

Complexity and Change in the International System

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Change has so far been a neglected dimension in the study of international relations. However, authors like Gilpin, Buzan, Wendt have put forward theories of international change that explain only one part of the picture or one type of change in the international system. This variety of approaches and the annalist approach to history make us think of the complex dynamics of processes that take place at different levels. Using the framework of complexity theory I propose to make use of an interaction of different theories and try to analyse the current trends of change in world politics.

Keywords: international system, change, complexity, anarchy, cultures, scales of time, time, *longue durée*, ascent and decline of political units, emergence of order

1 Introduction

Before the emergence of modern social sciences, writing on history was sometimes associated with attempts to develop long-range theories of historical change or cyclic theories of history. A typical example of this were cyclical theories such as Polibius's anacyclosis theory or, later, Ibn Khaldun's theory on the ascent and decline of states and dynasties.

However, change has always been a relatively neglected topic in the discipline of International Relations (IR), some relevant theoretical attempts notwithstanding. As Buzan and Little aptly underline,¹ this neglect is caused by some basic characteristics of IR theory, namely presentism, ahistoricism, anarcophilia and state-centrism: the preference for the analysis of current events with respect to the use of history, the prevailing – even though not absolute – concentration on the state as the principal actor and the consequent fixation on the idea of unrestricted (realism) or restricted (institutionalism and constructivism) anarchy.

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¹ B. Buzan, R. Little, *International System in World History. Remaking the Study of International Relations*, Oxford: Oxford University Press, pp. 18–22.

How can we understand these characteristics? First, the ideology of balance, born in Italy in the Renaissance² and developed in the 18th century, from the treaty of Utrecht³ to its full expression in Hume or Vattel⁴ and, later, the influence of economic theory have brought about a static theory: the search for the conditions of the balance of power and not for a general view of historical dynamics.⁵ Moreover, it is possible that in the 20th-century social sciences there is an understandable bias (or even prejudice) against macro-historical theories, which are always suspected to conceal a philosophy of history.

‘Such static approaches to IR are particularly unsatisfying during the current era of global transformation when questions about change motivate much of the empirical research we do’.⁶ My main point is that change in international politics cannot be properly understood without making use of the concept of ‘complexity’ and that the contemporary process of change shows obvious aspects of complexity. First I summarise, without any pretension to completeness, some theories of change that concern the international system at different levels: Buzan and Little’s theory of long term change, Dark’s theory of the rise and decline of political units,⁷ Gilpin’s theory of the rise and decline of hegemonies,⁸ Wendt’s theory of cultures of anarchy⁹ and, generally speaking, the constructivist theory of change as learning. I introduce different scales of time according to ideas introduced in modern historiography by the French school of the journal *Les Annales* and try to arrange theories according to a generalised frame of scales of time and structures. The multiplicity of theories can be accepted only by taking account of the complexity (from the point of view of structures and scales of time) of international politics. Finally, I try to outline the complex dynamics of change in contemporary world politics.

² The classic passage on the balance of the Italian states is F. Guicciardini, *Storia d’Italia*, Torino: Einaudi, 1971 (first edition, Firenze, 1561), pp. 6–10.

³ See for example K. Holsti, *Peace and War: Armed Conflicts and International Order, 1648–1989*, Cambridge: Cambridge University Press, 1991, pp. 71–82.

⁴ The first theoretical conceptualization of the European balance is in D. Hume, ‘Of the Balance of Power’, in *Essays, Moral, Political and Literary. Political Discourses. Vol. 2*, Liberty Funds, 1987 (first edition Edinburgh 1752), pp. 184–187. For the relation between balance of power, international law and limitation of violence, see C. Schmitt, *Der Nomos der Erde im Völkerrecht des Jus Publicum Europaeum*, Berlin: Duncker & Humblot, 1950; H. Bull, *The Anarchical Society. A Study of Order in World Politics*, London: MacMillan, 1977, pp. 97–194.

⁵ This point is made very clearly by M. Albert, ‘Introduction: System Theorizing’, in M. Albert, L. E. Cedermann, A. Wendt (eds), *New System Theories of World Politics*, Basingstoke–New York: Macmillan, 2010, pp. 3–22 especially with respect to the theoretical and methodological imitation of microeconomics.

⁶ M. Finnemore, K. Sikkink, ‘International Norm Dynamics and Political Change’, *International Organization*, 1998, Vol. 52, No. 4, p. 888.

⁷ K.R. Dark, *The Waves of Time. Long term Change and International Relations*, London: Pinter, 1998.

⁸ R. Gilpin, *War and Change in World Politics*, Cambridge: Cambridge University Press, 1981.

⁹ See A. Wendt, *Social Theory of International Politics*, Cambridge: Cambridge University Press, 1999, pp. 313–369.

2 Structures and change

Theories of change explain or understand¹⁰ change of a variety of structures and interactions at various scales of time, assuming different dependent and independent variables. I take into consideration only a very limited number of theories, which allow me to cover a wide spectrum of changes in international systems.

Gilpin's typology of change¹¹ can be a useful starting point. According to Gilpin we can have three types of change in international politics:

1. Systems change: a change of the nature of actors (empires, territorial states, etc.);
2. Systemic change: a change in the governance of the system;
3. Interaction change: a change of the interstate processes.

Another possible typology of change is provided by Buzan's identification of a 'deep structure' of the system.¹² The deep structure of the system is provided by the difference between anarchical and hierarchical systems and by the functional differentiation of units. Moreover, we can have changes in the distribution of power and in processes between units.

The aforementioned Buzan and Little's theory is one of the most far-reaching attempts, within IR, to formulate a general theory of change. The overall pattern is provided by a combination of levels of analysis and sectors in international politics. The usual levels of analysis are generalised. For example, political units substitute states. A political unit can decide independently on peace and war. Two further levels are added: the regional sub-system and the sub-unit. Subsystems are groups of political units whose relations have particular patterns. Subunits are groups of organised individuals that can influence the behaviour of units.¹³

The levels of analysis are:

- 1) international systems;
- 2) international sub-systems;
- 3) units;
- 4) sub-units;
- 5) individuals.

¹⁰ I try to use the verbs 'to explain' and 'to understand' consistently with their meaning in social sciences going back to Max Weber's distinction between *erklären* (explain) and *verstehen* (understand), see M. Weber, 'Über einige Kategorien der verstehenden Soziologie', in M. Weber, *Gesammelte Aufsätze zur Wissenschaftslehre*, Tübingen: Mohr Siebeck, 1985, pp. 427–474 (first edition, Tübingen, 1913); M. Weber, *Wirtschaft und Gesellschaft. Grundriss der verstehenden Soziologie*, Tübingen: Mohr, 1976 (first edition, Tübingen, 1921–22), pp. 3–4. See also M. Hollis and S. Smith, *Explaining and Understanding International Relations*, Oxford: Clarendon Press, 1991.

¹¹ R. Gilpin, op. cit., pp. 39–41

¹² B. Buzan, R. Jones and C. Little, *The Logics of Anarchy: Neorealism to Structural Realism*, New York: Columbia University Press, 1993, pp. 37–47.

¹³ Max Weber defines the action of these sub-units as 'politically oriented' (*politisch orientiert*), M. Weber, *Wirtschaft und Gesellschaft...*, op.cit., p. 29.

Variables are arranged in sectors, which reasonably reduces overall complexity:

- a) military;
- b) political (institutional structure, for example systemic governance);
- c) economic;
- d) social;
- e) environmental.

By applying both levels and sectors, we are able to classify variables. Independent variables are selected by looking – on different levels – at processes and interaction capacity. Processes are the type of interaction between and among units (wars, alliances, diplomacy, international regimes). Interaction capacity depends on geography, technology, ‘social technologies’ (usually called social institutions, like: marriage rules, interactions languages, writing systems, diplomacy, currencies).

Processes and interaction capabilities develop at all levels and in all sectors. This determines the characteristics of the system (deep structure, power distribution, types of processes). This theory explains well the change from pre-modern to modern international systems, because of technologies and social technologies or institutions that involved all the sectors.

Pre-modern systems were characterized by:

- structural differentiation of units (city-states/empires), sometimes functional differentiation (specialization of city-states within empires, for example Phoenician city-states within Assyrian and Persian empires: trade, naval activities)
- multiple hierarchic structures (like in feudal Europe or in classical Islam)

On the other hand, the modern European system (which gradually extended to the whole of earth) is characterized by:

- anarchic principle
- functionally (and thus structurally) undifferentiated units.

Communication technology and the social institution of market made possible the birth and development of the modern state, characterised by a balanced concentration of capital and coercion, whereas empires were characterised by a relatively higher concentration of coercion capabilities, and city-states were exactly the opposite case (relatively higher concentration of capital).¹⁴

Darks’s theory intends to explain how units emerge, reach their maximum and decline according to a pattern of successive waves. The basic link is between social complexity and decision making.¹⁵ Increasing complexity brings about an increasing amount of decision making at multiple levels. The precondition of decision making is information processing. ‘If information processing and information exchange occur

¹⁴ See also C. Tilly, *Coercion, Capital, and European States: AD 990–1990*, Oxford: Basil Blackwell, 1990.

¹⁵ A basic difference with constructivism is that structures are produced and reproduced by decision making, not by practices, see K.R. Dark, *op. cit.*, p. 117.

in parallel, then decision making can respond to the demands of complexity and interaction'.¹⁶

There are two ways to meet the demands of complexity:

- More efficient information acquisition and information-processing capacities;
- Hierarchical ordering of decision making.

Greater complexity requires more decision making that makes possible more innovation. This is a kind of upward spiralling that increases the success of a certain type of organisation and characterises the upward phase of actors. However, increasing complexity can lead to a possible loss of adaptive flexibility of a system, for example by means of a complex web of constraints. Options can be narrowed down by excessive confidence in inherited institutional or behavioural patterns or by the need to maintain structures and organisations. This 'hyper-coherence' can bring about decline and eventually collapse. As one system of decision making enters its decline, new structures start to take form.¹⁷

Gilpin seeks to explain cycles of governance in the modern international systems (systemic change).¹⁸ His theory is based on rational choice and the dynamics of resources, technology, and the cost of hegemony. As long as nobody has an interest in changing the system, the system is stable and the hegemonic power is not challenged. Its advantage is caused by advantage in economy, technology and organisation, which make it possible to achieve military superiority. However, this superiority is challenged in the long run because knowledge spreads and because of the (military) costs of maintaining hegemony. Generally speaking, a challenger emerges within the group of major powers. When differential growth produces an unstable situation, the struggle for hegemony is decided by a general war.

Generally speaking, constructivists understand change as 'cognitive evolution'¹⁹, it

means that at any point in time and place of a historical process, institutional or social facts may be socially constructed by collective understanding of the physical and the social world that are subject to authoritative (political) selection processes and thus to evolutionary change.²⁰

Wendt understands change in the system as changes of the underlying culture.²¹ The deep structure of the system is provided by its culture. A system can be characterised by a Hobbesian culture, a Lockean culture of rivalry and a Kantian culture of friendship. Structural change in the system occurs when its underlying culture changes,

¹⁶ Ibidem, p.120.

¹⁷ Ibidem, pp. 122 ff.

¹⁸ See R. Gilpin, op. cit.

¹⁹ E. Adler, 'Seizing the Middle Ground. Constructivism in World Politics', *European Journal of International Relations*, 1997, Vol. 3, No. 3, pp. 317–363.

²⁰ Ibidem, p. 339.

²¹ A. Wendt, op. cit., pp. 313–318.

i.e. ‘when actors redefine who they are and what they want’,²² in other words, when their identity changes. Wendt deals in detail with the possible transformation from a Lockean to a Kantian culture and identifies four master variables: three efficient causes, interdependence, common fate and homogeneity, and one enabling cause, self-restraint.

Finnemore and Sikkink²³ want to understand²⁴ how norms are created and how they evolve; in other words, they want to understand the ‘life cycle of norms’: ‘The problem for constructivists thus becomes the same problem facing realists—explaining change. In an ideational international structure, idea shifts and norm shifts are the main vehicles for system transformation’.²⁵ This cycle consists of three stages: emergence, cascade, internalisation. In the first stage, sub-state actors called ‘norm entrepreneurs’ are supported by constituencies that can be national or transnational. The second stage starts when a certain ‘critical mass’ is reached, usually not less than one third of the states in the system. Finally, the norm is internalised when it assumes a ‘taken-for-granted’ quality.

To a large extent, these theories are not contradictory, because they refer to different types of change. However, there are many difficult issues of compatibility. First, some theories deal with change at the same time scale, sometimes just the same type of change, like Buzan’s theory and longer cycles in Dark’s theory, shorter cycles in Dark’s theory and Gilpin’s cycles of hegemonies and hegemonic wars, Wendt’s theory of cultures of anarchy and Finnemore and Sikkink’s theory based on norms.

The theories that I have taken into consideration are characterised by different ontologies of the international system and even different epistemologies of the social sciences. Is it possible to combine them? Buzan and Little’s theory is based on structural realism. The basic idea is that the deep structure of international systems is a dependent variable and that technologies of communication and social technologies are the independent variables. However, in this approach agents cannot change structures. Gilpin’s theory seems to be compatible, also because it shares an objectivist epistemology. On the other hand, Adler, Wendt and Finnemore and Sikkink are certainly constructivist, and Dark’s theory is, from the epistemological point of view, in some sense in-between.²⁶ The evidence of a multiplicity of non-equivalent descriptions leads us to the theory of complexity.

²² *Ibidem*, p. 336.

²³ M. Finnemore, K. Sikkink, *op.cit.*

²⁴ In a sense, they want also to explain, because they want to overcome the opposition: rational choice vs. constructivism. On this problem see also J. Fearon, A. Wendt, ‘Rationalism vs. Constructivism: A Skeptical View’, in W. Carlsnaes, T. Risse, B. Simmons, *Handbook of International Relations*, London: Sage, 2002, pp. 52–72.

²⁵ *Ibidem*, p. 894.

²⁶ The author calls this epistemology ‘perspectivism’, see K.R. Dark, *op. cit.*, pp. 90–97. Here there is no space to go into detailed deliberations on epistemology. However, even though this epistemology is slightly closer to positivism than constructivism, I think it falls within the boundaries of inter-subjective approaches.

3 Time in history

We have so far taken into consideration a certain type of *longue durée*, that of ascent and decline of types of political units and of systems of political units. The idea of *longue durée* was introduced by the French historians centred around the journal *Les Annales*, first among them Fernand Braudel.

Braudel played a central role in shifting professional attention from what the dead had said and done – deliberately and consciously – to unintended, collective processes that their behaviour set in motion. This, it seems to me, is the central departure from older views that affected the historical profession after World War II. Braudel played a conspicuous role in forwarding this change, and his enduring influence will probably rest on that simple fact. A second feature of Braudel's accomplishment was the worldwide vision of the past that he embraced.²⁷

One important part of Fernand Braudel's framework concerns the different 'times of history'. He takes into consideration three different time scales and different social structures that combine with each other in many different ways:

- the very long *durée* of civilisations;
- the long waves of economy;
- the *histoire événementielle*, i.e. the succession of political events taken into consideration by traditional history, like war and peace, change of political regimes.²⁸

The annalist approach to history makes us think of the complex dynamics of historical times. However, it is not clear whether or how these three levels interact in complex dynamics or rather have their specific rhythm.

If we want to learn lessons concerning a theory of change of the international system, we could state these points:²⁹

1. The only appropriate *unit* of analysis is the whole system, but not considered only at the systemic *level* of analysis.
2. However, there are many different perspectives of change (civilisations, world-economies, political units, events) concerning both long term change of structures and the particular dynamics of events.
3. These perspectives interact among each other.

Without answering questions concerning Annaliste historiography, for example whether there is a kind of hierarchy between different scales of time, or whether agency has a role, we can state some point. We could look at the following scales of time in the study of change in IR:

²⁷ W.H. McNeill, 'Fernand Braudel. Historian', *The Journal of Modern History*, 2001, Vol. 73, No. 1, pp. 146–147.

²⁸ F. Braudel, *La Méditerranée et le monde méditerranéen à l'époque de Philippe II*, Paris: Armand Colin, 1986 (6th edition), pp. 1–53.

²⁹ F. Braudel, *Civilisation matérielle, économie et capitalisme (XV^e-XVIII^e siècle). Les temps du monde*, Paris: Armand Colin, 1979, pp. 1–68.

1. The ascent and decline of types of systems and political units: this is the most general type of change, which implies long periods of time;
2. Within different types of systems, the ascent and decline of empires, hegemonies or balance systems;
3. In shorter time perspective, the change of culture (according to constructivist theories), which can intersect with the previous time scale.

With respect to Gilpin's or Buzan's typology of change, the second type taken into consideration is more general, for two reasons: first, it can include changes in systems in all ages of history; second, within each type of system, it can include changes or cycles of shorter and longer duration. With respect to the role of culture, it is not only an 'interaction change' within the same hegemony, but as we shall see later on, it can basically change the nature of the system.

This multiplicity of scales of time implies the necessity of '*capturing temporal complexity*', as Mathias Albert aptly states.³⁰

4 Complexity in world politics

The preceding paragraphs make clear the different scales of time and types of structure involved in change in world politics. The necessity to take into consideration changes of different structures at different scales of time (both of them nested, or intersecting, or overlapping) brings us almost naturally to the notion of complexity.

The number of possible definitions of complexity is very high: complexity is in itself a complex notion.³¹ It can be defined in general as the existence of non-equivalent descriptions or as the necessity to make a selection of interactions among the different possible interactions within the system. I take into consideration both these definitions of complexity as they have something in common, even though they originate in distant areas of science. The complexity of a system N as observed by another system O can be defined as the number of non equivalent descriptions of N provided by O.³² In the framework of social systems theory, according to Niklas Luhmann, 'a society system constructs its own structural complexity and organises with it its own autopoiesis'.³³

Complexity can arise in the context of international and world politics at least in three different contexts. I shall call these types horizontal complexity, turbulence and self-organisation. A horizontal process takes place at a given level of analysis.

³⁰ M. Albert, *op.cit.*, p. 13.

³¹ M. Bushev, *Synergetics. Chaos, Order, Self-organization*, Singapore: World Scientific, 1994, p. 222, N. Luhmann, *Die Gesellschaft der Gesellschaft*, Frankfurt am Main: Suhrkamp, 1997, pp. 134–144.

³² J. Casti, *Alternate Realities. Mathematical Models of Nature and Man*, New York: John Wiley & Sons, pp. 17–19.

³³ N. Luhmann, *op. cit.*, p. 134. Social system is the translation of *soziales System*. To mark the difference I translate '*Gesellschaftssystem*' as 'society system'.

In international politics, it takes place at the systemic level. A turbulent process³⁴ is the result of the interaction between different levels. Emergence of order is different both from horizontal and turbulent processes because it generates order at a level that is given by the system of the interacting units.

4.1 Non-linear interactions in international politics

The first type of non-linear interaction could be called ‘horizontal’ because it takes place basically at the same level of analysis, like in the case of interconnections between and among constituents and parts of the system. This is, for example, the type taken into consideration by Robert Jervis.³⁵

Feedback – both positive and negative – is the most widely known example and one of the most common and perhaps elementary types of interaction one can find in a non-linear system. Corresponding to negative and positive feedback are the different processes of balancing and domino. In balancing, actors tend to adjust their capabilities in such a way that they adjust to an equilibrium situation; for example, from the point of view of decision making, nobody is interested in changing the situation. Phenomena of this kind do not necessarily display non-linearities, as we know for example from the linear model of arms races. On the other hand, positive feedback takes place when system interconnections act in such a way that changes in a certain direction cause a further magnification of these processes. An example of positive feedback is the domino effect.³⁶

4.2 Turbulence and complexity in world politics

Another, less investigated type of non-linear interaction is the mutual impact between actions and processes taking place at different levels. This more difficult challenge is posed by what Rosenau called ‘turbulence in world politics’.³⁷ As it is well known, Rosenau’s use of the word ‘turbulence’ has more in common with fluid dynamics than with usual political analysis: it is the absence of stability in the distinction of levels of analysis. The use of the theory of complex systems at a certain level of analysis is clearly insufficient. Rosenau clearly made the point on the inadequacy of the theories and methods currently at hand:

³⁴ J.N. Rosenau, *Turbulence in World Politics. A Theory of Change and Continuity*, Princeton: Princeton University Press, 1990.

³⁵ R. Jervis, *System Effects: Complexity in Political and Social Life*, Princeton: Princeton University Press, 1997. For a critique, see L.E. Cedermann, ‘Complexity and Change in World Politics’, in M. Albert, L.E. Cedermann, A. Wendt (eds), op. cit., pp. 134–135.

³⁶ R. Jervis, op. cit., p. 168.

³⁷ J. Rosenau, op. cit.

In some corners of the policy-making community there would appear to be a shared recognition that the intellectual tools presently available to probe the pervasive uncertainty underlying our emergent epoch may not be sufficient to the task. [...] the disciplinary boundaries that have separated the social sciences from each other and from the hard sciences are no longer clear-cut, and the route to understanding and sound policy has to be traversed through interdisciplinary undertaking.³⁸

A model of turbulence should describe how actors interact with formation and transformation of structures of higher level. More clearly, models concerning this dynamic should provide an explanation for the formation and cycles of different types of actors. This is definitely beyond both the logic of usual game or, generally speaking, rational choice theory. In these types of theories, actors and their preference structure are given and interact in a given structure.

4.3 Self-organisation and the emergence of order

‘**Self-organisation** is the spontaneous often seemingly purposeful formation of spatial, temporal, spatio-temporal structures or functions in systems composed of few or many components. [...] The process of self-organization can be found in many other fields also, such as economy, sociology, medicine, technology’.³⁹

This is well known from natural sciences, where, for example, order arises from spontaneous symmetry breaking: when the temperature of water falls beneath 0°C, then order emerges, in the sense that the total symmetry among water molecules is broken by the fact that they arrange themselves according to a certain crystal structure. One can investigate whether in social systems order at a systemic level can emerge from interaction between and among individuals and groups.

From our point of view, the emergence of order can be seen both as synchronic and diachronic, the emergence respectively of social order from the interaction of units and of temporal patterns, usually cyclic. ‘Emerging order’ means that ‘phenomena are generated that cannot be brought back to the characteristics of their elements, for example on the intentions of the agents’.⁴⁰

Self-organisation and the emergence of order, from the point of view of modern system theory, have been so far relatively neglected in the field of International Relations. However, global politics as a complex adaptive system⁴¹ or as the political

³⁸ J. Rosenau, *The Study of World Politics. Volume 1: Theoretical and Methodological Challenges*, London: Routledge, 1998, p. 109.

³⁹ H. Haken, *Self-organization*, Scholarpedia, 3(8):1401, <http://www.scholarpedia.org/article/Self-organization>, (accessed on 21 September 2016).

⁴⁰ N. Luhmann, op. cit., p. 134.

⁴¹ D. C. Earnest, J. Rosenau, ‘Signifying Nothing? What Complex System Theory Can and Cannot Tell Us About Global Politics’, in N. E. Harrison (ed.), *Complexity in World Politics: Concepts and Methods for a New Paradigm*, New York: State University of New York Press, 2012, pp. 143–163

system of a complex world society⁴² are gaining ground. The first approach mainly relies upon the theory of complex physical systems, whereas the second rests upon Luhmann’s theory of a complex world society.

5 Theories and changes in world politics

Now we have the main pieces of the puzzle. From the theoretical point of view we can check the level of complexity in each theory. From the empirical point of view, we can compare theories with their effective capability to explain or understand change in world politics.

By comparing scales of time and types of structures we get the following table.

Table 1: Theories of change

Theory	Independent variables	Dependent variable	Scale of time	Complexity	Epistemology
Buzan Little	Technologies institutions	Deep structure	Very long range	low	positivist
Dark	Decision making	Rise and decline of units	Long range	high	inter-subjective
Gilpin	Power, technology	Rise and decline of hegemonies	Medium Range	low	positivist
Wendt	Interdependence, common fate, homogeneity, self-restraint	Change of culture	Short/medium range	yes	inter-subjective
Finnemore Sikkink	Entrepreneurs, number of states accepting norms	Norm cycles	Short/medium range	yes	inter-subjective

Source: own elaboration.

Buzan and Little’s theory explains long-term change and the formation of international systems, in particular the transition from hierarchic to anarchic systems. However, it is not so powerful in explaining transition between systems of the same type characterized by different distribution of power or types of systemic governance.

Dark’s theory, based on decision making, explains both changes in the deep structures and cycles in systems of approximately 100–200 years. However, it does not seem to be able to explain change in the character of interactions and changes in the distribution of power.

Gilpin’s theory explains changes in the governance of the system. The problem in Gilpin’s theory, and generally speaking of power cycle theories, is that empirical

⁴² M. Albert, *A Theory of World Politics*, Cambridge: Cambridge University Press, 2016.

verification is not satisfactory.⁴³ It works very well for the European system from the end of 17th century up to the 20th century. However, the real challenger to Great Britain at the beginning of the 20th century was the United States, but Gilpin's theory works with respect to Germany. Moreover, it does not give us a proper picture of the collapse of the bipolar system.

Wendt's theory can understand the transformation of anarchical systems or subsystems from predatory (Hobbesian) to Lockean, as it occurred for example in Italy between the 13th and the 15th century, or in Europe between the 15th and the 18th century, or the formation of areas of peace in the contemporary international system. Finnemore and Sikkink's theory understands norm cycles, that is only one part of change, although an important one.

A further problem is posed by the many different variables used in the theories: culture, technologies, institutions/social technologies, capabilities. Even though material factors, such as economy, technology and especially war and communication technologies, must not be overlooked it is not difficult to see that ideologies have so far also played a role in the constitution of the identity of actors. How can we combine theories and variables? A first hypothesis could be that material variables like economy and technology are relevant for the evolution of the system in the longer run. However, we can observe that the very same ideology or its main aspects have an impact for ages. Generally speaking, we can put forward the hypothesis that even ideologies have longer and shorter cycles. We see that in any system cycle we have different ideologies upholding different types of unity, for example:

- The ideology of the temple and the king in ancient Mesopotamia during the first urban revolution (second half of the 4th millennium BC);⁴⁴
- Different imperial ideologies, based either on strength (for example: a warrior god) or harmony (like in the Chinese case), or both;
- The ideology of sovereignty characterises the cycle of territorial states interacting in an anarchical system; this ideology, in turn, has found its grounds first in the right to rule coming from God and further in popular sovereignty. Moreover, it has had its international support in the idea of balance.

The challenge posed by all these (and others) theories of change is the interaction of variables and processes in different structures and at different time scales that bring about turbulence (according to Rosenau) and the emergence of self-organisation. Moreover, as we have seen, scales of time and structures intersect creating further complexity. For example, the one we find in Dark's theory and an interaction between two types of changes: formation of structures in Dark's theory and change of deep structures in Buzan and Little's theory.

⁴³ See J. Vasquez, *The War Puzzle*, Cambridge: Cambridge University Press, 1993.

⁴⁴ M. Liverani, *Antico Oriente. Storia. Società. Economia*, Roma-Bari: Laterza, 1988, pp. 135–140, 256–262, 415–419.

6 What kind of change in contemporary world politics?

In this final paragraph I shall develop some deliberations concerning contemporary transformations of world politics. Since the end of World War II, world politics has faced many different changes, probably of different types and scales. The first and obvious one was the final collapse of the European system, started not later than 1914, and the emergence of the so-called bipolar system.⁴⁵ However, decolonization brought about the enlargement of the system of territorial states to the whole world. This process took place with decolonisation between the 1940s and the 1960s.

The causes of the implosion of the Soviet Union, first as a great power (1989), later as a state (1991), and the consequent end of the bipolar system have been since a subject of debate. Whereas politicians, journalists and scholars could agree at least on the ideas of balance of power or bipolarity, at least as metaphors, no real consensus emerged on the new system (unipolarism, concert of powers, geopolitical interpretations, etc.).

After World War II, another relevant change was the development of a world economy, whose continuing impact on world politics has still to be fully understood. Even though the start of globalization is sometimes traced as back as the first migration of homo sapiens out of Africa (70 thousand years ago), the start of long distance trade (4th millennium BC) or the age of European discovery and conquest of the Americas, we can trace back the full formation of a world economy to the end of the 19th century, made evident by the formation of ‘commodity chains’.⁴⁶ The period 1870–1914 is generally characterised as ‘an era of relatively free trade and export-led growth’.⁴⁷ As it is well known, this process suffered a setback between the world wars and accelerated after the 1970s.

Two other relevant characteristics of contemporary world politics are the formation of zones of peace and zones of war,⁴⁸ and the increasing number of interconnected international institutions and norms.

Now we can look at changes from the different theoretical perspectives we have taken into consideration. I try to start with theories that deal with the problem in the framework of longer time scales, and then I gradually go down to shorter scales. Finally, I put forward my own deliberations. The globalisation of economy and the development of communication technology together with the existence of ‘global challenges’, like the existence of nuclear weapons and global warming,⁴⁹ can be the

⁴⁵ In 1948 Morgenthau already wrote about bipolarity and its characteristics. H.J. Morgenthau, *Politics among Nations. The Struggle for Power and Peace*, New York: Knopf, 1985 (first edition 1948), pp. 360 ff.

⁴⁶ See S.C. Topik, A. Wells, *Commodity Chains in a Global Economy*, in E. Rosenberg (ed.), *A World Connecting 1870–1945*, Cambridge, Mass.: The Belknap Press of Harvard University Press, 2012, pp. 593–812.

⁴⁷ S.C. Topik, A. Wells, op. cit., p. 594.

⁴⁸ See M. Singer, A Wildawsky, *The Real World Order: Zones of Peace, Zones of War*, Chatham, NJ: Chatham House, 1993.

⁴⁹ F. Cerutti, *Global Challenges for the Leviathan: A Political Philosophy of Nuclear Weapons and Global Warming*, Lanham, MD: Lexington Books, 2007.

conditions, taking into account Buzan and Little's framework, of a change of the scale of the political unit. Moreover, the crisis of functions of territorial state⁵⁰ and the presence of a growing number of international institutions can be a form of 'hyper-coherence' that, according to Dark, can bring about the declining phase of systems. In this case, two different dynamics can interact with unpredictable consequences: complexity can produce instability.

From the point of view of Wendt's change of international cultures, we can observe a reduction of the importance of the 'Lockean' culture of rivalry, a rising importance of the 'Kantian' culture, and a return of 'Hobbesian' culture: zones of peace are increasingly characterised not only by the absence of inter-state war but also from the perception that it is unthinkable. On the other hand, zones of war are characterised by friend–enemy perceptions and behaviour. Obviously, the intra-state or internationalised character of most wars makes them closer to a Hobbesian picture. However, if a Kantian culture can stabilise the situation in some areas, we could face a change that is not only an 'interaction change' but something very close to a way out from the anarchy/hierarchy polarity.

If we look at the – often overlooked – political ideologies sustaining long term structures, we can observe a steady although contrasted decline of the overall legitimacy of the territorial state, corresponding to the crisis of its functions. The principle of sovereignty is historically, but not necessarily, related to the modern territorial state. However, its legitimacy seems to have a strong connection to national identities. Thus, the transition from the ideological foundations of the national-territorial state to some kind of legitimacy or wider political units⁵¹ or the partial renunciation to sovereignty as far as 'global challenges' are concerned.

⁵⁰ To describe this crisis in synthesis, we can see it as the end of the magic square: legitimacy/identity/control of economy/efficacy.

⁵¹ See J. Habermas, *Die postnationale Konstellation*, Frankfurt a.M.: Suhrkamp, 1999.