

Dynamic Strategy Model of Explaining Long-term Historical Change

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Abstract:

This article discusses the dynamic strategy model developed by G.D. Snooks that tries to understand the dynamic process driving human society from the long past into the future. This model stands in a mixture of two contradicting worlds, between economics dealing with abstractions and mathematical model built deductively and historical explanation departing from real world by relying on inductive method. It analyzes the characteristics of the dynamic strategy model and identifies its differences and similarities with other models. In explaining the historical changes that bring the old societies ups and downs, Snooks introduces what is called dominant and supportive strategies. The driving force of the dynamics in human society is the materialist man who is naturally motivated to maximize the material standard of living. The strength of the dynamic strategy model is mainly laid in the explanatory power offered to explain the long-term changes taking place in human society. This contrasts with a deductive model which laid its strength in predictive power to forecast the future.

Key Word: dynamic strategy model, dominant and supportive strategies, long-term change, historical explanation

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I. Introduction

A Greek philosopher, Herakleitos declared that change is the eternal essence of life. Parallel with this notion, it can be stated the life of human society is dynamic. As a result, human society is always changing continuously from time to time. Awareness of this process is reflected in common beliefs that human society is changing from a traditional to modern society, from an agrarian to an industrial society, from a communal to an individual society, from a closed to an open society, or from an illiterate to an information society. A similar belief has recently developed in the form of a worldwide spreading jargon that human society has been transformed from local and national entities to a global one (Waters, 1995).

Due to that, it can be understood that change in human society is a significant phenomenon that has greatly attracted the concerns and interests of social scientists such as Hegel, Marx, Comte, Ortega, Braudel, Rostow, and North. Attention has been paid not only to understanding the patterns and process of changes but also further efforts have been made to elaborate on the motives and driving forces determining changes that have dramatically transformed human society. Among the scholars, there are still no rounded agreements on these matters due to the existing differences in point of view, approach, discipline background, and socio-cultural values which have forged and influenced their beliefs and world views.

Graeme Donald Snooks, a doyen of the economic historians in Australia, has published valuable works, *The dynamic society: Exploring the Sources of Global Change* (Snooks, 1996), following his works published previously for example *Domesday Economy* (1986), *Economics without Time* (1993a), *Historical Analysis in Economy* (1993b), *Portrait of the Family within the Total Economy* (1994a), *Was the Industrial Revolution Necessary?* (1994b). *The Dynamic Society* covers a long period, as a consequence of its objective to grasp long-term dynamics in human society.

Based on secondary sources, this article seeks to elaborate on the dynamic process driving human society from the long past into the future by developing a dynamic strategy model. According to Snooks, there are four main dynamic strategies-- family multiplication, technology, conquest, and commerce-- which can be applied to elucidate the fall and the rise of societies. Among social scientists, especially economists and sociologists, developing a model becomes one of their main concerns and interests. This is frequently related to an assumption, which many historians usually disagree with, that ability to construct a model is one of the most important measures to assess the scientific status of a discipline (Ankersmit, 1987:124-125). It is interesting to

discuss the dynamic strategy model developed by Snooks, who stands in a mixture of two contradicting worlds, between economics and history.

II. Material And Methods

This article was written by employing the historical method consisting of four major steps, source collection (heuristics), source criticism, interpretation and historiography (Storey, 2011; Sasmita and Nawiyanto, 2012). The source materials for the article cover secondary sources in the form of books and articles collected from the Menzies Library, The Australian National University, Canberra and the book collections of the Faculty of Humanities, the University of Jember. The information taken from the source materials were critically treated to gain credible facts. The obtained facts were then interpreted and composed into an argument for establishing explanation to answer the formulated questions.

III. Result

Characteristics of Dynamic Strategy Model

Several characteristics can be found in Snooks' dynamic strategy model. First, in his model, Snooks explicitly recognizes the importance of the time dimension. Time has been taken into account in developing his model. The study starts from the early life of human beings on Earth and ends roughly around 1800. It covers not decades like 'Kondratiev' (Tylecote, 1992:9) or centuries like *longue-duree* (Braudel, 1972-73), but millennia. With a long temporal scope, one advantage which can be taken is the opportunity to get a better understanding of the long-term dynamics in human society. This is parallel with the notion that it is impossible to understand the dynamic forces of changes in human civilization from the past to the future without placing it in the long temporal perspective. This is because the existence of human society is inseparable from the context of time and also the dynamics of human society take place not in the timeless world, but in the real world bounded by the frame of time.

By taking the temporal aspect into account, Snooks' model becomes different from models generally developed by economists. Although building models is always a big concern among economists, the developed models tend to neglect the importance of the temporal aspect. In other words, economists tend to develop timeless models which have no direct relation to historical time and the real world. However, this tendency has dominated for several decades and has emerged as mainstream in the economics discipline. Although the lack of historical insight has dominantly coloured economic models, in reality, such a model has enjoyed high prestige and influential position not only in the academic circle but also in the practical world concerning the formulation of public policies (Snooks, 1993a:16).

Another different characteristic is related to the emphasis on the active role of human beings. Unlike Marx's economic determinism (Rostow, 1960:333; Cornforth, 1987:87-88) in his model, Snooks introduces what is called 'materialist man' as the driving forces of economic changes in human society. Materialist man is characterized by his efforts continuously 'to maximize his material advantage over his lifetime' forming what is called 'dynamic materialism' (Snooks, 1996:4). The dynamics of human society is a result of man-made decision. In this argument, there is no place for historical determinism which views changes in human society as a historical inevitability determined by the external forces outside of the human ability to control (Snooks, 1996:4).

Snooks' model is very different from a model developed by North, a leading economic historian who won the Noble prize in 1993. Different from Snooks emphasizing the role of the materialist man, North pointed out that the main forces generating dynamic economic changes are the continuous interaction between institutions and organizations. According to North, the dynamic economic changes are pushed by economic and social organizations competing for scarce resources to continually invest in new skills and knowledge to survive. In North's argument, institutions are viewed far more important than human beings. It is argued that institutions provide the incentive structure dictating the kinds of skill and knowledge that entrepreneurs perceive to maximize material advantage (North, 1997:iv).

In addition, Snooks's model has a resemblance to a model developed by Heaton. Snooks argued that the dynamic process of economic changes is formed by an interaction between individuals by using their technical abilities and the effective supply of natural resources (Snooks, 1996:7). Similarly, Heaton argued that the efforts of human beings to fulfil their material needs are not only depending on the individual factor which can work freely from the surrounding environments. According to Heaton, the dynamic economic change is the outcome of the interplay between three components: the physical environment, the technological environment, and the social environment (Heaton, 1948:1-9). It can be stated that both Snooks and Heaton give an important place to the individuals as the driving forces of economic change through their position as decision-makers. And also both of them place the human efforts to maximize their material condition on the physical environment and technology, although in terms of social institution role, Heaton is more similar to North.

Snooks' dynamic strategy model is built by applying the inductive method. Starting from historical reality by making use of a large body of secondary historical sources and statistical techniques, Snooks

constructs a model which is based on his comprehensive historical observation of the rise and fall of human societies in the past time (Snooks, 1996:xiii) The used historical sources cover several world civilizations and societies existing in Europe, Africa, Asia, Australia, and America. Developed from the real world, this model which is also called as 'existential model', represents closely the historical reality of human society. This is very different from models developed by economists who usually employ the formal deductive method. According to this method, models are constructed through abstract deductive logic to determine the existing relationships between economic variables. Such a model is often far from the real world because it is developed on a very sophisticated abstract level without having a sound factual basis (Cipolla, 1991:7-8).

Although Snooks' model is built on the inductive method, in the continuing debate involving two different groups, deductions on one side and inductions on the other side, Snooks places himself in a middle position. He pointed out that both methods are required to build a sound social science. Giving too much emphasis on the deductive models, according to Snooks, is dangerous and misleading due to the imbalance of social sciences in approaching reality. The imbalance due to a lack of historical and empirical insights can create a big problem for human beings especially if the models are implemented in public policies because the fate of people is put at risk. Therefore, an inductive method is significantly needed to examine the relevance of the models to the empirical condition and to modify them based on the new findings drawn from the fields (Snooks, 1993a:2-3).

Another characteristic is that by emphasizing the complementary relation between dominant and subsidiary strategies, Snooks is not a determinist. Based on his historical observation, Snooks argued that the efforts to maximize the material standard of living are made by applying a dominant dynamic strategy among the four main dynamic strategies: family multiplication, conquest, commerce, and technology. However, the success in the application of a particular strategy as a dominant strategy in achieving material advantages is complementarily supported by one or more subsidiary strategies (Snooks, 1996:210). In the case of the Roman empire, for example, the use of the dominant conquest strategy was supported by commerce and technology as subsidiaries strategies (Snooks, 1996:396). Another example, like the Roman empire, in the Srivijaya kingdom of Indonesia the material prosperity was also achieved by the application of conquest dominant strategy supported by commerce as a subsidiary strategy (Shaffer, 1996:43-45; Nawayanto and Endrayadi, 2016:16-19).

Among the four dynamic strategies employed by human society, family multiplication is viewed as the most primitive one (Snooks, 1996: 208). Snooks argued that this strategy has been employed for the past 2 million years. According to his argument, the effort to achieve human prosperity was primarily made by multiplying the size of the family unit. The increase in family members would provide more labour to make use of the natural resources which were abundantly available and still unexploited. The increase in the number of labourers was the key factor to improve the material condition. With the increase in labour, the family would have greater control over the natural resources and exploit them to maximize material gain. Family multiplication was applied as a dominant dynamic strategy in paleolithic societies (Snooks, 1996: 221).

The application of family multiplication as a dominant strategy in the paleolithic period reflected several characteristics. First, the technological level mastered by the societies was relatively underdeveloped. Although there were improvements in terms of technology, these were less significant and have not been used as the main tool to generate material returns. The ability of society to manipulate the natural environment by applying technical innovations for their economic advantage was still very limited (Rostow, 1990:5). In this society technology only functioned as a supportive sub-strategy, for example, to support geographical movements across the rivers, mountains, forests, and seas, or to equip them with tools and skills in obtaining basic necessity required to maintain their survival (Snooks, 1996: 246). The generation of material prosperity mainly depended on the increase in labour. Second, the unused natural resources were still available in a large amount, so only by increasing the number of labourers to expand the size of exploitation, the rise in material returns could automatically be obtained.

At a certain point, a difference in the argument between Snooks' model and the Malthusian model can be observed. According to the Malthusian model, population growth is the main cause of economic deterioration. This is closely related to his assumption that population growth follows a geometrical pattern, whereas the food supply develops arithmetically (Malthus, 1976:23; Mansfield, 1977: 395). With such a pattern, there will be a scarcity of natural resources as a consequence of the population pressure. In this argument, the population is placed as a key determinant of the crisis. This is the reason for the proponents of the Malthusian model to emphasize the importance of the implementation of measures to control population growth as an important way to achieve material prosperity (Mansfield, 1977:396; Green, 1993:61).

Unlike the Malthusian model, in Snooks' model, the economic deterioration or even the fall of society is not related to the population growth, but due to the exhaustion of the applied dominant family multiplication strategy. In this argument, the key solution for the crisis is not to control the population growth, but to replace the exhausted strategy with another dominant strategy (Snooks, 1996:397-398). The success in applying a new dominant strategy or rejuvenating an old strategy will push the society into further development of material

standard of living. The failure to do so will cause a decrease in the material standard of living and further bring society into a crisis.

Unlike the family multiplication dominant strategy, in the technological dominant strategy, the generation of material prosperity is mainly generated from the application of technology. This application can create a large number of surpluses as a result of the ability of human beings to force the natural environment to provide them with products required not only to maintain the subsistence life but further to improve the material standard of living. The application of technological dominant dynamic strategy began with the industrial revolution (Snooks, 1996:10). The industrial revolution began to take place in Britain and then spread to the continental countries of Europe such as France, Belgium, and Germany in the eighteenth and nineteenth centuries (Birnie, 1944:1-12).

The industrial revolution was dominantly characterized by systematic use of technical innovations, for instance by operating production machines on a large scale both in the industrial and agricultural processes. The use of various technical innovations in production made it possible to result in outputs fastly and massively. The industrial revolution has brought western civilization into greater material affluence compared to the previous periods. Furthermore, the application of dominant technological dynamic strategy has also pushed dramatically the human progress and improved the material condition of human society.

The invention in the field of technology is a necessary factor in the application of technological dynamic strategy. This process has taken place in the course of human history for a long time before the industrial revolution (Cipolla, 1976:158-181). However, the function of technology was still to serve the other dominant dynamic strategy. In other words, the function of technology was only limited to a supportive subsidiary strategy (Snooks, 1996: 245). With this emphasis, Snooks can probably be placed among the scholars who counter the notion that there was no technological development in the classical times before the industrial revolution. The technological inventions occurred, but what happened, in reality, was the absence of regular and systematic attempts to make use of science and technology to boost economic production (Rostow, 1990:4).

For example, at the time when the conquest became the dominant dynamic strategy, the development of technology also took place but it was especially oriented to support the military forces. In the dominant conquest dynamic strategy, the material standard of living is achieved by conquering other societies that have economic surpluses. This strategy requires stronger military forces and to have primacy in the military forces a huge investment is needed to recruit army personnel, improve weaponry, fortress, infrastructure and means of transport, and social organizations to strengthen the ability to expand and maintain control over the other societies (Snooks, 1996:246, 273; see also Heaton, 1948:40-42).

In the context of the dominant conquest strategy, military machines become the major inputs to the process of economic growth. Conquest becomes a viable strategy when there have urban communities which can generate agricultural surpluses which are needed to finance the military elite (Snooks, 1996:272). However, the conquest is a zero-sum game. The material prosperity of the conqueror is built at the expense of the defeated society (Snooks, 1996:209). Macedonia and Roman empires were clear examples of the past societies developing conquest as their dominant dynamic strategy to increase their material prosperity (Snooks, 1996:183).

In another case, the function of technology as a supportive sub-strategy could also be found in commerce. The operation of trade also requires technology to facilitate the conveying of products from one region to another. In this context, the function of technology is mainly associated with the speed and capacity to transport commercial products from the producing regions to the markets. As shown in the case of the Southeast Asia region, junks, carts, caravans, bridges, and roads means of transport were important examples of the development of technology to serve commerce activities (Reid, 1993:36-61). The dominant commerce dynamic strategy is appropriate to explain the material prosperity enjoyed by several societies. This model was practiced, for instance, by Crete society in Southern Europe creating material prosperity by trading wine, oil, grain, lumber, manufactured products, and metals (Heaton, 1948:25). More remarkable examples were city-states situated in Italy such as Venice, Genoa, and Pisa which experienced a commercial revolution between the eleventh and thirteenth centuries (Green, 1993:44-45).

In the commerce dynamic strategy, the material prosperity of a society is mainly based on commercial activities. This model has been founded upon a theoretical framework developed by Adam Smith in his famous work, *Wealth of Nations*. The basic assumption in this model is self-interest is the main principle motivating human beings who are naturally acquisitive. By using the available incentives, they struggle continuously to improve their material standard of living (Green, 1993:40). In the commerce strategy, material prosperity is achieved through trade activities by applying monopoly pricing which makes it possible for the traders to take a large share of the gains (Snooks, 1996:394). At the early exchanges, traders probably enjoy high profits, but as the volume of trade increases, the rate of profit tends to decrease. This can be explained due to the incentives given by the traders to boost products by offering higher prices. Another reason is that an increase in the supply of a commodity is usually followed by a decrease in price (Green, 1993:43-44).

The success in applying a dominant strategy supported by one or more subsidiary strategies, according to Snooks, is the explanation of material prosperity enjoyed by societies. With the same model, the deterioration of societies can also be explained. The fall of society is caused by the failure of society to substitute the dominant dynamic strategy with another dynamic strategy. This is because the prevailing dominant dynamic strategy experiences exhaustion. The exhaustion takes place at the time when the application of the dominant strategy results in diminishing returns. And, in further development, the strategy becomes unproductive indicated by the absence of growth or even negative growth (Snooks, 1996: 213). At this point, a new dynamic strategy is required to substitute the exhausting strategy to provide a new generator to push society into further development.

Some Criticisms

Unfortunately, with the exhaustion of the dominant dynamic strategy, there is no adequate explanation given by Snooks. The reasons for the exhaustion of dynamic strategy are mainly associated with internal weaknesses. There is an impression that in Snooks' model the exhaustion of dominant strategy takes place naturally and inherently. In historical reality, the exhaustion of strategy was frequently caused by external forces as a result of competition for hegemony taking place among the centers of political power in human society. The exhaustion of commerce strategy, for example, should not only be associated with the decrease in returns gained from trade but often also closely related to the application of conquest strategy by another society. Similarly, the exhaustion of conquest strategy is not only caused by the growing costs of conquest or decrease in returns, but also the political conflicts emerging among the centers of political power.

In terms of explanatory power, the model developed by Snooks is also different from the economist's model. Snooks' model has shifted the analysis of changes in human society from the mathematical abstraction and logical ground which have no existence in the real world to the historical analysis based on facts drawn from the real world. As a model built by the inductive method, Snooks' model has a higher explanatory power compared to a deductive model developed by economists. Snooks' model is more adequate and applicable to shed a light on why human society changes or develops. With its historical insight, this model is much closer to reality and therefore also gives more adequate tools to understand human reality. The strength of Snooks' model is found in the explanatory power provided to get a better understanding of the driving forces of the long-term changes transforming human society (Snooks, 1996:16).

That is different from the deductive model which is often proudly viewed by the builders as having the ability to predict various possibilities that will probably happen in the future. Predictive ability is even viewed as the main purpose of such a model (Mansfield, 1977:26). By relying mainly on a logical abstraction which is frequently formulated in mathematical forms, this model is usually constructed. However, its predictive power is limited mainly to short-term issues. This is not only because the future is much more complicated than estimated, but also in real economic events often can change in a very short time. In developing countries, for example, Indonesia, economic behaviour can change dramatically after various rumours related to the bad health condition of the president or leading banker spread. In other words, economic behaviour is frequently also influenced by non-economic factors which can change so fast.

Apart from its ability in explaining the dynamic historical transformation from the past to the future, Snooks' model also suffers weaknesses. One important weakness of this model is its failure to explain the uneven distribution of material prosperity existing in the past human society. For example, it strongly stated that the systematic application of technological innovation in the industrial revolution indicating the adoption of dominant technological dynamic strategy improved the condition of material living. However, in reality, material prosperity was unevenly enjoyed only by the capitalist class, whereas the vast majority of the labour class in Britain and the continent of Europe was exploited and living in poverty (Henderson, 1961:38-44).

Secondly, using GDP as an indicator of the growth rate in the material condition of living in classical societies is quite problematic. This is because during this period there was not enough evidence and statistical data to measure the GDP levels. There is not enough evidence, for example, that the material standard of living enjoyed by the Roman empire society was higher than those of Greece society. Even, in the modern time like now when there is a large amount of statistical data available, measuring GDP is still problematic. For example, in reality, the level of Indonesia's GDP between the World Bank version and the Indonesian government version is often markedly different.

IV. Conclusion

Based on the given discussion, it can be concluded that the dynamic strategy model developed by Snooks in *The Dynamic Society*, is very typical. This model is built through an inductive method which considers seriously the importance of historical analysis in the process of construction. The deep historical insights and factual basis make the dynamic strategy model very different from timeless models generally developed by most economists who prefer to apply a deductive method based primarily on logical analysis

formulated in mathematical forms in the construction process. The strength of the dynamic strategy model is mainly laid in the explanatory power offered to explain the long-run changes taking place in human society. Understanding human reality is the noble goal that the model aims at. This contrasts with a deductive model which laid its strength in predictive power to forecast the future state.

The dynamic strategy model also has different characteristics. In this model human society is seen as dynamic, not static. The driving force of the dynamics in human society is the materialist man who is naturally motivated to maximize the material standard of living. Underlying the key role of human beings, this model is different from the determinist models which view the external forces outside the human ability to control as the driving forces of changes in human society. This notion also makes the dynamic strategy model different from the institutional model developed by North. By placing the materialist man as the center of history, the rise and the fall of society are elucidated with the application of strategy in pursuing a higher material standard of living. The success in applying a certain dominant dynamic strategy or substituting an exhausted dominant strategy with another one is the key explanation for the growth in material prosperity. In contrast, unlike the Malthusian model blaming population growth as the main cause of decreasing prosperity, in the dynamic strategy model, the fall in material standards of living is associated with the failure in substituting the exhausted dominant strategy with newer and more suitable strategy.

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