Multiple cultures of doing geography facilitate Global Studies

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Abstract
Purpose – This article aims to explain why geography is a prime discipline for analysing globalisation and a multicultural view of Global Studies. The generic approach of human geography to first select an appropriate methodology is taken as a key approach.

Design/methodology/approach – Concepts from aggregate disciplines such as history, economics, and geography are scanned through during a short description of the historical genesis of these sciences and the paradigmatic shifts they have encountered.

Findings – There are four main theses: (1) values are created by appreciation; (2) development is growing jointly with responsibility; (3) accumulation of material value is seen as expenditure to achieve non-material values; and (4) spatial relations are interrelated with social relations.

Research limitations/implications – Conceptual considerations have to be further corroborated by quantitative analyses using suitable metrics of “development”.

Practical implications – “Social and cultural geography” should contribute to any curriculum of “Global Studies”.

Social implications – Dialogue and discourse between world views is the essential, ideology-free approach for understanding globalisation.

Originality/value – Unlike other scientific articles focusing on “facts”, this article focuses on perspectives. Thus, it explains “multi-perspectivity” and a multi-paradigmatic approach.

Keywords Human geography, Globalization, Global Studies, Global change, Social and cultural geography, Multiparadigmatic, Curriculum, Geography

Paper type Conceptual paper

Introduction
What does the notion “multicultural” actually mean? The scope of METJ as a journal is well-defined (Hardaker, 2007). “Multi-” might well pertain to different “cultures of thinking”. Such enlarged meaning emerges in any practice of international cooperation.

Academic curricula of “Global Studies” (GS) (Bader et al., 2013) are answering to a need for an interdisciplinary (Wagner et al., 2011), multiparadigmatic (Global Studies Graz, 2011, p. 1; Ahamer, 2014) approach. In fact, there is one discipline that has long since considered the choice of methodology a key prerequisite for any reasoning. Geography, more specifically “social and cultural geography” is a multi-paradigmatic science (Gebhardt et al., 2008) and undertakes to ponder on the methodological approach before running mathematicised models on computers. What a distressing difference from many other more classical sciences.

The present article takes a practical approach and evaluates academic approaches by their usability in real-life multicultural and developmental situations.
1. Values and values

1.1 A first thesis in this article is

Values are created by appreciation.

Estimating a value as such creates esteem (in German language: “Wert-Schätzung → Wert”). In Monod’s (1970) universe reigned over by “chance and necessity”, molecules keep racing across an empty planetary space – themselves empty in meaning. Humans are the species capable of generically inducing meaning into such an existential vacuum.

Especially when contemplating the many intricacies of multicultural cooperation, readers (based on their professional experience) might be inclined to concede that only appreciation for all paradigms (= Ancient Greek for thinking models, views, perspectives) can provide a full picture of reality.

In a multicultural world, valued cooperation partners might invest more and thus create valuable results. Meaning is created through successful communication.

1.2 Hence, a second thesis in this article on global development is

Development is growing jointly in responsibility.

Growing jointly means growing together, while the process-guiding information is responsibility, i.e. mutual assessment of the other’s options to move. This motto in the German language (“Entwicklung = zusammen(-)wachsen in Verantwortung”) likewise supports the appropriate sharing of responsibility between cooperation partners, which represents a continuous source of risk in practice.

1.3 The double nature of material values: result and effort

Often value is considered to be material in nature; and this is often quantified as “gross national product” (GNP, on a national level) – giving rise to a vast “scientific” discipline of economics (Thompson et al., 2013). In this view, persons consider it an achievement to generate a high amount of such material value (e.g. personal income) as a result of economic activities during a human lifetime.

Others (mostly at moments when not feeling physically hungry) may consider targets beyond material achievements as more rewarding; preliminarily these might be named “quality of life” (QL). In this view, the throughput of material entities could be seen as effort to provide the final non-material target. Hence, persons might be inclined to consider it an achievement to need only a modest amount of material value (e.g. personal income) to generate QL while alive (Hinterberger and Behrens, 2004; Grimm, 2006).

In practical multicultural work, a “clash of cultures” may well occur regarding views of “economic value as a result” (parameter GNP/capita) and “economic value as an effort” (parameter QL/GNP). Any concrete project will include a mix of adepts of both views – mathematically described by a number or its inverse – hence only the act of giving space to the world view which is opposed to one’s own does promise understanding during collaboration.

As civilisation evolves, a shift from one view to the other might intrinsically take place (Ahamer, 2008, p. 69). Contemplating this, where has the vanishing point of conceiving “developing” vs “developed” gone?
In this sense, the third thesis in this article reads:

Achievement of material values is seen as expenditure to achieve non-material values.

1.4 Doing geography

This article tries to take a geographic point of view. Recent decades have brought several sharp paradigmatic shifts, especially in human geography, such as the linguistic turn focusing on narratives instead of on the Earth’s crust. Geography was nicknamed a “Latin America of sciences” for its frequent “coup’s d’état”; however it became considered a “theory exporting science” as a result (Gebhardt et al., 2008).

Against such a turbulent background, efforts to define the essential core of geography boiled down to:

geography is what geographers do

(Hartshorne, 1939) – to which this article’s title alludes.

1.5 The educator as facilitator

The vast educational literature (Crookall, 2013; Reckien and Eisenack, 2013; Brynen and Milante, 2013; Hardaker and Sabki, 2007; Ahamer, 2013a) defines education as an action of facilitating self-responsible and self-motivated learning. To educate means to provide dynamic frameworks that trigger autonomous processes including defining own targets. Self-adaptability to various learner types and learning styles is a self-understood quality criterion (Cools et al., 2009; Raza et al., 2007; Vigentini, 2009; Mangina and Mowlds, 2007; Rao, 2011) that fosters diverse “cultures of understanding”. When facilitating peer-oriented procedures, trainers themselves might learn the most through valuing their learning colleagues’ perceptions.

2. Geographies of globalisation

2.1 What is geography?

Essentially, doing geography means providing perspectives. Taking a “bird’s eye view” means taking a standpoint that is explicitly outside the viewed system, namely above the flat earth and its physical landscape (at left in Figure 1). Technological tools may

Figure 1.
Geographers provide perspectives

Notes: A bird’s eye view of landscapes, aided by technology; and on “global warming”
Sources: Beach Wallpapers (2010); Bellis (2013)
facilitate reaching such a constructed observation site, such as balloons (at right in Figure 1) or satellite images retrievable as virtual globes like Google Earth. Regarding “global change” (symbolised at centre in Figure 1), or more generally multicultural issues, analogously means to deliberately step out of comforting constructs and reassuring perspectives when viewing economic, social, scientific, or cultural facts. Similarly, the Rediscovering Geography Committee (1997) understands “geography as a way of looking at the world through the lenses of place, space, and scale”.

2.2 Multiperspectivism

When taking serious the above approach that geography means to provide perspectives on facts, the next necessary step of consideration is to provide perspectives on perspectives – in order to better understand the complexities of globalisation. This means to adopt “all” disciplines; view in any “GS”, just as symbolised by Figure 2.

Such approach yields a truly interparadigmatic and multiperspectivistic perception (Ahamer and Kumpfmüller, 2014) and can facilitate consensus finding in global peace research and jointly responsible international development.

Each individual might be conceived as walking an individual path across the globe (as crooked as it may seem at first sight) which provides unattended insights

![Multiple cultures of geography](image)

**Notes:** Humans walk across an unfamiliar global structure (paths = blue lines); any such overviews can never be complete  
**Source:** Topographically rearranged globe: Avaaz (2013)
(blue lines in Figure 2 symbolising the ever changing viewpoints even of individuals along space and time).

2.3 Social and cultural geography
Attempts to answer might suggest a more favourable understanding of culture by a new definition, namely:

culture is a bundle of meanings a civilisation generates in order to interpret and cope with complex life.

For the concrete example of the field of economics with its all too often ideologically bound “pre-cognitive understandings” (Schumpeter, 1975), Jäger and Springler (2013) have thoroughly described that for a complete perception, at least all of the following views have to be taken into account:

- neo-classics;
- Keynesianism; and
- political economy.

2.4 Views and targets of social and cultural geography
Hence, in the view of Figure 2, the ultimate aim of this article is to help create and adapt theories (= visions, worldviews, “cultures” of understanding) by ourselves when dealing with globalisation, which are based on our experiences: this is an on-going process of generating meaning. Each actor walks along an individual path when perceiving globalisation (blue line in Figure 2).

Whether living a practical or academic life, we contemplate theoretical “clarities” along our paths (blue lines forming the columns in Figure 3). Each of the readers might act along any individual one of these lines; everybody runs their own paths.

What is the contribution of this approach to questions of cultural globalisation? It endeavours to answer the following (Osterhammel and Petersson, 2007; Hopper, 2007; Berger and Huntington, 2002; Hofstede, 2010; Ahamer, 2013b; Höllinger, 2013).

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**Notes:** The entirety of all analyses provides the full picture of academic clarity from antagonistic perspectives in history (at left: four paradigms), economics (bottom: three paradigms), and geography (at right: four paradigms)

**Source:** Zeus temple in Olympia (Gruben, 1986, p. 58)
Such topics are contrasted against what participating students experienced during their GS practicals and what was reflected during the compulsory course “Analysis of practicals” (Duraković et al., 2012).

2.5 Historical approaches to development
World History examines history from a global perspective (symbolised in Figure 3 at left). It has given rise to and inspired many paradigms: Ibn Khaldun (Muqaddimah): Asabiyya, similar to social cohesion in a clan (Tibi, 2009); G.W.F. Hegel: concept of “progress”, civil society Norbert Elias (The Civilizing Process): psychogenesis and sociogenesis, Arnold J. Toynbee (A Study of History): universal rhythms of rise and decline, Egon Friedell (Kulturgeschichte der Neuzeit: aphoristic, European crisis), Oswald Spengler (Der Untergang des Abendlandes): global cyclical theory, Immanuel Wallerstein (Modern World-System, Dep.Th.): core ↔ periphery, Jared Diamond (guns, germs, and steel): environmental causes, Eurocentric, Pierre Bourdieu: structuralism; social capital, cultural capital, symbolic capital. Based on their only inclinations, readers might have other selections of historic paradigms materialised in other book.

2.6 Sociological approaches to development
Sociology is the study of society which is most appropriately thought of as developing. It is a social science which uses various methods of empirical investigation and critical analysis to develop and refine a body of knowledge about human social activity, often with the goal of applying such knowledge to the pursuit of social welfare. The subject matter ranges from the micro level of agency and interaction to the macro level of systems and social structures.

Sociology is both topically and methodologically a very broad discipline: it attempts to understand social action (Max Weber) and is situated between human and natural sciences (Auguste Comte). Macrosociology views entire societies, social systems, and populations whereas microsociology views social interaction and agency on a small scale. Paradigms in macrosociology pertain to societies, collectives, structures, systems (such as structuralism), structural functionalism, Marxist sociology, critical theory (Frankfurt School, Theodor Adorno, Jürgen Habermas, Antonio Gramsci, Max Horkheimer), American Pragmatism (John Dewey, Richard Rorty), systems theory, sociocybernetics, structuration theory (Anthony Giddens, structure vs agency), culture theory (cultural studies, sociology of culture).

Social change refers to an alteration in the social structure of a social group or society; a change in the nature, social institutions, social behaviours or social relations of a society and by default is believed to drive “global climate change”. Social change may refer to the notion of social progress or sociocultural evolution, the philosophical idea that society moves forward by dialectical or evolutionary means (prominent theories are Hegelian, Marxist, Kuhnian, Heraclitan, Daoist). Two approaches are widely used (while many more exist):

(1) Sociological systems theory (Niklas Luhmann, 1927-1998) as a transdisciplinary social science focuses on three topics:
   • systems theory as societal theory (including autopoiesis);
   • communication theory; and
   • evolution theory.
   The core element of Luhmann’s (1984) theory is communication.
2.7 Quantification and metrics of development

The – ultimately vain – attempts to quantify human development has produced a number of proposals: the global project on “Measuring the progress of societies” hosted by the OECD (2009) provided definitions of progress such as GDP/cap (to distinguish between domestic vs national product, in running vs fixed currency, at factor costs vs market price), GDP(PPP)/cap (i.e. including purchasing power parity), the Gini coefficient (income distribution) Index of Sustainable Economic Welfare (ISEW), human development indicator (HDI), gross national happiness, freedom house index (democracy), ecological footprint (environmental burden), the “QL”, the happy planet index, world values survey and many more. Some metrics apply corrections to GDP/cap (satellite systems of national accounting such as “green GDP” or NAMEA (Wolf et al., 1998)), some are totally independent metrics.

Whatever approach to measuring “progress” is taken, any metric always corresponds to a perception of what “progress” means; hence any measurement is highly ideology-dependent. Several views do not claim inherent “progress” in history as such.

3. Economic systems

The “magnetic field” of any globalisation discourse extends itself between the two poles of “modernisation theory” and “dependency theory” (Ahamer, 2012, p. 321).

3.1 Neo-classical growth theory

The concept of modernisation tried to replace earlier concepts such as “development” (to avoid negative association: underdevelopment, backwardness) or progress by a value-free term but is nevertheless still tacitly used in connection with an emphasis on values and teleological orientation.

Principally, thorough study of and orientation in economic thought is essential for any multicultural professionalism, especially for “GS” curricula. Informally, a conflicting series of economic paradigms (Figure 3 below) is given by mercantilism, physiocrats, classical growth theory (David Hume, Adam Smith, etc.), neo-classical growth theory (exogenous growth, Solow-Swan, steady state), the concept of creative destruction by Josef Schumpeter; Keynesian economics, postcolonialism, development economics (transitions: A. Sen, J. Stiglitz), institutional economics and others. In the so-called growth debate, economist Sala-i-Martin (2002) argues that global income inequality is rising, whereas the World Bank argues that the rapid reduction in global poverty is in large part due to economic growth.

In general, the economics of development exhibit the same basic tectonics as economics in general, namely the main three steps:

(1) neo-classical economics;
(2) Keynesian economics; and
(3) the so-called neo-classical synthesis.
Economic schools formally fall into mainstream economics and heterodox economics. Neo-classical economics includes the basic neoclassical assumptions of:

- rational choice theory;
- a representative agent; and
- rational expectations.

Neoclassical methods include calculus, optimisation, and comparative statics. Criticism of neo-classical approach targets:

- the rationality of economic agents (homo oeconomicus);
- the existence of a market-clearing equilibrium; and
- the exploitative use of labour and natural resources.

Some neo-classical economists “believe that the neoclassical ‘holy trinity’ of rationality, greed, and equilibrium is being replaced by the *holy trinity of purposeful behaviour, enlightened self-interest, and sustainability*” (Krisciunas, 2010, p. 48).

The question of “why are some rich and some poor?” leads classical growth theory to understand that causes of economic growth are mainly constituted by “production factors” such as capital, land, labour, technology, education, and human resources and cautiously extends out to additional cultural and political parameters. Methodically, classical growth theory strongly relies on correlations of data points.

3.2 **Critically perceive growth literature!**

The question “what drives economic growth?” is posed with a view to receiving answers to the question “what could be done to increase growth?” Suggestions from various authors include:

- increase international commerce (Acemoglu and Ventura, 2002; Ades and Glaeser, 1999; Estevadeordal *et al*., 2003);
- increase international integration (Devereux and Lapham, 1994; Rivera-Batiz and Romer, 1991; Romer, 1994);
- invest in so-called “human capital” (Barro, 1991, 2001; Mankiw *et al*., 1992; Nonneman and Vanhoudt, 1996; Stokey, 1991; Islam, 1995; Rosenzweig, 1990; Becker *et al*., 1990);
- invest in research and development (Jones and Williams, 1998; Grossman and Helpman, 1994);
- invest in technology (Basu and Weil, 1998; Young, 1993; Zeira, 1998; Romer, 1990);
- invest in physical capital (deLong and Summers, 1991);
- build up financial systems (King and Levine, 1993);
- public policy making (King and Rebelo, 1990; Barro, 1990);
- enhance equity of incomes (Alesina and Rodrik, 1994);
- promote institutions and democracy (Mauro, 1995; Temple and Johnson, 1998; Huber *et al*., 1993; Przeworski and Limongi, 1993; Bardhan, 1993; Scully, 1988; Ehrlich and Lui, 1999); and
- [..] or endogenous growth alone is decisive (Jones, 1995; King and Levine, 1993; Pack, 1994; Romer, 1994; Bernanke and Gürkaynak, 2001; Solow, 1994).
For a more detailed view in a broader frame of analysis, read Ahamer (2008, 2004, pp. 38-39). On the one hand, suitable elements can be found in all above pieces of literature, on the other, mere correlation of data is not able to grasp the complexity of economic systems.

On a meta-level, it is essential to ask the following question: how appropriate is it to increase economic growth? What underlying concepts does it serve? How helpful is additional economic growth for QL in certain regions of the globe? This issue has to be critically discussed and confronted with targets of global equity and justice. A “caring” approach of a “world gardener” would be able to incorporate diverging needs of populations on different levels (Rauch, 2013).

3.3 Ecological economics: Herman Daly
The inventor of a potential consensus among economic paradigms, Herman Daly, has worked as a senior economist at the World Bank, received the “Alternative Nobel Prize”, co-founded the peer-reviewed academic journal “Ecological Economics” and laid out his views, e.g. in an article in Scientific American on: “Economics in a full world” (Daly, 2005). As main books, he wrote “Steady-State Economics” (Daly, 1977), and “Beyond Growth” (Daly, 1996). He has developed policy guidelines relating to sustainable development, is one of the founders of the scientific field of ecological economics, has been a critic of neo-classical economics, has spoken of “uneconomic growth” and has developed a new type of “steady state economy” for a “full world”, and “invented” the ISEW for a so-called “green GDP”. Authors in a similar tradition are Hinterberger et al. (2009), Thompson et al. (2013) and Common and Stagl (2005).

3.4 The “spatial turn” in social sciences
One of the latest paradigmatic shifts in social and economic sciences was to take into account “space”. In recent understanding, space was no longer (Cartesian) container space, but a result of cognition (Kant) (Ahamer, 2012, p. 326). Consequently, developmental science and science in general could find a well-equilibrated view of complex procedures using:
- a space-referenced view (geographic perspective); and
- a time-referenced view (historic or economic perspective).

A considerable “spatial turn” in human and social sciences was identified by Ed Soja (2003) in that he “felt overdue after a century-long emphasis on historic and social sciences” (Gebhardt et al., 2008, p. 32). For Soja, the task of geography as “spatial science” consists in “analysing the unrepeatable uniqueness of spatial patterns and the simultaneousness of different forms of societal organisation and structurisation”.

For the philosopher Immanuel Kant, the categories of space and time represent the foundation for cognition. For him, only space and time enable access to the world. Recent social geography, however, deals with the concept of space as such. A conceptual start was symbolically highlighted by “geography on the beach” by Peter Haggett who viewed absolute and relative positions of persons.

Geography – when seen as a socially constructed a discipline – has started to ask whether space is produced or real. In particular, with a developmental interest, developmental geography addresses how specific societies produce knowledge and related spaces. As an example, Unwin (1992, p. 1) addresses how “knowledge” is produced differently by different societies:
We suggest that what a society accepts as being truthful statements are the result of a series of interactions between social, political, economic and ideological interests. More formally, it is designed as a historically oriented reflection on the emergence of contemporary geography, which seeks to reveal the underlying connections that exist between knowledge, power and human interest.

4. Geographic systems

4.1 Geography – the art of seeing layers

As overall architecture, the three pillars of geography guarantee multidisciplinary approaches (Gebhardt et al., 2008, p. 65sq.):

- (1) physical geography;
- (2) human geography; and
- (3) environment, ecology, human ecology, political ecology.

Geography focuses on the overarching functional relationships between physis (nature), anthropos (humans), economy and society (Gebhardt et al., 2008, pp. 48, 65). The layers of (geographic) understanding (“Hettner’s layer model in the nineteenth century; Weichhard, 2001”) have influenced the concept of geographic information systems (GIS) and of virtual globes (e.g. Google Earth). According to Strobl (2012), nearly everything is “spatial”: almost all data (80 per cent) have a relationship with space.

When “mapping” geography itself, the main modes of viewing and organising reality (Borsdorf, 1999; Haggett, 2001) comprise economic geography, social geography, cultural geography, human geography, and even time geography. When merely describing, geography acts as an idiographic science; when inducing, suggesting and positing general laws, geography acts as nomothetic science (Gebhardt et al., 2008, p. 67).

By conceptually introducing a space of flows as distinct from a space of places, the highly cited author Castells (1998) perceives an evolution towards a network society: relationships between human actors become more important, as is suggested in the perception of Facebook friendships as one example of social networks.

4.2 Geography of development – development of geography

Development geography means the study of economic development and QL. The Latin American author André Gunder Frank names it “the development of underdevelopment”, namely the “invention” of the concept of underdevelopment as such. He contributed to Wallerstein’s World System approach (Fischer and Hödl, 2009; Fischer, 2004, 2009).

The historic development of geography as a discipline (details in Ahamer, 2012) is a history of evolving paradigms, changing world concepts and views on realities. The initial concept of space as geographic (geodetic) space unfolds into a multitude of social and philosophical concepts (“constructed spaces”) – hence this article claims: geography provides an evolving series of views and perspectives. Key paradigms are:

- (1) For the quantitative basis of geography and GIS: Waldo Tobler’s “first law of geography”, namely: adjacent locations are similar (adjacency implies similarity: spatial autocorrelation).

- (2) Geography is “a multi-paradigmatic specialty” (Gebhardt et al., 2008, pp. v, 48) including very widely differentiated themes and methodologies.
“Geography is what geographers do” (A.E. Parkins in 1934) focuses on the overarching functional relationships between physis (nature), anthropos (humans), economic, and social issues (Gebhardt et al., 2008, p. 48).

4.3 A short history of geography

4.3.1 From antiquity to 1800, “where” questions are in the foreground, the goal is to produce a map. Hence, “geography means to know the map” (Figure 4).

The Babylonian map of the world from 600 BC (at left in Figure 4, more detailed maps in Ahamer, 2013b, p. 46) contains Urartu located in contemporary Armenia, and it is self-understood that “early settlement” of territories implies vigorous present-day political argumentation of legitimacy. Herodotus (484-425 BC) and contemporaries used “T-O maps” (at right in Figure 4) with simplified, aggregated geometry focusing on symbolically and politically virulent areas (a symbolic Jerusalem in the centre). Other milestones of historical mapping are Ptolemy’s world map (150 AD), the Tabula Peutingeriana (thirteenth century), Piri Reis’ map (Ottoman, thirteenth century), and Al Biruni’s (lived in present-day Afghanistan) map projections. This geography’s utility peaked around 1500-1800, namely geography as a descriptive, taxonomic science. Quite similar to the present-day “science” of economics, this epoch of “mapping reality” used strongly stylised facts in order to transport additional, constructed meaning.

4.3.2 The main question “what is where?” laid the emphasis on the description of spatial distributions of soil, plants and animals and leads to geo-determinism as a (developmental) paradigm during 1800-1950. Environmental determinism (climatic determinism or geographical determinism) is the theory claiming that the physical, mental and moral habits of a people are directly due to the influence of their natural environment. In this view, humans are strictly defined by stimulus-response causality (i.e. environment-behaviour): “aspects of physical geography, particularly climate, influence the psychological mind-set of individuals, which in turn define the behaviour and culture of the society that those individuals formed” (Cole, 2013). This paradigm saw highly doubtful followers: Carl Ritter (1779-1859, was misused for the “Lebensraum” approach), Friedrich Ratzel (1844-1904), and Karl Haushofer induced German geopolitics, followed by Ellen Churchill Semple (1863-1932) on the Anglo-Saxon side, and in a similar way recently, Jared Diamond (1937-) with his book “Collapse: How Societies Choose to Fail or Succeed” (Diamond, 2005).

4.3.3 After environmental determinism, the possibilistic revolution around 1900 in France appeared with Paul Vidal de la Blache (1845-1918), a multi-faceted geographer with his concept of “lifeways” (French: genres de vie). Emphasis was laid on the liberty of humans and on the wide scope of their possibilities. Possibilism in cultural geography is the theory that the environment sets (only) certain constraints or limitations, but culture is otherwise determined by social conditions (APHUG, 2013).

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Figure 4.
At left: Babylonian map; at right: so-called T maps or T-O maps containing “oceanus fluvius” as separator of stylised continents

Source: Niederland (1957); Zainer (1472)
Similarly, regional geography sees its task as the synthesising of “landscape” through “regional studies of wholeness”, using cultural, ecological and historically-genetic approaches. For Alfred Hettner (1859-1941) chorology is the study of places and regions (χώρος: place, space in Ancient Greek). Richard Hartshorne (1899-1992) embarked on areal differentiation.

4.3.4 The “quantitative revolution” in the 1950s-1960s paved the way to analytic and theoretical geography (in Germany: functional phase). Statistical methodology and mathematical modelling (e.g. multivariate analysis, location theory, geomatics, and GIS) served to understand how processes are spatially organised. Paradigmatically, Marxian structuralism and the critique of global capitalism was used by an influential author, David Harvey (1935-), who wrote “The Condition of Postmodernity” (Harvey, 1989), Justice, Nature and the Geography of Difference (Harvey, 1996), and used the term of “time-space compression”. Other representatives are Peter Haggett (1933-), Torsten Hägerstrand (1916-2004, the initiator of time geography, Figure 4) and Peter Gould (1932-) who wrote the pleasantly readable book “Becoming a Geographer” (Gould, 2000) and coined the methodology of mental maps (Figures 5 and 6).

The quantitative revolution decisively shifted from a descriptive (idiographic) geography to an empirical law making (nomothetic) geography. It reduced all social relations to relations of space and renders it possible to apply to human relations the fundamental logic of the natural sciences. Consequently, David Harvey’s understanding of geography enables a (purely) geometric science of spatial relation which further facilitated the success of GIS – the latest victory of thorough quantification.

4.3.5 Critical geography emerged during the 1970s-1980s, using the critical theory of the Frankfurt School, approaches of behavioural geography, econometrics and radical geography. As an example, “Antipode” is a radical journal of geography. Postmodernist geography employs ideas of postmodernist and poststructuralist theorists to explore the social construction of spatial relations. It emphasises the role of language, power relations, and motivations; Jean-François Lyotard (1924-1998) is

Notes: At left: diffusion of urbanisation of the classical world in earliest history from east to west; at right: regional diffusion of industrialisation from west to east
Source: de Blij and Muller (2000, p. 54); Knox and Agnew (1997, p. 148)
4.3.6 Geography is a plurimethodic science. Essentially, geography is a science where the object (i.e. worlds, reality) is more important than the methodology (e.g. physics, economics); hence geography is subject to a continuous methodological discussion and a sequence of methodological turns. Consequently, an important first phase in any geographic project constitutes the choice of the appropriate method. An ironic saying even holds that “human geography is the ‘Latin America’ of sciences” because of the large number of paradigmatic changes.

David Ley (in Agnew et al., 1996, pp. 203-209) posits:

The agents of the historical process are not persons but abstractions, the relations of productions. People simply play out roles prescribed for them, not by themselves or by any other people but by the functional necessity of a structural logic.

For Ley, “the denial and suppression of the subjective is an epistemological error”. He holds that geographic facts are not fatalistically predetermined; they are the outcome of both constraint and choice of processes of negotiation by geographic agents. “Is the modern individual’s authenticity merely a reflection of his/her environment?”

Notes: The mere topographic distance of all harbours of the touristic boat (A) yields the classical map which is slightly alienated when using travel times (B), and defamiliarised beyond recognition when using cost (C) or even waiting time

Source: Haggett (1990)
Multiple cultures of geography

5. Globalisation: the latest step in the history of geography
For the British sociologist Anthony Giddens (1938-), globalisation is the consequence of modernity (Giddens, 2013). He refers to globalisation as “restructuring of space and time” and hence used a profoundly geographical mode of perception. By the term “time-space-distantiation” he hints at time and space being a human construct (Knox and Marston, 2008, p. 75), symbolically visible in Figure 7. Giddens developed the theory of structuration, an analysis of agency and structure, in which primacy is granted to neither. To him, a person’s identity is not to be found in behaviour, nor – important though this is – in the reactions of others, but in the capacity to keep a particular narrative going. His main books are: Capitalism and Modern Social Theory (1971), New Rules of Sociological Method (1976) and Modernity and Self-Identity (1991).

The concept of network society was mainly introduced by Manuel Castells (1942-) who concentrated on the role of new technologies in the restructuring of an economy. In 1989, he introduced the concept of the “space of flows”, (as opposed to “the space of places”), namely the material and immaterial components of global information networks. His oeuvre comprises mainly his early Information Age Trilogy “Economy, Society and Culture”: The Rise of the Network Society (1996), The Power of Identity (1997), and End of Millennium (1998). For Castells, the ways that people create meaning in their lives through collective action are irreducible sources of social dynamics: “our societies are increasingly structured around the bipolar opposition of the Net and the Self”.

5.1 Economic relationship creates space
As Figure 7 graphically shows, and everyday European experience of disappearing frontiers vividly supports, there is a mutual relationship between social (especially economic, cultural, and communicative) relations and spatial relations:

spatial relations $\Leftrightarrow$ social relations.

For Herod (2009), spatial structures (e.g. urbanisation) are a result of social relations. Processes in space-time are often represented by maps such as Figure 4 (de Blij and

Notes: At left: the “Brandt line” separates core from (semi-)periphery according to Wallerstein’s World System Theory; at right: redrawing the map after European integration

Sources: Knox and Agnew (1997, p. 21); Herod (2009); Hudson (2005, p. 106)
Muller, 2000) and are rooted in underlying concepts regarding spatial diffusion of economic patterns, such as the Thünen rings that economically explain the spatial allocation of different crops based on their production cost. In other words, functions create spatial patterns: this view emerged strongly through Christaller’s (1933) theory of “central place system”, first applied to southern Germany.

5.2 Economic and social patterns create world regions
Efforts to categorise and aggregate the world into spatial regions based on economic “patterns” (de Blij and Muller, 2000), similar to procedures and structures in Figures 4 and 7, result in patterns such as Figure 8. At any rate, the underlying understanding of development, its targets, mechanisms and processes is essential for any topographical arrangement.

5.3 Synopsis of developmental views
Different theoretical developmental views and practical approaches have diverse underlying assumptions regarding the:
- character of time as such (cyclic, e.g. Kondratieff vs progressive, e.g. Rostow);
- target of development as such;
- relative importance of single factors driving development (investment, education ...);
- shift of importance between structures and actors;
- orientation towards developmental optimism or developmental pessimism;
- preference of dependency theory as contrasted to development theory; and
- aspects included in globalisation patterns.

5.4 Long-term trends in socio-economic and civilisational development
A very detailed analysis of the time series of factors driving global change (CO₂ emissions, primary energy demand Eprim, final energy demand Eend, GNP, QL, and population P) according to a “chain formula” (Ahamer, 2004, 2008) suggests that during different epochs in socio-economic evolution, various of the above driving factors are most virulent.

Quantitative analysis based on the author’s “Global Change Data Base” suggests dynamically evolving patterns in techno-socio-economic structures named “transitions” by Raskin et al. (2002) and Küstenmacher et al. (2012). Such an assumption is backed by the quantitative detection of several transitions so far during global history:
- population transition;
- land use change transition and deforestation transition;
- agricultural and food transition;

Figure 8.
Different socio-economic functions create different topographic regions: several quickly perceivable examples of social relations creating spatial relations

Notes: From left: cultural, economic, energy-availability, income distribution, HDI, and freedom house index
Source: Ahamer (2013b)
As a result, the author suggests the following structure in time-space:

- a series of saturating curves in each parameter driving global change takes place one after the other (at left in Figure 9); and
- these saturation states are encountered at different times in different regions (at right in Figure 9).

Such a generic and quantitative approach avoids the intricacies of purely topographical categorisation (Ahamer, 2004, 2008). The advantage is that this diagnosis is almost not based on developmental paradigms but on pure statistical analysis which can be considered less based on sociological assumptions than many developmental theories.

**Conclusion**

This article has inquired about possible answers from “social and cultural geography” to the question of what affects global development. The main avenues of answers have been:

- Views from social, economic and cultural geographies: to what extent can geographic and climatic factors explain cultural patterns, styles of life and geopolitical patterns of power? To what extent can they not?
  - Can one explain economic and cultural patterns and geopolitical relationships of power (only) by geographic or climatic factors?
  - Should one rather refrain from doing so? What are cultural impacts?
  - Historic overview of concepts of the dynamics of global civilisation: analysis of changing paradigms in economics, social geography, and cultural geography as a multi-paradigmatic discipline.
- Long-term trends of techno-socio-economic development: could civilisational “paths of development” possibly be deduced from global data series such as the “Global Change Data Base”?

Suggested findings are:

- Only respect for contradicting world views can provide the full picture of global development and of GS.
• Geography is genuinely multiparadigmatic, and hence well suitable as an academic tool to understand globalisation.
• Not all paradigms within economics yield the same understanding of the complex patterns of globalisation.
• Any metric of development strongly depends on the assumed quality criterion of what development should be.
• Any attempt (or curriculum) for “GS” needs a truly interdisciplinary approach.
• The historical series of geographical paradigms is a worthwhile source of paradigms partly explaining the intricacies of development.
• Any mapping exercise (be it in time or space) strongly depends on the underlying paradigm, especially with regard to the target and mechanism of global development.
• Spatial relations are closely interconnected with social relations.
• Evolution implies change in the structure of needs: along with global evolution, there is a shift of priorities from primary needs to self-fulfilment (Ahamer, 2008).

This article hopes to accumulate several characteristic approaches from the field of social and cultural geography to the understanding of globalisation.

References


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**Further reading**


**About the author**

Gilbert Ahamer contributes to Global Studies curricula in Graz and Salzburg, Austria and represents them nationally at “Mattersburg Circle for Developmental Studies” and internationally at the meeting of the “Global Studies Consortium” at Lomonossow State University, Moscow. The author of this transdisciplinary introduction into GS thought can be contacted at: gilbert.ahamer@sbg.ac.at

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