

А.А. Широканова

**МЕЖЦИВИЛИЗАЦИОННАЯ ДИНАМИКА
СОЗДАНИЯ НАУЧНОГО ЗНАНИЯ МЕЖДУ ЗОНАМИ
ИНТЕЛЛЕКТУАЛЬНОЙ СТАГНАЦИИ И КРЕАТИВНОСТИ**

A. Shirokanova

**INTER-CIVILIZATIONAL DYNAMICS
OF SCIENTIFIC KNOWLEDGE CREATION BETWEEN ZONES
OF INTELLECTUAL STAGNATION AND CREATIVITY**

Цель данной статьи — с помощью цивилизационной и сетевой перспектив раскрыть взаимоотношения и динамику обмена между цивилизационными центрами и перифериями в создании научного знания. Оппозиция «центр-периферия» указывает на паттерн создания знания, где центры производят теории, которые некритически принимаются центральными перифериями. В свою очередь, «периферии периферий» производят новое и оригинальное знание, которое редко институционализируется. В статье утверждается, что межцивилизационные столкновения на перифериях нескольких цивилизаций создают среду, подпитывающую и изменяющую знания в цивилизационных центрах.

Using the civilizational and network perspectives, this paper aims to reveal the mutual relations and the dynamics of exchange between civilizational centres and peripheries in scientific knowledge creation. The centre-peripheries opposition uncovers the pattern of knowledge creation where centres produce theories which are uncritically accepted and applied by peripheries. “Peripheries of the peripheries”, in contrast, produce new and original knowledge which is rarely institutionalized. I argue that inter-civilizational encounters in the peripheries of the peripheries provide environments producing new knowledge for civilizational centres and changing the knowledge produced there.

Ключевые слова: цивилизации, научное знание, сети, центр и периферия.

Keywords: civilizations, scientific knowledge, networks, center-peripherie.

Civilizational perspective (Arnason, Eisenstadt) has been effectively revealing comparative features of different civilizations as units of social analysis. By combining historical and sociological analysis, a deeper understanding of societal development has been enabled that does not ignore different historical paths to the present.

In this paper I want to address two major issues concerning civilizational perspective and its application to the dynamics of producing ideas in societies. First, I turn to the issue of centres and peripheries (Collins 2001; Zarycki 2009) in the way they produce scientific knowledge and the dynamic of intellectual exchange between them. My point of interest lies in comparing knowledge production in different types of peripheries including those oriented to more than one civilizational centre. Peripheries are considered as sources of both acceptance and creativity. Second, I explore the power dynamics in knowledge exchanges between centres and peripheries and discuss what makes up the centre, given that intellectual peaks do not correspond directly to economic power or political hegemony and that periods of stable university financing have been known as times of intellectual stagnation (Collins 1992).

Civilizational Perspective

Within the civilizational perspective pride of place has been given to Axial civilizations and to modern civilization as the “Second Global Axial Age” (Eisenstadt 2001:327). Modernity is studied and compared in its multiple variations (Arnason, Eisenstadt). According to S. Eisenstadt, modernity possesses the features of Axial civilizations such as a strong cultural programme and specific institutional arrangements, its own ontology, definition, construction, and regulation of social life and interactions, its autonomous and heterogeneous elites (Eisenstadt 2000: 2–6).

Arnason sympathizes with the multiple modernities perspective but at the same time acknowledges converging trends towards a unifying post-civilizational global modernity as a future possibility (Spohn 2011: 26) and sees the clarification of the relation between two periods as a “pivotal research desideratum” and a relatively underdeveloped domain of civilizational studies (Arnason 2010: 12). This point is supported by D. Inglis: “given that for Braudel ‘the history of civilizations is the history of mutual borrowings [between them] over many centuries’,” inter-civilizational interactions could be the key civilizational analytic means of theorizing the ‘globalizing tendencies’ (Inglis 2010:154). Besides globalization, inter-civilizational relations are interesting in terms of interaction between the centres and peripheries.

As regards modernities, Arnason develops a historical-comparative approach that conceptualizes modernization as a multidimensional and “essentially open process” determined by structural differentiation and fragile integration, and co-determined by civilizational traditions and inter-civilizational contexts (Arnason 1993: 181; Spohn 2011: 30).

In short, civilizational perspective offers a vision not of “the modernity”, but of multiple modernities that develop out of historical structures and of contingent factors and contexts. “Multiple modernities” refer to a multiplicity of ontologies and types of social order maintained by civilizational elites — autonomous yet heterogeneous centres interacting with each other.

Diagnosing modernity as a civilization of its own is not new to modern social sciences. However, it is specific due to the mutual disposal of multiple diagnoses of modernity devised in different parts of the world, enabled by modern communication technologies. Hegemony of European and Anglo-Saxon academic knowledge in the social sciences is under question not only within postcolonial studies but within the ‘indigenization’ movement within the social sciences (Alatas 2006; Baber 2003; Connell 2007; Keim 2008).

In Russia, one of the well-known concepts of modernity is V. Stepin’s “technogenic civilization”, which is the “modern Western civilization” that has given birth to the development of “post-non-classical” science which can (presumably, as a form of globalization) become a bridge of cross-cultural interaction “between the West and the East” (Stepin 1999). In the history of sociology, P. Sorokin is known for his research into civilizations (cf. Cowell 1952) and for his criticism of the solely culturalist approach to defining civilizations (Wilkinson 2002). One of Sorokin’s arguments against the culture-based approach to civilizations was that civilizations are realities different from their parts and that parts depend on the whole but influence it as well (Wilkinson 1996). The alternative to Sorokin’s view was to treat civilizations as networks of relations, where “[s]ociety is the total network of relations between human beings” and civilizations so conceived are rich, multiple, multilevel embedded networks (Wilkinson 2002). Despite the years spent in the USA, Sorokin is considered a classic of sociology in Russia, but only an “outsider” in the Western tradition (Spohn 2011:24). How shall we treat this discrepancy in giving weight to one or another theory? As we have seen in these examples, social science in Russia is not internationally “convertible”. Given that Russia is often considered a civilization of its own, a great majority of post-Soviet countries fall into the category of its intellectual periphery. In my analysis I rely on two universalistic methodologies, civilizational perspective and network perspective to create a vision explaining dynamics of scientific knowledge creation and mechanisms of intellectual creativity.

Civilizations as networks

Network approach remains subdominant in civilizational and macrosystem studies (Wilkinson 2002). After Sorokin, the network perspective in civilizational analysis has been dominant in the work of R. Collins. According to Collins, civilization is a zone of prestige that possesses attraction for people at varying distances of network patterns which, “like strands of a spider web”, carry civilizational prestige through particular channels of network ties. Peripheries take their identities from civilizational centres, occasionally travel to them or refer to them for symbolic purposes; people in other civilizational zones are also drawn by this magnetism. Civilizations appear, first, as zones of social identification and, second, as dynamic networks of social action (Collins 2001: 421-422), as “complex social systems with evident network characteristics” (Wilkinson 2002).

The relation-based network perspective does not contradict civilizational analysis. Arnason insists on a mode of civilizational analysis that does not reify the cultural core of civilizations over long stretches of time (Spohn 2011: 36). In his view, the maintenance of civilizational continuity over long periods of time deserves particular attention. Intellectual elites acting as carriers of cultural premises as well as coalitions

formed with other elites are featured as relevant factors of this analysis (Arnason 2010:11). Particularly important here is to consider the different and changing power hierarchies in the economic, political and military as well as the cultural and cognitive spheres (Spohn 2011: 37). This is our vantage point in analyzing inter-civilizational dynamics of scientific knowledge production. We are interested here in what makes the difference between the centre and periphery of scientific knowledge creation.

According to Eisenstadt, any pattern of change consists in interaction of contingency, structure and culture (Eisenstadt 2000:19). The cultural core of civilizations is dynamic, subject to institutional interaction and, hence, to mechanisms of network logic. Spohn supports Arnason in that civilizational analysis should not reify the cultural core of civilizations (Spohn 2011: 36). From the relativist perspective, cultures differ by their cognitive styles depending on the connectivity of their networks. Societies with high social density and strong commitment to tradition tend to reify their cultural tokens. Such groups have “facts” and “universals”, the important truths are already known, and innovators are considered heretics and prosecuted. The alternative is the more loosely coupled networks with less density, where facts are ambiguous, universals can be historical, and the future becomes uncertain. Under certain conditions the coupling may loosen or tighten, up to a point where exists only one legitimate version of culture and intellectuals turn into its official representatives, or vice versa, where a culture splits into subcultures with few overlaps, where the group’s attention space divides into multiple perspectives (Fuchs 2001: 61). Thus, civilizations are networks, but also cultures which have various structural arrangements influencing the dynamics of knowledge creation.

Post-Soviet knowledge creation: a variety of peripheries?

Globalization, post-civilizational global modernity, or the diffusion of Western modernization models to non-Western civilizations leads to growing power shifts in the inter-civilizational global constellation. From such a perspective, global modernity is not Westernization of the world but a global formation based on shifting inter-civilizational foundations and emerging trans-civilizational frameworks (Spohn 2011: 29). Hence, we may expect the emergence of global centres and different fusions of civilizational influence.

In the 20th century, the centre-periphery dynamics seemed to be clear. Centres attracted students and academics. In the Soviet Union the willingness to get to Moscow or Leningrad for studies and intellectual work was overwhelming in all parts of the country. In the words of a classical study by D. Crane, “major universities send their less talented graduates to minor schools, and a major university selects the more talented individuals from the ranks of those who attended minor universities” (Crane 1965:709). For today’s post-Soviet peripheries the rush for the centre often splits into several foci. For instance, in Belarus the best students often go abroad. They migrate either gradually (e.g. to Central Europe, then to Western Europe or the US) or at once (to western Europe or the US). They also go to Russia (never called “the East”), to Moscow and Saint-Petersburg, which also constitutes a civilizational centre in the region. In contrast, Central Europe is not a common destination and it is often indigenously treated as a periphery (Buchowski 2004; Zarycki 2009: 113). Most academic migration is thus to

the West and to Russia. However, if we consider Russia itself, the outflow of scientists and students is significant there. Russia is both an attractive centre for its peripheries (e.g. Belarus) and a sending periphery (a weaker centre) itself.

The intensive outflow of academic migration is probably the main factor in reproducing the centre-periphery dynamics. Understanding the labour of intellectuals is a key to understanding cultural dynamics (Connell 2006: 6). Sociology is a limited tool for it while it tends to treat ideas produced in “metropolitan societies” as general and universal in impact, and research in the periphery as only of local interest (Baber 2003). The intellectual work in the periphery narrows down to contextualisation of the centre’s theories, while the local data are perceived only as corroborating or refuting the theories and not as a source of theory-making of its own (Zarycki 2009: 164). By functioning this way, i.e. by not questioning the “classical texts” in science that at some time get revised in the centre, periphery reproduces its status. Often, it is the title of a scientific text that indicates of its claim for universalistic or local status: if it contains any reference to the time and place of data gathering, most probably this is a text from the periphery (Baber 2003: 617). If you look at the titles of other papers in this book, those containing country names and time periods are likely to come from peripheral intellectuals.

What difference does the periphery make to doing science? According to Collins, periphery is not only an outskirts, but also a non-centre of scientific knowledge production. Intellectual life flourishes when there are (1) several rivalling fractions (2) arguing between themselves along the same problems (Collins 1992: 92–93). While there is no formal ban on producing knowledge in the peripheries, the very structure of centre-periphery relations produces systematic lagging behind of the periphery (Zarycki 2009: 112). This logic is one serious problem of the peripheral science, social science in particular. Civilizational concept of multiple modernities gives hope in this respect as the peripheries may try to follow their own paths of development. It is essential though to maintain the understanding and establish the correlation of the concepts applied. One should be attentive as this may “end up making India [or another intellectual “periphery”] appear hyper-exotic and radically different from the rest of the world in a patently Orientalist manner” (Baber 2003: 621).

Here comes the problem of languages. Intellectuals in the periphery face the challenge of speaking at least two scientific languages: that of the centre and that of the periphery. Very often they act as “translators” (Bauman) of the central discourse into peripheries (Zarycki 2009: 149). The texts they produce are also different in style: when they write for the centre, they follow the scientific style to test theories on local data and “explain” the periphery to the centre. When they write for the peripheries, the texts are more essay-styled to show the wide knowledge and high intellectual status of the author (Zarycki 2009: 165). In combining the two languages intellectuals convert meanings and, moreover, may come up with new meanings in science. The mechanism of switching is known to generate meanings, whether as “switching cultures” (Zarycki 2009: 164) or switching between different networked domains of activity (White 2007: 549). The mechanism behind creativity, both in the peripheries and in the intellectual centres, may lie exactly in the systematic switching between different scientific languages and forging new meanings out of previous formulations and arguments. That is why intellectual centres cannot survive as “closed systems” and continuously attract

new ideas and intellectuals. The institutional structure is what makes the huge difference between the centre and periphery. In a study cited, D. Crane suggested that “scientists trained and later hired by minor universities had difficulty developing continuity in their research activities and tended to be differently motivated than scientists trained and hired by major universities. In terms of his [her] chances of obtaining recognition, a scientist gained more from affiliation with a major university than from high productivity” (Crane 1965: 710). No such terms as “periphery” or “network” are used here. However, the passage indicates that institutional arrangements carry a higher weight in the overall outcome of scientific knowledge creation while creativity takes place both in the centre and peripheries.

The third problem for peripheral knowledge creation is acknowledgment of its contribution to science. “As in linguistic systems, changes in intellectual cultures will probably have to take place in the centre or very near the centre to become real. If they take place at the periphery they will not be considered as “innovations” but be put down as “mistakes” unless there is exceptional power and initiative and charisma behind them” (Galtung 1981: 846–847). This is probably what happened to Sorokin and his quest into civilizational theory after all.

There are no direct ways indicating that peripheries may easily improve their status. However, the landscape of peripheries is not homogeneous. Peripheries of central universities of the peripheries may be heavily involved in “imitating and being up-to-date” with the centre, while periphery of the periphery may “look in other directions and not feel any obligation to imitate an imitation” (Galtung 1981: 846). This perspective may provide solid results in creating and developing new scientific knowledge, especially for the peripheries of several civilizations simultaneously (Zarycki 2009: 161). Such “double peripheries” can make a difference to the scientific community provided they have an outlet for their knowledge production.

Network technologies technically enable a horizontal structure that could nourish a “pluralistic spirit of mutual tolerance and coexistence” among peripheries (Galtung 1981: 847). However, some studies indicate that the most connected peripheric intellectuals are not free agents or those involved with new technologies but those most closely related to the organisational world, probably because the institutional dependency fosters making connections to the civilizational centre (Connell 2007: 195). Network connections as such hardly substitute for the pressure of civilizational centres on local intellectual cultures to produce knowledge. Much of communication is now computer-mediated, but the Internet primarily serves to connect peripheries to the global or regional “metropole”, i.e. to intellectual workers in North America, Western Europe, or Russia (Connell 2007: 201). Strong periphery-periphery scientific connections can be expected only as a spin-off of previous centre-organized projects. Other indirect ways of networking, such as academic migration, normally flow from periphery to the centre and thus may introduce a new centre of influence to a periphery but not a periphery-periphery network connection.

Surrender to civilization?

Networks of influence tend to concentrate around civilizational centres, the zones of civilizational creativity. However, it is not only their creativity but also their

institutional capacities that enable their knowledge to be accepted and spread across peripheries. The periods of intellectual creativity seem to be not corresponding to economic growth or political hegemony, of which a classical example is Ancient Greece and Ancient Rome (the latter borrowing intellectually from the former). In contrast, high systematic financing of the academy is likely to precede a period of intellectual stagnation, like in the late Middle Ages when theological debates became very sophisticated but rather futile for philosophy (Collins 1992: 91). In Russia and its peripheries, the current situation is complicated by the fact that the brain drain and intellectual decline coincided with a deep societal crisis. Civilizational zones have switched in 1991, and Russia lost part of its intellectual peripheries. Intellectual breakthroughs require some infrastructure for effective communication, but they are not possible without regular debates and colliding arguments.

Should the peripheries then “surrender” to civilizational centres? Is the effect of the peripheries only in producing “raw” knowledge for the centres to absorb? Should the peripheries call themselves “peripheries”? It seems that the process of knowledge creation does not allow that. Scientific ethos does not normally accept geographical borders. Creativity is only possible when focusing on the subject of one’s research and not simply delivering knowledge to the customer. In this vein, all scientists tend to distinguish between commercial projects and their own research. However, knowledge requires being known to the others, which makes scientists search for a centre of recognition. Civilizational centres concentrate a variety of scientific groups, so that the probability of finding support and colleagues there makes them especially attractive. However, if a “peripheral” science specializes in some particular knowledge field, it is likely to develop a local cluster involving the whole cycle of production as well as a dense community. In the words of one intellectual, «creativity the very thing you mustn’t lose. Because if you lose it, the barbarians will win» (Connell 2006: 20).

Intellectual centres are in the first place zones of heterogeneity. Peripheries are likely to have homogeneous scientific environments. One path for a periphery is to support one major scientific culture which takes on bureaucratic feature and grows incapable of creativity. This situation is common for the centres of peripheries where one dominating discourse suppresses all the others as “heretic”. This renders creativity implicitly unwanted and makes scientific work there instrumental. Among post-Soviet countries this is typical of the Middle Asian countries and Belarus. Another path for a central periphery is to be torn away by fractions not colliding with each other but leaning towards several centres and claiming the country’s belonging to one civilization and not another.

Peripheries are zones of civilizational uncertainty. Creativity may flourish or decay there. Peripheries do not possess the infrastructure of the centres; they are also confined in their legitimacy of interpreting the “classical” scientific knowledge of the centre. However, peripheries can be the meeting points for intersecting civilizational zones. This is where they possess an advantage over the centre in a regular switching between different intellectual languages and cultural codes. The knowledge they produce may not be fully applicable to either of the dominating civilizations, but, surprisingly, these inter-civilizational exchanges in the “peripheries of the peripheries” are sources of creativity for civilizational centres which may amend the process of knowledge creation in civilizational centres.

References

- Alatas S.F.* Alternative Discourses in Asian Social Science: Responses to Eurocentrism. London: SAGE, 2006.
- Arnason J.* Domains and Perspectives of Civilizational Analysis // *European Journal of Social Research*. 2010. Vol. 13. No. 1. Pp. 5–13.
- Arnason J.* The Future that Failed: Origins and Destinies of the Soviet Model. London: Routledge, 1993.
- Baber Z.* Provincial Universalism: The Landscape of Knowledge Production in an Era of Globalization // *Current Sociology*. 2003. Vol. 51. No. 6. Pp. 615–623.
- Buchowski M.* Hierarchies of Knowledge in Central-Eastern European Anthropology // *Anthropology of East Europe Review*. 2004. Vol. 22. No. 2. P. 5–14.
- Collins R.* On the Sociology of Intellectual Stagnation: The Late Twentieth Century in Perspective // *Theory, Culture and Society*. 1992. Vol. 9. Pp. 73–96.
- Collins R.* Civilizations as Zones of Prestige and Social Contact // *International Sociology*. 2001. Vol. 16. No. 3. Pp. 421–437.
- Connell R.* Core activity — Reflexive intellectual workers and cultural crisis // *Journal of Sociology*. 2006. Vol. 42. No. 1. Pp. 5–23.
- Connell R.* Southern Theory: the global dynamics of knowledge in social science. Cambridge: Polity Press, 2007.
- Connell R., Crawford J.* Mapping the intellectual labour process // *Journal of Sociology*. 2007. Vol. 43. No. 2. Pp. 187–205.
- Cowell F.R.* History, civilization, and culture: an introduction to the historical and social philosophy of Pitirim A. Sorokin. London: Black, 1952.
- Crane D.* Scientists at Major and Minor Universities: A Study of Productivity and Recognition // *American Sociological Review*. 1965. Vol. 30. No. 5. Pp. 699–714.
- Eisenstadt S.N.* The Civilizational Dimension in Sociological Analysis // *Thesis Eleven*. 2000. No. 62. Pp. 1–21.
- Eisenstadt S.N.* The Civilizational Dimension of Modernity: Modernity as a Distinct Civilization // *International Sociology*. 2001. Vol. 16. No. 3. Pp. 320–340.
- Fuchs S.* Against Essentialism: A Theory of Culture and Society. Harvard: Harvard University Press, 2001.
- Galtung J.* Structure, culture, and intellectual style: An essay comparing saxonic, teutonic, gallic and nipponic approaches // *Social Science Information*. 1981. Vol. 20. No. 6. P. 817–856.
- Inglis D.* Civilizations or Globalization(s)?: Intellectual Rapprochements and Historical World-Visions // *European Journal of Social Theory*. 2010. Vol. 13. No. 1. Pp. 135–152.
- Keim W.* Das vermessene Disziplin. Zum konterhegemonialen Potential afrikanischer und lateinamerikanischer Soziologien. Bielefeld: transcript, 2008.
- Spohn W.* World history, civilizational analysis and historical sociology: Interpretations of non-Western civilizations in the work of Johann Arnason // *European Journal of Social Theory*. 2011. Vol. 14. No. 1. Pp. 23–39.
- Stepin V.S.* Teoreticheskoye znanie [Electronic resource] // *Philosophskii portal*: [philosophy.ru]. [1999]. [<http://philosophy.ru/library/stepin/conclusion.html>] (date of access: 05.06.2011).
- White H., Fuhse J., Thiemann M., Buchholz L.* Networks and Meaning: Styles and Switchings // *Soziale Systeme*. 2007. Vol. 13. H. 1+2. S. 543–555.

Wilkinson D. Civilizations as Networks: Trade, War, Diplomacy, Command-Control [Electronic resource] // Santa Fe Institute. Complexity research expanding the boundaries of science: [www.santafe.edu]. [2002]. [<http://tuvalu.santafe.edu/~cmg/netdyn/Wilkenson.pdf>] (date of access: 01.06.2011).

Wilkinson D. Sorokin versus Toynbee on Civilization // Sorokin & Civilization. A Centennial Assessment / Ed. by Ford J., Richard M., Talbutt P. New Brunswick; London: Transaction Publishers, 1996. Pp. 141–158.

Zarycki T. Peryferie. Nowe ujęcia symbolicznych zależności zależności centro-peryferyjnych. Warszawa: Scholar, 2009.