

# GEOGRAPHY

## History and Concepts

### Fifth Edition

To my grandchildren Elisabeth, Mathilde and Selma with the hope that  
geographical research and dedication will help to save a sustainable life on  
earth for the future

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Fifth Edition

Arild Holt-Jensen



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SAGE Publications Ltd  
1 Oliver's Yard  
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Editor: Robert Rojek  
Editorial assistant: Catriona McMullen  
Production editor: Katherine Haw  
Copyeditor: Neil Dowden  
Indexer: Arild Holt-Jensen  
Marketing manager: Susheel Gokarakonda  
Cover design: Stephanie Guyaz  
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# WHAT IS GEOGRAPHY?

## Introduction: Dream and Reality

Of course the first thing to do was to make a grand survey of the country she was going to travel through. ‘It’s something very like learning geography,’ thought Alice, as she stood on tiptoe in hopes of being able to see a little further. (Lewis Carroll (1872) *Through the Looking-Glass and What Alice Found There*)

Alice started from ‘some-where’ in her family garden in Oxford when she decided to follow the White Rabbit. But was she going ‘no-where’? A number of different perspectives are juxtaposed in her experiences in Wonderland:

‘Will you tell me, please,’ she said, ‘which way I must go from here?’

‘Yes,’ said the Cat, ‘but mustn’t you tell me where you want to go?’

‘Well, any place –’ Alice began.

‘Then you can go any way,’ the Cat said.

‘– if it is a place,’ Alice said.

After pointing out the Hatter’s house, the Cat explained that as everyone in Wonderland was mad, Alice must be mad too. The Cat did not go away, but it was still not there anymore. It just disappeared, its big grinning mouth the last to go. Space and time do not matter in Wonderland. At the Hatter’s house, the watch does not tell the time because it is always tea-time, and Alice is told there is no place for her, although there are many empty chairs. And strange doors and paths appear at the most unlikely places. Luckily she has pieces from both sides of the mushroom to eat, to get smaller or bigger when it pleases her. This comes in handy when she enters the rose garden to play croquet with the Queen of Hearts. This is the Queen’s **territory**, over which she seems to have total control, shouting ‘Off with his or her head’ every time someone displeases her. But heads were not cut off, as it was difficult to find the head of a playing card or the body of the Cheshire Cat. The trial before

the Queen's tribunal is fearsome as long as Alice is the size of a small girl; but as she swallows a 'get bigger' bit of mushroom the assembly is reduced to a pack of fifty-two small playing cards.

The experience of Alice in Wonderland is like a *dream*, which can be experienced as a sensed reality. One night I dreamt I was in charge of a BA field course to the Norwegian fjords, but had forgotten to order a bus for transport and also where the students should meet! Waking up I urgently felt the need to do something with this misery before understanding I was in my bed and had been dreaming. I had no field course to take care of. For a moment, however, the dream was a sensed reality!

We may agree that 'Wonderland' or 'Dreamland' does not exist in reality, but what is reality? The outer frame of any survey or research project rests upon a basic philosophical position – an **ontology**; that is a theory about what exists and what it means to exist. If we all adhere to the basic assumption that there is a real world of existence out there, we must admit that most of this existence is unknown to us. So we need a theory about how to get knowledge about the world – an **epistemology**, a theory of knowledge that guides the formulation of research problems. An epistemology (see Figure 7.1, Box 7.2, p. 130) is the basis for scientific **methodology**. Science traditionally is based on the assumption that knowledge about the world can be acquired through our sense perceptions: what we see, smell, taste, hear and feel when we are awake.

Couper (2015, p. 1) gives an example from a geographical field trip in the autumn. Looking through the bus window, one student turns to another and says, 'The leaves are really turning brown now.' This simple visual observation can be elaborated upon, based on knowledge of biology, climate change and so on that the student has obtained. But leaving such factual discussion aside, Couper (2015, p. 2) points out three basic assumptions:

- 1 The leaves are 'real' objects existing independently of us.
- 2 That our senses – in this case sight – provide us with knowledge of leaves.
- 3 That the memory that the leaves have not always been brown is accurate.

In practical research projects, we take these assumptions for granted. Investigations become problematic if we start worrying about whether objects like leaves are real. But it is clear that we can be wrong; we have all had experiences we cannot explain, be it dreams that seems real or hallucinations. And can you really trust that your sense perceptions are the same as your fellow observers'? We know that some persons are colour-blind, some cannot distinguish, or see, green and red colour. Even if you and I agree on seeing a green lawn and red leaves, how can we know for sure that we see green and red in the same way? As we will come back to later in this book, some geographical traditions go behind sense perceptions as a basis for research.

**BOX 1.1****POPULAR NOTIONS OF GEOGRAPHY**

When you meet people at a party and tell them that you're a geographer, they tend to ask you about distant places, capital cities and longest rivers. In my experience, they rarely ask you about globalization, sustainability, inequality or the other big issues about which geographers actually have a lot to say. The public perception of geography is a fact-based rather than conceptual discipline (Jackson 2006, p. 199).

**Popular and Professional Notions on Geography**

Most people have vague notions about the content of scientific geography (Box 1.1). School geography may have left many with bad memories of learning the names of rivers and towns by rote. This idea of geography as an encyclopaedic knowledge of places is illustrated when a newspaper rings up its local department of geography to find out how many towns there are in the world called Newcastle, or when readers write in to settle bets as to which is the world's longest river. Some years ago Norwegian State Television phoned me and I thought this would be on my international research in social geography, but they wanted me to delimit 'Northern Europe' in a programme on 'Northern attractions'! A whole TV crew came to record me drawing up different possible borders on a map of Europe.

Geographers are thought to be people who know how to draw maps and are somehow associated with the Ordnance Survey or the US Coast and Geodetic Survey. Another opinion is that geographers write travel descriptions – a reasonable belief for anyone who reads reviews of the year's books and sees that many of those listed under 'geography' are accounts of exciting expeditions to the Amazon, sailing trips around the world or something similar.

These popular opinions as to what geography is have some truth in them, but correspond only vaguely to what professional geographers actually work with. Place names, locations of towns, land use, topography and other spatial features you may observe on maps, air and satellite photos are 'facts' for geographers of the same order as dates are 'facts' for historians. They are basic building blocks for the subject, but they are not the subject itself. Haggett (1990, p. 6) in arguing for a practical and pragmatic approach maintains that if 'science is the art of the soluble, then much of geography is the art of the mappable'. Maps representing the collection of located data are very important specific tools for geographers. But we have to remember that all maps are 'mental maps', based on the surveyor's imperfect sense perceptions and what the mapmakers – or the decisions by Ordnance Survey – find important to highlight. Take a look at ordinary topographical maps from a selection of countries and you will see that the standards

for such maps differ greatly. Height curves on Danish topographical maps have 5-metre **equidistance** (the difference between height curves on a map), making us see ‘mountains’ that are only low hills of moraine, whereas a Norwegian topographic map in the same scale has 20-metre equidistance. Swiss topographic maps are artistic masterpieces; shadows and colours used give us the impression we are seeing the landscape from space! The market for maps, and the size and population density of a country, also to a large extent influence how much maps can be elaborated and how often revisions can be made. Different types of **thematic maps** are also important means of expression in geographical research, along with tables, diagrams and written accounts. Today geographers are using **geographic information systems (GIS)** and computer mapping, rather than the traditional maps (see pp. 209–212). Geospatial technologies have definitely changed geography; by combining, for instance, data from satellite images with other spatial data computer mapping has become a powerful tool for description and analyses. As stated by Bonnett (2008, p. 94), ‘the satellite and aerial data collected for Google Earth promise to allow anyone, anywhere, a God-like ability to see everything’. With access to the Internet you can start to explore the world. But to be able to analyse and make sense of what you see you need to learn more geography.

The art of visual expression and analysis is much more closely associated with geography than with other social and natural sciences. Observations recorded during travel and **fieldwork** still provide essential data for geographers. A cultivation of the power of observation is therefore an important objective in the education of a geographer. Geographical training aims at developing the ability to ‘see geographically’, to observe and interpret a natural or cultural landscape in the field and/or through the study of maps, aerial photographs, satellite images and other visual representations.

Many of us have travelled on holiday to Spain, Greece and other tempting destinations only to relax from study or work, sun ourselves on the beach and party. You may find travel guides useful to find out more about your holiday destination. Then you are a step further on your geographical journey! You may start to wonder: ‘What is different here from what I am accustomed to back home?’ What sort of a place is this? Why are some destinations more popular than others?’ To learn more as geographers we need to consider and get an understanding of the basic geographical terms **place, space, territoriality** and **globalization**.

### BOX 1.2

#### ABSOLUTE, RELATIVE AND RELATIONAL SPACE

In geography we tend to distinguish between **absolute, relative** and **relational space**. With **absolute space** we understand space as an objectively defined,

distinct physical and real entity in itself. This is an understanding of space connected to geographic surveying and cartography, and is based on the idea that space exists independently of what is going on in this space. Geography has a long tradition of mapping the physical localization of topographical features, settlements, economic activities and so on. The most typical representation of absolute space is topographical maps showing where different elements are located in a geographical co-ordinate system.

A **relative conception of space** implies that space is a relation between events or locations, and thus bound to time and process. Localization in space is understood as relative, as the main focus is how something is located in relation to something else. It means that questions about distance, direction and connection between elements in geographic space are important. In economic geography we often study economic activities based on their relative location and connection to important factors of localization; for instance how oil refineries are located near oil fields or in harbours with good facilities for large oil tankers. The aim is not to describe absolute location in a co-ordinate grid system, but to analyse how something is located in relation to other factors. Relative space is particularly related to research within **spatial science** (Chapter 5).

**Relational space** implies that space is constituted in relations embedded in objects, actors and practices. We relate to other people and the physical environment. Relational space is consciously or unconsciously embedded in our intentions and actions, so to understand what is going on in the world we need to explore how actors understand limits and possibilities in space. This means that if we seek to understand geographical patterns, more than just presenting a plain description of absolute and relative location, we need to understand the economic, social and political relations and structures that create these patterns. Relational space is basic for **assemblage** and network theory, which will be discussed in Chapter 10.

How do the three spatial concepts relate to each other? Do we need to choose only one of them? Harvey (2006a) maintains that the three spatial concepts are related to each other as concentric circles in which absolute space is the narrowest and relational space the most inclusive. Relational space can include both absolute and relative space, whereas absolute space cannot include relative and relational space (Jordhus-Lier and Stokke 2017).

## Place, Space, Territoriality and Globalization

All human actions involve space and place. The world is full of **places**, from mountaintops and forests to towns, streets and houses. When we travel fast in a car or by train and only briefly observe the places passing by, we conceptually recognize it as a journey through **space** (Box 1.2). Distances recognized as kilometres, travel time or as psychologically felt distance become more important than the places we pass by. We may recognize during our travel in space that in the modern world many differences from place to place are disappearing.

**Globalization** leads to ‘McDonalization’ (Ritzer 2014) with the same architectural style all over the world. Globalization makes places more ‘look-alike’. Some call this ‘placelessness’ (Relph 1976). On the other hand, we experience in the contemporary world a counter-current of **postmodernity** which aims at preserving or creating places of special meaning. As increasingly millions of people today see international travel and awareness of place differences as normal parts of ordinary lives, the place-specific becomes much more interesting than the placeless features of modernity.

Relph (1996), however, warns that active investment in the production of places with special qualities can also imply ‘placelessness’ when place identities are fabricated for economic exploitation. Place identities should rather grow slowly through the activities of local people in line with the thinking of social scientists like Pierre Bourdieu who through the concept ‘**habitus**’ defined conditions for a **social sense of place** (see Hillier and Rooksby 2005 and Chapter 9, pp. 162–163). Architects like Christian Norberg-Schultz (1984) argue that physical planners need to take care of ‘**genius loci**’, the spirit of place that is conveyed to us in the old towns of Praha and Jerusalem, but is absent in new suburban housing estates or created palaces of consumption. This humanistic research tradition may, however, be criticized for presenting top-down normative and romantic viewpoints that often contrast with the understanding of a ‘good life’ as seen ‘bottom-up’ by locals living in suburban housing estates (Rørtveit 2015). This is in line with Massey (1994) who points out that the seeking of a sense of place in ‘sanitized heritages’ can be seen as reactionary. It is often combined with an antagonism to newcomers and ‘outsiders’. Massey (1994, p. 151) confesses that people need ‘a bit of peace and quiet – and a strong sense of place’, but we cannot escape from the realities of global processes.

The **time–space compression**, a world that gets smaller due to the reduced time and costs of transport and communications, means a **globalization** involving much more than ‘McDonalization’. **Economic globalization** implies worldwide capital flows that can quickly change the lives in local communities. It involves top people in industries and politics who see the whole world and all new communications as their playgrounds, but also immigrants and refugees trying to move to new places to find a meagre livelihood. **Cultural globalization** is a result both of ‘soap operas’ and ‘tweets’ through modern media and the increasing ethnic diversities through immigration and settlement of new peoples creating both conflicts and possibilities in local communities.

Places, or sense of place, cannot be preserved as a stable, essential identity; there will always be economic, cultural and political ties between any local place and the wider world. Places are not static, they are in a process, and they do not have distinct borders. Massey (1994) uses her local neighbourhood, Kilburn High Road in London, as an example. The street has a mixture of different ethnic shops and restaurants, and a strong Irish community as well as

Muslim and Hindu in addition to Anglican English inhabitants. Many of the inhabitants have most of their links to people and organizations outside the local community, but there are also local societies. Kilburn High Road represents a **global sense of place**, a progressive sense of place that creates and re-creates wider and more local social relations.

In our geographical expeditions or travels, **place** becomes much more than the visible, the buildings and landscapes we see. Places are, to a great extent, the social constructions we form in our heads and that are created through our *social relations* in places. We can exemplify this with a very local, concrete example. A pub is a physical place that can have a nice interior furnishing in an old building, but it is of interest only if it is the place we meet our friends. A place can also have a special *meaning* for you if you experienced something special there, for instance if it was there you met your partner for the first time. So if we link ‘**genius loci**’ and ‘**habitus**’ we see that we have to understand **place** as something combining *physical nature* (which also includes houses and streets), *social relations* and *meaning*. These are three basic concepts in Sack’s diagram (Figure 1.1, p. 9).

The **time–space compression** and the processes in local communities are also linked to **political globalization** which implies that we are dependent on each other on our small vulnerable planet, but as well that there are fights over supremacy between capitalist actors as well as between nations. We have, in our local studies, to see places as **assemblages** of global, national, regional and local actors, and forces. This means that we need a basic understanding of the geographical term **territoriality**.

An agricultural field is a place, but gets meaning as an area that needs ploughing, weeding, sowing and harvesting to produce what the farmer – although limited by legal rules, economic possibilities and personal needs and abilities – has decided for it. When using the power of decision in this way we create **territories**. This is equivalent to use of *geographical power*, a power that is seldom absolute. Territoriality creates places designated for specific functions, and thus places of distinct meaning such as a living room, home or school. We all need territories in which we have relative control. A kid, growing up, will try to enlarge the action space, but perceptions of ‘safe’ and ‘unsafe’ areas are always there to set limits. As grown-ups we may have developed so much self-confidence and a strong personality that we will dare to move almost anywhere. But this is depending on what kind of person you are, your gender, physical strength, social status, age, ethnicity, education and so on. Territorial safety also depends on whether you feel yourself to be an ‘outsider’ or ‘insider’ in a place.

Our experience of territoriality, abilities in territorial command, is an important part of our **relational space**; the understanding and feeling of spatial relations that we carry in our mind and that our actions are based on. Some years ago I stayed for one week at a beach hotel in Bentota, Sri Lanka, and realized how place, space and territoriality can be studied in the micro cosmos of a holiday resort (Box 1.3).

**BOX I.3****TERRITORIES OF A SRI LANKAN TOURIST RESORT**

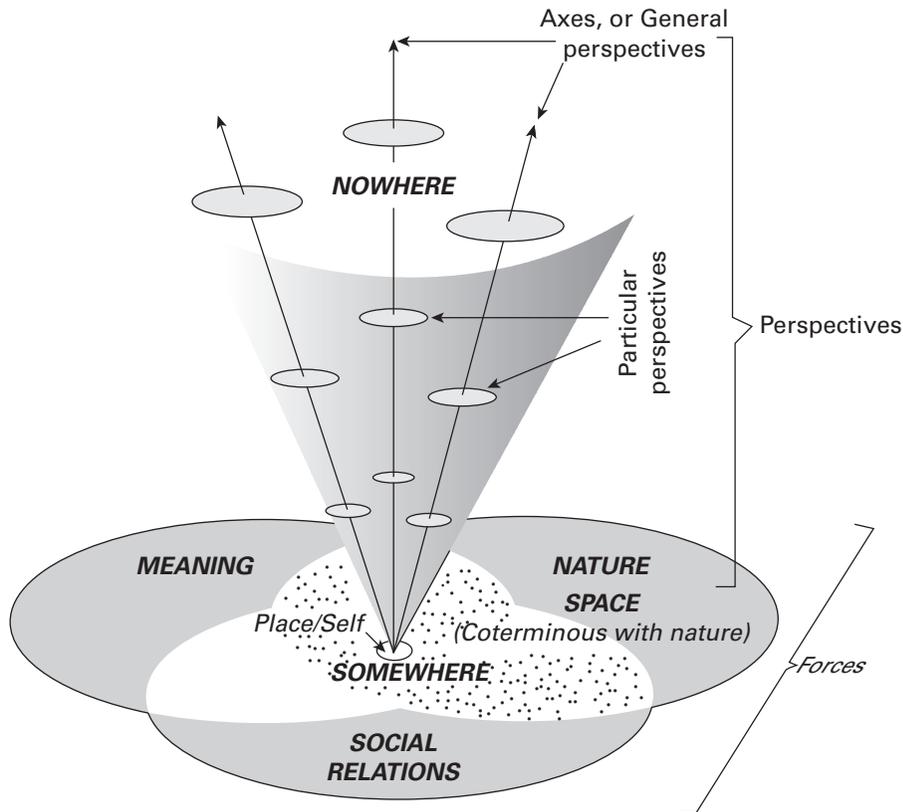
A tourist hotel sited between palm trees on a sandy beach in a Third World country seems a 'Shangri-La' of wealth and affluence in a world of general poverty. Such a place attracts beggars, fortune-tellers, taxi drivers and youngsters selling T-shirts – all in the hope of earning some money. The hotel wants to protect its guests from these 'fortune-seekers', partly because it does not want competition on the **territory** reserved for the hotel shops. So the hotel's territory is guarded as a place only for the guests, hotel employees and entertainers who have been invited in by the manager. Even the native bus drivers who transport the tourists from hotel to hotel have to sleep in poor accommodation in a part of the building that does not allow them access to the hotel's facilities. Between the palms facing the beach, guards are posted to keep the beggars out, while inside fat middle-aged Europeans are served drinks at their beach chairs.

The hotel is a pleasant oasis but, at the same time, a tourist 'ghetto' the guests do not dare break out of. When they do so on foot through the main entrance, they are at once offered taxis and guided tours and have to break through a phalanx of other offers and appeals for help. If the tourist manages to refuse all these requests and walks a couple of hundred metres from the hotel, he or she will find himself or herself in another territory. Here there might be a small child or two asking for a 'pen' but, principally, the tourist will be left to look around, to sit undisturbed on the balustrade or to walk around the marketplace.

The ring of fortune-seekers around the hotel is also a territory, and this might be divided up into smaller territories. Each beggar (or family group) has carved out a definite small territory of his or her own. There might be competition over boundaries and zones of ambiguity, but the beggars, pimps and prostitutes have territories of action they try to control. Only those with a great deal of self-confidence and strong personalities can afford not to bother about these territories and to trespass anywhere.

***Homo Geographicus***

When you start to wonder why the place you visit is different from what you are accustomed to, you are on the way to becoming a geographer. What does it mean to be 'a geographical human being' (*homo geographicus*)? Is it something that is reserved for the specially educated geographers? No, Robert David Sack in his book *Homo Geographicus* (1997) tells us that every one of us is a '*homo geographicus*', that our geographical relations are intrinsic parts of our life projects. You can possibly agree that **place** consists of 'nature' or physical surroundings, the social contacts we have there and

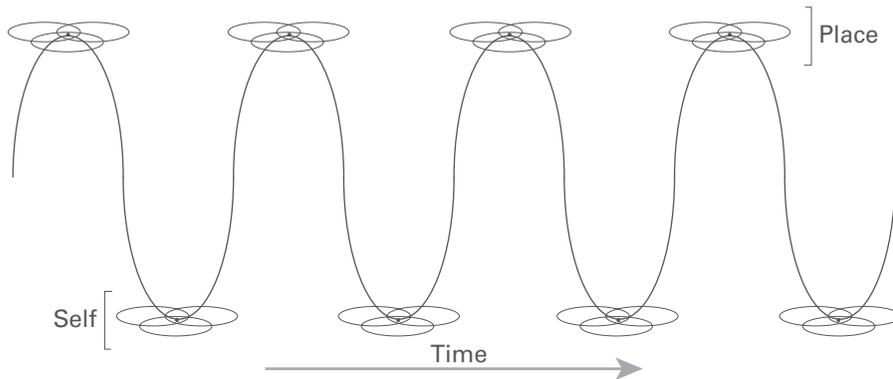


**Figure 1.1** The relational geographic framework

Source: Sack, 1992. Improved by Sack, 1999

the meaning the particular place has for us. Figure 1.1 shows this but also that place and 'self' are closely related. The growth of our own 'self', our identity, builds on our relations to the realms of 'nature', 'social relations' and 'meaning' connected to places. All the time we must relate to the physical world, to existing things that we use and to distances between things. Our social relations take place and lead on to social influence and the establishment of territories, at least in our own room or home. The realm of meaning is connected with symbols, for instance 'roots' that connect us to places through our lives. A place means something because we relate special events to it. Place, then, constitutes and integrates forces from the *realms of nature, meaning and social relations*.

The structural similarities between place and 'self' are based on the fact that both are weaving together elements of nature, meaning and social relations (see Figure 1.2).



**Figure 1.2** The dialectical relations between 'self' and place through time. From birth, our 'self' is influenced by the place in which we grow up. Gradually we also make some influence, particularly on the social relations, in the places we move to. And new experiences from places we later in life live in or visit influence our 'self'.

Source: Adapted from Sack, 1997, p.132

We have a physical body, we are dependent on social relations with others and we need to find a meaning with our life. This mix of physical nature, social relations and meaning is possible to understand primarily because it involves activities in place and space. Place becomes an active agent in the forming of our 'self'. There is a reciprocal (or dialectic) relation between 'self' and place. We start our life as kids in our parents' home and a hometown which influences the formation of our 'self' in the first instance. But then we may move to another place to study or start traveling in the world. We have our 'roots', but the development of our 'self' is influenced through new experiences in new places. To some extent we also influence the places we come to, particularly the social life around us, friends and lovers, definitely the 'meaning' of others and sometimes even the physical structures. If we get involved as a farmer, a housebuilder or politician this is definitely the case.

If you accept this argumentation, you also have to accept that **place** as a focus in life and research is basic and necessary; we cannot understand human life and activity without a conscious relation to places, their physical properties, social activities and interpreted meaning.

## Geography between Physical Science, Social Science and Arts

In intellectual life – in the scientific division of academic work – the realm of nature, the social realm and the realm of meaning are, however, separated, somehow creating an intellectual deadlock. Most scientists analyse primarily phenomena within one of the three realms while phenomena or influences

from the other two are seen as ‘background facts’ or simply overlooked. Most natural science research does not consider human behaviour. Natural science and medicine normally focus on physical processes; when the focus is on humans they are rather seen as part of nature and exposed to its forces. A medical examination finds out whether you are sick or not, through blood tests and other physical indicators, while sickness *can* be related to your personality and your social situation.

Research within sociology and political science is generally not concerned with nature and has less room for humanistic interpretation. Social scientists may maintain that our social relations guide our thoughts and our organization in the physical world and that our physical environment is socially constructed. Often it is maintained that social relations also guide ‘meaning’ as our ideas, values and belief are formed by our social roles. ‘Tell me who you associate with, and I will tell you who you are and how you think!’ The assertion that social relations guide our opinions also concerns the meaning we ascribe to nature, including the **metaphors** (conceptions) we use to define nature as something separate from humans.

Researchers working with intellectual history or literary interpretation focus, to a small degree, on social relations and the physical world. Humanists may maintain that social relations and nature concern our interpretation of the interplay between signs and symbols and that meaning and ideas motivate our actions. The world and the self are therefore mentally, not socially constructed. Research within social science, natural science and the humanities will generally assume that the chosen realm is the most important and superior to the other.

Natural scientific, social scientific and humanistic research provide three different perspectives and a basic understanding of the world, but none give the whole and full ‘truth’. Here, maintains Sack (*ibid.*, p. 15), the concepts of space and place are essential categories that incorporate all the realms. The geographic approach and understanding of place and ‘self’ bind the different perspectives and geography as a science of **synthesis** that thus has a crucial role in academia as well as for man in general.

The cone in Figure 1.1 (starting in ‘*somewhere*’ and extending out to ‘*nowhere*’) is intended to indicate two things:

- 1 ‘Somewhere’ (indicating ‘**insidedness**’) and ‘nowhere’ (indicating ‘**outsidedness**’) are limiting cases and are never in themselves completely attainable. ‘Somewhere’ is the personal perspective of the ‘ego’, whereas various degrees of public, abstract or objective ‘outside’ perspectives are located further up in the cone.
- 2 The cone illustrates that there is no single or objective perspective from ‘nowhere’: even a strict scientific approach is influenced by our perspective from ‘somewhere’, our learning and background. The lenses in the cone represent such different paths or perspectives. A scientific, abstract lens trying to give an objective view from ‘nowhere’ could draw attention to place as its

location and relations in space, whereas a less abstract lens further down on the same axis could be analysing a personal sense of place. Throughout the history of geography, most research approaches have intended to have a scientifically ‘objective’ (‘nowhere’) approach. Our study of place is, however, dependent upon the methods we have learned in our preferred geographical school of thought. And the understanding and methods in geography will differ from what a historian or sociologist will focus on in the study of a particular place. In addition our approach is also related to our moral, or religious, background.

The discussion of concepts as ‘nowhere’ and ‘somewhere’ is directly related to the methods we use in scientific investigations. **Quantitative methods** have in general been related to a research view from ‘nowhere’. We have learnt some methods in the discipline to analyse a place through use of published statistics, questionnaires, maps and aerial photos. But note that there is a variety of such methods which may lead to different results even if we do not have any ambition to explore the **sense of place** as understood by the locals. And we may get quite different results if we try to reach down to ‘somewhere’, experiencing the local life by living there and using **qualitative methods** such as **participant observation**.

Sack (1997) has given a strong philosophical argument for a geography including both physical, social and humanistic fields, whereas other geographers have maintained that the methods in human and physical geography are so different that an organizational split between human and physical geography is needed. As a student, you will notice that geography has no obvious place in the traditional classification of the sciences by faculty in the universities. In Eastern Europe, geography is in general located in the faculty of natural sciences; in other countries, you find geography in the faculty of social sciences or even arts. Only at some universities, like in Utrecht, the Netherlands, is the problem solved with a separate faculty for the ‘geosciences’.

The organizational situation for geography at each university is largely a result of historical legacies. The discipline has deep roots, which we will follow in the succeeding chapters. We need to understand the historical development, starting long before geography was institutionalized as a discipline at universities. Even if the concept of *geography* was used by scholars in the Alexandria of 300 BC, it was the explorations and cosmographic tradition that formed the basis for a unified geographical discipline.

## Exploration and the Cosmographic Tradition

Until the end of the nineteenth century voyages of discovery and the mapping of formerly unknown lands were closely associated with geography. Wayne K. Davies (1972, p. 11) maintained that geography enjoyed its strongest relative position among the sciences during the so-called ‘golden age’ of exploration from the fifteenth to the nineteenth centuries. This was not due to the academic

status of the subject during this period, but to the work of a number of people who were actively involved with the mapping and description of the new lands being discovered. To the extent that they were working scientifically, they would, however, be better described as *cosmographers* rather than geographers. **Cosmography**, as termed by Schmithüsen (1976, p. 10), included not only geography and cartography but also natural sciences like biology, geology and geophysics, and social sciences like anthropology, which only achieved their independent academic standing towards the end of the nineteenth century. Exploration and all these other fields of cosmographic activity were also regarded as being part of geography by the general public because they were carried out, to a large extent, under the auspices of the **geographical societies** (see Box 3.1, p. 36).

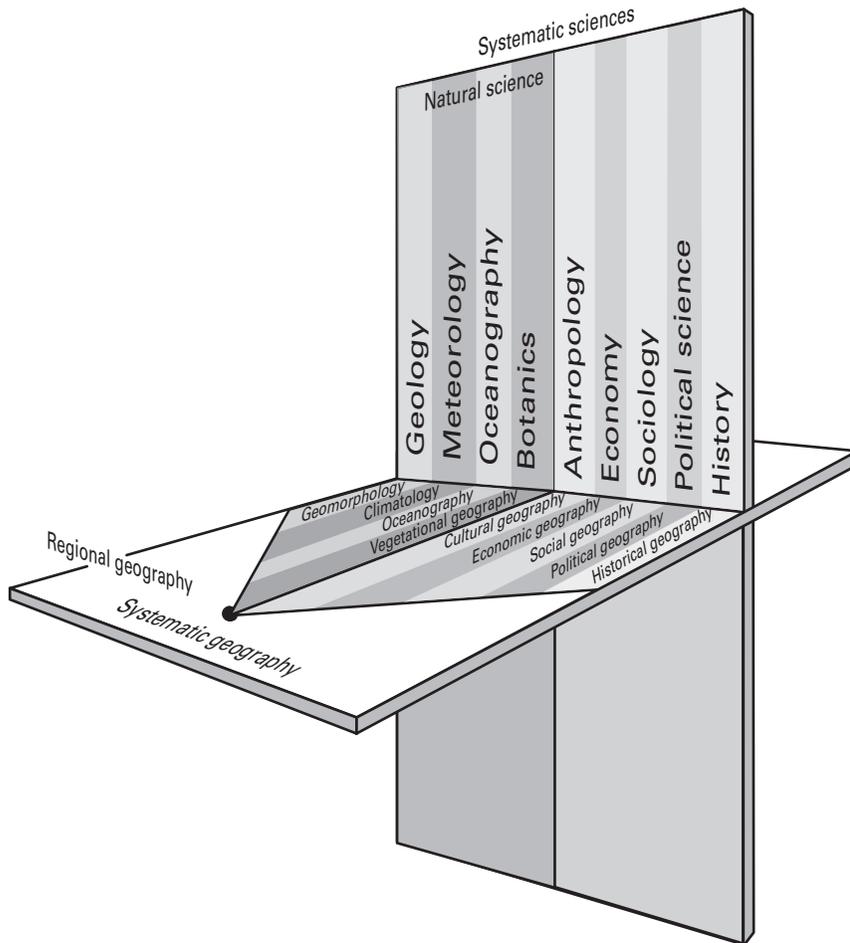
Geography developed as an academic discipline partly based on a cosmographic philosophy that was developed to give coherence to the different activities of the geographical societies. Gradually theoretical studies made an increasing contribution to the advancement of specific geographical methodologies. The chief emphasis remained, however, on geography as a **science of synthesis**, a science linking humanity and environment and creating a bridge between the social and natural sciences. Later parts of this book will show that **geographical synthesis** is not an easy task. Some even argue that it is impossible. We will, however, leave these critics for the time being, and present some of the synthesizing features that characterize geography.

## A Science of Synthesis

Some parts of geography have their strongest affiliations with mathematics and natural sciences, others with history, philosophy and social sciences. Other sciences study distinctive types of phenomena: geologists study rocks, botanists plants, sociologists social groups and so on. The work of geographers involves several types of phenomena, each already studied by another science. Are geographers, therefore, ‘jacks of all trades and masters of none’? Representatives from some other disciplines, like the historian Peter Bowler (1992), maintain that geography is a classic example of a subject that can disappear as a separate discipline and split up in its different specialties.

Geographers would argue that although the subject matter is shared with other disciplines it is treated in a different way for geographical purposes. Many maintain that the subject matter of geography is exclusive; geographers alone study **places**.

To clarify this point we may look at the position of geography as presented by Richard Hartshorne (1939) in the only figure in his influential book *The Nature of Geography* (Figure 1.3). The diagram shows that the specialized, **systematic branches of geography**, like vegetation geography, climatology, geomorphology, economic geography, social geography, study phenomena that belong equally to some systematic science. Hartshorne (1939, 3rd imprint 1949: 146) stated,



**Figure 1.3** The relationship between systematic geography, regional geography and the systematic sciences

Source: Adapted from Hartshorne, R. *The Nature of Geography*, 1939

however, that ‘geography does not border on the systematic sciences, overlapping them in common parts on a common plane, but is on a transverse plane cutting through them’. For every systematic science, there is a corresponding systematic branch in geography, but the perspectives and the questions asked are different. **Geomorphology** uses knowledge from geology, but the aim is to understand how the physical landscape we observe in a particular location has been shaped. The geographer studying climate is interested in how the average weather (climate) characterizes an area, not in the weather in the coming days, which is the task of the meteorologist. **Vegetation geography** focuses on the plant societies that form forests and grasslands, not the single plant species. **Political geography** is concerned with how forms of governments and power relations differ from country

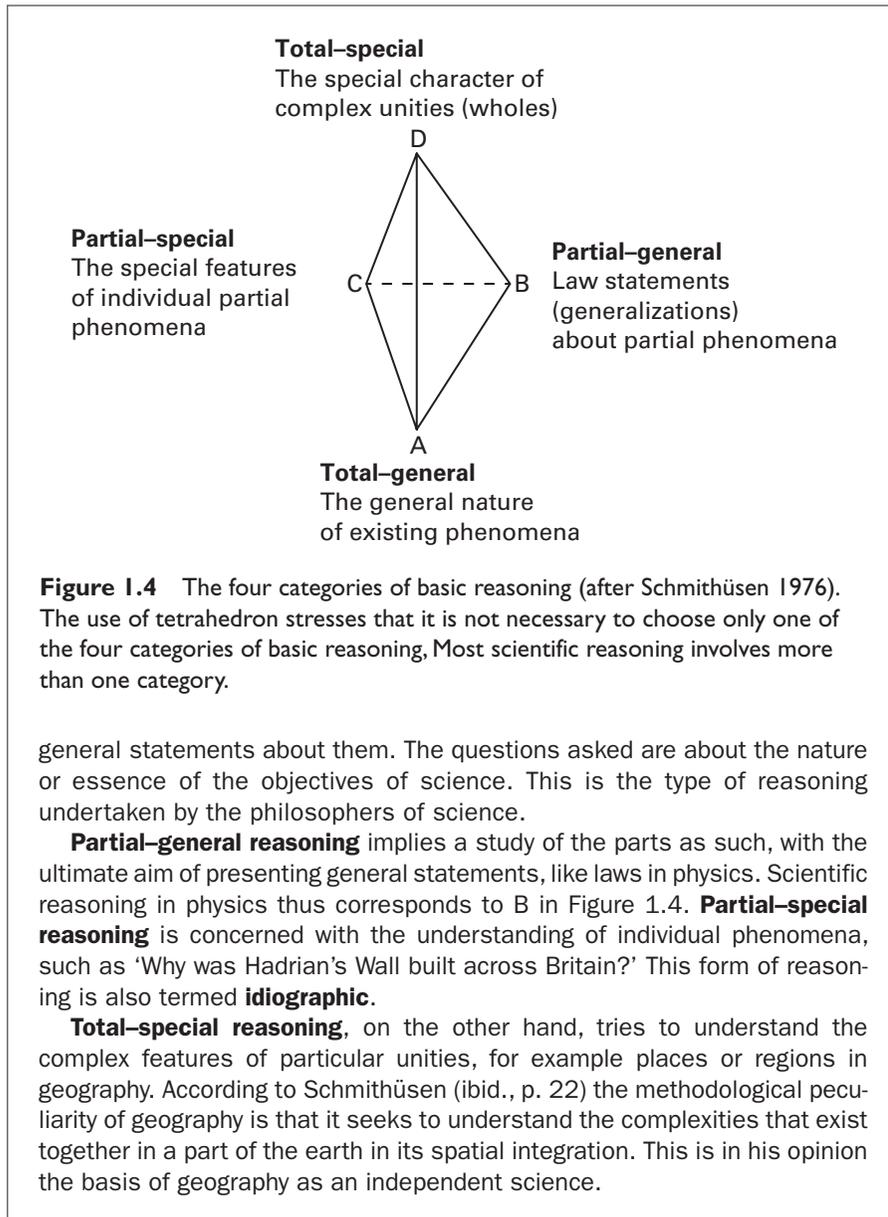
to country, from place to place, not on how decision-making functions. The **economic geographer** focuses on localization of regional clusters, networks and innovation, not on macroeconomic models for consumption growth, purchase power, interest rates, inflation and wage levels. The **social geographer** is more interested in where the different social groups are living, in segregated or mixed **neighbourhoods**, than in social relationships. There are also clear relations between the different branches of **systematic geography**. It is easy to see that climate and soil type must have an important bearing on conditions for agricultural production and that the development of industry in an area may not be due only to economic factors, but also to the natural resources of the area, its population potential and its historical and political development. Hartshorne concluded that the interaction of all these factors can primarily be studied within definite areas or regions, and argued that geography should cultivate its core, **regional geography**. Regional geography is defined as the study of areas in their total composition or complexity. In most cases, regional geography would, however, focus on the relationship between humanity and its habitat or another theme that makes an illuminating presentation of the **region** or **place** possible. Hartshorne made it quite clear that each region should not necessarily be studied in the same way. For any particular region at a particular time, a special pattern is woven linking a selection of systematic threads. A regional presentation must find the special features that characterize the area and seek the relevant systematic data that explain them. In the philosophical discussion in Box 1.4, Figure 1.4 on categories of basic reasoning **regional geography** is related to **total–special reasoning** (the ‘D’ corner). Hartshorne’s regional geography cannot, however, be placed at the top ‘D’ corner of the tetrahedron. The model, like all models, is too simple; regional geography is ‘inside’ the tetrahedron, somewhat close to the ‘D’ top. As it is impossible to cover everything in a region, the ‘total–special’ ideal cannot be reached.

### BOX 1.4

#### CATEGORIES OF BASIC REASONING, OR ARGUMENTS FOR A CHOROLOGIC, REGIONAL APPROACH

Joseph Schmithüsen (1976) attempted to establish a philosophical base for geography as a science, arguing that all scientific research is based upon four different categories of basic reasoning, which are characterized by the following pairs of concepts: total–general, partial–general, partial–special and total–special (Figure 1.4). **Total–general reasoning** implies a holistic understanding of objects with the intention of making

*(Continued)*



While there is some truth in the assessment that many geographers have lost their geographical identity to other disciplines when working with specialized systematic themes, any fear of absorption by other disciplines seems rather strange today. Geography has become an outward-looking discipline that has frequently created new specializations. This multidisciplinary perspective may

be regarded both as our *raison d'être* and our life-raft in the sea of knowledge (Capelle, 1979, p. 65). If the periphery seems interesting, why not explore it; this will only widen the 'circle of geography'.

The systematic branches of geography are breaking much new ground. Some of the world's leading economists have acknowledged the value of contributions from economic geographers. *Journal of Economic Geography*, which was founded in 2001, has become an exciting meeting place for new research contributions from both geographers and economists. The research in the borderland between the two disciplines has had a great impact on the understanding of global processes in trade and industry, and has also to a large extent influenced planning and urban policies. This must be regarded as the fruits of geographical thinking, although many inputs come via economy and regional science. A good reference is Peter Dicken's *Global Shift* (1986, 7th edition 2015), now regarded as one of the classics in human geography. As economy has become increasingly globalized, the value of a geographical perspective is becoming more and more crucial.

In principle there is a difference between social geography and sociology, but particularly within the field of urban studies with a focus on **social exclusion**, urban deprivation and housing, cross-disciplinary co-operation has become more and more important. New international projects involving geographers, sociologists and planners have been given priority, for instance in the NEHOM (Neighbourhood Housing Models) project that I co-ordinated for the European Union (EU) in 2000–2004 (Holt-Jensen et al., 2004). A recent contribution is Tammaru et al.'s *Socio-Economic Segregation in European Capital Cities* (2016) which analyses relations between increasing income disparities and geographical social segregation in 12 European capital cities (see Chapter 10, pp. 202–204).

Research within protection and maintenance of cultural landscapes has created very fruitful cross-disciplinary projects and co-operation. Biologists and geographers have demonstrated that conditions for biodiversity are much influenced by land use and particularly agricultural practices that split up natural vegetation in small fractures. Applied 'green planning' involves cross-disciplinary work (Mendhenhall et al., 2014). Botanists have come to realize the value of the broad geographical focus on human behaviour and its impact on the living landscape.

So maybe Hartshorne's model of the transverse planes needs revision; two planes may indicate that we are living in separate academic worlds. In any case, the crucial message is that the geographical perspective is increasingly becoming more important and recognized by the systematic disciplines. As noted by Bonnett (2008, p. 4) this is due to two interconnected themes that are in the main media focus: environmental (for instance **global warming**) and international (as **economic** and **cultural globalization**) change. Numerous research projects and geographical conferences increasingly focus on man and nature **sustainability**; a theme that unites environmental concerns and the effects of globalization.

## Man and Nature Sustainability: A Major Research Focus

Geography is a science bridging the gap between social and natural sciences. This makes the discipline somehow predestined to focus research on impacts of globalization and man's role in transforming nature. A reference guide is the World Commission on Environment and Development (WCED 1987), defining the aims for man and nature sustainability, which has been followed by numerous international conferences and some important agreements, most notably international settlements to curb **global warming**. The concept of **sustainability** defined by WCED could be summed up as 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Sustainability as defined is something we all can agree on in principle, but when we start to analyse the consequences we realize that they demand sacrifices in our daily life that may be difficult to get accepted. In addition to considering sustainability for future generations, a fair contemporary distribution of natural resources between people on the earth today is also required. Sustainability is multidimensional as it has economic, social and environmental dimensions and aims that may contradict each other. Politically, the conflicting aims have no chance of being accepted internationally, nationally, locally and individually if we cannot base necessary changes on solid research documentation. We need research to be able to sort out those aims and actions that require urgent priority to stop unsustainable processes downgrading life on our small planet, as symbolized on the front cover of this book! Geographers are in a good position to provide such documentation.

Our research needs to:

analyse *what* is happening (global warming and its causes, natural resource mapping) – there are many of these projects within physical geography;

analyse the *effects* of what is happening and what this means for different regions and social groups – there are many such projects within development geography and biogeography;

analyse the *ability* of public and private organizations to carry out necessary actions (as in urban planning) – there is an increasing number of projects within applied geography;

analyse the *economic* costs and *priorities* needed to sort out the best local, regional and global actions (for instance priority for electric cars or biodiesel) – this should be an important research field for economic geographers.

Increasingly young geography researchers become actively involved in such projects which we will follow in more detail in Chapter 10.

## Thinking Geographically

Hartshorne (1939, pp. 243–5) described geography as an ‘integrative’ discipline, but that is not the same as regarding it as an ‘integrated’ discipline. There is an integrative task to transmit impulses from branch to branch within the structure, but there is no need to withdraw from the periphery. Hartshorne regarded the core of the discipline to be **regional geography**. **Systematic geography** was seen as the field in which scientific ‘laws’ are formulated, whereas regional geography becomes the field in which such ‘laws’ are tested, and which also provides a **synthesis** of the physical and human phenomena within an area or region. It has, however, been difficult for regional geography to fulfil these roles. We may still postulate a core or nerve centre, but to regard regional geography as this core is no longer helpful. Jackson (2006) remarks that **relational thinking** about us and them, self and other, centre and periphery, East and West, developed and underdeveloped, poor and rich, included and excluded needs to be in focus. Thinking geographically in this manner offers a uniquely powerful way of seeing the world and making connections between scales, from the global to the local (Jackson 2006). Thinking geographically is further developed by Eric Sheppard (2015) in relation to the globalization of capitalism.

Our concern as geographers is to analyse processes and how they are linked to local, place-bound factors and regional and global forces. We are interested as well in how our relational space is formed in our everyday life and can get inspiration by Sack’s (1997) presentation of ‘*homo geographicus*’ and Massey’s (1994) exposure of ‘a global sense of place’.

Since Alice (Carroll 1872) started on her journey into the unknown land, the discipline of geography has travelled a long way. A hundred and fifty years ago the geographer’s job was the ‘grand survey’ – mapping the landscape, the **absolute space**, as seen from a balloon or a hilltop – to guide subsequent travels through it. On the basis of this surveillance, curiosity would naturally lead on to the basic geographical question: ‘*Why* is it like that here?’ Alice did not pose that question; she took in the ‘strangeness’ of life on the other side as a matter of fact. Geographers, on the other hand, have had problems in finding appropriate methods to analyse the *why* of the things observed. Geography exists to study variations in phenomena from place to place, and its value as an academic discipline depends on the extent to which it can clarify the spatial relations, local, regional and global processes that might explain the features of an area or a place.

In this introductory chapter I have tried to expose geography as a discipline and have also introduced a number of concepts and discourses that need a deeper explanation, so you will have to proceed through the following chapters to get a better basis for further discussions. The hope is, however, that this introduction has spurred your curiosity to learn more and go on to explore the history of scientific geography.

### Questions for Discussion

- 1 Set up some popular notions of geography that you have heard. How would you describe in a few words the scope and aims of geographic research to someone that has not studied it at all?
- 2 Define the concepts of space, place, territoriality and globalization.
- 3 Use examples to discuss the differences between absolute, relative and relational space.
- 4 Discuss 'sense of place' in a locality you know well; to what extent is a global sense of place relevant?
- 5 Discuss Sack's diagram in Figure 1.1. Do you agree with Sack in his presentation of the different realms that constitute place (somewhere) and that all humans are '*homo geographicus*'?
- 6 How can we understand the relations between place and 'self'?
- 7 Discuss this assertion: 'There is in research no perspective from "nowhere", there is always a perspective from "somewhere" '.
- 8 Define systematic and regional geography, and discuss the relations between them and systematic sciences.
- 9 How can geography contribute to the different aspects of man and nature sustainability? Discuss the political and individual challenges.
- 10 Discuss what it means to 'think geographically'.