

West and Non-West, Ego and Alter-ego: Technological, Communicative and Microvita Futures Explored

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Sohail Inayatullah. Professor, Department of Futures Studies, Tamkang University

Address: 29 Meta Street, Mooloolaba, 4557. Email: s.inayatullah@qut.edu.au. Fax: 61 7
3864 2252.

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Summary: The argument made in this article that there are generally two foundational global futures – the artificial (globalization-technologization) era and the communicative-inclusive era. The basic perspective in the first scenario is that things rise – more progress, more technology, more development, more wealth and more individuality. This is generally the view of older age cohorts and those in the center of power. The second scenario is focused on inner and social transformation, whether because of green or spiritual values or because of the wise and moral use of technology. This is the vision of those marginal to the system - youth, women, the "others" - it is idealistic, and not beholden to the values of the Market or State but firmly entrenched in the People's Sector. In contrast to the exponential curve of the first scenario, this scenario has a cyclical curve (returning to a more stable time) in some variations and a spiral curve (a return to traditional values but in far more inclusive terms) in other variations.

These two scenarios, images of the future, oscillate in the West. The West needs the latter, its alter-ego, to refresh itself. Within this over all pattern, Collapse remains the fear (technology gone wrong or overpopulation from the South either because of the exploitation of nature or over-concentration of power and wealth) that spurs the West to constantly create new futures. The image of collapse is used as a call to action, to either join the technology revolution or the consciousness revolution, than as a firm belief in the end of the world.

We also argue that the West is by definition in crisis, indeed, crisis – the threat of collapse or a return to a slower time (an imagined past when men were men and economies were local, with chaos controllable) is how it refreshes itself. Without these two pillars, the West would have fallen to the way side and other civilizations would have reigned supreme.

In contrast to the West, the non-West follows a different pattern. The ego of the non-West has now been constructed by the West, such that as much as the non-West resists Westernization, it embraces it, becoming even more Western than the West, as, for example, Japan or Malaysia. The alter-ego, however, comes across in two ways: first as traditional, ancient indigenous knowledge, generally, focused not on the Western utopia but on the Indic and Sinic eupsychia – the cultivation and perfection of the self. Related to this concern is the self-reliant, localist, community model of development and social relations. Second, as attempts to not only limit their understandings at local levels but making new claims for the universal. This perspective is best stated by the Indian philosopher, P.R. Sarkar. His theory of agriculture as well as the worldview behind it, which he terms Microvita, offers a new vision of the future of science, society and particularly of food and agriculture. The article concludes by exploring the impact of Sarkar's theory on the future of agriculture and food.

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1. TECHNOLOGICAL FATIGUE

Based on the massive 10 nation study of how individuals envisioned the Year 2000, Johan Galtung writes that the most pessimistic respondents were those that came from the richest nations.¹ In particular, young people,² relevant here to us as potential carriers of a new worldview or at least as idealistic visionaries who can transform Industrial civilization, expressed a development fatigue. They had seen the limits of technology, and understood that social transformation and inner transformation was required. While respondents generally desired social and inner change, what they received were more technologies.³

The result of unfulfilled desired has been cognitive dissonance, at a foundational level, civilizational level. The dissonance can be described as: a desire for social transformation but the reality of globalized technocracy: a discourse of fairness but global, national and corporate policies that discriminate against the poor, the indigenous, the young – the most vulnerable.

At one extreme it is the rush to join the MBA set (and now e-tech culture), to globalise, to work hard to ensure that one's own future is bright, even if the rest of the ship is sinking (the Titanic metaphor of the future). Agriculture and farming in this perspective/strategy are not just seen as uneconomical but as dirty, as part of pre-industrial history. With history defined in linear terms, the past is to be avoided (and specifically left to the Others, the backward countries and races).

The second response has been the global backlash of the right – to resist multiculturalism (specifically, the alternative ways of knowing expressed by other cultures), and the other, through a return to extreme forms of one's identity. This is the Islamic right wing or the Christian right wing and localist/nationalistic movements throughout the World.

In more respectable forms, this is scientism, wherein science (like god) is seen outside of history, the truth for all once they convert to the open inquiry of the scientific method.⁴ Science delivers the future, creates the future, for one and all. As famed physicist, Michio Kaku said in reference to the new world being created by the technologies of genetic engineering, nano-technology and space research: get on the train or forever be left behind.⁵ The reality of not being able to get on the train has, as in earlier times, as resistance to the march of progress in the American Western Frontier, been an attack on the train – on globalisation, on gene research, as well as on other ethnicities (since they are most easily visible when it comes time to determining who has taken away the jobs).

Farming in this alternative future of resistance to globalization is considered bright, largely because it is associated with the past – simple technologies - and with monoculture. The past is considered far less chaotic, time was slower, one lived with the rhythms of nature, and Others lived far away.

A third alternative to the rush of the future is common in OECD nations, that of suicide, especially suicide among males. They end their physical life partly as they see no future, they are missing moral male role models and the only rituals left are those around consumption – the shopping mall as the great savior.

Agriculture and farming seen here not merely as an economic activity but as a ritual, as a way of life. It can be considered the antidote to the problem of modernity and postmodernity. The agricultural ways of life brings discipline and hard work. There are clear rules, corn is corn and is not seen as part of discourse, but living reality.

However, for technological globalists, it is exactly this past that must be creatively destroyed by higher and higher forms of capitalism – the train must go on, eventually become a plane, then a starship. However, with limited portals to the gates of the globalization train, what results are not only attacks on the train (as with fundamentalist movements) but jumping in front of the train (suicide and depression by those who cannot cope with an accelerating future, or who sense that they will have no part in this future).

Irrespective of the strategy taken by young (and old), at heart then is a crisis in worldview. However, generally research on how people see the future rarely explores these foundations. Instead data is presented focused on whether individuals are optimistic or pessimistic about the future – the search is for signs of despair and hope. Causes of suicide are either individualized (no discipline), blamed on unemployment and other social and economic problems, or related to genes.⁶ However, for causes to be sensible must be nested in the limits of the industrial and postindustrial worldview wherein reality is segmented into work (profit-making) followed by years of retirement. An analysis of worldview must as well speak to an even deeper sense of myth and metaphor. At this level of analysis, the issue is what stories do we tell ourselves?

For individuals outside of the mainstream of the present (and thus open to alternative futures), the problem for them is a story of the universe in which they are expected to behave in certain ways (become a worker, rational human being) and a reality that either denies this possibility (unemployment) and is utterly divorced from their world (the limits of the European enlightenment with respect to accessing other ways of knowing). There is thus a contrast to the world of globalization and secularization and the realities of emotions and identity creation.

So far we have pointed to the alternatives taken to jumping on the train to the future. First, there is cognitive dissonance since people do not want a train to the future but rather want the worldview behind the one-train perspective to be challenged. They want inner transformation and social innovation not the latest technology. Those that can not get on attack the train and yearn for earlier days. Others see no hope and jump in front of the globalization train. A fourth alternative is the postmodern, to see the entire exercise as socially constructed, so not only one train to the future but many trains and many other forms of transport (jet planes, camels, teleportation, telecommunication, walking, sitting still and imagining).

However, a problem with postmodernism is that it gives endless choices – virtuality – but with no foundation.⁷ Without this foundation, the result is a reality with too many selves – the swift Teflon vision of the future, where identity is about speed and the collection of a multitude of experiences, not about understanding the Other – not about deep communication wherein others (nature, other cultures, new technologies, even) are understood in their own terms.

Moreover the terms within which postmodernism includes others remains defined within the confines of the Western limitless worldview of accumulation. The choices, apparently multicultural, in fact, are about consumption, consuming other cultures. Virtuality merely creates the illusion of endless choice but not the fulfillment of having met and responded to a challenge. Nature, conditions of inequity and authentic alternatives to the postmodern are lost in this discourse. It is the response to the challenge that leads to inner growth, to economic and social development. The end result of postmodernity is depression, a condition that the World Health Organization has already made dramatic forecasts about. WHO estimates that by 2020 depression will be the leading cause of “disability adjusted

life years“ dramatically increasing the demands for psychiatric health services for young and old.,⁸

2. WESTERN WORLDVIEW

However, as Galtung argues, it is too simple to say that the problematique is of the Western worldview, of the crises of the West. First since the West is ubiquitous and second since even closed societies exhibit similar problems. Third, it is a conceptual mistake to argue that the West is in crisis since this is a tautological statement.⁹ The West by definition exists in this way. That has been the West's success in expanding the last 500 years. The West is not just linear in its evolution, it is also dramatic, apocalyptic (the end of the World, the collapse). The West by definition searches for the latest breakthrough, the victory, the challenge that can propel onwards.

But the other side of the West is its alter ego. This alter ego is focused not on expansion but on human rights. Not on the businessman but on the shaman, not on the mature adult ready to life and retire from the company (or kingdom or church) but on the youth that contests reality. Not on domination focused masculine principles but on partnership focused feminine principles. Not the city but the wild.

The challenge to official reality comes also from the outside, the periphery, for example, the Bedouins not vested in the normative and coercive power of the state, as Ibn Khaldun argues.¹⁰ Indeed, youth, women, mystics, those from traditional society, are the periphery. Even as many are part of the ego of the West (I shop therefore I am) many are of the alter-ego (I love therefore I am and I protest therefore I am). It has been the capacity of the West to appropriate counter movements – the challenge to official reality - to use youth, women, non-western cultures and others to transform itself from within that has been the success of making the West universal. The incredible growth in the organic food industry is an excellent example of this. In this sense, the crisis in the West is not new, it is merely the alter-ego expressing the alternative West.

Farming and Food:

Within the framework of agriculture/farming, this ego/alter ego oscillation comes out in two ways. The dominant is clearly the technological with the subservient the organic, the manual. In the technological, this has moved from industrial farming, and in recent times, to GM foods (for example, "everything from pickles and peanut butter to tofu and tomatoes is in the US injected with genes from arctic fish to make them frost resistant"¹¹). The GM food future will eventually leading to functional foods, wherein foods will be injected with various vaccines (Tetanus or polio, for example) or fruit juices flush with psyllium for fibre or grapes with high amounts of lycopene for treatment of prostate cancer or applies spliced with an antioxidant gene from strawberries)¹². The alternative is community farming, a return to nature. Women are of course playing a leading role in the switch to consuming organic foods partly as the suffer more from health problems (as one

would expect in patriarchy) but also as they are generally more concerned with future generations, with the health of their children.

However, it is mistake to see organic farming (community farming, perma-culture, etc) as outside the Western worldview, it is merely the shadow side of the technological.

We should this within the futures of agriculture expect to see a continued rise of both Wests – the transgenic food industry and the organic food industry (as well slippage in the organizational paradigms behind them, ie the former may become decentralized and localized while the latter may become like a real industrial era industry, moving away from its community "small is beautiful" roots).

Understanding Structure:

Returning to our exploration of what individuals do when desires are unfulfilled (attack the train, jump in front of the train, etc), part of the problem with those responding to globalization is that they base their politics on a visible identification of the enemy. In the metaphor we have used, evil are corporate heads or mad scientists. The metaphorical dimension of the train representing progress, the one-track as mono-culture nature of technology and the uni-direction is the commitment to progress at all costs.

Thus what is harder to see – beyond the visible litany – is the worldview, the codes that define what is real, what is important, what is beautiful, truth and reality. This becomes possible to see when one steps outside one's own terms of reality and enters other cultures or time frames (creating an epistemological distance from the present and future). Less difficult but still challenging is understanding structure, that is, historical processes that are actor invariant, such as class, patriarchy or *varna* (from sanskrit, loosely meaning color but generally a structure of power). While Marxists have focused on structure (the imperialists are the problem) as have muslims (Western Satans) but by resorting to conspiracy theories (using structure but unfortunately moving to specific cultures) they have lost legitimacy. Indeed, by focusing on evil and attempting to eliminate others, a war of attrition has resulted, where whomever is not the purest is bombed, as in South Asia and Yugoslavia.

Thus for those attempting to transform society, change appears to be easier when evil is clearer – whether a tyrant or a multinational such as General Motors or more recently Microsoft) or a world organization such as the World Bank. It is more difficult when structure (inequity) or worldview that must be challenged and transformed, that is, not the visible hardware but the harder to see software (actually, the problem is in the context that makes sense of hardware and software – the entire computing metaphor).

However, there is a worldview that comes across in a multitude of movements, each touching some dimension of the critique of what has come to be called globalization. These are expressed in the form of the spiritual movements, the vegetarian movement, the green movement, the community movement, the human rights movements All these movements are generally supported by youth as cadres even if managed by aging hippies.

Thus, there is a clear age-cohort dimension to the future. As these young people age, what might the forms of social resistance take. What might be the mixture of cyber-protest, social movements, for example?

Later in this paper, we will investigate the structural parameters that may lead to success or failure for these movements. Suffice to say at this stage that how one sees the futures of change largely depends on whether one sees social change as linear or cyclical or spiral. For linear developmentalists, youth movements, spiritual movements, animal rights movements, community farming movements, are generally signs that (1) progress is occurring since history is complaining (2) these movements should be listened to since ignoring them only increases the costs to the system (but only if they cannot be mocked, avoided, imprisoned, first), and (3) generally the voices of morality have always complained, and technological/economic progress has always won. So as they in Australia: no worries. Stay on the track.

For cyclical thinkers, for example, such as Pitirim Sorokin,¹³ systems reach their limits. Once reached they return to other periods in history. Each system can only express a certain level of reality. For example, as West qua materialism reaches its sensate peak, it marginalizes the spiritual. The system goes in crisis, and once it reaches this limit, it returns to an ideational system, focused on ideas, on morality. Progress becomes defined by proximity to God and not the capacity to purchase the real. Thus the current system has reached its natural limits and the alternative Ideational system is about to begin.

For spiral thinkers such as the late Indian philosopher and Master, P.R. Sarkar¹⁴ – whom we will return to later – human social history move through stages. The workers era (*shudra*) focused on meeting basic needs. This led to the warrior era (*ksattriya*) where strength, challenges, honor were crucial. Empires resulted as power was centralized. Next comes the Intellectual Era (*vipra*) – power controlled by priests and monks - wherein ideas and their circulation is the key. The limit was reached when economic growth was avoided. In the battle between the monarch and the priest in European history, for example, it was the trader, the burghers outside the city walls, that emerged victorious. The capitalists (*vaeshyas*) entered the cycle and commodified workers, warriors and intellectuals. This is where we generally stand now. Next is a global worker's revolution when the entire system will transform and move to a new era of Warriors (a centralized world governance system based on global ethics, honor and the meeting of new challenges, space, most likely). The spiral comes in that once the pattern is seen a new leadership can emerge and ensure that while the cycle turns, no group is exploited – neither worker, warrior, intellectual or trader - allowing the cycle to become a spiral.

The hypothesis then is that the crisis that the West faces are part of the West's own renewal and clearly part of the fatigue of development. They can also be nested in the structure of the time, the guiding worldview and the myth/story behind it.

Delay:

This fatigue, and resultant futures, has been delayed because of the internet revolution. Earlier, calls for transformation were focused on the reinvigoration of farming and agricultural, of challenging industrial modes of family, organization, religion and sexuality. The farm meant a return to community, a rejection of the paradise of the (sub)burbs. A new age-cohort, screen-agers, as Douglas Rushkoff accurately calls them, have found a different way to express individuality.¹⁵ It is quick time, quick communication and a chance to immediately lead instead of to follow. This will likely be even more delayed because of revolutions in genetics and nano-technology. While at one level delayed, at another level, the .com revolution is a youth explosion, of an expression of an alternative paradigm of social relations. Many small start-ups are multicultural, gender-partnership based and challenge traditional notions of working 9-5 and wearing black suits. They also offer a network vision of work and organizational structure. In this sense, they renew even as they delay more basic (needed) changes to globalization.

The issue then is the technological transformed promised by the Gene and Net revolution merely a continuation of globalization and technocracy or a structural and ideational foundational change?

Are the carriers of new social codes about the transformation of the dominant World culture – the West – or as part of the success of the West, itself?

3. SCENARIOS OF THE FUTURE

Let us leave these questions for the time being and explore what types of futures are desired by groups and individuals throughout the world. Interestingly but not surprisingly, the ego and alter-ego of the West comes across in foundational scenarios of the future. These can be seen in popular and academic images of the future, and have certainly come across in visioning workshops in a range of countries.

Focusing on these scenarios is not to restrict the importance of individual trends such as disintermediation, aging, multiculturalism, the rights movement, global governance but to frame trends in the context of larger patterns of change. Scenarios or pictures of emerging futures is a far more integrative way of capturing such information.¹⁶

Globalized Artificial Future

The first is the globalized artificial future and the second is the Communicative-Inclusive future.¹⁷

The globalized scenario is high-technology and economy driven. Extreme features include, the right to plastic surgery and an airplane for each person. Generally, the vision is of endless travel and shopping, and a global society where we all have fun by having all our desires met. It is the Western vision of paradise.

Food, while plentiful, in this scenario is identity based, ie food that defines self. Food is fun, food is exotic (Thai or Indian). Food is also mixed, eg Tex-Mex. Agricultural, as

mentioned earlier, while at one level considered dirty, at another level, it is not considered at all, even if the reality is that world population increases require increased food production. Food, like other commodities, should be not scarce. It definitely should be globalized, all sorts easily available wherever one is. This is part of the postmodern/globalized thrust, of having all perspectives quickly and easily available

In the long run, in this future, food will move from globalized food to transgenic food, moving not just from cultural diversity (many types of food) to genetically engineered food. For example, "the world market for transgenic products is projected to increase to \$8billion in 2005 and 25\$ billion in 2010. Corporate transactions related to ventures in GM seeds, agro-chemicals and research, valued at more than \$ 15billion (from 1996-1999) is expected to keep pace."¹⁸ Overtime, food, will merge with pharmaceuticals, with the creation of functional foods, created for particular health needs.

Rural communities will be so not because they are agricultural based but because they are different from the city, indeed, they provide areas of respite for Earth as City: City as planet. Rurality may become redefined as areas of elite wealth and not as areas of cultural backwardness, as areas of limited choice, as, for example, the Australian Bush or the South Asian village are seen today.

More specifically, this scenario of the future can be defined as:

- Genetic Prevention, Enhancement and Recreation – New Species , Germ Line Engineering and the End of ‘Natural’ Procreation
- Soft and Strong Nano-Technology – End of Scarcity and Work
- Space Exploration – Promise of ET Contact or at Least, Species Continuation in case an Asteroid hits Earth.
- Artificial Intelligence and ultimately the Rights of Robots - development of personal artificial bots
- Life Extension and Ageing – Gerontocracy and the End of Youth Culture
- Internet and the Global Brain
- Globalization, large transnationals organizing production of needs and desires.

The underlying ethos is that technology can solve every problem and lead to genuine human progress.

At a grand level, this vision of the future challenges traditional notions of truth, reality, nature, Man and sovereignty. Truth is considered multiple, socially constructed. Reality is physical but as well virtual (cyberspace). Nature is no longer considered fixed but can be challenged and changed by humans, largely through genetic manipulation. While previously human evolution was stable, with cultural evolution quicker and technological evolution the quickest, now the technology has the potential to quicker human biological evolution itself. This fundamentally shifts the tension between culture and technology, to technology and biology, leaving culture where? The category Man has been has been deconstructed by feminists and shown to be historically constructed. And finally

economic globalization makes sovereignty problematic and cultural globalization makes the sovereignty of the self (one stable self) porous, leading to far more liminal selves.

The impact of this vision and the underlying trends in the food area are singular. Genetically modified foods are the solution, especially since global agricultural production has been steadily declining since the Green Revolution of the 1960s' and will continue to do so at 1.8% a year. With population increasing, along with a purchasing power (and technology and gene) divide, food production must dramatically increase.

Communicative-Inclusive

In contrast is the communicative-inclusive society, which is values driven. Consumption of every possible good in this scenario is far less important to communication. It is learning from another about another that is crucial. While technology is important, the morality of those inventing and using it is far more important. Instead of solving the world's food problem through the genetic engineering of food, the reorganization of society and softer more nature-oriented alternatives such as organic foods are far more important. Food is not only necessary for our biological growth but food is social (creating community) and food is spiritual (the correct foods helping one become more subtle and incorrect foods, crudifying one's body/mind/spirit).

The goal is not to create a world that leads to the fulfillment of desire but one wherein desire is reduced (the Buddhist perspective) or channeled to spiritual and cultural pursuits. While earlier incarnations of the scenario were to make everyone into a worker (the Marxian distribution dream) or everyone into a *shudra* (a worker, the Gandhian sentiment) or a peasant (the Maoist), recent articulations are far more sophisticated and focused on what Sarkar¹⁹ has called *Prama* – or dynamic balance. *Prama* means inner balance (of material/spiritual), regional balance (of nations, no one nation can be rich if the neighbor is poor), of industrial/agricultural production (not leaving the land but seeing it as part of national development) and of economic balance (self-reliance in basic needs plus export orientation of non-essentials).

Of course, in the USA, where only 2% work directly in the agricultural sector, balance should be defined differently. However, As Steve Diver argues in "Farming the Future,"

Though a dramatic increase in the farm sector is not appropriate in a developed economy, clearly more people would take up farming were it economically feasible. In addition, when so many people are removed from the land and the experience of living and working around Nature, a cumulative collective psychological effect of dislocation and disconnectedness from self and one's environment is likely. Indeed, eco-psychologists suggest that many of the social ills present in industrialized countries are the result of such an imbalance. "²⁰

Along with balance, in this future, is diversity. In particular the pitfalls of reliance on genetic intervention are crucial here since they threaten biodiversity. Indeed, the Irish

potato famine of the 1840s is largely because everyone plotted one crop. "Had the crop been biodiverse, the catastrophe would not have occurred."²¹

The alternative scenario gains credence as well since the logical conclusion of GM foods are nano-foods, or the fabled meal-in-a-pill. Of course, the pill will not be tasteless or odourless or emotionless (as currently imagined) – eating it will be a real virtual programmed experience. The pill will not just provide nutrients but evoke emotions, stimulate glands and for all practical purposes be everything we currently and historically associate with eating. Of course, the meal-in-a-pill still has to be invented but when it does, the issue will be what type of social situation will go with it? Once the collective meal is lost, what society will result? What ways then will there be to slow time down, to connect with others? How will the meal-in-a-pill fit into the food qua spirituality perspective?

It is these concerns that the communicative-inclusive scenario articulates and presents. Far more important than the meal-in-a-pill is the communicative nature of eating, of the importance of work for those producing food (work gives humans dignity), of the social design of food producers (not collectives nor corporations but cooperatives, sharing land and wealth), and of the health (physical, mental and spiritual) issues associated with food.

More specifically the communicative-inclusive scenario has the following characteristics:

- Challenge is not solved through technology but through creating a shared global ethics;
- Dialogue of civilizations and between civilizations in the context of multiple ways of knowing is the way forward;
- A balanced but dynamic economy. Technological innovation leads to shared co-operative economic system;
- Maxi-mini global wage system --incentive linked to distributive justice;
- A soft global governance system with 1000 local bio-regions;
- Layered identity, moving from ego/religion/nation to rights of all;
- Holistic science --life as intelligent.

The underlying perspective is that of a global ethics with a deep commitment that communication and consciousness transformation can solve all our problems.

The trends that underlie this scenario are as with the earlier scenario challenges to Truth, Reality, Nature, Man and Sovereignty but with a different angle. Instead of genetic science it is new paradigms in physics. Instead of a world ruled by multinationals, it is the growth of Green Parties and social movements associated with transparency that are far more important.

Truth and Reality are seen as both ultimate (spiritual) and physical. It is multi-perspectual in that we make our own realities, however, there is an underlying non-constructed unity to reality – that of a moral universe driver by cause-effect. In one word: *karma*. This comes out from the growth of the spiritual movements and cosmological exchange (the

non-West creating cultural bridgeheads in the West) as well as through the dramatic new health paradigm, which while essentially spiritual focuses on integrating mind-body, seeing both as essential to well-being.²² Nature, however, is not to be tampered with. Urbanization is the problem and nature is given, indeed, a sacred trust given to humanity. Man is contested as humans are among the many species on the planet – nature, animals, with spiritual entities, Gaia herself. Sovereignty is challenged as nation-states are considered 'passe' – part of the problem. A solution could be a planetary civilization based on the self-reliance model. Food would certainly be locally grown – and regional when required - with the world government setting up policy standards (what level of chemical fertilizers what level of meat consumption allowed, and what levels of food can be exported).

However, this scenario should not be seen as anti-technology, although there are certainly groups that prefer aspects of this vision who are more luddite than others. But most likely technology is likely to be driven by ethical values. For example, technology could be used to give information on the caloric count of foods, so as to avoid high-fat foods. These health-bots could also immediately let one know the level of pollutants in the food, where the food was produced, and over time the social conditions that the food was produced in. Thus the net, cellular phones could be used to transform globalization from within, giving consumers information on products so that they could make choices consistent with their worldviews. Technology would thus serve as a moral guide, an angel over one's shoulder, helping one do the right thing.²³

However, while this is a change in paradigm, at a deeper cosmological level, it is not a foundational change, in that this scenario represents the alter-ego of the West. It is the West, contracting, searching for that identity it has unconsciously repressed.

4. CASE STUDIES

Within the theoretical context developed above, we now explore specifically what futures are likely to result. The likelihood of a particular future occurring is partly based on the desired future, that is, individuals are likely to work to create the futures they want. However, there are structural parameters that influence, that limit, the future as well. A later section of this article will explore these considerations.

In terms of the case studies presented below, they are based on the visions of young persons between the age of 15-25. This means that in 15-20 years they may be in policy positions to impact the future (at least the official ego future of the West and not the alter-ego, which they currently impact). The case studies below focus on how young people imagine their preferred futures as well as the type of alternative futures they see emerging. Of course, these case studies should be seen as indicative instead of conclusive, as among the signs of the emergent future.

1. Undergraduate Students at the Centre of European Studies, University of Trier-Agriculture and the Futures of Europe.²⁴

Community/Organic:

The first and most popular scenario was the *Community/Organic*. In this scenario, young people moved away from the chemical corporate way of life and searched for community-oriented alternatives. Local currency networks, organic farming, shared housing and other values and programs favored by the counter-culture were favored. When asked why individuals would prefer this future, they responded that the current (1999) Dioxin contamination in Belgium (with similar scares in the future even more likely) could lead to quite dramatic changes away from artificial, pesticide and genetic foods, in the longer run.

Food was part of a larger life-style, paradigm issue. These young people imagined a community household system where goods and services were shared. However, one participant imagined Europe not within the urban/community dichotomy but saw the entire of Europe as becoming community-oriented. This meant a clear move away from the view *that I shop therefore I am* to *I relate therefore I am*. In this sense, the key way of knowing was not philosophy qua reason; or religion/state qua authority; or science qua empiricism, or even spirituality qua intuition but communication qua relationship. The self was no longer alone but nested in communities of care, each one expanding eventually leading to Gaia, herself.

This focus on relationship was also central for other participants, who did not specifically share the community/organic future. Indeed, it was the return to a strong family life that was pivotal in terms of how they saw the future of Europe. Taking care of children – and ensuring that the state provided funds for this – taking care of the elderly, and in general living so that familial relationship were far more important than exchange relations. Clearly this scenario reflects the communicative-inclusive scenario identified earlier.

The Family:

In minor contrast to the community scenario, this future was far more focused on the nuclear family – the *Family Future*. Indeed, efforts to maintain this institution were considered crucial by some participants especially with the rise of genetic engineering, and the possibility of test-tube factories in the not so distant future. Indeed, while more formal visioning workshops with technocratic experts examine scientific variables (such as the nature of future populations or income levels or possibilities of global catastrophes)²⁵, these students asked, "will I have children? How many? How will I spend my time with them?" Issues of food/work etc were not as important as the personal nature of one's family.

This of course should be understood in the context of the age of the respondents. Most likely, as they age and have families, this group will find itself drawn to the organic/community scenario.

Celebrating a Plastic Future:

However, other participants believed that the new technologies would be dominant and instead of resisting them we should rejoice. We should celebrate in artificial intelligence, plastic surgery, gene enhancement creating a *Plastic Europe*. Anonymity in fact gives freedom from other; it allows the individual to express herself, while community and family suppress the individual. The organic/community scenario, they believed, was reflective of the agricultural era – a time when individuals, especially women, did not have rights.

The new technologies as well promise great wealth. Indeed some argued that far more important than family life was single life. It gave choice; it was not steeped in outdated institutions such as marriage. Europe was flexible and it should remain so when it came to formal relations.

However, behind these preferred futures was the reality of *disaster*.

One participant argued that oil reserves would certainly run out, and Europe would quickly decline, while Africa, with its plentitude of sun, and eventually solar energy, would rise. Mass unemployment in the context of Castle Europe – keep the barbarians out – was the likely future. AIDS, Ebola, and many other disasters loomed ahead. Nuclear technology could also lead to serious problems and new forms of energy were needed. Unless alternative forms of energy were developed, the future was bleak.

However, a last perspective was that of technology transforming the future in a positive manner. The new technologies could create the possibility for a network instead of national identity. They allow creativity to grow, and along with more spiritual views of what it means to be human, let humans transcend their narrow limitations. What Europe could offer was its multilingual focus, its vision of a multicultural society. Food futures, in this scenario, were likely to be focused on diversity, that is, space for the organic, space for the industrial super market model and space for the genetically modified model. No one model of how to farm, what to eat and who to eat with would become hegemonic. Social movements and the state (through electoral politics) would reduce the power of corporations. Corporations would as well be influenced through consumer spending, which more and would be focused on alternatives to the current shopping center, "food magically appearing in aisles" model.

These scenarios are echoed by Richard Eckersley in his research: Eckersley writes that young people: "expect to see new technologies further used to entrench and concentrate power and privilege: for example, they were almost twice as likely to believe that governments would use new technologies to watch and regulate people more as they were that these technologies would empower people and strengthen democracy. They want to see new technologies used to help create closer-knit communities of people living a sustainable."²⁶ This is at essence a mixture of the green/sustainable and transformational future and points to the fact that not all young people are experiencing cognitive dissonance – that many understand the system, and find strategies to work with it without being subverted by it.

These issues are not only European. For example, in a similarly structured visioning workshop in Taiwan, the following emerged as preferred futures.

2. Taiwan in Global Futures - Taiwanese Students at Tamkang University, Tamsui, Taiwan, May 1999.

One group imagined a globalized Taiwan with each citizen being super-rich, with their own airplane (the globalist artificial society). Another group imagined a softer, slower, organic future where farming was crucial (the communicative-inclusive). Technology linked them globally but there was no email imperative. Quality of life issues were as crucial as wealth issues. The China/Taiwan issue would be resolved by both entering a supernational federation where nation did not matter any more.

This latter scenario was quite surprising to older participants (one saying that it was a dangerous vision for the nation). However, it can be explained by the fact that this younger new age-cohort do not have the memory of fleeing China, nor with the poverty of 50 years ago. As with their western counter parts, they have development/science and technology fatigue, and desire a far different life – a green, spiritual future.

5. VALUES AND BEHAVIOR

While these are exemplary case studies via visioning workshops, interestingly we find isomorphic results from Paul Ray's and Sherry Ruth Anderson's study on Cultural Creatives.²⁷

Arguing that the best single predictor of real behavior are values, they divide Americans into three value groups. The first are the moderns. "The simplest way to understand today's Moderns is to see that they are the people who accept the commercialized urban-industrial world as the obvious right way to live. They're not looking for alternatives," say Ray and Anderson.²⁸ They are committed to the "get on the train of progress view. Worldviews are generally those that others have since they believe that their definition of reality is the norm.

In contrast are the Traditionalists. They generally yearn for community, for small town life, traditional notions of nature. These notions are strongly nested in patriarchy, nationalism, and traditional texts (in the US, the Bible). One can easily see that this category is exportable throughout the world. In Taiwan, for example, to Confucian KMT nationalists. Or in Pakistan to the leading Islamic parties (focused on the Quran, here). All are equally distrustful of foreigners, desire to regulate sexual behavior and traditional gender roles.

They would likely reject the Communicative-Inclusive vision of the future (and of the course the Artificial Society) and prefer not a Back to Nature but what we might call, An Imagined Past, when the world was defined by nations and capital and labour mobility was restricted.

Ray and Anderson as well offer a third value orientation, where they believe lie the seeds of a cultural revolution – the Cultural Creatives. They:

- love nature and are deeply concerned about its destruction;
- are strongly aware of the problems of the whole planet and want to see action to curb them, such as limiting economic growth;
- would pay more taxes or higher prices if you knew the money would go to clean up the environment and stop global warming;
- give a lot of importance to developing and maintaining relationships;
- place great importance on helping other people;
- volunteer for one or more good causes;
- care intensely about psychological or spiritual development;
- see spirituality and religion as important in your own life but are also concerned about the role of the religious Right in politics;
- want more equality for women at work and want more women leaders in business and politics;
- are concerned about violence and the abuse of women and children everywhere on Earth;
- want politics and government to emphasize children's education and well being, the rebuilding of neighborhoods and communities, and creation of an ecologically sustainable future;
- are unhappy with both left and right in politics and want a new way that is not the mushy middle;
- tend to be optimistic about the future and distrust the cynical and pessimistic view offered by the media;
- want to be involved in creating a new and better way of life in their country;
- are concerned about what big corporations are doing in the name of profit: exploiting poor countries, harming the environment, downsizing;
- have finances and spending under control and are not concerned about overspending;
- dislike the modern emphasis on success, on "making it," on wealth and luxury goods;
- like people and places that are exotic and foreign, and enjoy experiencing and learning about other ways of life.

Along with these characteristics, Ray and Anderson believe that²⁹

cultural creatives in their personal lives, they seek authenticity -- meaning they want their actions to be consistent with what they believe and say. They are also intent on finding wholeness, integration, and community. Cultural Creatives are quite clear that they do not want to live in an alienated, disconnected world. Their approach to health is preventive and holistic, though they do not reject modern medicine. In their work, they may try to go beyond earning a living to having "right livelihood" or a vocation.

Their vision is consistent with the Communicative-Inclusive vision of the future. While we would assert here that this is merely the alter-ego of the West, Ray and Anderson believe that the cultural creatives represent the future, what others have called the Promise of the Coming Dark Age, or what Johan Galtung has called the Rise of the Middle Ages.³⁰ The Middle ages where, at least in the first part, about recovering the community lost in the nation-empire building of the Roman Empire. The Middle-Ages were fare more distribution than growth oriented. Of course, the vision of the cultural creatives is community but not with patriarchy or other types of feudal hierarchy. It is a response to modernity and postmodernity and not a reaction to it.

If we then see the West in historical phase shifts – from expansion to contraction (both being natural phases of the West) then we can image the future of the West become far more diverse, far more concerned with meaning, community, gender fairness, smaller. Does this mean then that expansion will then come from other civilization? Or is it possible as Ashis Nandy has argued for the creation of a gaia of civilizations.³¹ That is, as the West contracts - finally understanding the Indic perspective that each civilization is incomplete in itself and needs the other - the garden metaphor of a multitude of civilizations in eco-relationship with other may take root.

Instead of GM foods, organic foods might flourish. Instead of only growth, distribution might again become important. With a more balanced world system, especially in terms of gender relations, population would find a steady level (women would fine their economic and social power from themselves instead of through male children), and instead of the meal-in-a-pill, the image would be of a sharing of foods on community table. But what of the carnivores?

6. STRUCTURE OF THE FUTURE

It is the question of the carnivores that leads us to the next section. Essentially this is an issue of power. In the Gaian model – diverse but generally non-violent, reality created through shared negotiation – vegetarians modes of social and economic organization are far more likely. Vegetarian modes are softer on the Earth, allow for far greater production, and are non-violent. The values behind this perspective is one of self-reliance (lack of dependence on giant corporatist anonymous systems). But what to do with those that differ, what of the giant global system. Are there any possibilities that it will transform? Said, differently, can the West genuinely transform?

Thus, what is often lost in these important attempts to understand the future are the structural constraints and structural possibilities. In this sense, few scenarios go beyond the dictates of the present (trend extrapolation) and the dictates of vision (aspiration scenarios).

Structural approaches explore the parameters of the possible future. What is probable, not because of current trends (although these are often defined by structural forces) or agency or but because of real historical limits.

If we begin to explore the long term, from a macrohistorical view, there are range of possibilities that define the shape of the long term. In this essay, we focus on four factors. We add Sarkar's theory of varna ³²with Sorokin's notion of super cultural systems³³ – already presented – with Wallerstein³⁴ and Eisler.³⁵ Wallerstein's is based on class and Eisler's is based on gender, as derived from her theory of Patriarchy.

Simply stated – and glossing quite a bit of history - there have been four structures.

1. World Empire – victory of warrior historical power – coercive/protective – sensate – patriarchy - *ksattriya*
2. World Church – victory of intellectual power – normative – ideational – patriarchy - *vipra*
3. Mini-systems – small, self-reliant cultural systems – ideational –androgny - *shudra*
4. World economy – globalizing economics along national divisions – sensate - *vaeshyan*

The question is, which structure is likely to dominate in the next 25 to 50 years? Can a new structure emerge? And of course, what does that mean for the futures of agriculture, food and rural communities?

Option 1 of a world empire is unlikely given countervailing powers – given that there is more than one hegemon in the world system and given that there is a lack of political legitimacy for recolonization, for simply conquering other nations. The human rights discourse while allowing intervention in failing nations still severely delimits nation to nation conquest.

Option 2, a world church, is also unlikely given that there are many civilizations (from Muslim to Christian to Shinto to modern secular) vying for minds and hearts. While the millennium has evoked passions associated with the end of man, and the return of Jesus, Amida Buddha or the Madhi, the religious pluralism that is our planet is unlike to be swayed toward any one religion. In this the Gaia model is possible.

Option 3 – 10000 nations/communities - is possible because of potential decentralizing impact of telecommunication systems and the aspiration by many for self-reliant ecological communities electronically linked. However, small systems tend to be taken over by warrior power, intellectual/religious power or larger economic globalizing propensities. In the context of a globalized world economy, self-reliance is difficult to maintain. Moreover, centralizing forces and desire for power at the local level limits the democratic/small is beautiful impulse.

Option 4, the world economy, has been the stable for the last few hundred years but it now appears that a bifurcation to an alternative system or to collapse (and reconquest by the warriors) is possible. Crises in environment, governance, legitimacy all reduce the strength of the world system.

Revolutions from **above** (global institutions from UN, WTO, IMF) and regional institutions (APEC) and revolutions from **below** (social movements and nongovernmental organizations), revolutions from **technology** (cyber democracy, cyber communities and cyber lobbying) and revolutions from **capital** (globalization) make the nation far more porous as well as the chaotic interstate system that underlies it.³⁶

However, none of these problems can be solved in isolation thus leading to the strengthening of global institutions, even for localist parties, who now realize that for their local agendas to succeed they must become global political parties, globalizing themselves, and in turn moving away from their ideology of localism and self-reliance.

Thus what we are seeing even in the local is a necessity to move to the global. There is no other way. Again, this tallies with the cultural creatives as well as with the modernists (but not the traditionalists). The issue, of course, is which globalism? The technocratic version or the gaian version? Can there be a world system that is localized?

Choices

For the West there are three choices as the world economy model falters: (1) Import labor, open the doors of immigration and become truly multicultural and younger. Those nations who do that will thrive financially (the US and England, for example), those who cannot because of localist politics will find themselves slowly descending down the ladder (Germany and Japan, for example).

As the West becomes more multicultural, many types of farming futures will result. Some industrial, some very small scale (the recreation of suburban neighborhoods by recent immigrants who are in search of land and their traditional local self-reliance). Indeed, the aged might find purpose through small farming, joining recent immigrants in city plots.

The second choice is dramatically increase productivity through new technologies, that is, fewer people producing more goods (or a mix of immigration and email outsourcing). While the first stage is the convergence of computing and telecommunications technology (the Net), nano-technology is the end dream of this. Farming and food, as mentioned earlier, become swallowed by the technocratic discourse, the meal-in-a-pill.

The third choice is the reengineering of the population - creating humans in hospitals. This is the end game of the genetics revolution. The first phase is: genetic prevention. Phase two is genetic enhancement (finding ways to increase intelligence, typing second, language capacity) and phase three is genetic recreation, the creation of new species, super and sub races. In this future, the goal will be to design humans who do not need to

eat, or where food is not a problem, or where food is totally recyclable (ie what you eat, you excrete and then eat again – after the nano-bots clean up the waste).

THE NON-WEST

Which future is structurally likely then? The technocratic-one train vision wishes for a globalized world constricted by nations-states and Western culture as the backdrop. They will likely get the globalized world but the cost to them will be a softer Western culture, a transformed Western culture. The communicative-inclusive hope for a world of communities – self-reliance, ecological, electronically linked, in gender and global partnership – without any world government system.³⁷

Structurally, however, this is next to impossible since it is likely that they will get the vision but not without a global government system that sets new rules that constrict the power of the carnivores (the question will be will they remain carnivores, or will moral and spiritual development have evolved to new levels).

We are thus likely to get a global world system that is informed by the alter-ego of the West. But where is the Non-West in all this, except as providing the seeds for the renewal of the West. We now for the rest of this essay focus on the responses of the non-West. The two Non-Wests, ego and alter-ego.

In contrast to the West, the non-West follows a different pattern. The ego of the non-West has now been constructed by the West, such that as much as the non-West resists Westernization, it embraces it, becoming even more Western than the West, as, for example, Japan or Malaysia. This is the classic love-hate relationship. The non-West own future trajectory having been altered by the West, it finds itself resisting and desiring to be like the West. Resistance comes in the form of fundamentalist movements, that challenge Western power through acts of terror. At another level, this is expressed at international UN/WTO- type meetings where issues of fairness, sovereignty, access to technologies, national debts are discussed. With the memory of colonization fresh, redress is the key issue. But as with the Roman Empire, where the barbarians attack not to remove Rome but to become even more Roman, we find Asian and African nations striving to become even more Western – quicker, more technological, more commodified, and more exploitive of women, nature and labor.

Thus we see national policy far more pro-big farming, landlords, agri-business and far readier to speculate on the world futures markets (and ready to complain when they lose as a conspiracy against Asia).

The Alter-Ego:

But of far more interest is the alter-ego. This comes across in two ways: first as traditional, ancient indigenous knowledge, generally, focused not on the Western utopia (the perfection of society) but on the Indic and Sinic eupsychia – the cultivation and perfection of the self. Second, as attempts to not limit their understandings at local levels

but to make new claims for the universal. While the former is most conducive to cosmological exchange and indeed forges a partnership between the West and Non-West (Gandhism, Tibetan Buddhism, Zen) the latter is far more problematic for the West, since it challenges the West's universalism.

8. LOCAL AND INTEGRATED FARMING

In terms of the first model of traditional knowledge (return to pre-contact Asia or Africa), the implications for farming include the following. The general model is one focused on self-sufficiency, water conservation, afforestation, international coordination and cooperation of water and tree regimes, as much as possible organic fertilizers (with limited use of chemical fertilizers), the creation of cottage industries for local people, alternative energy production, and local research center. While it appears to be a pre-industrial model, the use of Net technologies for sharing information on the local, allows a new model for global development. We quote extensively from the P.R. Sarkar's classic work, *Ideal Farming*³⁸ as an exemplary text. His system of integrated farming as a backbone for a new development model includes the following:

- Organic farming
- Afforestation using scientific and local knowledge in terms of which trees should be planted first (fast growing trees such as cassuarina, sisir (Albezzia Lebbeck), sissou (Dalbergia), red sandalwood, etc. and second (slow growing trees such as teak which also provides green cover and can be harvested after 30 years or so. The fast growing trees can be cut after three years, providing an additional source of income for local power.
- For afforestation, surface water must be conserved. This is best done by creating small-scale lakes and ponds. Along the lakes and ponds, Sarkar suggests the types of plants that should be used around lakes. These include slope plants (pineapple, asparagus, aloe vera, etc), Boundary plants (palm trees, vegetables and fruits), Wire plants (creeping vegetables around a brick wall with a wire fence to keep out animals), Aquatic plants and Surface plants.
- Riverside plantations to prevent floods, conserve water, regulate the flow of water in rivers, and keep the soil moist and fertile.
- River projects must not be left to one country alone, an international governance system must be set up to ensure the coordination of water conservation and development
- Planting of medicinal crops based on the Ayurvedic system
- The Maximum utilization of land through crop rotation, crop mixing and supplementary cropping
- A range of energy projects including, solar, bio-gas, small scale hydro-electric, bio-mass power, and of course thermal power from coal and other fossil fuels.

While Sarkar, and others such as Aurobindo, provide details suggestions the overall point is that agriculture cannot be relegated to a side-show. Decentralization of the economy is crucial for well-being. This is contrast to the ego of Asia which is focused on economic development that is city-based. The underlying metaphor is of the streets of London town

paved with gold. Cities represent economic growth,³⁹ while rurality represents stupidity and backwardness. The city is modern and Western, the village is the shameful face of the non-West. For secular modernized Asians, however, the village represents traditional feudal society. Sarkar's model is about transforming the village economy, modernizing it through selective science, but generally using indigenous knowledge of greening the environment. He has developed a new model focused on creating small self-reliant, ecological, spiritual, knowledge-intensive communities throughout the world. This has been crystallized at Ananda Nagar, Bengal, the city of Bliss, wherein the alter-ego of the non-West can flourish.

9. SARKAR'S VISION OF THE FUTURE

The Universal dimensions of Sarkar come not from the alternative farming regime or his focus on self-reliance and community building (which is a common theme throughout Asia and Africa) but from the alternative worldview that shapes it. We now in detail investigate this view, concluding with what it means for the future of farming and food.

Sarkar gives us a new map in which to frame self, society, other, nature and the transcendental. One way to think about this is to imagine Sarkar's scheme as if it was a library. Instead of floors on government documents, the humanities, social sciences and science (as in conventional libraries), he redesigns the real around the following orderings of knowledge, floors if you will: *Tantra* (Intuition Science); *Brahmacakra* (cosmology, the evolutionary link between matter and mind); Bio-Psychology (the individual body and mind); Prout (specifically, the social cycle, economic growth and just/rational distribution, and the *sadvipra*, or spiritual leadership); Coordinated Cooperation (gender partnership in history and the future); Neo-Humanism (a new ethics); and, Microvita (the new sciences and health). Certainly a library as constituted by Sarkar's categories would be dramatically different from current libraries.

At heart, Sarkar's alternative worldview is about transformation. Sarkar's strategies of transformation include:

- Individual transformation through the Tantric process of meditation and the enhancement of individual health through yoga practices that balance one's hormonal system;
- Moral transformation through social service and care for the most vulnerable;
- Economic transformation through the theory of Prout and *samaj* or people's movements, as well as through self-reliant master units or ecological centres (As with Ananda Nagar, mentioned above);
- Political transformation through the articulation of the concept of the *sadvipra*, the spiritual-moral leader, and the creation of such leaders through struggle with the materialistic capitalistic system and immoral national/local leaders;
- Cultural transformation through the creation of new holidays and celebrations that contest traditional nationalistic sacred time-space places (such as childrens' day) and through the recovery of the world's spiritual cultures as well as through the

establishment of Third World social movements that contest the organisational hegemony of Western organisations;

- Language transformation through the elucidation of a new encyclopedia of the Bengali language and through working for linguistic rights for the world's minorities;
- Religious transformation through upholding the spiritual reality that unites us all while contesting patriarchal and dogmatic dimensions of the world's religions;
- Scientific transformation by rethinking science as noetic science as well as laying bare the materialistic and instrumentalist prejudices of conventional science; and
- Temporal transformation by envisioning long range futures and designing strategies for centuries and future generations to come.

For the purposes of this article, two concepts are crucial. They are (1) Neo-humanism and (2) Microvita.

Sarkar's theory of Neo-Humanism aims to relocate the self from ego (and the pursuit of individual maximization), from family (and the pride of genealogy), from geo-sentiments (attachments to land and nation), from socio-sentiments (attachments to class, race and community), from humanism (the human being as the centre of the universe) to Neo-Humanism (love and devotion for all, inanimate and animate, beings of the universe). These can be called windows of compassion "which determine the set of beings identified as sufficiently similar to self to deserve equal consideration."⁴⁰ The challenge is to expand our window to include all that is.

Paramount here is the construction of self in an ecology of reverence for life not a modern/secular politics of cynicism. Spiritual devotion to the universe is ultimately the greatest treasure that humans have; it is this treasure that must be excavated and shared by all living beings.

Neo-humanism is essential to creating *prama*. This means that plants and animals as well have existence rights. Writes Sarkar:

The biological disparity between animal and plant - that disparity must not be there. Just as a human being wants to survive, a pigeon also wants to survive - similarly a cow or a tree also wants to survive. Just as my life is dear to me, so the lives of other created beings are also equally dear to them. It is the birthright of human beings to live in this world, and it is the birthright of the animal world and plant world also to remain on this earth.⁴¹

What this means is ensuring that animals and plants are not treated cruelly, that vegetarianism becomes the dominant food regime.

Writes Diver on the impact of Neo-humanism on farming.

The adoption of Neo-Humanism in modern agriculture will require a shift in sentiment and an alternative agriculture scenario wherein animals continue to play an essential role in both economical and ecological terms, but are not simply raised

for slaughter. Positive examples of a Neo-Humanistic animal agriculture are: pastures used solely to raise livestock for slaughter are planted into woody and herbaceous biomass crops; animal manures supply biofertilizers and composts; weeds and brush are controlled by grazing instead of herbicides; animal products (dairy, wool, and eggs) are obtained without harming the animal; other animal products (leather products and organic fertilizers like feather, fish, bone, and blood meal) are obtained when animals die from old age.⁴²

Of course, for Sarkar – and this is the problem from a globalist Western view – initiated numerous social and political movements to realize these goals. PCAP (Prevention of Cruelty to Animals and Plants) was started in 1978 and the Universal Proutist Farmer's Federation (UPFF) in 1966. By universal, he means not based on any one nation or planet. These are part of his grander political movement known as Prout – the progressive theory of utilization. Prout is a global political party, and at the same time, it is a decentralized social movement, focused on self-reliant economics, gender partnership, neo-humanist ecology, among other characteristics. It intends to challenge both capitalism (in terms of distribution) as well as other models (for not, interestingly focusing enough on providing basic needs and maximum amenities – that is, increasing real per capita income).

The implications for the future of farming and food are many. First, farming is nested in an alternative social-political model. Second, farming is placed in an alternative model of what it means to be human and not-human. Third, farming is seen as central for national and global development. Fourth, farming is essential for the non-West to realize its potential and develop indigenous sciences. Fifth, food can be divided into the following.⁴³

- Food for health (vegetarian food),
- Food for conscience, ethical foods, non-violence for the creatures eaten, their living conditions,
- Food for Social Justice – for the creation of a just society, where basic needs are met and there is increased purchasing capacity, ie food that challenges structural violence and poverty, and
- Food for the spirit (food that enhances one's meditation and other spiritual practices through stimulating the bodies inner chakras (or physical/psychic/spiritual centres) and
- Food for the Future (food that is focused on the vibration of who made the meal as well as ultimately food that is synthetically made).

10. THE MICROVITA REVOLUTION

But perhaps the most interesting – and out of the box worldview – is Microvita.

Microvita is the organizing concept that provides a link between the spiritual and the physical. Microvita are the software of consciousness just as atoms are the hardware, Diver argues. They are both ideas and the material, what many have called spiritual vibration in colloquial language. Positive microvita enhance one's own health and can create the

conditions for a better society. Indeed, they can be active in social evolution. They are related to one's thoughts but are also external, that is, microvita move around the universe shaping ideas and the material world. They can be used by spiritually evolved individuals to spread ideas throughout the planet, indeed, universe. Microvita are not dead matter but alive, and can be used for spiritual betterment. Microvita provide a link between ideational and materialistic worldviews. They help explain the placebo effect in medicine (through attracting positive microvita) as well as psychic healing (the transfer of microvita from one person to another). However, the concept of microvita still remains theoretical. They have yet to be empirically verified, even if there are a few hundred individuals practicing microvita meditation.

In terms of the impact on farming and food, Diver is instructive. He writes.

Two broad areas in which microvita research has immediate promise in agriculture are: the interaction between microvita and biofertilizers, and formulations of chemical fertilizers for specific purposes. Biofertilizers such as animal manure, compost, and biogas sludge are a basic component of eco-agriculture systems like organic and biodynamic farming. Biofertilizers provide humus and increase biological activity in the soil, thus resulting in better soil tilth, improved water infiltration and water-holding capacity, and enhanced resistance to crop pests. However, in addition to these scientifically-documented benefits, farmers that use biofertilizers commonly ascribe a subtle 'vital' quality to their soils and produce.

Microvita thus provides the theory for observations that certain types of crops – farmed properly – enhance the life force of crops.

According to Sarkar:⁴⁴

There are two types of fertilizer - organic and inorganic. When fertilizers are used, bacteria is also being used indirectly. This bacteria functions in two ways - one is positive and the other is negative. When you utilize biofertilizer bacteria, that is organic fertilizers, the function of the bacteria will only be positive. You should start practical research into positive microvita from the study of biofertilizers and their positive functions.

Thus crops can be enhanced through the application of positive microvita. This could lead to increased health of those who consume the microvita enhanced foods. Clearly a different approach than the genetically altered model.

Writes Diver:⁴⁵

Sarkar provided two examples whereby differences in microvita makeup can bring about qualitative changes in crops. The first is jute in Bengal. Although the seed source may be the same, when jute is raised in Bengal there is a clear difference in the quality of jute fibres between the districts of Maymansingha, Jalpaiguri, and Murshidabad. The reason for this difference is variation in the number of microvita. The second is potato.

Even when the same type of fertilizer is used, the rate of production and taste of potatoes between plots may not be uniform in all cases. The cause lies in the number and denomination of microvita. In this instance the difference in the number of microvita in oxygen accounts for the contrast.

And:⁴⁶

Other research topics in agriculture where the subtle manipulation of microvita may produce interesting results include: microbial inoculants for composts and soils, biodynamic preparations, herbal medicines and botanical extracts, specialized foliar fertilizers, homeopathic remedies for farm animals, and seed treatments.

Microvita research can also play a role in understanding differences between chemical fertilizers. Fertilizers from two different mineral deposits may have the same elements but differ in terms of microvita. The common expression, "nitrogen is nitrogen is nitrogen" is thus foundationally challenged.

Clearly, if microvita theory is true or if it helps explain the vitalism paradigm used for example in places like Findhorn, it could revolutionize agriculture. What it means that while agriculture and industry are developed in terms the understanding of the interactions at the material level, we are undeveloped at understanding the spiritual level, and how the spiritual level, interacts with the material level.

However, while microvita agriculture is dramatically different from gene modified agriculture, it is also similar. Just as GM foods promise improve health (by changing the structure of food) so does microvita agriculture. One goes from industrial foods to GM foods to Nano-food, concluding with a meal-in-a-pill to even possible the redesign of humans so energy comes in and out differently. The other goes from organic food to energetic food to spiritual food. One takes materialism to its extreme, the other takes spirituality to its extreme. Both foundationally change evolution. Indeed, Sarkar imagines that humans will generally take over the duties of nature. However, he is gravely concerned about the politics of current science and the morality it operates under. A microvita science promises revolution (for example unleashing new forms of energy for galactic travel) in every possible sphere, but ultimately microvita is about inner happiness, bliss.

Is Microvita theory then the alter-ego of the Non-West? This is unlikely, rather, it appears to be an attempt to move the discourse forward and create the basis for a planetary civilization that has elements of the universal/globalist dimension as well as the communicative/inclusive vision of the future. Microvita starts with the local and the community but then moves far beyond offering not a reaction to modern science but a model of a new science.

However, most agriculturalists in the West would avoid, indeed, dismiss, such a discussion (no evidence of it and the theory is based on non-Western ideas, that is, it is culturally too dissimilar to understand). But if the West's alter-ego phase expands, if the cultural creatives continue to grow as a group, then the ideas of Sarkar, and others, could become not words and world from the edge, but the dominant way we see the world.

Meal-in-a-pill or pass the microvita salad?

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- ¹ Johan Galtung, "The future: a forgotten dimension," in H Ornauer, H Wiberg, A Sicinki and J Galtung, eds, *Images of the World in the Year 2000* (Atlantic Highlands, NJ: Humanities press, 1976).
- ² For more on youth futures, see Jennifer Gidley and Sohail Inayatullah, eds. *Youth Futures: Comparative Research and Transformative Visions*. Westport, CT., Praeger, 2001 (forthcoming).
- ³ Johan Galtung, "Who got the year 2000 right – the people or the experts," WFSF Futures Bulletin, 25, 4, (2000), 6.
- ⁴ See Ziauddin Sardar, *Thomas Khun and the Science Wars*. Cambridge Books, Icon, 2000.
- ⁵ Speech at Humanity 3000 Symposium. Seattle Washington. September 23-26th. See for details on this: Sohail Inayatullah, "Science, Civilization and Global Ethics: Can we understand the next 1000 years?" *Journal of Futures Studies* (November 2000). www.futurefoundation.org
- ⁶ And clearly the unemployment figures for youth are no laughing matter, generally hovering around the 40-50% mark throughout the world, worse in poorer nations. In New Zealand, based on 1996 statistics, for example, 42.7% of the unemployed were between the ages of 15-25 while this group makes up 21.2% of the population. And as in most areas, minority groups are hit the hardest. In New Zealand, for example, maori and pacific islander youth have twice the unemployment rate as compared to Caucasian youth. See: www.jobletter.org.nz.
- ⁷ See, Ziauddin Sardar, *Postmodernism and the Other: The New Imperialism of Western Culture*. London, Pluto Press, 1998.
- ⁸ www.who.org, See, World Health Organization, *The Global Burden of Disease*, 1996. <http://www.who.int/>. See, *Caring for Mental Health in the Future*. Seminar report commissioned by the Steering Committee on Future Health Scenarios. Kluwer Academic Publishers, Dordrecht, 1992, 315. See as well: The Global Movement for Active Ageing. http://www.who.org/ageing/global_movement/index.html.
- ⁹ Johan Galtung, "On the Last 2,500 years in Western History, and some remarks on the Coming 500," in *The New Cambridge Modern History, Companion Volume*, ed. Peter Burke (Cambridge: Cambridge University Press, 1979).
- ¹⁰ Ibn Khaldun, *The Muqaddimah (An Introduction to History)*. Translated by N.J. Dawood. (Princeton: Princeton University Press, 1981). Fifth printing.
- ¹¹ Ajay Singh, "A Foretaste of the Food for Tomorrow," *Asiaweek* (August 20-27, 2001), 72.
- ¹² Ibid., 73.
- ¹³ Pitirim Sorokin, *Social and Cultural Dynamics*. Boston, Porter Sargent, 1970.
- ¹⁴ See, Sohail Inayatullah, *Situating Sarkar: Tantra, Macrohistory and Alternative Futures*. Maleny, Australia and Ananda Nagar, Gurkul Publications, 1999.
- ¹⁵ Doug Rushkoff, *Children of Chaos*. New York: Harper Collins, 1996.
- ¹⁶ For more on this, see, Sohail Inayatullah, ed., *The Views of Futurists: Volume 4 of the Knowledge Base of Futures Studies*. Melbourne, Foresight International, 2001. CD-ROM. Also see, Sohail Inayatullah and Paul Wilman, eds., *Futures Studies: Methods, Emerging Issues and Civilizational Visions*. Brisbane, Prosperity Press, 1998.
- ¹⁷ For more on these, see Sohail Inayatullah, "Structural Possibilities of Globalization," *Development* (December, 2000).
- ¹⁸ Ajay Singh, op cit, 73.
- ¹⁹ See, P.R. Sarkar, *Prama*. Calcutta, Ananda Marga Publications, 1987.

²⁰ Steve Diver, "Farming the Future," in Sohail Inayatullah and Jennifer Fitzgerald, eds. *Transcending Boundaries: P.R. Sarkar's Theories of Individual and Social Transformation*. Maleny, Australia and Ananda Nagar, India, Gurukul Publications, 1999.

²¹ Ibid., 73.

²² The texts are in the thousands now but among the best are the works of Deepak Chopra. The most scientifically respectable are the studies by Dean Ornish.

²³ For more on this, see, Sohail Inayatullah, "Your computer, Your conscience," *The Age* (August 26, 2000), 6.

²⁴ The first case study is based on a sample of ten students who attended a month-long intensive course on civilization and the future. The course was held June 1999 at the Centre for European, University of Trier, Germany. After a four week introduction to critical and multicultural futures studies, the following scenarios emerged.

²⁵ See, for example, Sohail Inayatullah, "Futures Visions of Southeast Asia: Some Early Warning Signals," *Futures*, 27,6, July/August (1995), 681-688;

²⁶ Richard Eckersley, "Portraits of Youth. Understanding young people's relationship with the future," *Futures* (Italics) 29 (1997): 247.

²⁷ Paul Ray and Sherry Ruth Anderson, *The Cultural Creatives*. New York, Harmony Books, 2000. See: www.culturalcreatives.org. See review on the Net by Peter Montague.

²⁸ From the review by Peter Montague.

²⁹ Ibid.

³⁰ Johan Galtung, op cit.

³¹ See Ashis Nandy and Giri Deshingkar, "The Futures of Cultures: An Asian Perspective," in Eleonora Masini and Yogesh Atal, eds., *The Futures of Asian Cultures*. Bangkok, Unesco, 1993.

³² For Sarkar, the future is contoured by Sarkar's notion of four types of power (worker, warrior, intellectual and merchant or chaotic/service; coercive/protective; religious/intellectual; and, remunerative).

³³ For Sorokin, the future is based on on culture and is derived from his ideas of three types of systems (sensate focused on materialism, ideational focused on religion and integrated, balancing earth and heaven).

³⁴ Immanuel Wallerstein, "World System and Civilization," *Development: Seeds of Change* (1/2, 1986)

³⁵ Riane Eisler, *Sacred Pleasure*. San Francisco, HarperCollins, 1996.

³⁶ As mentioned earlier, A countervailing force are revolutions from the **past** – the imagined past of purity and sovereignty (economic sovereignty, racial purity, and idealized good societies), which (1) seeks to strengthen the nation state (to either fight mobility of individuals –immigration – or mobility of capital – globalization – or mobility of ideas – cultural imperialism and (2) seeks to create new nation states (ethno-nationalism).

³⁷ Indeed, this is true across cultures. In one workshop in Malaysia, Islamic leaders (mullahs, scholars, youth, government servants) asserted that their preferred future for the Islamic world was based on the following:

1. self-reliance ecological communities electronically linked
2. a global ummah (world community)
3. gender partnership
4. alternative, non-capitalist economics

³⁸ P.R. Sarkar, *Ideal Farming – Part 2*. Calcutta, Ananda Marga Publications, 1990.

³⁹ This has come across clearly in futures workshops in Asia. One particular in Bangkok found that the issue was not just too many cars and the resultant pollution but the entire big-city outlook. Central to this outlook is the degradation of the rural.

⁴⁰ Andrew Nicholson, "Food for the Body, Mind and Spirit of All Being: A Neo-Humanist Perspective," in Sohail Inayatullah and Jennifer Fitzgerald, *Transcending Boundaries*, 197.

⁴¹ Prabhat Rainjan Sarkar, "Renaissance in All the Strata of Life", *Prajina Bharatii* (March, 1986), 3-6.

⁴² Diver, op cit, p. 211.

⁴³ Andrew Nicholson, op cit, pages 194-207.

⁴⁴ Prabhat Rainjan Sarkar, *Ideal Farming: Part 2*, 9.

⁴⁵ Diver, op cit, 220.

⁴⁶ Ibid.