

Revisiting the New International Division of Labour Thesis

Guido Starosta

Despite being highly influential during the first half of the 1980s, the new international division of labour (NIDL) thesis advanced by Fröbel et al. (1980) seemed to fall out of favour in the 1990s. Prompted principally by some empirical developments which seemed to contradict the major claims of the NIDL thesis (especially the industrial upgrading of the first generation of ‘Asian Tigers’, which would eventually include relatively complex, ‘capital-intensive’ sectors rather than simply unskilled-labour-intensive ones, as predicted by Fröbel, Heinrichs and Kreye), many scholars then started to voice strong reservations about the NIDL approach. While many of these objections uncovered real weaknesses in the NIDL thesis, I argue that the critics’ alternative explanations were not free from shortcomings themselves, and that debates on late-industrialisation eventually threw the baby out with the bath water. I show that many of those critiques were misguided and that there still is much of value to be recovered from the original insights contained in Fröbel, Heinrichs and Kreye’s contribution for a critical approach to the contemporary dynamics of the international division of labour.

G. Starosta (✉)

Department of Economics and Administration,
National University of Quilmes and National Scientific and
Technical Research Council, Buenos Aires, Argentina

The goal of this chapter is therefore to offer a critical reformulation of the NIDL thesis which preserves its rational kernel yet abandons its most contentious points. I argue that the former resides in its global perspective on capital accumulation and in the centrality attributed to recent material transformations in the capitalist labour process as key to the explanation of the developmental potentialities of late-industrialisation. The latter relate to weaknesses in Fröbel, Heinrichs and Kreye's conceptualisation of the changing material configuration of the production process in capitalism, and to their inability to offer a firmly grounded explanation for the resilience of the classical international division of labour (CIDL) in certain regions of the world (for instance, Latin America—see Chaps. 2, 3 and 5). On this basis, this chapter further submits that a revised NIDL thesis can shed new light on the specificities of 'export-led industrialisation' in the 'Third World', especially on East Asian developmental processes.

THE NEW INTERNATIONAL DIVISION OF LABOUR DEBATE

Before reviewing the debates that emerged around Fröbel, Heinrichs and Kreye's work in the 1970s, it is worth briefly summarising the general thrust of the argument normally attributed to it. The popularised version of the NIDL thesis on the process of global restructuring argues that, faced with declining profitability in advanced capitalist countries (mainly due to rising wages), transnational corporations (TNCs) started to relocate labour-intensive manufacturing to the, then so-called, Third World, thus acting as a major factor in the industrial decline that seemed to prevail in the former countries in the late 1970s and early 1980s. Third World countries, for their part, provided TNCs with a huge potential reserve of cheap and disciplined labour-power. Combined with technological advances in the means of communication and transport, the increasing fragmentation of production processes and the consequent simplification of semi-skilled and unskilled tasks together created a tendency for the establishment of export-oriented world market factories in the Third World. Accordingly, the 'classical' international division of labour (CIDL)—revolving around the polarisation of the world economy into an industrialised 'core' and a dependent 'periphery' confined to the role of supplier of raw materials and staple foods—had been superseded by the NIDL, with an industrialised but still dependent Third World, and a 'First World' oriented to a service-based economy, which could not absorb the resulting unemployed population.

A first point made by several critics of this NIDL thesis has been that TNC competitive strategies have not been reduced to the search for world-market production sites based on cheap and compliant labour-power. This excessive emphasis on cost minimisation and the supply of ‘factors of production’ ignores that corporations also consider revenue maximisation and output markets when making decisions on the geographical location of production (Schoenberger 1989: 92). In this sense, the NIDL thesis allegedly overlooked that, in certain regions of the ‘developing’ world, foreign direct investment (FDI) in the last thirty to forty years has been driven to take advantage of profitable domestic markets (for instance, in sectors like the automotive and chemical industries) (Fagan and Webber 1999: 38; Jenkins 1984). Moreover, TNCs have continued to invest in new raw material ventures and agribusiness.

Despite much emphasis by critics on this point, Fröbel, Heinrichs and Kreye were aware of this. Indeed, they acknowledged that the emergence of the NIDL ‘does not mean that capital no longer exploits the possible benefits of production in countries whose local market is protected’ (Fröbel 1982: 511). It was also clear to them that the establishment of world market factories did not imply that investment in the production of agricultural and mineral raw materials (including its processed derivatives, as in agribusiness), which take advantage of privileged non-reproducible natural conditions like exceptional fertility of the soil, would necessarily come to a halt (Fröbel 1982: 512). Presumably, their argumentative strategy was to highlight the *novel* developmental *tendencies* of global accumulation, with the awareness that ‘the concretization, modification, or transcendence of this trends and tendencies through “local” particular circumstances will require further research’ (Fröbel 1982: 508).

And yet, it is fair to say that Fröbel, Heinrichs and Kreye *did* underestimate the resilience of the CIDL and tended to overgeneralise the potentialities of those newer developmental tendencies in the geography of global capitalism. For instance, their empirical study included evidence from Brazil as an example of the incipient establishment of world-market factories (Fröbel et al. 1980: 304ff.). However, Brazil is one of the most paradigmatic cases (alongside Argentina) of precisely the opposite tendency: *the persistence of the CIDL* and its enduring (albeit decreasing) potentiality to sustain industrialisation processes oriented towards protected domestic (or regional, that is Mercosur) markets in ‘peripheral’ countries (Iñigo Carrera 2007; Grinberg 2008). The truth of the matter is that the emergence and development of the NIDL did not entail overcoming the

CIDL. Both modalities coexist in the contemporary configuration of the world market, which leads to a more complex form through which the formal/material unity of the global accumulation process is achieved. This is a crucial insight, already advanced by Iñigo Carrera and Caligaris in Chaps. 2 and 3.¹

Critics have further argued that the NIDL thesis also erred in its prognosis of the fate of the accumulation process in the 'First World'. In effect, the strong claims for the tendency to de-industrialisation of the former heartlands of capitalism were too heavily reliant on very specific assumptions about the evolution of the production process being one of a fragmentation of tasks and the deskilling and standardisation of products (Schoenberger 1988; Sayer 1986). However, restructuring in advanced national spaces of accumulation through the further automation of the labour process was an alternative strategy that TNCs have actually pursued together with the relocation of production (Schoenberger 1988, 1989). In other words, manufacturing could be 'relocated back north' (Cho 1985; Nanda 2000; Oberhauser 1990).

Inasmuch as Fröbel and his colleagues did one-sidedly emphasise the transformative dynamics in the 'global south' without shedding much light on the kind of mutations undergone by advanced capitalist countries, those critiques rightly uncovered one of the central limitations of the original formulation of the NIDL thesis. However, the particular arguments put forward did not rest on very solid foundations either. As the empirical discussion of the evolution of the Brazilian and South Korean steel industries by Grinberg in Chap. 9 shows, for example, the greater 'capital-intensity' of more highly automated labour processes has not precluded their relocation to 'peripheral countries'. In this sense, the general validity of the NIDL thesis does not rest on any particular assumption about the 'capital-intensity' of the production process.² The key issue concerns the relative cheapness and discipline of certain kinds of labour-power, whether in manual assembly tasks *or* as machine-operators in a more automated labour process.³ What matters for the spatial implications of transformations in the capitalist labour process, is whether the production of workers with the varied qualities of labour-power required by the different tasks associated with an increasingly automated labour process, takes a shorter time, and therefore costs less, than before the introduction of technological change. Note that this point also applies to intellectual labour. Insofar as the latter also becomes *relatively* simplified, the exploitation of the consequently less complex forms of intellectual labour-power can also

be relocated to countries where capital finds those kinds of workers more cheaply and with a more compliant subjectivity, as the current literature on offshoring of innovation and creative labour illustrates (Ernst 2005; Huws 2006, 2014). Thus, we shall see that industrial upgrading and the concomitant increase in real wages in countries like South Korea, and hence the subsequent development of hierarchically-structured *regionalised* production networks (Hart Landsberg and Burkett 1998; Bernard and Ravenhill 1995), is perfectly consistent with the NIDL thesis, rather than its negation, as some critics tended to assume (for example, Fagan and Webber 1999; Henderson 1989).⁴

On the other hand, the renewed wave of international migration by workers and the dismantling of state policies supporting the relatively undifferentiated reproduction of the different segments of the working class (that is, the so-called welfare state) have meant that capital did not necessarily need to relocate to benefit from the advantages of the NIDL. It could also *recreate* the general content of the NIDL within its national territory by accentuating the differentiation of the conditions of exploitation and reproduction of labour-power of heterogeneous complexities through the superimposition of the formal mediation of citizenship (and/or through the reassertion of the formal mediations of race, ethnicity, and gender) (see also Chap. 7).⁵

Finally, an intimately related objection put forward by critics stated that the NIDL thesis overstressed the role of TNCs in shaping the contours of the world market and failed to acknowledge the ‘agency’ of indigenous firms from the ‘periphery’ (Fagan and Webber 1999: 39). I argue that it is grounded in both a misreading of Fröbel, Heinrichs and Kreye’s argument and, more importantly, in a misunderstanding of the actual determinant of the emergence of the NIDL, namely, the changing material conditions in *the process of valorisation of industrial capital on a global scale*. Irrespective of the ‘nationality’ of industrial capitals, this process, directly or indirectly, minimises the total cost of reproduction of the *global* working class and thus increases the rate of valorisation of global capital as a whole. The relevant question here is the spatial relocation of capital’s valorisation process as such, not that of individual capitalist firms.⁶ The emergence, consolidation, and even market leadership of ‘national champions’ from the ‘periphery’ (for example, the growth and industrial upgrading of Korean *chaebols*), has been as much an expression of the NIDL as world market-oriented FDI by TNCs. As Grinberg’s discussion of the Korean steelmaker POSCO in Chap. 9 demonstrates, the objective

basis of its global competitiveness and consequent success has been the same that attracted international investment by TNCs elsewhere in East Asia (or in other sectors of Korea), namely, the harsh exploitation of the domestic pool of relatively cheaper and more compliant wage-workers, which was in turn made possible by the prior material transformation of the steelmaking labour process that downgraded the requisite productive attributes of the respective collective labourer.

In sum, the global process of industrial restructuring has involved both automation-based technological change *and* spatial relocation. But these have not been mutually exclusive or contingently related competitive strategies pursued by TNCs, but different *forms* taken by the same intrinsically global *content*; the novel quality of the production of relative surplus-value on a world scale by *capital as a whole*. The next section further elaborates on this fundamental point.

A MARXIAN RE-EXAMINATION OF THE NEW INTERNATIONAL DIVISION OF LABOUR THESIS

One of the strengths of Fröbel, Heinrichs and Kreye's contribution, which sets it apart from most of their critics in the view of the contributors to this book, derives from an analysis that was firmly rooted in the essentially global nature of the capitalist valorisation process. In other words, the world market was not regarded simply as the sum total of national economies interconnected through external trade and capital flows. Instead, Fröbel, Heinrichs and Kreye conceived of national economies as 'organic elements of one all-embracing system, namely a world economy which is in fact a single world-wide capitalist system' (1980: 8). Furthermore, and following from the previous point, their approach did not consider nation-state policies as 'autonomous' forces that determine the specific structure of national markets and processes of capital accumulation. These were seen as *political mediations* of the integration, through the international division of labour, of the *intrinsically global economic content* of the process of capitalist development, whose 'determining force, the prime mover ... is therefore the valorisation and accumulation process of capital' (1980: 25). Accordingly, they rightly saw the emergence of the NIDL not as being *driven* by the deliberate strategies of states or of TNCs but, rather, as the 'unconscious' result of a qualitative change in the conditions of the autonomously regulated global process of capital accumulation.

The following passage from their book is eloquent and unequivocal in this respect, so it is worth quoting at length:

We therefore interpret the currently observable relocation of production in industry (both within the traditional ‘centre’ and towards the ‘periphery’), and in addition the increasing world-wide subdivision of the production process into separate partial processes as being the result of a qualitative change in the conditions for the valorisation and accumulation of capital, which is forcing the development of a new international division of labour. This new international division of labour is an ‘institutional’ innovation of capital itself, necessitated by changed conditions, and not the result of changed development strategies by individual countries or options freely decided upon by so-called multinational companies. It is a consequence and not a cause of these new conditions that various countries and companies have to tailor their policies and profit-maximising strategies to these new conditions (that is, to the requirements of the world market for industrial sites) (1980: 46).

Unfortunately, the general determinations behind this fundamental insight were insufficiently elaborated by Fröbel, Heinrichs and Kreye, thus opening the space for some of the misguided criticisms reviewed above. Moreover, the theoretical arguments that they did flesh out were based on a rather eclectic synthesis of Marxist and world-systems/dependency theory terminology that, in my view, did not contribute to the rigour and clarity of their discussion.⁷ Specifically, what was missing from their otherwise insightful work is therefore a more rigorous inquiry into the general nature of capital as a *fetishised social relation*.

One of the most potent scientific discoveries of Marx’s critique of political economy was that capital is neither a thing (for example, the instruments of production), nor a productive unit or legal entity (that is, a firm), nor a social grouping sharing common characteristics and interests (business elites). In its general determination as *self-valorising value*, capital is actually a *materialised* social relation between commodity-owners differentiated into social classes, which becomes inverted into the very (alienated) subject of the process of social reproduction in its unity (Marx 1976: 763). Thus, capital is essentially the formally boundless movement of self-expansion of the objectified general social relation between private and independent individuals which, in its own process, produces and reproduces the latter as members of antagonistic social classes (Marx 1976: 251–7, 1978: 185).⁸

Moreover, as an expression of this inherently self-expansive nature, this fetishised social relation is global in content or substance and national only in form (Iñigo Carrera 2013: 144–5; Marx 1993: 227–8). This means that it is ‘the self-valorisation of value’ on a global scale, or accumulation on the level of the ‘total social capital’, that constitutes the immanent end in the world market (Smith 2006: 193). The territorial or spatial dimension of the accumulation process—and the changing forms of the worldwide division of labour—therefore cannot be seen as *determined* by the locational strategies of TNCs faced with given qualitative national and regional differences, in turn seen as established by allegedly autonomous state policies. Instead, it needs to be grasped as an expression of the underlying formal and material unity of the essentially global contradictory dynamics accumulation of the total social capital, which are *economically mediated* by relations of competition among individual capitals like TNCs (again, as opposed to *determined*), on the one hand, and *politically mediated* by the policies of the nation-state on the other (Clarke 2001). As Burnham (1994) states against traditional Marxist theories of the global political economy, the immanent *content* of these global dynamics is not one of imperialism or dependency (that is, a direct political relation between states, another mediating *form*), but those of the production of (relative) surplus-value on a world scale (see also Howe 1981). In other words, the foundation of the uneven spatial differentiation of global capitalism must be searched for in the changing forms of the exploitation of the global working class by the total social capital through the transformation of the material forms of the capitalist production process. The latter is, in sum, the general economic content that is realised in the political form of state policies (domestic and foreign) and class conflict, albeit ‘behind the backs’ of the antagonistic actions of the personifications involved (social classes and their diverse political organisations, ‘political elites’ and/or ‘state managers’). These contradictory and crisis-ridden dynamics, which fundamentally entail a permanent revolution in the modes of exertion of the labour-power of individual workers and of their articulation as a directly collective productive body (Marx 1976: 617), lie at the heart of the contemporary forms of the international division of labour.

Here we find one of the central weaknesses in the original formulation of the NIDL thesis, for, as Grinberg (2011) perceptively notes, the foundation of the emergence of the NIDL does not reside in the intensification of the *manufacturing division of labour*, that is, in the ‘deskilling’ resulting from the ‘subdivision of the production process into elements’ (Fröbel

et al. 1980: 37ff). Instead, as Iñigo Carrera (2013) shows in his alternative account of the NIDL, it developed as an expression of the impact that the progress of the *automation* of capitalist *large-scale industry* had on the individual and collective productive subjectivity of the working class.⁹ More specifically, the constitution of the NIDL has been the result of the transformation of the modes of existence of the global collective labourer brought about by a leap forward in the process of computerisation and robotisation of the production processes of large-scale industry, especially since the microelectronics revolution. Let us examine these productive changes more closely.

As is a general tendency in large-scale industry, these transformations have revolved around a threefold qualitative differentiation in the evolution of the labour-power of the members of the collective worker. In the first place, they have involved the *expansion* of the productive attributes of those wage-labourers performing the more complex parts of the labour process, that is, all those forms of (mainly) intellectual and scientific labour which are required for a leap forward in the automation of the system of machinery, both through the computerisation of their calibration and control, and through the robotisation of assembly and machine feeding. This has not only included the expansion of the productive subjectivity of those wage-labourers responsible for the development of the power to regulate in an objective and increasingly universal fashion the movement of natural forces, that is science. It has also included the multiplication of the human capacity to incorporate science in the immediate process of production, both through its technological applications in the systems of machinery and through the conscious practical organisation of the unity of productive cooperation based *machinofacturing*. As Marx already anticipated in *Capital*, this development of the intellectual powers of humanity has taken on a separate existence vis-à-vis *direct* labourers in the immediate process of production, expressed in this context both in the growing importance of R&D labour and in the expansion of white-collar work involved in the programming of machine-tools and the planning of large-scale industrial production (as the latter activities became increasingly removed from the shop-floor). Yet, sooner or later many of these intellectual dimensions of living labour have also been subjected to the development of automation (or codification of knowledge) and therefore relatively simplified (e.g. the case of computer-aided design).

In the second place, these novel technological forms entailed a further step in the expulsion of the intervention of the human hand and of the

experienced-based practical knowledge of workers in the labour-process vis-à-vis the forms that dominated the previous historical cycle of accumulation. Indeed, these productive changes have accelerated the codification of *tacit* knowledge, previously embodied in the manual industrial worker and largely acquired through lengthy on-the-job, learning-by-doing processes. Once codified, this knowledge has been objectified as an attribute of the system of machinery (Balconi 2002; Huws 2006, 2014). In this sense, the tendency has been one of deskilling or degradation of direct production work, although not as a result of the furthering of the manufacturing division of labour, as Fröbel et al. would have it, but through the objectification of formerly manual tasks as automated functions of machines. Now, this implementation of computer-based automation has also involved, alongside the redundancy of *old* skills, the creation of *new* ones, not only in the cases of laboratory and office work mentioned above, but also on the shop-floor. Thus, the effect of increasing automation on the productive subjectivity of direct production workers has not just been one of deskilling, but has been mixed, also entailing a certain up-skilling. However, the crucial point here, often missed in the debates on the impact of, so-called, flexible technologies, is that these newly emerging productive attributes have been of a *different kind* from those that had been lost. While the overall result has been a tendency for the degradation of those *particularistic* productive attributes (both manual and intellectual) which can only be slowly developed through the practical experience of machining in the direct process of production, many of the newly created skills—from familiarity with computers to flexibility or individual initiative in problem-solving or decision-making—have tended to revolve around the *universalistic* dimension of the productive quality of labour-power (so-called soft or generic skills; see Ramioul 2006), whose development is achieved in the general process of education and socialisation that precedes its actual application in the production process.¹⁰ Note, however, that the fact that many of these latter skills can be said to be head based, that is involving controlling, planning, and consciously remembering (cf. Hirschhorn and Mokray 1992), does not mean that they are necessarily highly *complex* activities in the sense of requiring a longer process of training of the requisite kind of productive subjectivity (Coriat 1992: 183–4).¹¹

In the third place, while the new technologies have not resulted in the total elimination of manual labour from automated processes of production (Alcorta 1999: 164), they have recreated the conditions for the

extended reproduction of what Marx called the *modern* manufacturing division of labour, that is those non-mechanised tasks and labour processes acting as an ‘*external department*’ of large-scale industry proper as the dominant form (Marx 1976: 588ff). Thus, the assembly process in many industries has remained heavily dependent on the manual skills of labourers. Other industries have been particularly resilient to mechanisation, given the current technical impossibility of replacing the subtlety of the movement of the human hand when dealing with certain materials (e.g. the clothing industry) (Walker 1989). Furthermore, the new technological conditions themselves have initially generated, as their own condition of existence, the proliferation of a multitude of new production processes or tasks, which are not mechanised, at least in their earlier stages (e.g. the assembly, testing, and packaging of the electronic micro-components needed by the development of robotised and computer-aided systems) (Henderson 1989).¹²

The upshot of all these material transformations in the capitalist labour process, has been an increase in the internal polarisation of the global collective labourer according to the type of productive attributes that its different members embody. As a concrete expression of the inner nature of the process of capital accumulation, these social processes have been *global in content* and *national only in form*. More specifically, this growing differentiation in the productive attributes of the collective labourer of large-scale industry has been at the basis of the emerging patterns of differentiation of national and regional spaces of accumulation in the last four decades. In effect, based on these productive changes and the revolution in communication and transportation methods, capital, globally, has been increasingly able to disperse the different parts of the labour process according to the most profitable combinations of *relative* costs and productive attributes of the different national fragments of the worldwide collective labourer (through their impact upon labour productivity and unit labour costs), thus giving birth to the NIDL.

The constitution of geographically dispersed ‘global chains of production of surplus-value’ certainly *started* with the relocation of simple manual labour processes (especially those of modern manufacture in the sense defined above), while concentrating its increasingly more complex parts in advanced capitalist countries. This is the particular initial manifestation of the NIDL that Fröbel and his colleagues rightly (though one-sidedly) captured in the late 1970s, without being able to uncover its general content. In fact, the very origins of the NIDL can be traced back to an even

earlier period, to what one might call its phase zero. In this ‘primitive’ stage, roughly spanning from the 1950s until the late 1960s, the NIDL mainly emerged in either relatively mature industries, which were not the key material carriers of capital’s production of relative surplus value (e.g. garments and footwear), or in those sectors that, at this stage, were only the precursors of the technological microelectronic revolution that would erupt and spread over the following decades (e.g. simpler consumer electronics, such as the transistor radio in Japan) (Iñigo Carrera 2013: 67). This international fragmentation of production processes gained momentum in the second half of the 1960s and into the following decade, when it accelerated its expansion into what would become key technological sectors, such as the fabrication of more advanced semiconductor devices based on integrated circuits (Henderson 1989: 50–5). Indeed, one could say that these early manifestations of the NIDL constituted its determination as a historical *presupposition* of the latest microelectronics technological revolution which characterises the current phase of large-scale industry proper. But the plenitude of its potentialities could only come about as a historical *result* of the leap forward in automation through the computerisation and robotisation of the labour process. In these more developed forms, the NIDL would expand to a much wider array of sectors.

Thus, the emergence of the NIDL was originally guided by capital’s search for not only relatively low wages, but also domestic working classes whose specific productive attributes included the habituation to ‘intensive, collective and disciplined labour’ (Iñigo Carrera 2013: 66) under harsh conditions (otherwise, it could plausibly be argued that most countries in, say, Sub-Saharan Africa would have been actively integrated into the NIDL instead of virtually being turned into reservoirs of consolidated relative surplus populations). This has actually been the case for domestic working classes with a genesis in wet-rice cultivating societies, like those of East Asia (Grinberg 2014: 9).¹³ Indeed, before being incorporated into the active industrial army, those national fragments of the global working class had formed a *latent relative surplus population* composed of formerly free peasants who were nonetheless subordinated to a centrally and hierarchically structured tributary system of exploitation (Iñigo Carrera 2013: 66). Therefore, it follows from this that the possession of a cheap domestic labour force that suited the emerging material requirements of the accumulation of capital on a global scale was not simply one factor among others. In reality, it was the *decisive* East Asian institutional specificity underlying its successful industrialisation process. Certainly, this process

has taken shape through the consolidation of particular national state policies quite accurately described in great detail by, so-called, statist scholars in the debates over the nature and features of ‘late development’ in East Asia (Amsden 1989; Wade 1990). But, as pointed out above, those policies did not *determine* the form nor the potentialities of the accumulation process in that region; they only *mediated* the creation and subsequent reproduction of the necessary conditions to accumulate under that new specific modality. These have included: export promotion; liberalisation of imports of inputs used in export activities, as far as trade policies were concerned; and, in the area of industrial policy, the achievement of the extremely accelerated concentration and centralisation of private industrial capital required for world market production (or, when necessary, for the direct concentration of industrial and/or banking capital under state ownership) (Grinberg and Starosta 2009: 772–3). The need for such a rapid concentration and centralisation of capital, in particular, meant that those processes could not be left in the hands of the free will of individual capitalists and had to be imposed upon them by the capitalist state in the form of indicative planning, the preferential allocation of credit tied to export targets, competition rationalisation, and so on. But, above all, these so-called developmental states had in all cases the political suppression of independent labour movements as a fundamental content of their policies (Deyo 1989).

Now, as Marx already emphasised in *Capital*, large-scale industry’s technical basis is revolutionary and ‘never views or treats the existing form of the production process as the definitive one’ (Marx 1976: 617). This generic feature of this material form of the production of surplus value has been potentiated by its microelectronic-based automation, which has led to a period of accelerated technical change. As a consequence, the technological support of the NIDL has experienced a permanent process of reconfiguration which, far from undermining the latter, has constantly renewed its basis and actually made possible its expansion into ever-newer sectors. In effect, as skill-requirements become revolutionised with each step forward in the automation and/or knowledge codification process, each of the organs of the collective labourer can be relocated into different countries according to the optimal combination of relative costs and productive qualities of the labour-power available in each national space of valorisation. In this sense, although as mentioned above the NIDL initially centred on the relocation of the valorisation process in ‘unskilled-labour-intensive’ industries, like clothing, footwear and, cru-

cially, microelectronics assembly, its subsequent *immanent* dynamics have led to its extension into an ever-wider range of industrial sectors, including relatively complex ones, such as steel, automobile, and microelectronics production (Grinberg 2014: 10). Moreover, these very technological developments eventually made possible the international fragmentation of the productive subjectivity of the different *intellectual* organs of the global collective labourer, as many of these scientific and creative productive functions also experienced a process of *relative* ‘de-skilling’ (Huws 2014). But this evidently presupposes the further expansion of the productive subjectivity of wage-labourers responsible for codification of that knowledge that can be now transferred elsewhere and that of those responsible for managing, when necessary, the direct productive co-operation of those geographically dispersed partial organs of the collective worker. And this more highly scientifically developed labour-power tends to remain based in ‘advanced industrial countries’ (at least to date) (Iñigo Carrera 2013: 79). The NIDL thereby has extended its reach into the realm of scientific and technological development, that is into intellectual labour.

Thus, as local peasant surplus populations in the most advanced East Asian economies were exhausted (first in Japan and then in the first generation Asian Tigers), domestic working classes began to be reproduced under new conditions which, in turn, have enabled them to perform the increasingly more automated and/or complex labour-processes entailed by the expansion of the NIDL into ever-renewed industries and/or productive functions (Grinberg 2014: 10). These transformations of their productive subjectivity have been necessarily *mediated by* the educational and R&D policies of the respective nation-states. However, the successful industrial upgrading of those countries was not simply determined by the implementation of those policies. In the first place, their ‘success’ was premised on the prior transformation of the qualitative content of the respective accumulation processes through their active subsumption under the NIDL as renewed sources of cheaper and equally disciplined labour-power. In the second place, it was also premised on the prior development of *skill-replacing* technical change in certain sectors of social production and/or the increase in the value of Japanese labour-power.

Although this necessarily meant that real wages tended to rise (since the greater complexity of labour-power entails that its value must be higher), that the workers’ movement strengthened, and that the class struggle intensified in these countries (since the rise in real wages cannot simply result from the pure automatism of the market but must be mediated

by the organised political action of wage-labourers as a class), East Asian working classes continued being *relatively* cheaper for, and more submissive to, capital vis-à-vis the working classes in the more advanced capitalist countries. Note, however, that this industrial upgrading of the first generation of East Asian late-industrialising countries was generally possible *after* the introduction of technological changes that comparatively decreased the complexity of labour-power needed to perform the respective productive tasks (Balconi et al. 2007: 842). On the other hand, as soon as a particular national working class became too expensive (which tended to occur as their productive subjectivity, and hence the value of labour-power, progressively lost *almost* all trace of their peculiar peasant origin and became a genuine product of large-scale industry), capital started to relocate the simpler forms of labour-power to other countries which offered new similar sources of cheap and compliant labourers. Production in ‘unskilled-labour-intensive’ industries contracted in these countries, while it expanded in others where surplus populations of peasant origin were still extensive and real wages lower (e.g. Malaysia, Thailand, Indonesia, Mexico, and China) (Grinberg 2014: 10).¹⁴

The global total social capital has used this reconfiguration of the international division of labour to multiply the differentiation in the conditions of reproduction of the various segments of the collective labourer of large-scale industry on a world scale. Yet, as previously mentioned, this general global transformation in capital accumulation took concrete shape not only through changed patterns of *national* differentiation, but also *within* the latter and through the formation of wider *supranational* or *regional* spaces of valorisation, whose constitution thereby required the mediation of the development of novel international juridical and political forms (e.g. the European Union, EU—see Chap. 7). In this way, the divergence in the conditions of reproduction of the expanded and degraded organ of the collective labourer could occur inside advanced capitalist countries themselves. This process was, however, more difficult and drawn-out. The very material and social forms of the production of relative surplus-value prevailing during the prior historical cycle of accumulation constituted a barrier that needed to be uprooted before the aforementioned multiplication of the internal differentiation of the collective labourer could take place.

In effect, the so-called Keynesian phase of capitalist development was based on the relatively undifferentiated reproduction of the two general types of productive subjectivity, that is expanded and degraded. This had a

twofold material basis. On the one hand, both kinds of subjectivity involved a certain degree of universality in the materiality of their productive attributes. This is obvious in the case of the expanded productive subjectivity, insofar as its increasingly scientific form aims at the conscious regulation of the universality of the movement of natural forces. But we have seen above that even the degraded productive subjectivity of large-sale industry requires the development of a labour-power with certain universal capacities before its exertion in the direct production process. On the other hand, however degraded the subjectivity of direct labourers was during this phase of capital accumulation, it still retained a strategic productive intervention at the heart of the production of relative surplus-value, that is in the production of machinery itself (Iñigo Carrera 2013: 61ff). In effect, both the calibration of machinery and the assembly process still depended on the subjective expertise of direct workers. This strategic intervention gave the degraded organ of the collective labourer a particular source of political strength in the struggle over the value of labour-power, which allowed those workers to force capital to moderate the differentiation of their conditions of reproduction vis-à-vis those performing more complex forms of labour. Under those circumstances, it was cheaper for the total social capital to socialise at least part of the reproduction of the working class through state-provided education, health, and so on, in order to produce universal workers on a mass scale. This is the essential content behind the development of the welfare state. Furthermore, this was not a merely an economic process that came about through the pure automatism of market forces, but it took necessary concrete shape in the political unity and increasing strength of the working class vis-à-vis the bourgeoisie in their struggle over the conditions of their social reproduction (see, for example, Clarke 1988: Chap. 10).

In order to spread the accentuated differentiation of the conditions of reproduction and exploitation of the varied organs of the collective worker within advanced capitalist countries, capital thereby had to break up the unity that the working class had achieved as an expression of those determinations of the prior historical cycle of accumulation. The very dynamics of the unfolding of the NIDL, mediated as they were by the general crisis of overproduction of capital on a world scale that exploded in the mid-1970s, provided the means by which such a process of restructuring could push forward (Iñigo Carrera 2013: 70–4). In the first place, in eroding the need for the strategic manual intervention and/or practical knowledge of direct labourers in the production process of machines,

the microelectronics-based automation of the labour process at the basis of the development of the NIDL undermined the material source of the political power of this segment of the working class. This situation was further compounded by the real or potential shift of the valorisation process that, as we have seen, this technical change made possible. In the second place, working class solidarity was weakened even further through the disciplinary effects of the growth of the relative surplus population in most advanced capitalist countries, brought about by the open manifestation of the said global crisis of overproduction (whose definitive resolution has been postponed ever since through successive cycles of credit-fuelled expansion) (Iñigo Carrera 2013: Chap. 6). Thirdly, the concomitant crisis of ‘national developmentalism’ in the Global South also swelled the ranks of the relative surplus population, which, in turn, provided the source for a massive increase of migratory flows into advanced capitalist countries (Ceceña and Peña 1995). As already mentioned, this politically regulated international migration allowed capital to superimpose the formal mediation of national citizenship on the differentiation of the conditions of reproduction between the two general kinds of productive subjectivity *within* the borders of advanced capitalist countries. Finally, it should be obvious at this stage of our argument that the economic and/or political integration of national spaces of valorisation into broader free trade areas (for example, the NAFTA, North American Free Trade Agreement) or regional political community (for example, the EU), has been yet another concrete form in which capital achieved the increased heterogeneity in the reproduction of the varied organs of the global collective labourer.

In sum, as a result of its own immanent tendencies, the simplest original form of the NIDL has evolved into a more complex constellation, whereby capital searches worldwide for the most profitable combinations of relative cost and qualities/disciplines resulting from the diverse past histories of the different national fragments of the working class (through their impact upon their general conditions of reproduction and condensed in the, so-called, historical component of the value of labour-power). Each country that is actively subsumed under the NIDL therefore tends to concentrate a certain type of labour-power of distinctive material and moral productive attributes of a determinate complexity, which are spatially dispersed but collectively exploited by capital as a whole in the least costly possible manner. In this way, capital has fragmented the reproduction of the different productive organs of the collective labourer so as to pay for each individual kind of labour-power *only* (or as near as possible to only)

that which is strictly necessary for the most immediate reproduction of that labour-power's relevant material and moral attributes. Crucially for the purpose of the general argument developed in this book, this different constellation of the global accumulation process does not involve the *transcendence* of the NIDL, but represents a more complex *form* assumed by the same general *content*, namely, the international fragmentation of the productive subjectivity of the global working class. Its general developmental dynamics have been nicely and succinctly captured by Grinberg (2011: 35), who argues that productions in specific industrial sectors has thereby expanded in some countries while contracting in others where new and more advanced sectors developed, following a rhythm determined by the evolution of those two main factors—that is, material changes in the capitalist labour process and relative cost and productive attributes of national labour forces (see also Silver 2003).¹⁵

CONCLUSION

This chapter has offered a revision of the original NIDL thesis that, I think, can account for the apparently more variegated recent trajectory of the world economy and, therefore, which can avoid many of its shortcomings. In order to do this, I reframed the insights found in Fröbel, Heinrichs and Kreye's contribution in an alternative approach to the relationship between the worldwide unfolding of the Marxian 'law of value' and 'uneven development'. More specifically, this approach posited the production of relative surplus-value through the development of *large-scale industry* as the driving force of the essentially global dynamics of capitalism.

On this basis, I have identified the main tendencies and transformations in the global process of capital accumulation since the 1960s, arguing that their *novel* features have certainly revolved around the constitution and subsequent development of the immanent dynamics of the NIDL. However, I have also noted that, contrary to the over-generalisations of the early formulations of the NIDL thesis, this modality in the material articulation of the global accumulation process has not led to the sheer *disappearance* of the, so-called, classical international division of labour. Indeed, as the subsequent case-study chapters in this book by Purcell, Fitzsimons and Guevara, and Grinberg make clear, it has been the continued reproduction of this long-standing pattern of differentiation in the world economy that

explains the developmental potentialities of the accumulation process of most Latin American countries in the Southern Cone, both their stagnation since the mid-1970s up to the early 2000s and their recent boom in the last decade fuelled by the hike of international prices of primary commodities (Grinberg and Starosta 2014).

By contrast, the argument showed that the initial rise and more recent upgrading of East Asian industrialisation, which has been often used as evidence against the original formulation of the NIDL thesis by Fröbel, Heinrichs and Kreye, has actually responded to developmental patterns firmly rooted in the key social processes associated with it, namely: the potentialities created by contemporary forms of microelectronics-based automation; and the large local availability of relatively cheap, highly disciplined, and easily trainable working classes. However central to the long-term development of the East Asian countries, state policies did not *determine* their industrial success. They only acted as a necessary national political mediation of social processes grounded in the wider transformations of the global production of relative surplus-value by the total social capital.

More broadly, the central underlying implication of this chapter's contribution is fundamentally methodological, and concerns the inner connection between what outwardly appear as two sets of differentiated aspects of capitalist production: the economic and the political; and the global and the national (Grinberg and Starosta 2014). In a nutshell, the approach developed here takes the immanent unity of the capitalist world market as the starting point of the investigation. In this view, changing patterns of *national* differentiation should be seen as expressing the contradictory determinations of the essentially *global* unity of the accumulation process. In turn, the specific *political forms* prevailing in each country (that is, class struggle and state policies) should be grasped as the necessary mode of existence and motion of the *economic content* of capital accumulation. These relations are not grounded in the abstract general principles of 'structuralist' methodology. Instead, I think that they follow from the most general determination of capitalist social relations discovered by Marx through the critique of political economy; they entail the subsumption of the productive powers of the global collective labourer to the autonomised movement of the alienated product of their social labour. Such is the fundamental content of the self-expansion of capital on a world scale.

NOTES

1. This, however, begs the question of why one or the other form of the international division of labour tends to prevail in a particular country or region. I think that neither Fröbel, Heinrichs and Kreye nor their critics offered a convincing answer. As Grinberg and Starosta (2009) argue, the existence and reproduction of those protected domestic markets have historically required the continuous inflow of an extraordinary mass of social wealth which complemented the surplus-value extracted from the domestic working class to the point of marking the very specificity of the accumulation process in those national spaces (see also Chaps. 2 and 3). The availability in some countries of an abundant mass of ground-rent, deriving from the presence of exceptional non-reproducible natural conditions in agriculture, mining and/or energy-production, has provided such an additional source of social wealth.
2. Besides, it should be noted that the 'relocation back north' line of reasoning relied on what has been convincingly shown to be a mythical story about the effects of new flexible technologies on the productive attributes of direct workers (Tomaney 1994).
3. This was grasped by Fröbel, Heinrichs and Kreye to a certain extent, although mentioned mainly in passing (see, for instance, Fröbel 1982: 538). In a subsequent study on export processing zones, they explicitly considered the debates on the effects of new technologies on the NIDL and correctly recognised that 'innovations in process technologies have not led firms to turn their backs on low-cost sites in the world-wide organization of their production', since the 'wage-differential' between 'North' and 'South' for the more skilled work often required could be even greater than that between wages for unskilled workers (Fröbel et al. 1987: 15).
4. As we shall see in Chap. 6, these dynamics of relative simplification and a subsequent international relocation of intellectual labour are also at the basis of the Celtic Tiger phenomenon, with software development as one of its emblematic sectors.
5. International migration is thus part and parcel of the NIDL and not its refutation (as implied, for instance, by Cohen 1987). Sassen (1988) offers a more balanced view.
6. In this sense, data on FDI cannot empirically settle the question about the validity of the NIDL thesis, as some authors argue (for example, Kiely 1995: 94).
7. See Jacobson et al. (1979), Walker (1989) and Liokadis (1990), for diverse critiques of the world-system/dependency theory leanings of Fröbel, Heinrichs and Kreye's account.

8. For further elaboration of the determination of capital as the alienated total social subject of the movement of modern society (and hence the inverted social existence of human beings as its personifications), see Starosta (2016).
9. This mistaken focus on manufacture instead of *machinofacture* was accurately picked up by Jenkins (1984) in his early critique of the NIDL thesis, although he did not explore the implications of this confusion any further.
10. See Balconi (2002) on this twofold effect of new technologies on the skills of direct labourers. This general contradictory development of the particular and universal dimensions of labour-power subsumed to large-scale industry had already been identified by Marx as its characteristic form of motion. See his discussion of education clauses of the Factory Acts in *Capital* (1976: Chap. 15), and also Starosta (2011).
11. As for the, so-called, polyvalent worker, it has been amply demonstrated that its development might not entail any vertical expansion of skills. Instead, it has involved in most cases the horizontal incorporation of additional, quite simple tasks, that is the sheer intensification of labour (Elger 1990). Rather than being an obstacle, the generally weaker and more compliant working class in certain 'peripheral' countries might have been even more suitable for the greater labour intensity allowed by flexible production methods. This has been noted to be true of Japan as well, one of the hidden secrets behind its competitiveness vis-à-vis American and Western European capitals in the 1980s (Dohse et al. 1985).
12. Strictly speaking, the multiplication of the surplus population relative to the needs of the accumulation process has also constituted a transformation of productive subjectivity produced by the automation of large-scale industry (see Marx 1976: 553–75).
13. As Grinberg (2014: 2) points out, wet-rice cultivation has, among others, the following two characteristics. First, it is highly labour-intensive, notably during planting and harvest periods. Secondly, whatever their extent and complexity and, consequently, degree of centralisation, all irrigation systems have required the 'cooperation at various levels between the farmers in a single water control unit' (Bray 1986: 67).
14. It is this difference in timing that largely explains the divergence in the patterns of industrial development (that is, the extent of the deepening process) between the first generation East Asian Tigers and their 'followers' in South East Asia. Also, many of those later followers had a comparatively greater mass of ground-rent for capital to recover through protected domestic markets before being turned into sources of cheap and compliant labour power for world market production. Thus, it was generally after the collapse of raw material prices (hence of ground-rent) in the early 1980s

that these countries changed their mode of integration into the international division of labour (this also applies to the case of Mexico in Latin America). This, of course, does not mean that the industrialisation process in East Asia simply responded to the dynamics captured by the ‘flying geese’ thesis (cf. Kasahara 2004). Indeed, the NIDL has taken shape in a hierarchical structure (Bernard and Ravenhill 1995) which, due to global-scale requirements of different types of labour-power, narrows at the top and widens at the bottom. Moreover, the advent of China, with its ‘unlimited’ supply of relatively cheap and disciplined labour-power, has strongly restricted the upgrading possibilities of the rest of the followers.

15. As Grinberg (2011: 35) points out, the ‘flying geese’ theory reflects only the second of these factors. Moreover, this theory does not explain why industrial production for world markets using a relatively cheap and disciplined unskilled of labour force could develop in Japan in the first instance.

REFERENCES

- Alcorta, L. 1999. Flexible Automation and Location of Production in Developing Countries. *European Journal of Development Research* 11(1): 147–75.
- Amsden, A. 1989. *Asia’s Next Giant: South Korea and Late Industrialization*. New York: Oxford University Press.
- Balconi, M. 2002. Tacitness, Codification of Technological Knowledge and the Organisation of Industry. *Research Policy* 31: 357–79.
- Balconi, M., A. Pozzali, and R. Viale. 2007. The ‘Codification Debate’ Revisited: A Conceptual Framework to Analyze the Role of Tacit Knowledge in Economics. *Industrial and Corporate Change* 16(5): 1–27.
- Bernard, M., and J. Ravenhill. 1995. Beyond Product Cycles and Flying Geese: Regionalization, Hierarchy, and the Industrialization of East Asia. *World Politics* 47(2): 171–209.
- Bray, F. 1986. *The Rice Economies: Technology and Development in Asian Societies*. Oxford: Basil Blackwell.
- Burnham, P. 1994. Open Marxism and Vulgar International Political Economy. *Review of International Political Economy* 1(2): 221–31.
- Ceceña, A.E., and A.A. Peña. 1995. En torno al estatuto de la fuerza de trabajo en la reproducción hegemónica del capital. In *Producción Estratégica y Hegemonía Mundial*, ed. A.E. Ceceña and A. Barrera Marín. Mexico City: Siglo XXI.
- Cho, S.K. 1985. The Labor Process and Capital Mobility: The Limits of the New International Division of Labor. *Politics and Society* 14(1): 185–222.
- Clarke, S. 1988. *Keynesianism, Monetarism and the State*. Aldershot: Edward Elgar.
- Clarke, S. 2001. Class Struggle and Global Overaccumulation. In *Phases of Capitalist Development: Booms, Crises and Globalization*, ed. R. Albritton, M. Itoh, R. Westra, and A. Zuege. London: Macmillan.

- Cohen, R. 1987. The “New” International Division of Labour: A Conceptual, Historical and Empirical Critique. *Migration* 1(1): 22–40.
- Coriat, B. 1992. *El taller y el robot*. Madrid: Siglo XXI.
- Deyo, F. 1989. *Beneath the Miracle: Labor Subordination in the New Asian Industrialisation*. Berkeley: University of California Press.
- Dohse, K., U. Jürgens, and T. Nialsch. 1985. From “Fordism” to “Toyotism”? The Social Organization of the Labor Process in the Japanese Automobile Industry. *Politics & Society* 14(2): 115–46.
- Elger, T. 1990. Technical Innovation and Work Reorganisation in British Manufacturing in the 1980s: Continuity, Intensification or Transformation? *Work, Employment & Society* 4(5): 67–101.
- Ernst, D. 2005. Complexity and Internationalisation Of Innovation: Why is Chip Design Moving to Asia? *International Journal of Innovation Management* 9(1): 47–73.
- Fagan, R.H., and M. Webber. 1999. *Global Restructuring: The Australian Experience*, 2nd ed. Oxford: Oxford University Press.
- Fröbel, F. 1982. The Current Development of the World-Economy: Reproduction of Labor and Accumulation of Capital on a World Scale. *Review (Fernand Braudel Center)* 4: 507–55.
- Fröbel, F., J. Heinrichs, and O. Kreye. 1980. *The New International Division of Labour: Structural Unemployment in Industrialised Countries and Industrialisation in Developing Countries*. Cambridge: Cambridge University Press.
- Fröbel, F., J. Heinrichs, and O. Kreye. 1987. Export Processing Zones in Developing Countries: Results of a New Survey. Multinational Enterprises Programme Working Paper 43, International Labour Organisation, Geneva.
- Grinberg, N. 2008. From the “Miracle” to the “Lost Decade”: Intersectoral Transfers and External Credit in the Brazilian Economy. *Brazilian Journal of Political Economy* 28(2): 291–311.
- Grinberg, N. 2011. Transformations in the Korean and Brazilian Processes of Capitalist Development between the mid-1950s and the mid-2000s: The Political Economy of Late Industrialisation. Unpublished PhD diss. London School of Economics and Political Science.
- Grinberg, N. 2014. From the Miracle to Crisis and Back: The Political Economy of Korean Long-term Development. *Journal of Contemporary Asia* 44(4): 711–34.
- Grinberg, N., and G. Starosta. 2009. The Limits of Studies in Comparative Development of East Asia and Latin America: The Case of Land Reform and Agrarian Policies. *Third World Quarterly* 30(4): 761–77.
- Grinberg, N., and G. Starosta. 2014. From Global Capital Accumulation to Varieties of Centre-Leftism in South America: The Cases of Brazil and Argentina. In *Crisis and Contradiction: Marxist Perspectives on Latin American*

- in the Global Economy*, ed. S. Spronk and J.R. Webber. Leiden: Brill Academic Publishers.
- Hart-Landsberg, M., and P. Burkett. 1998. Contradictions of Capitalist Industrialization in East Asia: A Critique of “Flying Geese” Theories of Development. *Economic Geography* 74(2): 87–110.
- Henderson, J. 1989. *The Globalisation of High Technology Production*. London: Routledge.
- Hirschhorn, L., and J. Mokray. 1992. Automation and Competency Requirements in Manufacturing: A Case Study. In *Technology and the Future of Work*, ed. P.S. Adler. Oxford: Oxford University Press.
- Howe, G.N. 1981. Dependency Theory, Imperialism, and the Production of Surplus Value On a World Scale. *Latin American Perspectives* 8(3–4): 82–102.
- Huws, U. (ed.). 2006. *The Transformation of Work in a Global Knowledge Economy: Towards a Conceptual Framework*. Leuven: HIVA-K. U. Leuven.
- Huws, U. 2014. *Labor in the Global Digital Economy: The Cybertariat Comes of Age*. New York: Monthly Review Press.
- Iñigo Carrera, J. 2007. *La formación económica de la sociedad argentina. Volumen I, Renta agraria, ganancia industrial y deuda externa. 1882–2004*. Buenos Aires: Imago Mundi.
- Iñigo Carrera, J. 2013. *El capital: razón histórica, sujeto revolucionario y conciencia*, 2nd ed. Buenos Aires: Imago Mundi.
- Jacobson, D., A. Wickham, and J. Wickham. 1979. Die Neue Internationale Arbeitsteilung (The New International Division of Labour). *Capital & Class* 3(1): 122–30.
- Jenkins, R. 1984. Divisions over the International Division of Labour. *Capital & Class* 8(1): 28–57.
- Kasahara, S. 2004. The Flying Geese Paradigm: A Critical Study of its Application to East Asian Regional Development. Discussion Papers 169, United Nations Conference on Trade and Development, São Paulo, 13–18 June.
- Kiely, R. 1995. *Sociology and Development: The Impasse and Beyond*. London: UCL Press.
- Liokadis, G. 1990. International Division of Labor and Uneven Development: A Review of the Theory and Evidence’. *Review of Radical Political Economics* 22(2): 189–213.
- Marx, K. 1976. *Capital*, vol. 1. Harmondsworth: Penguin.
- Marx, K. 1978. The Class Struggles in France, 1848 to 1850. In *Marx and Engels Collected Works*, vol. 10, ed. K. Marx and F. Engels. London: Lawrence and Wishart.
- Marx, K. 1993. *Grundrisse: Foundations of the Critique of Political Economy*. Harmondsworth: Penguin.
- Nanda, M. 2000. Post-Fordist Technology and the Changing Geography of Production: Challenges for Third World Women. *Gender Technology and Development* 4(1): 25–60.

- Oberhauser, A.M. 1990. Social and Spatial Patterns under Fordism and Flexible Accumulation. *Antipode* 22(3): 211–32.
- Ramioul, M. 2006. Organisational Change and the Demand of Skills. In *The Transformation of Work in a Global Knowledge Economy: Towards a Conceptual Framework*, ed. U. Huws. Leuven: HIVA-K. U. Leuven.
- Sassen, S. 1988. *The Mobility of Labor and Capital: A Study in International Investment and Labor Flow*. Cambridge: Cambridge University Press.
- Sayer, A. 1986. Industrial Location on a World Scale: The Case of the Semiconductor Industry. In *Production, Work, Territory*, ed. M. Storper and A.J. Scott. Boston: Allen and Unwin.
- Schoenberger, E. 1988. From Fordism to Flexible Accumulation: Technology, Competitive Strategies, and International Location. *Environment and Planning D: Society and Space* 6(3): 245–62.
- Schoenberger, E. 1989. Multinational Corporations and the New International Division of Labour: A Critical Appraisal. In *The Transformation of Work? Skill, Flexibility and the Labour Process*, ed. S. Wood. London: Unwin Hyman.
- Silver, B. 2003. *Forces of Labor: Workers' Movements and Globalisation since 1870*. Cambridge: Cambridge University Press.
- Smith, T. 2006. *Globalisation: A Systematic Marxian Account*. Leiden: Brill.
- Starosta, G. 2011. Machinery, Productive Subjectivity and the Limits to Capitalism in *Capital* and the *Grundrisse*. *Science and Society* 75(1): 42–58.
- Starosta, G. 2016. *Marx's Capital, Method and Revolutionary Subjectivity*. Leiden: Brill.
- Tomaney, J. 1994. A New Paradigm of Work Organization and Technology? In *Post-Fordism: A Reader*, ed. A. Amin. Oxford: Blackwell.
- Wade, R. 1990. Industrial Policy in East Asia: Does It Lead or Follow the Market? In *Manufacturing Miracles: Paths of Industrialization in Latin America and East Asia*, ed. G. Gereffi and D.I. Wyman. Princeton, NJ: Princeton University Press.
- Walker, R.A. 1989. Machinery, Labour and Location. In *The Transformation of Work? Skill, Flexibility and the Labour Process*, ed. S. Wood. London: Unwin Hyman.
- Wallerstein, I. 1991. World-system. In *A Dictionary of Marxist Thought*, ed. T. Bottomore. Oxford: Blackwell Publishers.