

# A Study on Theories of Society's Macro-Level Transformation

## A Macrohistorical Comparison of Pentti Malaska's Theory of Societal Change to Other Theories of Societal Transformation

Tuomo Kuosa  
Finland Futures Research Centre  
Finland

### Abstract

*In this article I will critically examine Pentti Malaska's theory of societal change. This will be made with respect to his "funnel model" of society and the perspectives of the most commonly known theories on the macro-level transformation of societies. The theories presented here are modernity-, postmodernity-, reflexive modernity-, global age-, historical capitalism-, the information age theory- and the cycle theory. After the brief introduction of the "rival" theories, a macrohistorical evaluation of the similarities and differences between the theories of transformation will be made. The analytical views used here are: continuity, time, evolutionary, coherence and development categories. After the analysis of the theories, Malaska's theory's position in the puzzle of the categories will be evaluated. Finally, there will be a conclusion presented of Malaska's theory's relationships with the other theories. The primary questions are: which theoretical perspectives is the funnel model consistent with and with which theoretical perspectives is there significant contradictions and discrepancies? Additionally, what kind of philosophical deviations can be identified between Malaska's theory and other theories of societal transformation, and how profound are those differences?*

During his long career in future studies Pentti Malaska developed a theory about the transformational dynamics of societal change, and the societal shifts that occurred with the different types of growth. (Malaska 1989: 131-155, 1991: 304-313, 1998, 1983) Malaska based his theory's methodology primarily on the application of analogous, dialectical diachronic thinking. (The wave metaphor in Toffler 1981 and Soft System

Methodology in Rubin 2003) Also, utopian thinking, railway thinking, trend thinking and scenario thinking are strongly embedded within it, and Hegelian-types of change dynamics are used to apply it. (Malaska 1991a: 136, 151-154) Furthermore, he mathematically formalized an economic-technical, socio-political and culture-spiritual synchronic structure of societies. (Malaska 2003a: 155-164)

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In order to analyse the future with an analogous diachronic approach, it is necessary to use a longer time span for which there is already a "description" or "theory". Malaska takes the shift from agrarian society to industrial society and the transition period between the two. By placing the emergent industrial society in the agricultural society at the beginning of the transition period, it becomes possible to see, identify and use the special features of the transition to explain the emergence of new societal demands, and the evolution of a new dominant social force. This method can then be applied to our current era and help create scenarios for the future development of our society. The classic examples of exponents of diachronic thinking with regard to describing different futures are Herman Kahn's in *The Next 200 Years* (1976) and Daniel Bell's *The Coming of the Post-Industrial Society* (1974) as well as Toffler's *The Third Wave* (1981).

Utopian thinking is a viable addition to analogous diachronic thinking, because it disregards risks, wars, crime and the misuse of power. This is due to the fact that utopia thinking argues that there have always been undesirable and negative phenomena in the world, but that these entities have never determined society's development as people have always found ways to keep those phenomena under control. Thus, they argue why should we expect undesirable events to be significant in the future? However, in utopian thinking it is held vital that a good quality of life and its desired contents can be made real by human action. This is based on a utopia that has been envisioned but not yet made into reality. (Malaska 1983: 10)

Linear railway thinking has been one of the most commonly used approaches for describing and justifying future scenarios. The main idea here is that a desirable course of events in one country will be repeated in other countries in due course. Development is likened to a railway track, along which nations move, one behind the other, at differing time intervals. It also means that one country's past development is expected to resemble another's future. (Malaska 1991a: 154)

The Trend approach applies all statistical

and mathematical methods regardless of their degree of complexity. The trend mode of thinking is based on a known and invariable pattern. A trend refers not only to something that can be revealed by statistical calculation, it also encompasses qualitative phenomena, which may be regarded as unchanged, or as changing in the same way as in the past. (ibid., Malaska 1965)

Scenario thinking was first used in futures studies in the 1950's but it was not until the 1970's that it became the most important tool for creating images or maps of the future. It is basically an intuitive approach for hypothesis setting but its advantage lies in possessing all the quantitative tools that are used for generating alternative scenarios of the future. (ibid.)

Development dynamics forms another supporting column for Malaska's methodology. They are influenced by Hegelian thinking, in which societal development is seen as a process, in which a current societal path is questioned by the obstacles and problems that arise and are seen in its trends (an anti-thesis). Then alternative courses of development that are unfolding in a transition period are outlined by diachronic, utopian, or dystopian thinking (a synthesis). In this approach current development dynamics are seen as the creator of the current situation, where thesis and anti-thesis appear, and at the same time as the creators of the tools for constructing the synthesis that will dictate future societal development. This theory puts forward the argument that there is always a crisis, called a transition period (e.g. as bifurcation<sup>1</sup>) between two distinct linked phases of development. (ibid.) In addition the development dynamic of a society is assumed to grow and evolve until it has used all of its available development potential and starts to degenerate due to the action of the problems and contradictions that arose in its formation (Malaska emphasises the law of entropy here). To be able to regenerate itself, the societal form in question has to realise the limits of its continued existence. (Malaska 2003b, ibid.)

In an ontological sense Malaska understands the object of study (human beings, enterprise, society, global community) as not only a

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changing, but a developing unit, that constantly moves from one phase of evolution to a more complex phase pushed by the dynamics of development. As this occurs there are always shorter or longer periods of crisis, i.e. a period of transition, which could also be described as uncorrelated changes between the phases. During this crisis the previous patterns of life disappear and new ones emerge. However, the new phase also contains many essential elements of the old phase but these elements and their interconnections are irreducibly changed. For example, industrial society contains agricultural production, however, this is obviously industrialised. Consequently, industrial society might be regarded as the most efficient agricultural society in all the history. Overall Malaska's ontology understands development as a process where one moves from one phase of development to more complex one, and on the other hand the same process can be characterised as moving from one crisis to another crisis. (ibid.)

Malaska also demonstrates his model with the aid of Agnus Maddison's (1982) *Phases of Capitalist Development*, as well as, the statistical studies of labour and industry by Dennis A. Swyt; *The Workforce of U.S. Manufacturing in the Post-Industrial Era* (1988) and Swyt's unpublished paper (1993) (which I haven't found) *Matrix Mapping Correlations between My Four Occupational Groupings and Those Defined by U.S. Census Bureau*, plus Malaska's own studies of OECD countries. (1991b) In Swyt's analysis, which Malaska follows in his own study, the occupational structure is taken as the starting point for the analysis. He divides occupations into four categories, that he calls Physical Production, Physical Service, Managerial-Administrative and Technical-Professional. From these categories Swyt constructs a three-dimensional model, which statistically shows, among other things, that in the USA since the 1940's the occupational structure has begun to diverge from the "hegemony" of physical production (PP  $\geq 50\%$ ) and become more and more service-driven. In his index Swyt shows that, not only has the service sector itself grown, but that service-oriented work has become more common in all areas of the economy.

### Pentti Malaska's The Funnel Model of Societal Transition

The basic elements of Pentti Malaska's Funnel Model are bifurcation, a source (a germinating weak signal/idea), nucleation, extensive exponential growth, intensive growth, cultural evolution, and the emergence of (eras) or "societies" with different kind of needs, occupations and modes of production. Bifurcation refers to a branching point of development, where the critical mass of one kind of development reaches a peak and starts to lose its dominance and thus leaves room for something new to emerge. The bifurcation of the agricultural world leads to the industrial one. However, some nations have never reached this bifurcation point and perhaps never will. The term "post-industrial" society refers to a major bifurcation from industrial society to a new kind of society, that differs from industrial society as much as ours differed from the previous agricultural one. (Malaska 1991a: 137-8)

According to Malaska (ibid), any major bifurcation requires a source (the germination of a weak signal/idea) to begin the bifurcation process. The germination serves two purposes for development. Firstly, it has to benefit the dominant production mode, in particular it has to increase its productivity and efficiency. This has applications beyond its initial use and produces a new form of activity. This activity is very different to and, in a way, external to the dominant production mode itself. By producing new means (software, hardware etc.) for the dominant mode, a cross-catalytic effect then transforms the dominant sector from a stage of extensive growth to one of intensive growth. During the period of intensive growth wealth and welfare are accumulated and thus new societal needs are created and can also be satisfied. These new needs stimulate a chain reaction in the developmental process. The other function of the activity based on the germination of the idea is auto-catalytical growth that leads to it taking the role of the dominant production mode in society for satisfying new and old needs. This process, which Malaska calls the Chain of Development, and the transition peri-

ods between the different types of growth, is illustrated in figure 1. In the figure, the succeeding societies are classified according to their

core needs, as; societies of basic needs (SBN), societies of tangible needs (STN) and societies of intangible needs (SIN).

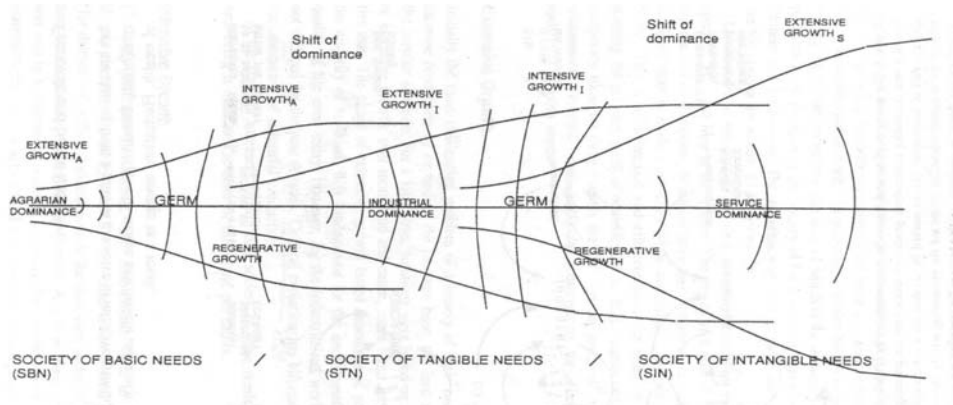


Figure 1. The transformational dynamics of societal change. Source: Malaska 1989, 308  
The differences between the various stages of complex growth - extensive-, intensive- and regenerative growth are described below.

Table 1: Complex Growth

(0) Autocatalytic germ emerges and regenerating growth may start	
(1) Extensive growth	
Objective:	As much, as fast, as many as possible the means of needs to satisfaction
Policy:	Extensive exploitation of resources
Effectiveness:	Gross production
Measure of standard of living:	Resources used per capita
(2) Intensive growth	
Objective:	More from less, better than before, entropy efficiency
Policy:	Increase in resource efficiency and in quality of products and services
Effectiveness:	Productivity in use of resources
Measure of standards of living:	Gross production per capita
(3) Transmutation of the previously dominant sector	

(Malaska 1991a, 140)

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### The Society of Basic Needs

Pentti Malaska (ibid.) argues that the early developmental phases of society are not determined by the dominant method of production, which characterises the phases, but by the types of needs of a society the satisfaction of which is considered to be the primary goal of society. In traditional agricultural societies (SBN) the core development occurred around the basic needs for food, clothes and shelter. The satisfaction of these basic needs was regarded as the objective of the SBN-society. Consequently, traditional farming, cattle herding, and forestry were implemented in the most efficient way possible to accomplish the objective. In this process appropriate production methods, infrastructures, concepts of work and livelihood, family composition, welfare, ways of distributing and exercising power, and even particular social values evolved.

In a society of basic needs extensive growth meant an expanding resource base, increased land area and cattle. For millennia, solutions were based on a policy of extensive growth: increasing agricultural land use, more cattle, and more forest turned over to productive use. (Malaska 1983: 4)

Gradually intensive growth took place in the SBN-society. At the time when agriculture was still in the dominant position in society an external contribution from tool manufacture, chemical production etc. increased the efficiency of agricultural production and made it more productive in the use of its resources and the utilisation of its products. Thus at this time the new industrialised production of tangible products began to occur - improving agricultural productivity tremendously. (Malaska 1989: 309-310) In other words, the intensive growth in agriculture began to accelerate, a factor which could not have evolved without new contributions from industry, mechanisation, chemical use, or the selective breeding of plants and animals, and the division of labour. (Malaska 1991: 144) Furthermore the services of the public sector in the form of education, road networks and other elements of the industrial infrastructure supported the growth. (Malaska 1998: 13)

At first intensive growth in an agricultural society makes the accumulation of new wealth possible for the producers in the dominant sector, but does not satisfy the other possible needs of their society. Later on as wealth increases and generates surpluses the landowners and farmers find it more beneficial to invest in production that fulfils new needs being created by the new industrial methods.

When agriculture reaches its regenerative stage, excess material and social wealth accumulate in correspondence with savings in inputs and costs. Eventually, new emergent needs are no longer fulfilled by farming and animal husbandry. The term "regenerative growth" is used for these new needs as they emerge and begin to be satisfied by the products of the ideas germinating from the new industrial mode of production. The new needs satisfied by manufacturing, are called tangible needs. (Malaska 1989: 312)

### The Society of Tangible Needs

The intensive growth in agriculture leads to more and more economic growth and income from sources sectors other than agriculture. The contributing sector embraces a seed or a source, from which the new regenerative growth begins, these seeds then develop over time into the new dominant form. (Malaska 1991: 145-8)

In a Society of Tangible needs, i.e. in an industrial society as we know it, goods are produced most efficiently by organised, large-scale industry where Fordism and Taylorism are embedded. Production is not based on craftwork as it was in the agricultural society. Industry and industrial progress facilitate the more immediate satisfaction of tangible needs for more people. Thus, the beginning of the industrial revolution began a time of strong extensive growth in the Western world's industry, when resources were not spared. Later on industrialists and politicians effectively redesigned its reality-concept and the values it created and finally industrial society began its intensive growth period.(ibid.)

Intensive growth in industrial production means a stage, where the aim is to produce more from less: to save capital, labour, raw materials, energy, the environment and at the same time improve quality and service. (ibid.) This happened in the 1970's ( Malaska refers to Jean Voge 1983 – which I haven't found). Now the world's societies are in, or are approaching a period of regenerative growth before a radical new development of society. New needs are emerging simultaneously with rapid improvements in productivity, in the dominant manufacturing industries as is the appearance of new production methods and new services. (Malaska 1989: 312)

### The Society of Intangible Needs

In the intensive growth period of the STN-society the catalyst for the economy and industry is information, scientific knowledge, and the development of human relations. Information technology's characteristics are so general that they can be utilised in all sectors of production in society and are the driving force behind this economic shift. Information and information technology are just as important for the satisfaction of intangible needs as power engines were for the satisfaction of tangible needs. Information technology is a vital part of the intensive growth and regenerative growth, but

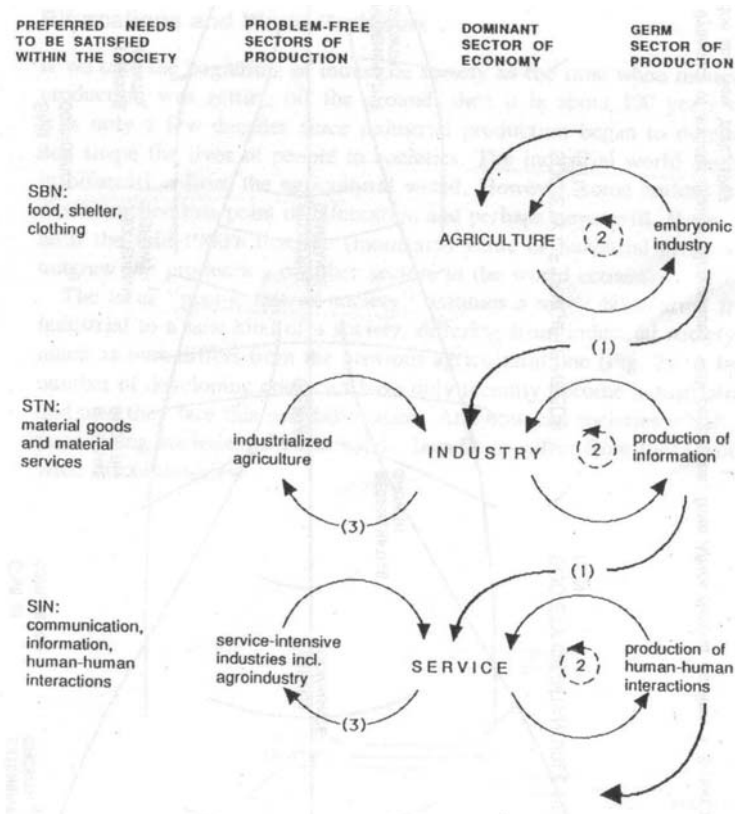


Figure 2. The process of societal transition: Arrows marked by (1) indicate the formation of a new dominating auto-catalysing production sector resulting from the germination of new ideas: a shift of dominance. The arrows marked by (2) describe the cross-catalysing interaction between the dominant production sector and the new ideas. Arrows marked by (3) indicate the change in the position of dominance between the prevailing and emerging production sectors. Source: Malaska 1991, 141

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it is not the only vital element of society. Therefore, in Malaska's (1991: 148-50) opinion there is not enough justification for calling the next development phase of society the information society; just as it would not be correct to call the present phase of societal development the automobile or jet engine society. The term "the information society" is apt for the intensive growth period of industrial society. According to Malaska (ibid., 2003) the society of intangible needs should rather be called "service society" (if we focus on its dominant production mode) or "the interaction society" (if we focus on needs) instead. On the other hand, the "information society" could be seen as an interim period (a 20-30 year transition period) until the new phase of development stabilises.

### Emerging Societies

In Fig. 2 Malaska illustrates his idea of emerging societies. The arrow marked (1) indicates the formation of the renewed growth in the dominant production sector that resulted from the first germination of new ideas. The idea is created in the first place to benefit the present production mode and its increased productivity. Arrow (2) marks the forming of cycles, which describe the auto-catalysing interaction between the dominant production mode and the functions of the new idea(s) - in short the dominant sector moves away from a state of equilibrium. Arrow (3) describes the crisis situation in which industry follows agriculture and becomes an unproblematic branch of production in the post-industrial society of intangible needs and indicates the changing of the dominant form of societal production.

### Macrohistorical Approach in This Article

The macrohistory as an analytical perspective used partly in this article can be said to be the study of the grand patterns of change. Macrohistorical analysis asks: what are the shapes of historical processes - in more objectively speaking? Is the change in time linear,

progressive, cyclical, contraction patterns or spiral-like, and how does the stages emerge from previous stages etc. (Inayatullah 2004: 1; Galtung and Inayatullah 1997) Macrohistory can be understood as a construct in (or of) social reality - as a memetic complex, or topologically knotted, cycles. Like a complex atom, holding in an implicate order the variations of historical possibility in which the variations of higher "atomic weight" may remain to be detected. (Judge 2004: 9) Hence, macrohistory by focusing on different theories of change, from different epistemes, approaches and perspectives, forces us out of our own tunnel visions of the future. (Inayatullah 2004: 1)

### Objectives, Perspective and Structure of This Article

There are seven different theories of societal transformation presented in this chapter. These theories itself are of course not really unified entities, but merely as summarizations of different viewpoints, paradigms, opinions, trends and even ideologies, as theories usually are. There are rival issues and approaches concerning each of the theories, such as Bauman's idea of postmodernity vs. Foucaultian, Bourdieuian etc. but I'm not attempting to go further in these ideological or ontological debates. I'm not dividing theories into two different groups depending, are those academic as Giddens theory of modernity, or merely high quality popular summarizations such as Toffler's work. My pursue in this article is to locate the general common nominators from each theoretical approach, or to put it in other words, to find mutual features from the most widely known and fundamentally different rival (academic) summarized discourses.

When the common features are located, there will be given a macrohistorical evaluation of the similarities and differences between the theories of transformation. The analytical view used here are: continuity, time, evolutionary, coherence and development categories. After the analysis of the theories, Malaska's theory's position in the puzzle of the categories will be

evaluated. Finally, there will be a conclusion of Malaska's theory's relationships with the other theories. In the concluding remarks, it will be presented for instance, how Malaska's theory is consistent with modernism in time category, and how it is in contradictory with postmodernism in coherence category. etc.

### A Brief Description of The Seven Theories

#### Modern:

In Modern development theory (M) (and the theories based on this approach) there is typically a belief in linear development and the continuous convergence of societies, stability, order. (Bauman 1998) The most common terms associated with this theory are control, efficiency and developing countries, which implies that some countries have not yet developed into industrial ones.

Among modernity theorists (Giddens 1990, 1991; Habermas 1987; Berger et al. 1974 etc.) there is no such thing as modern society only societies more or less advanced in the continuum of Modernisation. Thus, modernization is a process, which has a beginning and criteria for its advancement but no predictable end. Advancement is seen as being driven by formative forces, as a process of rationalisation, where technology drives economic growth and development. (Berger et al. 1974: 9) Markku Wilenius (1997: 20-21) lists the formative forces of modernisation as: 1. The development of modern science and technology. 2. The expansion of capitalism, 3. The formation of nation states. 4. The reflexivity of modern identity. The fourth formative force represents the change from traditional community-oriented identity to individual-oriented identity resulting from individualisation and the fragmentation of the traditional time-place embedded community.

In a methodological sense linear thinking and the trend approaches are strongly embedded in theories of modernity. It is also possible to place diachronic and utopian thinking, approaches that were used in Malaska's (1991: 151-4) methodology, into modernity, because

both approaches emphasise universal continuity or universal qualitative development.

The idea of globalisation has been a popular (mega)trend, which has often been included in different development theories (Kuosa 2001; Keskinen and Kuosa 2005a and 2005b), I will use it as an example here as well. For example globalisation is usually expressed by words such as McDonaldisation or Cocacolonialisation, that refer to the US's domination of popular culture (Barber 1995; Cvetkovich and Kellner 1997: 2-3, 11-5) or the expansion of brands (Klein 2001: 27-63) over national cultures threatening the world's cultural hegemony. (Scott 1997: 3-7; Robertson 1992: 138-45; Giddens 1990: 55-9, 170-3; Waters 1995: 4, 13) Examples of research where the general focus is on cultural globalisation and the theoretical approach is similar to modernity's are George Ritzer's publications (1995 and 1998).

#### Postmodern:

The common denominator of postmodernity (PM) is the idea of discontinuity between the eras of modernity and postmodernity. There is no linear development nor general expansion of modern goods and ideas, but increased relativism, ambivalence, contingency and qualitative diversity in all areas of society. (Scott 1997: 3-6; Bauman 1998) Ultimately there is the fragmentation of ideas into smaller units (for instance female emancipation and specified environmental issues), that have little in common.

In the social sciences postmodernity has often been recognised as an intellectual attitude of "anything goes" or abandoning everything characterising the modern project and leaving one with a feeling of vertigo. (Malaska 2001: 225-226) On the other hand, Paul Cilliers (1998: 112-141) argues that postmodernism is a complex phenomena, with its robust nature which necessarily includes the idea of self-organisation, fixed but ever changing and emergent properties. Due to these properties, postmod-



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ernism and complexity certainly do not lead to the conclusion that anything goes. (ibid. viii) Furthermore, "in postmodern society this constant activity, this lack of equilibrium, is pushed to ever higher levels, particularly through the role of the mass media. This has an unsettling effect on many, and undeniably one has to develop certain skills to cope with these conditions, but to yearn for a state of complete equilibrium is to yearn for a sarcophagus." (ibid. 122)

When globalisation is taken into account in publications of postmodern approach (Robertson 1992: 138-45; Scott 1997: 3-7; Kuosa 2001), it can be said that many authors come up with Robertson's (1992) concept of glocalization. The word glocalization is based on the Japanese word dochakuka (taking local conditions into account in marketing).

### Reflexive Modernisation:

The basis of reflexive modernisation (RM) refers primarily to Ulrich Beck's, Anthony Giddens' and Scott Lash's book *The Reflexive Modernisation* (1994). The three authors see this theory from slightly different angles. Giddens describes the transition from simple to Reflexive Modernity through his theory of post-traditional society (1990; 1991, 1994), Lash focuses on the information society, its history and future and its relationship to reflexivity, structure, aesthetics and community. (1994), Beck emphasises his idea of risk society and transition to "eine andre Moderne" (Second Modern). The common idea, shared by all three, is the idea that modernization continues a forward path but that transition from one era to another is also continuous. This transition does not happen in the traditional way, crisis - transition period - revolution, but follows a smooth modern path: wished for and known.

According to Beck (1999: 178-9, 184-6), RM does not only refer to the increased value of reflection and knowledge, but to real paradigmatic change in modern nation states that subsequently influences the world community. Eventually, this new modernisation creates a whole new kind of capitalism, -politics, -laws and -lives.

Reflexive Modernisation should not be understood as same thing as postmodernisation, because postmodernists insist that all the structures of modern society will collapse as the modern era ends. Contrary to this, reflexive modernists raise the questions: What is about to begin? What kinds of new institutions and social categories will take the place of the old? (ibid, 178-9)

### The Global Age theory:



The fourth theory on society's macro level transition is Martin Albrow's (1997) *The Global Age* (GA). According to Albrow, there will be a whole new era, which has nothing in common with the old modern era. The start of this era can be seen in the growing and deepening mental gap between generations, and also in the unique expansion of globalisation in people's everyday life. Nowadays, satellites share the same news, which makes it possible for a single protest to be seen instantly around the world. This process isn't explained with reference to modernism or the continuing claims for societal convergence, nor by post-modernist fragmentation theories. Moreover reflexive modernists are not able to explain this process any better, because reflexive modernisation is too deterministic, and thus can not be included in the process of globalisation. This is because, globalisation lives in its own non-deterministic history, where there is no beginning to the process, no direction to the development, nor an end to the process. In the other words, Albrow emphasises globalisation as an independent process, which can not be stopped, though it might halt or regress temporarily. (Albrow 1997: 9, 77-80, 95)

### Historical capitalism:

Alongside Karl Marx's theory of historical materialism, there are many other theorists who present examples of Historical Capitalism (HC). However, Immanuel Wallerstein's theory is the example chosen here. (for similarities and

differences between Wallerstein's and Marx's theories see Wallerstein 1983, chapters I and V)

According to Wallerstein, the capitalistic world order was constructed in 16th century Europe (compare to Marx's modern capitalism in the 15th century) eventually becoming global in the 19th century. Wallerstein refers to a form of capital, which is separate from and has a clear difference between the current economic system and the previous one. In its early form capital was something, which was saved in order to be consumed in the future, or something, possessing some value in its relationship to other goods. As society developed capital became a tool for expanding and collecting more capital, which facilitated the new world order.

The new world order is constructed on the basis of the following three theories: 1. The use of capital to generate new capital (maximize profits), 2. The restriction of competition in order to gain an advantage for an elite, and 3. The establishment of single world markets. When all nations are interconnected the markets develop as a single unit, which leads to the division of tasks in the system. In this way the core, semi-periphery and the periphery are created. In this system the existence of the highest technology at the core (production with profitable refinement which requires high skills) is partly possible, because it is surrounded by a semi-periphery (production which requires some less demanding skills) and a periphery (mostly the collection and/or production of raw materials). In this theory exploitation is seen as becoming a permanent feature due to the fact that the semi-periphery and the periphery are strongly dependent on the core. (Wallerstein 1983; 1974: 66-132)

While modernists believe in a process of global linear development evolving into a better world and the continuous convergence of world markets, Wallerstein presents a different view. He emphasises the disadvantages of the modern development and argues that there will be increasing polarization, which leads to an abject proletariat and modernisation facing a dead end. Then, after the end of the modernisation process, a new society will form based on some form of socialism. However, it will not

have anything in common with former socialist systems, because those creations of historical capitalism were parts of the same world market as capitalist countries were. As Wallerstein presents the idea, the new socialism will have both (mentally and physically) new foundations and, most likely, new driving forces behind its development. (ibid.)

#### Information Age:



Manuel Castells approach to the question of society's macro level transformation emphasised a break between the modern era and the forthcoming new era. (1996, 1997, 1998) He argues that the Information Age (IA) has been constructed by informative development theories (the information technology revolution) and an ever expanding network economy. He goes on to argue that modern production modes, structures and social classes will fade, because in the Information Age people will not be divided into social classes according to their relationships to modes of production life, but according to their relationship to the Net. This relationship is created by new global technology and the global economy. Thus, the new social groupings of will be; Networkers, Flexi-timers and the Jobless (this is also called the fourth world). (Castells 1996: 216-96, 1998: 68-82)

Castells does not want to predict the future very far. He describes the forthcoming revolution, the reasons behind it, as well as its consequences. What comes after the Information Age, when the Net dominates our lives, he does not anticipate. He only assumes and hopes that the new social movements (emancipative, environmental etc.), which are based on identity, will have enough strength to fight back against a potentially hostile Net. (Castells 1998: 335-60)

#### Economic Cycles:



The pioneering work on Economic Cycle (EC) analysis was made by Russian Nikolai D. Kondratiev (1892-1931) in his dissertation (1922) on long term economic cycles *The World*

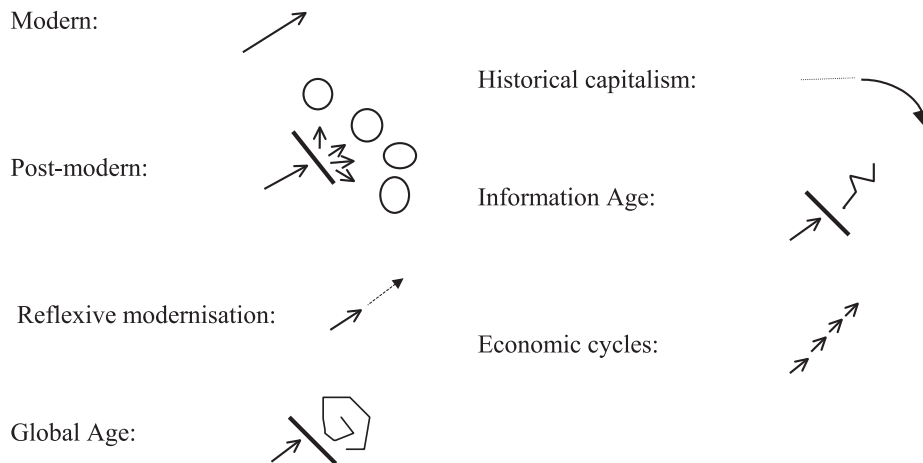
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*Economy and its Condition During and After the War.* The general approach in cycle analysis is a belief in linear economic development, in which future economic trends can be predicted from the available knowledge of past economic periods. Kondratiev's most widely known argument is the theory of long-period-cycles, where national economies are predicted to have alternate 50-year long periods. Economic growth is seen as being followed by economic recession and so on. The theory of long-period-cycles also takes in mid to long periods of 7-10-years as well as short periods of 3-4 years inside each 50-year period. Furthermore, in each era, there will always be some major "catalyst or motors" of growth, such as inventions like the steam engine or the internal-combustion engine, which enables the change of a cycle. (Maddison 1982: 64-85)

Today this theory has many adherents and modified applications, for instance Toffler's (1981, 1990) wave metaphor. Also Yu V.

Yakovets' cycles of civilisation (Malaska 1991; Yakovets 1993), Leach's episodes (Malaska 1991; Leach and Wagstaff 1986) and Kusnetz's epochs (Maddison 1982) would be good examples of these theories. John Naisbitt's (1982, 1990) theory of mega-trends could also be added to the list. It can be said, that Naisbitt's theory previously described the ongoing changes of the industrial era, but recently it has turned more to the direction of whole systems Pattern management, where framework created by the history steers the plastic of the future. The theory states that, when the time is ready/ "puzzle" is filled the emergence of new era is enabled. (Naisbitt 2004) Despite Kondratiev's originally rather positivistic approach, these modified theories have been given, in many cases, a broader base that enables diachronic thinking and utopia thinking to be embedded in these theories of society's transformation from one era to another.

Figure 3. The theories of society's macro level transformation:



Furthermore, the theories of non-linearity (Strogatz 1994; Aaltonen 2003), self-organized emergency, chaos (Kauffman 1995), intangible needs and creativity (Florida 2002; Jensen 1999 and 2003; Dator and Yongseok 2004), and linked complexity (Barabasi 2002; Watts 2003; Cilliers 1998) can be seen to provide a different kind of additional perspective on internally or externally emerging development. However, these fields of studies don't establish any independent and fully adaptable theory, or unifying discourse, of social macro-level transformation, as the described seven theories do. Thus, the theories of complexity etc. are merely used for sparring the thinking of society's macro-level development in this article.

### The Differences and Similarities between the Theories<sup>2</sup>

First of all, the seven theories can be divided into two *Continuity* meta classes: Those that perceive a tangible break between eras, and those that expect that the change will be unbroken and gradual. Postmodernists, Global Age and Information Age theorists emphasise a profoundly new era, which has very little in common with the previous modern era. In contrast, modernists, reflexive modernists, historical capitalism and economic cycle theorists expect that the modernisation process is an unbroken continuous process, albeit in very different ways. To be more specific, when reflexive modernists believe in a smooth transformation into another kind of society, the cycle analysers expect that inside the modernisation process there will always be new kind of eras, with new kind of "motors" of economical growth. In addition, adherents of historical capitalism expect that modernisation in its capitalistic form will eventually start slowing down. In this view, modernisation is not seen as an ever evolving process, but merely a path into an even worse or disastrously into a dead end.

Another way to categorise the theories is divide them into *Time* classes: does the theory focus on a shorter time period, a longer time period, or continue indefinitely? Reflexive mod-

ernists and information age theorists focus on the near future, whilst postmodernists and historical capitalist theorists use a longer time continuum. Modernists, economic cycle analysts and global age theorists usually describe a theory that continues indefinitely. However, in those theories the description is usually implicitly expressed.

A third possibility is to divide them into *evolutionary* classes and ask if a profound change in the direction of the global transformation's "path" is possible? In the global age theory the future of the transformation process is seen as completely open, but historical capitalist theorists expect a change in the described theory, and postmodernists leave the future only partly open. The others (M, RM, IA, EC) do not really allow for deviation from their theory.

The concept of *coherence* finds a major divide between those theories that see the possibility of many simultaneous directions for transformation (postmodernists), and those who want to include all "rival" trends in one all encompassing theory (the other theories M, RM, GA, HC, IA, EC).

Finally, the theories can be divided into *Development* classes: are those that regard the future as a process that progressively develops into something more positive for all. This is the main belief in M, RM, EC and IE theories. Postmodernists and global age adherents differ slightly here, as they leave societal development more open. The only theory that clearly contradicts the others is historical capitalism, in which modern development is regarded negatively.

### Similarities and Differences With Malaska's Theory

As Malaska bases his Funnel model on analogical diachronic thinking, railway thinking and trend thinking, it can be said to resemble modernist thinking. However, the Funnel model's approach also contains elements of utopian thinking, scenario thinking and development dynamics (the emergence of new ideas from states of chaos). This allows for a much more open and even evolutionary view. In addition,

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Malaska's style of expression, using funnel figures (see Fig. 2) to describe change and the emergence of new ideas is not genuinely linear. It contains linear extensive growth, non-linear intensive growth and branching or renewal through crisis/bifurcation (or breaks), the sources of new eras/new extensive growth, nucleation and the idea of qualitative change in needs in each new era. On the other hand the idea of a chain of eras, with new "motors" of economic, societal and cultural growth (three-fold growth), shares some common ground with economic cycle analysis but only on a general level.

Perhaps the clearest differences exist between Malaska's theory, and post-modern, historical capitalism and global age theories, which can not be presented via Malaska's expressive model. See Fig. 4.

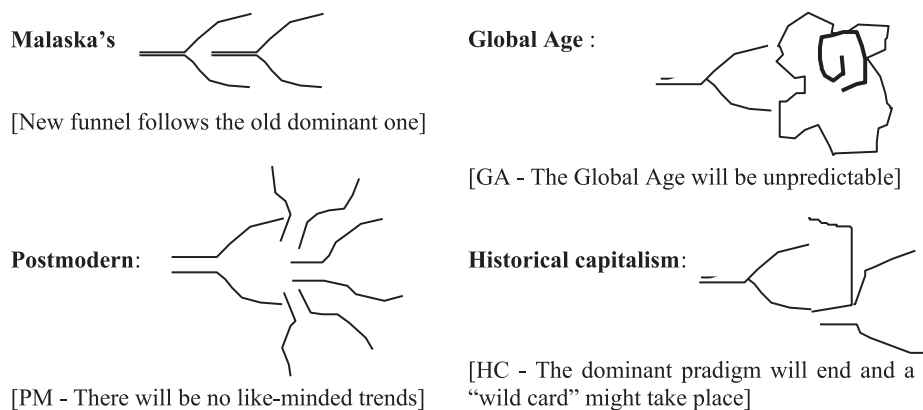
Malaska's theory's relationship to the five meta classes described above can be expressed as follows. Malaska's concept of *continuity* belongs to same "gradual and continuous change" group as: M, RM, HC and EC (see Fig. 3). This does not mean that "smooth change" theories cannot have crises or breaks in their development. Quite the contrary, for instance Malaska's theory clearly emphasises crisis and bifurcation points between the dominant mode and the emerging mode. Thus, the essential difference between tangible and gradual continuous change can be found in the theory's rela-

tionship to diachronic thinking. For instance, Malaska emphasises the source of a new societal mode, which grows from inside the old mode and develops into the new dominant mode.

In the *Time* category, Malaska's theory is linked to the M, GA and EC, or theories that present an infinite overview of societal development. In an *Evolutionary* sense the Funnel model does not accept the idea of "a sudden directional change" in transformation as M, RM, IA and EC do. A transition period with an accompanying crisis might emerge suddenly, but a complete break with the previous era is discounted. Thus, evolution in the Funnel model refers more to a gradual or voluntary transformation and less to a type of self-organising evolution.

*For coherence* Malaska belongs in the same group as M, RM, GA, HC, IA and EC who want to include all "rival" trends in one overall theory. That is in clear contradiction with PM (see Fig. 4). However, such theories are not necessarily meant to collect absolutely all trends of the society, e.g. not all social trends can be encompassed. A theory that tries to encompass all others refers here more to the division between those that see society as a coherently developing single unit and those that see society as a fragmented collection of "rival" small units.

Figure 4. Different theories and their applicability to Malaska's funnel model



Malaska's notions of *development* sits in the same group as M, RM, IA and EC because they understand societal change as process that moves from less complex and inferior states to better and more complex states.

In conclusion, Malaska's theory most closely resembles the modern-, the economic cycles and the reflexive modern theories. It has a few similarities with the information age theory, but obviously less similarities to the global age- and historical capitalism theories, and has practically no similarities with postmodernism.

### Correspondence

Tuomo Kuosa, MSocSc  
Researcher  
Finland Futures Research Centre  
Turku School of Economics and Business  
Administration  
Korkeavuorenkatu 25 A 2, FIN-00130 Helsinki  
Finland  
tuomo.kuosa@tukkk.fi  
<http://www.tukkk.fi/tutu>

### Notes

1. Malaska uses the word bifurcation. Its history is in physics and chemistry, where it refers to a point in which the matter can no longer evolve in its path and is therefore determined to change its state into an other form. As a loan word for futures studies it means as well any phase where one path can not continue and there is a necessary transition period in the evolution of the issue.
2. The comparison presented here can be seen as somewhat problematic, as the deeper ontological discourse behind the analysis is not presented, due to the afforded space here.

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