceeds as if *this* sphere is the only sphere. In reality the sphere in which this applies is quite circumscribed. Complexity is by far the more common condition, North and South. In the North this has led to an awareness of the limited effectiveness of social engineering and of the malleability of society as a fiction. 'As societies become more complex, even the most arduous efforts to change social dynamics provide only minimal benefit' (Elliott and Kiel 1997: 76). This insight has barely penetrated development thinking. Modernization efforts remain surgery with a chainsaw. Poverty alleviation remains a matter of advanced arithmetic. Now chaos theory confirms what anthropologists have known all along: that 'Complex adaptive systems often exist on the edge of chaos' (Eve 1997: 280; an example given is the irrigation system in Bali). Many so-called traditional ways of life involve a sophisticated, time-tested social and ecological balance. That outside interventions can do more damage than good is confirmed by the harvest of several 'development decades'.

Where nonlinear dynamics prevail, the counsel for policy is 'gentle action' (Elliott and

Kiel 1997:73). This might be a more faithful approximation of *wu-wei* than 'non-intervention'. Thus, chaos theory yields a complex range of action orientations. Consideration for the ramifications of small differences can be translated in several ways—as sensitivity to local conditions and cultural differences, and as an antidote to abstract models that gloss over local conditions and the actual implementation of development interventions. This is the point of the 'cultural turn' in development, the return of anthropology to development. It also suggests regard for the organizational and managerial dimensions of development on the ground and points to institutional analysis. A related consideration concerns the *reflexivity* of development as a form of applied cybernetics. Reflexivity here involves two meanings—the self-referential character of development thinking, which in effect represents layer upon layer of reflexive moves, each a reaction to and negotiation of previous development interventions, as an ongoing trial and error motion; and also the importance of subjectivities in the development process, of the reactions of people on the ground to development plans, projects, outcomes, or people's reflexivity, which should be built into the development process. Steps in this direction include popular development (Brohman 1996) and public action theory (Wuyts et al. 1992).

The contributions of chaos theory to social science are preliminary and schematic. The distinction between linear and nonlinear dynamics is of some use but too sketchy to be of much use. Already at times development processes are regarded as curvilinear, rather than linear.<sup>10</sup> Development refers both to a *process* (as in a society develops) and an *intervention* (as in developing a society). For Cowen and Shenton, this produces an intrinsic tension in development: 'Development defies definition... because of the difficulty of making the intent to develop consistent with immanent development' (1996: 438).

Considering this kind of difficulty, would it make sense to think of the *Tao of development*? While the Tao of physics refers to a combination of physics and mysticism, the Tao of development is a more difficult combination because development is not merely a science or analytics (development theory), but also a politics. Taoism evokes an association of inaction, quietism. It is not clear whether this really applies to Tao, but there is no historical example of really-existing Taoism that disputes this and historically there is a dialectic between Taoism and Confucianism.<sup>11</sup>

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<sup>10</sup> E.g. Cowen and Shenton about Hegel's views on development: 'Unlike the linear image that the idea of progress evoked, the course of development was curvilinear or spiral-like, always impeded or arrested within its own logical structure.' (1996: 130)

<sup>11</sup> As to Taoism: 'It is inconceivable to a Taoist that Tao should be actualized in this world by human efforts because the core of Taoist doctrine is to teach its followers to transcend merely human affairs and psychologically dwell in "nothingness" (*wu*) so as to be in line with the "nonaction" (*wu-wei*) of the great *Tao*.' (Wei-ming 1979: 10-11) More generally, while there have been episodes of a working balance between mysticism and official or state religion—between Buddhism and governance,



Still this does not simply close the issue. For instance, by analogy, even if really-existing socialism has not met expectations, marxism continues to be relevant as a method.

One of the core problems of development is its pretentiousness, the insurmountable arrogance of intervening in other people's lives. This may be balanced by an equally pretentious notion, but an entirely different kind of pretension—the Tao of development. Setting a high goal for development may be better than setting no goal at all, or declaring development over and done with—as in post and anti-development approaches—while, in the meantime, development business as usual goes on. Setting an elusive goal for development may be better than carrying on with development as a positivist politics of measurement; although when it comes to, for instance, poverty alleviation there will obviously be different opinions about this. The Tao of development means *acknowledging paradox* as part of development realities: such as the antinomies between measurement and meaning, between intervention and autonomy, or the field of tension between the local and the global. These antinomies are part of the perplexities of the human condition. Development participates in these perplexities and is not in some fashion outside or beyond them. Some will regard this acknowledgement of complexity as a gain, and others—who are fighting a different kind of battle—as a loss. The Tao of development may be asymptotic—never entirely approachable, like an ever receding horizon. What the Tao of development would involve is a subtle and sophisticated sense of balance across different dimensions of collective existence.

'Balanced development' in a conventional sense refers to a balance between economic growth and redistribution, and between growth across different sectors. What critical holism as a balancing act involves is balance in a wider and more fundamental sense, across dimensions of collective existence, from the epistemological to the practical, which may take several forms.

- A *multidimensional* approach, or a balance between the horizontal and vertical dimensions of collective existence. The horizontal refers to the worldly and social spheres; the vertical refers to the inner dimension of subjectivities and meanings, to the depth of the social field, its layered character, which Anouar Abdel-Malek referred to as the 'depth of the historical field'.
- A *multifaceted* approach or a 'diamond' social science, which reflects or shines light upon relations and dynamics across sectors (economy, politics, the social, cultural) and levels (local, microregional, national, macroregional, global) and achieves a

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Qabbala and Judaism, Christian mysticism and Christendom, Sufism and Islam, etc.—such episodes are not well known or readily accessible, so that they could exercise a sustainable example function.

balance between them.<sup>12</sup> This might be termed a Gestalt sociology.

- A *chiaroscuro* social science which abandons the assumption of full transparency of society. The assumption of transparency is what lent the Enlightenment its totalitarian bend, as in Foucault's panopticism and also in socialist state ideology (Laclau 1990). This is a matter of modesty, a sense of the contingency of knowledge, or self-limiting rationality (Kaviraj 1992).<sup>13</sup> *Clair-obscur* (originally a term to describe the play of light and shadow in oil paintings) here refers to a sense of balance and interplay between that which is known and unknown, conscious and unconscious, day and night sides of life.
- A distinction between and combination of objective and subjective dimensions of development. Development thinking is now increasingly anchored in people's subjectivities rather than merely in overarching institutions—the state or international institutions. Development thinking has become more participatory and insider-oriented, as in the actor-oriented approach to development (Long 1994). On the other hand, development practice has not been democratized, particularly when it comes to macroeconomic management, so there is a growing friction between development thinking and practice.
- A trend in local (and increasingly also in large-scale) development is towards social partnerships across sectors, or *synergies* between different development actors—government, civic associations and firms. This may be referred to as a holistic approach.<sup>14</sup> This is a marked departure from times when development was seen as either state-led, or market-led, or civil society-led (discussed in Nederveen Pieterse 1998).
- Since development is concerned with the measurement of desirable change over time, it is chronocentric. For a more complex awareness, what is needed is combining *multiple time frames* and a balance between 'slow knowledge' and the 'fast knowledge' of instant problem solving. 'Slow knowledge is knowledge shaped and calibrated to fit a particular ecological context' (Orr 1996: 31). The conventional time horizon of development policy—the mid-term time span of a generation (or shorter, down to five years or so, in the case of planning, development projects and project-based lending)—has changed with sustainable development and the implied notion of intergenerational equity, and

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<sup>12</sup> Several of the significant books in social science achieve this in different ways. It applies to the oeuvre of Max Weber, Gramsci and Braudel and to books such as Wertheim's *Evolution and revolution*, Stavrianos' *Global rift*, Worsley's *The three worlds*, David Harvey's *The condition of postmodernity*, or Pred and Watts' *Reworking modernity*.

<sup>13</sup> 'I plead not for the suppression of reason, but an appreciation of its inherent limits' (Gandhi in Parekh 1997: 68).

<sup>14</sup> This is the theme of a report in the *Irish Times* on social partnerships, particularly in disadvantaged areas. The partnerships include 'business, trade unions, farming organisations, schools, health boards, state agencies ... and representatives from the local community'. (Catherine Foley, 'The holistic way of solving problems', *Education & Living* supplement, 17 February 1998, pp. 2-3).

`coevolutionary development'. It is changing also as a consequence of the duration of the development era and the failures of `development decades', which gradually brings to the fore the *longue durée* of development. Evolution, a long-time silent partner of development, is coming to the foreground.

On the whole, this sense of balance is in some respects better achieved in social science than in development studies; it is comparatively more developed in relation to situations which are geographically and socially near than those which are distant (as a function of insider knowledge); and more developed in relation to the past and in history (where hindsight makes it easier to acknowledge complexity of motive, action and result) than in relation to the present or future. In forecasting and future projects, one-dimensional Science & Technology treatments, or the flat earth extended in time, are almost the norm, except in science fiction.

There is an affinity between spatially wide and temporally long approaches, or between globalization and evolution. Both are forms of holism, spatial and temporal. With evolution coming back to the foreground, ideas such as those of Teilhard de Chardin are making a come-back (e.g. Arruda 1996). Terhal has translated Teilhard de Chardin's ideas of `evolutionary convergence', the noosphere and the dawn of collective reflection, into perspectives on world development and compared them with those of Kuznets and Wallerstein.<sup>15</sup> Terhal finds that Teilhard underestimates social stratification and inequality in human evolution (1987: 228) and that there are elements of Eurocentrism to his work (266-7), which makes it another instance of shortcut holism.

Also in Skolimowski's perspective evolution is taking a reflexive turn: `we are evolution conscious of itself' (1994: 92). For Skolimowski, `The feast of life is participation' (157). For Stuart Todd, what follows from this kind of perspective is that the clue for development is to `align with life processes' (1997: 36). But this seems too generic a recipe, like an all-purpose elixir, or like Bergson's vitalism, for what are `life processes'? Are not development and its contradictions themselves manifestations of `life processes'? This introduces `life processes' in a normative, discriminating sense, without also providing the terms of distinction. Goonatilake (1991) introduces the notion of `merged evolution' to characterize the situation in which through biogenetic engineering the strand of cultural evolution—which hitherto has run a separate course—merges with and impacts on biological evolution. The advantage of this perspective is that it distinguishes *and* combines: rather than positing a shortcut `evolutionary convergence' it confronts the dilemmas of really-existing

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<sup>15</sup> For instance, according to Teilhard de Chardin, `Although mounting demographic pressure causes quite a number of evils at one level of human interaction', in principle it leads to `social unification and a higher level of collective consciousness' (quoted in Terhal 1987: 176).

convergence.

As to globalization, critical holism calls for a perspective on world history and globalization beyond conventional disciplinary methodologies (e.g. Mazlish and Buultjens 1993). There is no doubt that the future lies with visions of cooperative globalization (as in Arruda 1996), in contrast to competitive globalization (although these cannot be neatly separated, because competition and cooperation are also two sides of the same coin). Only, shortcut holism—a holism that ignores or underrates inequality and difference—falls short as a remedy.

This sense of balance means treating development as a tightrope act. The source of critical holism is the field of health and healing, a field in which individual and collective concerns typically come together. Feminism is another approach in which personal and social concerns are combined, by rethinking the boundaries between the private and the public, the personal and the political. These kind of combinations, along with the idea of Gestalt sociology or social science, raise a further option: viewing social science not merely as explanation or as critique (the standard assignments of social science), but as healing, as socio-therapy. As there is therapy in relation to the individual body and psyche, can there be healing of the collective body? In popular culture the idea is not uncommon, as in Sinéad O'Connor's song lines about Ireland: 'And if there ever is going to be healing, there must be remembering, and then grieving, so that then there can be forgiving' ('Famine', 1994). In development work this is not so uncommon an idea either—after all, what else is post-conflict rehabilitation, and what else is conflict prevention? Both notions have emerged in relation to complex emergencies and ethnic conflict. Yet the notion of development as healing sounds novel, presumably because it makes explicit that which has been implicit, and in doing so combines sensibilities which are usually kept neatly apart in separate boxes. These then are elements of the Tao of development: a holistic approach, a sense of balance across dimensions, a notion of collective healing. Critical holism, in combining holism and difference, combines these sensibilities in a balancing act.

Wholeness then should not be expected from a shortcut towards an undivided whole in a divided world, but should be sought in a new balance. The counsel for development studies and social science is to distinguish between multiple spheres and levels, each of which require engagement in their own terms, and not simply to contrast but to combine knowledges. As to implications for action and policy, this involves a case by case, contextual assessment of whether linear or nonlinear dynamics prevail, and whether robust or gentle action is appropriate. It also exceeds local alternatives. Critical holistic development includes macroeconomic management; it also involves

global democratization and planetary ethics. Identifying with the whole means that development can no longer be simply geared to material aims and achievements but includes nonmaterial dimensions, as in cultural development. It means that development can no longer be anthropocentric but encompasses the planetary ecology. Accordingly, stretching the meaning of development to its fullest extent, it may be summed up as a collective learning process and humanity's self-management according to the most comprehensive conceivable and practicable standards.

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