

SEMI-PERIPHERAL DEVELOPMENTS: From World-Systems to Regions

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Abstract

This paper reviews semi-peripheral development. The semi-periphery is not a distinct category of states, but the world-system is characterized by semi-peripheral development at different scales, periods and types of social space. Examples of semi-peripheral development in Northwest Europe show how these are linked in specific semi-peripheral developmental paths, and how different phases of the world-system are amenable to regions with different characteristics. State rivalry was a crucial component of the semi-peripheral development of the current world-system against others. This was linked to other semi-peripheral developments in 17th century Netherlands. The industrialization of the Ruhr area and the recent semi-peripheral development of some regions in Northwest Europe with attractive landscapes, are other examples discussed.

The introduction of the semi-periphery concept improved the geography of world inequality. An extra category fits the complex spatial inequalities better than a simple core-periphery dichotomy. Many authors¹ working from within the world-systems perspective have identified semi-peripheral states. Interestingly, they all found the semi-periphery they were looking for, but they differed widely in which states they identified as semi-peripheral. Almost every state is considered as semi-peripheral. Only the United States, Great-Britain, Germany and most of the states south of the Sahara are never regarded as semi-peripheral. Remarkably, no single state is classified as semi-peripheral by all. Although the ordering of states from core to periphery is quite uniform, the borders between core and semi-periphery and between semi-periphery and periphery are drawn at different places. A continuum between core and periphery would better describe the differences in the world. This calls into question the usefulness of the concept.

Semi-periphery is, however, not a descriptive category, but an analytical instrument to study change. Theories on development are traditionally based on clear examples of contemporary core and peripheral regions. This is an appropriate strategy for developing elegant general theories, but does no justice to the differences in the world. Thinking in clear

¹ Kees Terlouw, *The Regional Reography of the World-System: External Arena, Periphery, Semi-Periphery, Core* (Utrecht: KNAG, 1992), pp. 36-45.

polarized types is quite attractive, but leads to theories that are based on only a very small and very biased sample. This is unfortunate, because the clear examples of development and underdevelopment are quite rare. The less spectacular mediocre areas are mostly studied as deviating from, or conforming to the general core pattern, or as breaking through the peripheral constraints to development. Wallerstein is one of the few to give the semi-periphery explicit theoretical attention. The semi-periphery not so much sharpens the image of the differences in the world. It improves the understanding of the dynamics of the world-system.

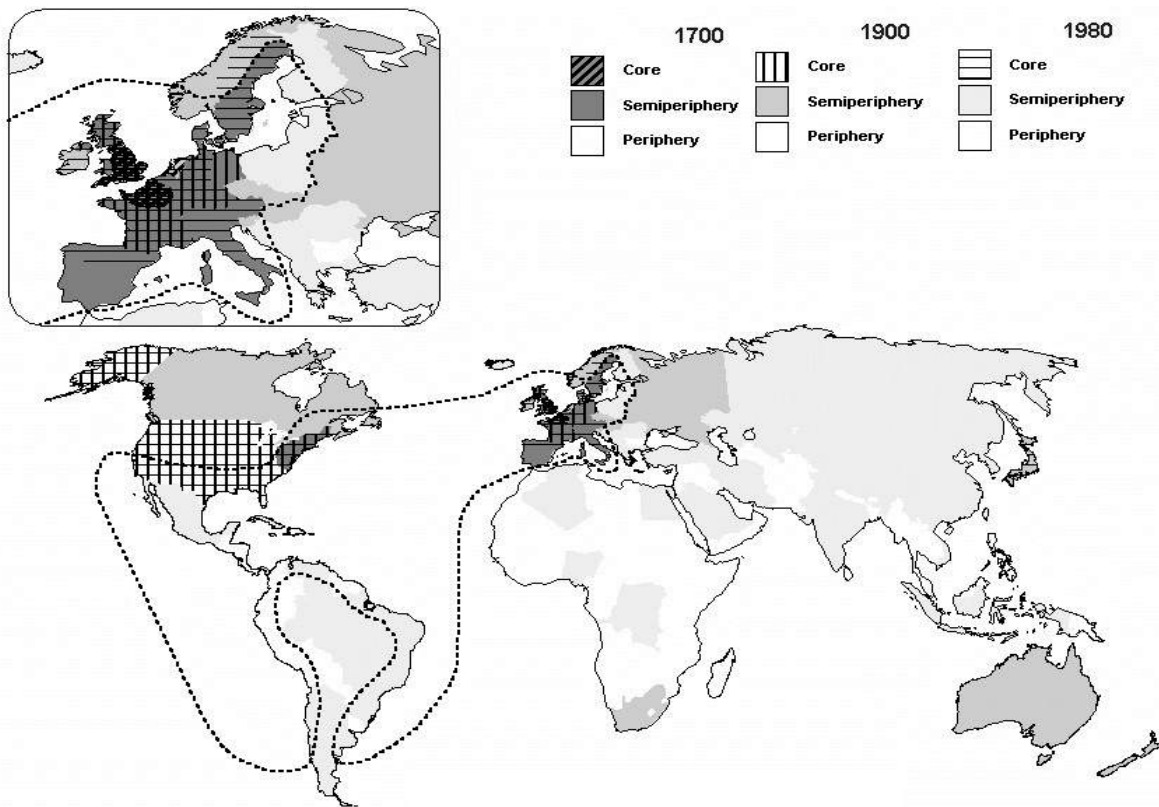


Figure 1 Mobility in the modern world-system

Figure 1 gives a first impression of the dynamic character of the semi-periphery by mapping the spread of semi-peripheral development over the world-system. It sketches the mobility in the world-system that emerges from many scattered remarks by Wallerstein on the position of states in different years². The semi-peripheral areas are grey. Areas with the lightest grey only became semi-peripheral in the twentieth century. Only Portugal and most of Spain, the area with the darkest grey, have always belonged to the semi-periphery. Usually, the older semi-peripheries have achieved core position by 1900, like Germany and the United States, or by 1980, like Sweden and Northern Italy. All core states have semi-peripheral roots. Most older peripheries have improved their position in the world-system. Only some Latin American states, like Peru, Colombia and Surinam, have always belonged to the periphery.

² Kees Terlouw, "The Semi-Peripheral Space in the World-System," *Review* 25, 1, 2002.

1. Different types of social space

Geographically, the semi-periphery is more complicated than a zone on a world map. The cartographic location of the semi-peripheral category uses only the geometrical properties of space. Many geographers have reflected on different aspects of space. Läßle³ made a useful systematization of different types of space. His starting point is the failure in the social sciences to formulate general laws independent from time and space. Whereas time has become an important social category, space is still regarded as given by nature and external to society. Läßle finds this empty and uniform space suited for mathematics, but not for human geography. Space cannot be reduced to sterile distances. Social relevant space is structured from four different archetypes of space; - *structured material space*; - *social economic space*; - *political space*; and - *cultural space*. These form a spatial matrix behind the different roles of space in geography.

The basis for all human activities is the physical material substrate which creates a *structured material space*. Nature gives opportunities to humans to use and transform the natural landscape. This form of space goes beyond what physical geographers study. It is not restricted to ecology, but incorporates also land use patterns and the location and structure of human artefacts. For instance, the spatial infrastructure for society in the form of bridges and roads result from the interaction between physical givens and human use. This creates the backbone for all human actions. The social use of this material substrate not only transforms the structured material space, but creates also a *social economic space*. Production relations create divergent class interests of people in different regions and locations. The *political space* with its institutionalized normative regulation system, connects the first two forms of social spaces. In the political space relations between states and the regulation within their territories of social relations and land use take place. A fourth form of social space is a *cultural space* based on symbolic representations. Areas are also objects of identification. For instance images of unspoiled landscapes are a potent source for national or regional mobilization. Besides these four archetypes of space, time and scale are also fundamental for understanding space.

Wallerstein also uses time and scale to differentiate between five TimeSpaces⁴. Social sciences have too long been preoccupied by unsuccessfully trying to explain social developments from the *eternal TimeSpace* determined by general laws of behavior irrespective of time and space. Although rejecting general laws, Wallerstein wants to get beyond the specific events of the *episodic TimeSpace*, which focus on a specific place, like the Chernobyl disaster in 1986, or the occupation of Iraq in 2003. These episodes not only have a dynamic of their own, but take place within other TimeSpaces. The *cyclico-ideological TimeSpace* contains longer lasting spatial divisions, like those between East and West during the cold war and between North and South during decolonization. The development of whole world-systems takes place within the *structural TimeSpace*. Expanding borders and a spatial structure dividing core and periphery characterizes this geographically. The gradual

³ Dieter Läßle, "Essay über den Raum," in H. Häußermann *et al.*, *Stadt und Raum: Soziologischen Analysen* (Pfaffenweiler: Centaurus: 1992).

⁴ Immanuel Wallerstein, "The Time of Space and the Space of Time: the Future of Social Science," *Political Geography*, 17, 1, 1998; "The Inventions of Timespace Realities: Towards an Understanding of our Historical Systems," *Geography* 73, 4, No. 321, October 1988.

worldwide ecological destruction is also part of the structural TimeSpace of this world-system. These structures are quite persistent. The changes in the positions of individual regions in the world-system take place in the cyclico-ideological TimeSpace. Access to ecological resources is a part of particular developmental paths. The recurrent change of position of specific areas within the world-system in the cyclico-ideological TimeSpace is fundamentally different from a *transformational TimeSpace*, which is an unique occurrence at the right time and place when one structural TimeSpace succeeds another.

This window of opportunity opened up for the modern world-system in ‘the long sixteenth century’ in Europe. The emergence of the modern world-system in this transformational TimeSpace started in the political space. The institutionalization of state rivalry and the role of the semi-periphery were important innovations. These are discussed below. Then attention shifts to the semi-peripheral development within the world-system.

2. The European world-system: semi-peripheral development in the political space

World history has seen many world-systems. Each ancient civilization, like Egypt, Greece, Persia, Rome and China, organized their own world-system. These generated their own cycle of rise and demise. Partially while their expansion brought about the overexploitation of their fixed resource base, leading to systemwide ecological degradation⁵. These world-systems did not develop in complete isolation from each other. Sometimes they had armed confrontations demarcating their influence in the political space. Cultural exchanges had important influences on the development of these world-systems, without creating a unified cultural space. Trade between world-systems had some cultural importance, but did not integrate their social economic space. Europe had for millennia a (semi-)peripheral position towards the Asian world-systems. Only from the nineteenth century the European-based world-system dominated and even incorporated all other world-systems.

The friction with other world-systems partly induced the semi-peripheral innovation of the European world-system. In the ‘the long sixteenth century’ the Habsburgers tried to politically unify the emerging trade based European world-system. Trade based world-systems have generally been taken over and transformed into a world-empire. The Ottoman Empire opposed this. The Ottoman Empire was part of a loose coalition opposing the creation of a Habsburg world-empire. Although rivals, states like France and England, were determined to secure their autonomy against central political and religious control. Their success prevented not only a Habsburg world-empire, but created an international political system. This institutionalized rivalry between states was the semi-peripheral innovation of the European world-system that gave it its dynamic thrust. It gave the economy the necessary relative autonomy and flexibility to develop. Rivalry with other states forced states to concede to the European entrepreneurs the freedom to develop trade relations and create an integrated world-economy. Individual states could not control their large scale trade network and the mobility of capital. States needed the financial support of the entrepreneurs to be successful in the competition with other states. This continuing competition and the increasing tax base due

⁵ Chris Chase-Dunn, Thomas Hall, *Rise and Demise: Comparing World-systems* (Boulder, CO: Westview Press, 1997); Albert J. Bergesen, Tim Bartley, “World-System and Ecosystem,” in Thomas D. Hall ed., *A World-systems Reader. New Perspectives on Gender, Urbanism, Cultures, Indigenous Peoples, and Ecology* (Lanham: Rowman & Littlefield, 2000).

to economic development, caused a continuous build up of their political and military strength. Over time, the states in the European world-system became strong enough to subjugate all other world-systems. Only in the 19th century did a significant gap in economic development and wealth between the European core and the rest of the world develop⁶. This rise of the European world-system created a new structural TimeSpace in the world.

3. The semi-periphery within the world-system

The existence of an important semi-periphery within its borders also helped the semi-peripheral development of the European world-system toward other world-systems. The present world-system is not only divided into many different states, but also into many different political and social economic zones. The semi-periphery depolarizes the relation between core and periphery. The exploited will always be divided and unable to unite to overthrow the world-system, because the strongest among them - the semi-periphery - profit from the exploitation of the periphery⁷.

The possibility to join the core also appeases the semi-periphery. The semi-periphery is the most dynamic part of the world-system. Its political economic power is clearly subordinate to the core, but unlike the periphery, it has some resources to resist this. In many core states institutional sclerosis and congestion stifle development, while in the periphery the absence of good government, services and skilled labor hampers development. Many semi-peripheral states and communities have enough regulation of economy and society for capitalism to flourish, but not too much regulation that would stifle the market. The semi-periphery maximizes the need and necessity for development.

The stabilizing function of semi-peripheral development is part of the cyclical renewal of the world-system. Semi-peripheral development in the cyclico-ideological TimeSpace stabilizes the structural TimeSpace of the world-system. Crisis in the Kondratieff like economic long waves give opportunities to the semi-periphery. Only some semi-peripheries can transform this temporary advantage into a promotion to the core⁸. Periods of system wide economic stagnation interrupts the development of new industries in the core, and stimulates their redeployment. Semi-peripheral are then attractive for new development, while they are unburdened by the negative side effects of previous development and don't suffering from the negative spiral of underdevelopment. Labor costs are the most visible cause of this global re-division of labor, but other, more hidden, production costs, like transportation costs and

⁶ Janet Abu Lughod, *Before European Hegemony: the World System A.D. 1250-1350* (New York: Oxford University Press, 1989); "Restructuring the premodern world-system," *Review* 13, 2, Spring 1990; Gunder Frank, *ReORIENT: Global Economy in the Asian Age*. (Berkeley: University of California Press, 1998); Chase-Dunn & Hall *op cit.*; Charles Tilly, *Coercion, capital, and European states: AD 990-1990* (Oxford: Blackwell, 1990); Christopher Chase-Dunn, "Comparing World-Systems: Toward a Theory of Semi-Peripheral Development," *Comparative civilizations review* 19, Fall 1988.

⁷ Wallerstein 1974 *op cit.* , pp. 348-350; Immanuel Wallerstein, Terence Hopkins, "Patterns of Development of the Modern World-System: Research Proposal," *Review* 1, 2, Fall, 1977, p. 129.

⁸ Wallerstein & Hopkins *op. cit.*; Immanuel Wallerstein, "Semi-Peripheral Countries and the Contemporary World Crisis," *Theory and Society* 3, 4, Winter 1976; Immanuel Wallerstein, *The capitalist world-economy* (Cambridge: Cambridge university press: 1979).

government regulations, like environmental protection measures, are also important. This combination of lax regulation and strong developmental pressures makes the semi-periphery vulnerable to ecological destruction. The semi-periphery has for instance the most intense deforestation due to its long history of exploitation, its strong population pressures and its drive to instant economic growth⁹.

4. The semi-periphery at different scales and in different spaces

Semi-peripheral development focuses on semi-peripheral states. Their possibility of semi-peripheral development enabled capitalism to develop. There is no single semi-peripheral developmental path. There is a general distinction between economic and political based semi-peripheral development¹⁰. Individual semi-peripheral societies differ in many other ways. Some of these differences relate to their specific location, others are related to different types of social space and periods and spatial scales.

The success of individual semi-peripheral states is generally related to semi-peripheral development at lower scales and in non-political spaces. The next section shows that the rise of the Netherlands in 'the long sixteenth century' starts with small scale semi-peripheral developments in the structured material space. The subsequent examples of the 19th century Ruhr area and the present 'green' regions also show the importance of natural resources amenable to the developmental phase of the world-system.

5. The Dutch rise: related semi-peripheral developments

In the late Middle Ages, the territories of the present Netherlands were close to the Flemish trading towns like Brugges and Antwerpen, which belonged to the core of the European economy. The structured material space reflected this differentiation in the social economic space. In 1400 the urban density of the present Belgium territory was four times that of the Netherlands¹¹. In the next two centuries the Dutch urban density more than quadrupled. In 1600 it was higher than in Belgium, where it declined slightly. The proximity to the Flemish towns changed the structured material space of the Netherlands. The exhaustion of the peat supplies in the vicinity of the Flemish towns, drew Flemish merchants to the peat supplies to the north. This exploitation in the coastal southwest part of the Netherlands, was accompanied by a semi-peripheral development of inland merchant cities along rivers based on their intermediary position between Flanders and the Hanseatic regulated trade with the Baltic.

This gradual diffusion of social economic semi-peripheral development became intertwined with semi-peripheral developments in other types of space. The Habsburgers

⁹ Albert J. Bergesen, Tim Bartley, "World-System and Ecosystem," in Thomas D. Hall ed., *A World-systems Reader. New Perspectives on Gender, Urbanism, Cultures, Indigenous Peoples, and Ecology* (Lanham: Rowman & Littlefield, 2000).

¹⁰ Kees Terlouw 1992 *op. cit.*

¹¹ Calculations based on contemporary borders. Urban density is the number of people living in urban settlements per square kilometre. Urban settlements are those with more than 3000 inhabitants, as reported in: Paul Bairoch, Jean Batou & Pierre Chèvre *The Population of European Cities: Data Bank and Short Summary of Results*. (Genève: Librairie Droz, 1988). See also Kees Terlouw, "A General Perspective on the Regional Development of Europe from 1300 to 1850," *Journal of historical geography* 22, 2, 1996.

imperial aspirations in the transformational TimeSpace to unify the emerging world-system, pushed them to increase the political control over the wealthy Flemish core. This caused wide spread resistance among those whose autonomy was threatened. The merchant towns and the regional nobility united under the flag of Protestantism. The local resistance against the centralized Catholic church allied with the Habsburgers was a strong mobilizing force. The uprising was suppressed while the large Habsburg empire could mobilize superior military forces from abroad. They succeeded in controlling the territory of that core, but much of the trade, merchants and craftsmen fled toward the safety of the towns in the marshy Western part of the Netherlands. In Holland and Zeeland the many waterways hindered the horse based large scale Habsburgs armies, but helped to create an integrated network of trade cities. External trade augmented this internal trade network.

The grain imports from the Baltic were crucial for feeding the expanding urban population and transformed Dutch agriculture. While in the Baltic it caused ecological degradation¹², in the Netherlands the ecological effects were more positive. The burning of peaty soils for buckwheat cultivation for subsistence farming was no longer necessary. The surface subsided often by several meters, causing flooding and forcing dike construction and increasing the need for artificial drainage. The Baltic grain freed these areas for a more intensive and specialized capitalist agriculture. They were excellent grazing for cattle producing dairy products like cheese, and fertilizing a specialized agriculture producing for example fibers (hemp) and dyes (madder) for shipbuilding and the textile industry. This capitalist agriculture adapted its products to changing market conditions¹³. For instance, tobacco imported from the American periphery was used for re-export partly as cigars produced in the Netherlands using locally produced tobacco leaves as cover and for cheap blends. Dutch tobacco production expanded periodically when the American supplies stagnated. This enabled the Dutch merchants to keep supplying their customers. The mother trade of Baltic grain sustained an urbanized landscape, whose urban waste intensified urban-rural relations transforming the ecology and enabling specialization in agriculture. The external trade enabled the transformation of the Dutch structured material and social economic space. The agricultural city-hinterland relations were changed, and a highly specialized and an integrated interurban system focusing on Amsterdam emerged¹⁴.

Another semi-peripheral innovation in the political space was needed for the Dutch to become hegemonic in the mid 17th century. Autonomous merchant cities were no novelty. Cities also frequently cooperated to protect their common trade interests against territorial

¹² Jason W. Moore, "Environmental Crises and the Metabolic Rift in World-Historical Perspective," *Organization & Environment*, 13, 2, 2000, p. 130.

¹³ Hans-Jürgen Nitz, "Transformation of Old and Formation of New Structures in the Rural Landscape of Northern central Europe during the 16th to 18th Centuries under the Impact of the Early Modern Commercial Economy," *BEVAS/SOBEG*, 58, 1989; "The European World-System: a von Thünen Interpretation of its Eastern Continental Sector," in Hans-Jürgen Nitz ed., *The Early-Modern World-system in Geographical Perspective* (Stuttgart: Franz Steiner, 1993).

¹⁴ Albert J. Bergesen, Tim Bartley, "World-System and Ecosystem," in Thomas D. Hall ed., *A World-systems Reader. New Perspectives on Gender, Urbanism, Cultures, Indigenous Peoples, and Ecology* (Lanham: Rowman & Littlefield, 2000); Stephen Bunker, Paul Ciccantell, "Economic Ascent and the Global Environments: World-Systems Theory and the New Historical Materialism," in Walter L. Goldfrank, David Goodman, and Andrew Szasz eds., *Ecology and the World-System* (Westport: Greenwood, 1999).

powers¹⁵. The Dutch ‘Republic’ was a more integrated political structure than previous city leagues, like the Hanse in Northern Europe and the Decapone along the Rhine. The enduring pressure from the Habsburgers forced them into much closer cooperation. This created durable political institutions covering a wide range of functions like defense, fiscal and monetary policies. The Dutch cities also gained control over the territories between them. The autonomy of the local territorial rulers was reduced, and they succeeded in keeping the Habsburgers at a distance. In the first half of the 17th century the Dutch gradually consolidated their territory by adding adjacent higher sandy regions like Brabant, which were earlier vulnerable to the horse based Habsburg armies. The Dutch protected themselves also with forward dependencies like Lingen, Kleve and Emden. Despite these characteristics of territorial control and modern state functions, the dominant position of cities prevented centralized control and made the Dutch ‘Republic’ very different from the later nation-state.

The Dutch victory over the Habsburgers was formalized in the treaty of Westphalia which ended the Thirty Years’ War in 1648. This was also an important milestone in the Europe wide development toward the modern state based on territorial sovereignty. It marked the end of the transformational TimeSpace of the nascent world-system, and institutionalized the structural TimeSpace of the world-system based on an international system of competing states¹⁶.

6. The German decline mirrored the Dutch rise

Germany suffered from this state formation elsewhere. Germany was the main battlefield of the Thirty Years’ War. This reinforced state formation in the world-system, but caused political fragmentation and decline in Germany. German trading towns were important in the late Middle Ages. While the emerging sea-based world-system focused on Europe’s coastal regions, its relative position declined. Germany slid toward the semi-periphery¹⁷. Its trading towns lost their key position in European trade. The Dutch took over the Hanseatic network and transformed the Baltic trade to their needs. German agriculture was partly transformed to serve the Dutch markets. Oxen were supplied from the Northwestern coastal regions, while further away from the Netherlands, in regions accessible by sea or rivers, grain production dominated. In the East the population was forced into a second serfdom, while in the much more populous Northwest capitalist relied on market forces¹⁸. There, the population in less accessible regions also served as a reserve of seasonal labor migrants for the Netherlands. Seasonal labor made it possible to go beyond the ecological limits to subsistence farming¹⁹.

This gradual decline in the social economic space toward the semi-periphery culminated in the Thirty Years’ War and the fragmentation of Germany’s political space. Germany failed

¹⁵ Charles Tilly, *Coercion, Capital, and European States: AD 990-1990* (Oxford: Blackwell, 1990); Edward W. Fox, “History in Geographic Perspective: the other France,” (New York: Northon, 1971); Edward W. Fox, “The Argument: some Reinforcements and Projections,” in: Eugene Genovese, Leonard Hochberg, *Geographic Perspectives in History* (Oxford: Blackwell, 1989).

¹⁶ Wallerstein 1974 *op. cit.*

¹⁷ Terlouw, *op. cit.*

¹⁸ Nitz *op. cit.*

¹⁹ Jan Lucassen, *Naar de Kusten van de Noordzee : Trekarbeid in Europees Perspektief, 1600-1900* (Gouda, 1984)

to transform its loose lineage of individual rulers into a state which could compete in the new political space of the world-system. Warring German rulers, allied with rivaling European states, made Germany the major battleground in Europe. The human and material damage was huge, but structurally more important was the fragmentation of the German political space into hundreds of independent entities. Germany declined into the semi-periphery.

The territories of the present Netherlands and Germany had in 1300 comparable levels of urban densities. Till 1700 the density in Germany hardly changed, while in the Netherlands it increased ninefold²⁰. The decline of Germany was regional differentiated in Germany. Regions in central Germany suffered the most. Most of the old important German trading towns, who had already declined, were destroyed. Some new centers developed. Especially those neighboring the Netherlands flourished. Between 1500 and 1700 the population of the German border cities increased even more than the cities in the Western part of the Netherlands²¹. German border towns were protected by Dutch military power to defend their own territory. They also profited from semi-peripheral development based on their proximity to the Dutch core.

This spatial diffusion of development from the Netherlands in the social economic space ended when the Dutch declined in the 18th century toward the semi-periphery. By then, it had induced a basic level of development making it amenable for further development. The section below discusses how Prussia's rise in the political space, and the hierarchical diffusion from Britain in the social economic space, induced semi-peripheral development of the Ruhr area and transformed its structured material space.

7. Semi-peripheral developments in Germany: Prussia and the Ruhr area

Prussia's rise is a classic example of semi-peripheral development of a state in the world-system²². This 19th century development was related to other scales, types of space, periods and places.

The Prussian state started as semi-peripheral in the German context. It developed out of territories outside the Mediaeval heartland of Germany. Allied to the Dutch, it expanded after the Thirty Years' war. Despite its institutional continuity, its territories were very changeable and fragmented. The poor resource base in its Brandenburg heartland put Prussia on a developmental path based on state managed economic growth. Education was an important selection criterium for its officials. Their individual achievement and their rotation through the different Prussian territories made them loyal to the Prussian state. This expanding modern state helped and needed economic development. This contrasted with neighboring German territories, which generally had a more conservative and anti-industrial agricultural regime based on landed gentry. Especially industrialization was important in Prussian state building. It not only increased the tax base, but also generated livelihoods for an expanding population. This made the Prussian territories more attractive for its population and made them more willing to accept the Prussian military draft.

Prussia became an important counterbalancing force on the European continent in the

²⁰ Calculations based on Bairoch, et al., *op. cit.*

²¹ German cities within 30 kilometres from the Dutch border. Calculated from Bairoch, et al., *op. cit.*

²² Wallerstein, 1979, *op. cit.*; Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: a Book of Essays* (Cambridge: Belknap press, 1962); Micheal North, ed., *Deutsche Wirtschaftsgeschichte: ein Jahrtausend im Überblick* (München: Beck, 2000).

British hegemonic arrangement. The Napoleonic era showed that the sea-based British hegemony could only be threatened by a land-based empire. The British allowed Prussia to expand its territories along the Rhine opposite France.

The semi-peripheral developmental path of the Prussian state accelerated, when the British hegemony declined. The late 19th century economic downturn also enabled this semi-peripheral development. It stimulated the redeployment of industries toward attractive semi-peripheries like Germany. These developments in the cyclico-ideological TimeSpace of the world-system, combined with Germanies changing position in the political space, the lower scale changes in social economic space of the Rhine provinces and the structured material space of the Ruhr area, created a distinct semi-peripheral developmental path.

British hegemonic decline and the growing rivalry in the international political system enabled Prussia to integrate Germany. This new political space facilitated the integration of the structured material space by the construction of railways. The new German state not only physically integrated a large continental market, it also protected it against outside competitors and stimulated industrialization within its borders. The hierarchical diffusion of British pioneered industrial development induced semi-peripheral development in the Ruhr area. This was not just diffusion. The British basic innovations were not only copied, but were transformed in the new context of the German unification in 1871. The Prussian state actively supported railway development to enhance political integration, military mobility and economic development. The steel industry, the other leading sector, also benefitted from state support. Contrary to British individual capitalism, Germany developed a more collective large-scale capitalism. The state backed banking system stimulated large scale capital intensive stock companies and their cooperation in cartels.

The Rhine provinces, an important part of the traditional European Heartland, were since 1815 unified by the Prussians. A scatterbelt of about 150 political units became united in the Prussian Rhine province. In the political space, territorial integration and regime change from conservatism to economic modernization helped development in the social economic space. This zone had also favorable conditions for industrialization in the structured material space. Population concentrating in towns with commercial traditions and relations, were part of a landscape amenable to the then leading sectors steel and railways. The railways had sufficient nearby towns to connect, without major physical or political barriers.

In the Ruhr area this more wide spread favorable conditions for semi-peripheral development combined with its specific structured material space. Especially coal gave it a good resource base for industrial development. This regional resource base combined with the interventionist Prussian state policies favoring a collective large-scale industrialization, transformed it into an integrated industrial region. Not only coal mining and the steel industry were linked, but the steel industry became functionally integrated with machine building and chemical industries. Its semi-peripheral development integrated its social economic and structured material space. In the political space it profited from being part of the expanding Prussian state. On the regional scale it was however divided over communities and provinces. Coordination took place at the Prussian state level. This hindered the Ruhr region to articulate its special interests. The administrative regions combining parts of the Ruhr region with its surrounding conservative rural regions kept the socialist proletarian danger in check. This tradition of political division still brands the Ruhr region. Its position is also problematic in the cultural space. Few identify positively with the Ruhr ²³.

²³ Hans H. Blotevogel, "The Rhine-Ruhr Metropolitan Region: Reality and Discourse. *European Planning Studies* 6, 1998.

8. The revitalization of the Ruhr area: a classic semi-peripheral success story becomes a post-modern narrative

The Ruhr's 19th century innovation of a resource based large scale industrial regional integration hinders its present development. This is a new phase in its developmental path. Some of its cities flourished in the late Middle Ages, many suffered from the Thirty Years' War, some profited from the proximity to the Dutch hegemon, all profited from industrialization, now most of them suffer from de-industrialisation. The recent general de-industrialisation in the core of the world-system hit the Ruhr area hard. The ecological destructions caused by industrialization and the disperse and unattractive workers settlements, make the Ruhr area unattractive for new investments. Attempts at revitalization focus on improving the Ruhr area's structured material and cultural space. They aim at a sustainable regional restructuring by using relics from its past success in the social economic space which had created is as a region.

The International Building Exhibition (IBA) Emscher Park is a key initiative for holistic and sustainable restructuring²⁴. By promoting culture and ecology, it aims to make the Ruhr area more attractive by reversing the spiral of economic decline, ecological destruction, social problems and negative representation. The state Nordrhein-Westfalen did not impose a master plan on the Ruhr area, but sponsored together with federal and European funds an organization which supported local initiatives. Improving cooperation between local administrations and other regional actors was an important goal.

Traditionally the communities in the Ruhr area are locked in competition. The successful strategy of the Prussian bureaucracy to control workers by dividing them, is now dysfunctional. But this division of the Ruhr's political space has become institutionalized. When the Ruhr was an integrated region in the social economic space, its articulation in the political and cultural space was suppressed. After the economic disintegration of the Ruhr area it is reinvented as a region in the political and cultural space. An exiting regional image is marketed of the Ruhr area based on its past economic integration. Derelict industrial sites are re-used to improve the Ruhr's social economic, cultural and structured material space. For instance, buildings of the Zollverein Essen house new small scale high-tech companies. The interior of the 117.5 meters high gasometer in Oberhausen is used for cultural activities like concerts. The derelict steelwork in Duisburg became a landscape park. These images of successful transformation attract a lot of interest among experts. Their inspection of the success story of the revitalization of the Ruhr area make out about half the tourist visits to the Ruhr area. The position of the Ruhr in the cultural space has improved. In the other types of space the success is more limited and patchy. It created "islands of prosperity in an otherwise declining region"²⁵. The industrial decline and ecological reconstruction projects have improved the bad environmental conditions in the Ruhr, but have not made it attractive to new developments. These favor regions unspoiled by previous development.

²⁴ Robert Shaw, "The International Building Exhibition (IBA) Emscher Park, Germany: A Model for Sustainable Restructuring?," *European Planning Studies*, 10, 1, 2002.

²⁵ *Ibid*, p. 91.

9. Recent semi-peripheral development of regions: urban push and rural pull

While the Ruhr area still stagnates, some neighboring rural regions like Borken and Coesfeld are developing. This is not typical for the Ruhr area, but a general trend. In the last decades many regions close to urbanized cores experience a semi-peripheral development. The cores suffer from a wide range of ecological and social problems, making them less attractive for housing and businesses. Commuters and footloose companies are increasingly attracted by the intrinsic qualities of a region.

The development of rural regions is no longer directly linked to agriculture. Agriculture is no longer its economic base, but it indirectly influences regional development by the landscape it has produced. Regions with a long history of intensive commercial agriculture are predominantly transformed in unattractive monotonous large scale landscapes. Especially fertile clay areas along the coast and loess soils at the feet of the more mountainous areas stimulated development in the early phases of the world-system in Northwestern Europe²⁶. Their ecological monotony is not the only aspect of the structured material space that hinders semi-peripheral development. Their successful commercial agriculture supported high rural population densities. This large established population dominated by agricultural interests makes it less attractive to newcomers. This forms a layer of previous development hindering future developments²⁷. In Northwest Europe the traditionally less well off agricultural regions dominated by infertile sandy soils have more natural and ecologically diverse small scale landscapes, with free space, low land prices, and a social structure more open to new developments. This makes them attractive to newcomers and amenable to semi-peripheral development.

10. Lippe: a new rustic regional identity obstructs semi-peripheral development

Rustic regions are not passive recipient. Some are open to new developments, but others try to keep these semi-peripheral developments in check. This depends on the specific regional situation. For instance Lippe, a region favourably located between the Ruhr area and the large city Hannover and close to Bielefeld, has an attractive landscape, but keeps these external semi-peripheral processes in check. It's attractive landscape is part of its strong regional identity. While its present administrative borders are roughly the same as in the late Middle Ages, this regional identity is only recently formed.

After the Second World War Lippe was annexed by the state of Nordrhein-Westfalen, but managed to retain control over the property of its former state. These include hundredths of buildings, ten thousands of hectares, several health resorts, and cultural institutions. Local politicians administer this through the *Landesverband Lippe*. It integrates the local political elites through contacts and common interests. Lippe's special position in Nordrhein-

²⁶ Kees Terlouw, "Westfalen en Nedersaksen: een Modelmatige Verklaring van Regionale Ontwikkeling," in: Joost Hauer, Ben de Pater, Leo Paul, Kees Terlouw, eds., *Steden en Streken: Geografische Opstellen voor Gerard Hoekveld* (Assen: van Gorcum, 1998); "Regionaal-Geografische Modellen," in: Ben de Pater, Peter Groote, Kees Terlouw, *Denken over regio's: geografische perspectieven* (Bussum: Coutinho, 2002).

²⁷ Doreen Massey, D. (1984) *Spatial Divisions of Labour: Social Structures and the Geography of Production* (Houndsmills: Macmillan, 1984).

Westfalen is not enshrined in law, but are just points of understanding in an exchange of letters. These concessions must be kept alive through the active involvement of the political elite of Lippe in the politics of Nordrhein-Westfalen. This created a political network which is also used to further promote the interests of Lippe. In the 1970s it succeeded to reunite its territory by merging the two Lipper districts. Lippe strengthened its position in the political space, despite changes in the structured material space divide Lippe's social economic space. The proximity of its Western part to expanding city Bielefeld and the motorway connecting the Ruhr with Hannover, Hamburg and Berlin, wrenched the western part functionally away from the rest of Lippe. In spite of this, Lippe resisted attempts to redraw its borders, so that many Lipper villages which are functionally suburbs of Bielefeld remain part of Lippe²⁸. This restrains many new urban field and corridor types of semi-peripheral development in Lippe.

Lippe's success in the political space also depends on its changing position in the cultural space. The *Lippische Heimatbund* started in 1908 promoting German nationalism by portraying Lippe as a typical German region inhabited with unspoiled Germans. After the second world war, the *Lippische Heimatbund* abandoned concepts like Heimat and German nationalism, and substituted them with landscape ecological values²⁹. Together with the *Landesverband Lippe* they successfully promote Lippe as a rustic region distinct from its urbanised neighbours. This strong regional identity combined with its political institutionalization give the local population in Lippe more control over its environment than the inhabitants of the Ruhr.

11. Conclusion

The semi-periphery is a central concept in the world-systems perspective. Like many concepts in the social and geographical sciences it has wide applications, but it is difficult to distinguish clear examples. The semi-periphery is an analytical category for the analysis of changing spatial patterns of inequality. As such it is a useful tool, but no substitute for that analysis. The examples of semi-peripheral development show their specific character. Läßle's four types of social space, and Wallerstein's five TimeSpaces have no explanatory power of their own, but help to put the different semi-peripheral developmental paths into a geographical perspective.

Institutionalised state rivalry was the semi-peripheral innovation behind the emergence of the European world-system in the transformational TimeSpace of 'the long sixteenth century'. This innovation in the political space affected many other areas. Capitalist got the freedom they needed to develop Europe's social economic space. Regional fortunes changed. It was the background of the semi-peripheral success of the Dutch and the decline of the German territories. In the structural TimeSpace the semi-periphery depolarizes the inequalities generated by the world-system. The semi-peripheral development potential in the cyclico-ideological TimeSpace of slowdowns in the social economic space is an important aspect of this. The spread of industrialisation to the Ruhr was embedded in the political space of the unification of Germany, and the specific position of the Ruhr region in other spaces.

²⁸ Thomas Ellwein, *Der Staat als Zufall und als Notwendigkeit: Die jüngere Verwaltungsentwicklung in Deutschland am Beispiel Ostwestfalen-Lippe* (Opladen: Westdeutscher Verlag, 1993, 1997); Wilhelm Rinne, ed. *Landeskunde Nordrhein-Westfalen: Lippe* (Paderborn: Schöningh. 1993).

²⁹ Walter Stich, "90 Jahre Lippischer Heimatbund," *Heimatland Lippe* 91, 1, 1998.

Diffusion of development creates much differentiation in the semi-periphery. The structured material space further differentiates between semi-peripheries. Especially the diversity in landscapes is an important element in recent semi-peripheral regional development in Northwest Europe. Other social spaces are important to understand the development of individual semi-peripheral regions like Lippe, and their regional specific developmental path.

The semi-periphery is an arena where local and global forces meet. The outcome is not predetermined. The world-system gives opportunities and constraints, while geography can help getting a better grip on the diversity of the developmental paths in the semi-periphery.