Uneven Development within Global Production Networks

Synonyms: Uneven Development, Imperialism, Commodity Chains, Global Value Chains, Value Capture, Value Creation, Value.

Definition: Increasingly global trade is dominated by global production networks. The effect of these on developmental outcomes has been substantial but contradictory. In this piece we will identify the ongoing problems with current academic debates on this topic and the limitations of its theoretical approaches for identifying the cause of ongoing uneven development.

The reorganisation of global trade developed from several analogous shifts in the structure of global competition from approximately the 1980s onwards. The first and most commonly discussed are the deregulation of capital and trade movements, technological improvements in communication and transportation which facilitated more flexible and smaller shipments – both of which undoubtedly provided the underlying mechanisms through which change could occur. However, more fundamental was the rise of specialisation by firms in core economies in response to inter-capitalist competition with the emerging firms in rebuilding Japan and Germany and increasing tension managing large geographically centred manufacturing workforces in the Global North (see Arrighi, 1999 for an extensive discussion).

The organisational changes we have seen emerge from this have been complex, however, what remains consistent is the unbundling of specific production processes and the decline of large vertically organised firms producing a single commodity internally. Though "lead" firms which govern the production of specific commodities often still maintain the comparative advantages these vertically organised firms maintained, particularly branding, capacities for innovation, extensive hard to replace retail or production facilities – what is significant is that the component production, individual inputs, final assembly, and business services necessary to create these products are distributed to independent firm. Though relationships do exist between these firms and are often maintained over time, they remain typically semi-formalised and take on the formal structure of a solely market transaction.

Identifying the effect on uneven development is complex as on aggregate several contradictory trends are ongoing. Firstly, on appearance the effects have been profound and expansive due to the competitiveness of peripheral firms in many individual tasks, as well as rapid cheapening of some capital goods, both of which have allowed substantive industrialisation. This is not only a superficial phenomenon either but has involved active increases in the use of capital goods and measurable increases in productivity. Furthermore, the effect of these changes on specific lower quality valued elements of consumption goods prices has substantially altered consumption in some Global South countries.

This does remain starkly unequal though. Inside countries it has tended to privilege specific groups of labour and capital, it is highly centred in specific regions, and has completely missed many countries where production networks have not become embedded. However, it is a process worth taking seriously as the impact is not insignificant and has certainly appeared as strong growth across key areas of the Global South.

In spite of significant change Brewer (2011) and Hickel (2017) have correctly identified that there has been no closing of the developmental gap over this period of change. The benefits that regions and firms in the Global South have gained represent absolute change but remain relative to their starting point even when replacing complex highly productive elements of global production. Indeed, even the much-lauded changes towards "convergence" in GDP per capita only emerge if we weight GDP in a way which assumes all consumption is of equal quality and ignores the complex ways in which often necessary elements of consumption come to be priced differently. It is still just as difficult for a country in the Global South to directly purchase goods produced in the Global North (Freeman 2009).

In the face of this, analysis of global production networks as a distinct set of academic debates attempting to categorise these informal trade relationships is useful. Providing an understanding how this specific change in uneven development is taking place as well as its wider systematic outcomes.

In this contribution, we will be outlining two key points. The first is the substantial capacity for even mainstream research to open up analysis of uneven development using an approach which focuses on global production networks. Identifying that the development of this field from specifically radical foundations, in particular, the world-systems approach is impactful. It has helped integrate an emphasis on the directly exploitative elements of the relationship between firms in the North and South and due to its focus on concrete complex trading networks offers several advantages.

The second point we will be addressing is how value is understood in this approach, this underpins how it understands uneven development and furthermore has provided significant empirical depth to the concept. However, simultaneously we will show the limitations of a continual emphasis solely on value capture in this approach due to its legacy in developing the world-system approach through Schumpeterian analysis.

From World-Systems Theory to Global Production Networks

In this section we will identify the way in which the global production network developed as a way to understand the specific phenomenon identified above, in doing so a brief intellectual history will be sketched in which the specific terminology of global production networks emerged as part of a critique against the initial approach and has been later joined by more critical perspectives. Throughout, what is worthwhile recognising is the continuity across critiques – largely due to the focus on expanding the approaches understanding of power rather than a systematic challenge to how global production networks should be understood.

Building on the notion of 'commodity chains' from world-systems theory, the initial attempts to theorise how global production networks operated emerged from the work of Gereffi (2005) as the Global Value Chains approach. This form remains it is most popular and underpins much of the engagement with the concept by global capitalist institutions such as the World Bank (Bair 2005). The initial development of this work occurred early on in the emergence of global production networks and subsequently, its primary impulse was identifying the potential developmental opportunities, and challenges, from a decrease in control over industrialisation.

On the one hand, this modification not the world systems approach came with a clear notion of how firms in the Global South could improve their position through the notion of upgrading and thus begun to challenge its pessimism on development. However, this only emerged within the context of a view that current problems with industrialisation were rooted primarily in the power Global North firms had over their suppliers. Thus, increasingly focusing on forms of development which emerged from the relationships between sites rather than simply internally a key theoretical claim of uneven development being formed through power became embedded in the analysis.

To operationalise this form of power the global value chains key theoretical concept is the notion of governance. This is understood as the structure around which the potential development outcomes from engagement with global production networks become distributed between actors within a production network – reflecting the power of individual firms to discipline others, and in particular the power to determine other firms' prices (Kaplinsky 2000). This framework remains broadly uncontested throughout all further discussions of global production networks and underpins its role in introducing a more radical understanding of how uneven development is structured into mainstream development analysis. However, in itself, it is insufficient as the final cause of differences in power remains contested and can still be considered internal to Global South countries even while there is a recognition that the Global North takes advantage.

The first form of power considered by this approach was developed through an analysis of industry-specific mechanisms which could be exerted as mechanisms of control between buyers and suppliers. This included the complexity of information shared between firms within a production network as reflective of the trust required to ensure advance purchases would be met, if the information could be codified and therefore set out as strict standards or if it required relying on specific internal skills of partners, and finally the extent to which suppliers required further investment to maintain their position. Together, this allows a schema to be developed of the extent to which active coordination, long-term relationships, and investments are required to support production networks; with each providing certain opportunities for firms in the Global South to advance their position by leveraging the needs of other firms while simultaneously remaining dependent.

This approach faced several problems, foremost, its emphasis on a singular "chain" concept tended to over assume power was effectively only occurring in singular hierarchical relationships. Subsequently, although there were ways to compare chains through identifying high-value activities it was not apparent how the power to be a lead firm or to take advantage of a position was created outside of chains. Confronting this, the notion of Global Production Networks approach developed from the work of Henderson, Dicken, Hess, Coe and Yeung (2002) and sought to increasingly include geographical and thinking beyond chains between firms to the networks which organise global production as required for understanding how power was created.

The primary outcome of this critique is not to necessarily challenge a focus on the organisation of production for specific use of goods (see Bair 2005 for an overview of the evolution of views on global production networks). Instead, it expands the actors relevant to the determination of power and begins to recognise the role of regional inter-network connections and shared resources. In practice, this largely functioned as a discussion of institutions role in shaping inter-firm relationships. This occurs as territorial institutions define firm organisation, ownership, and conditions of production are shaped, both within defined territories and across them as regional institutions are formed, and different institutions co-shape one another. In contrast to rents produced at the firm-level, regionally supported rents are geographically and historically contingent, rather than being formed by tangible skills, technology, laws, or forms of power. In contrast to tangible assets, these are both harder to replicate but also more vulnerable as state-level institutions are generated by multiple actors to support social as well as economic aims. Consequently, they tend to be self-reproducing and are difficult to actively change. This introduces a range of novel limitations and path dependencies which can derive from a range of actors which are not recognised with a focus solely on inter-firm power (Dicken and Malmberg 2001).

The specific institutions that a territory engage in are also considered impactful and have been increasingly centred in the Global Production Networks 2.0 approach by Coe and Yeung (2015). The further development of this approach has identified several cases in which the development of institutions which can both adapt to and develop innovation are crucial to the emergence of longer-term relationships. In contrast to other regional assets which maintain a certain degree of temporality, labour market regulation may be useful to maintain a skilled workforce till a skilled workforce is not needed for example, innovation represents a specific skillset requiring relatively developed institutions and long local experience and subsequently allows interdependent relationships within production networks to be maintained over time. The coupling of regions through anchor firms with deep reliance's on one another for their competitive advantages, therefore, represents an important form of power particularly when it allows others in a network to create new markets, involves optimisation of costs between two firms, and allows substantial access to capital and support (MacKinnon 2011).

The last element of governance power which has begun to be recognised is historical and actor-driven definitions of local assets. This form has drawn heavily on Marxist and feminist perspectives by Werner and Bair (2011) and argued that the way specific the Global South is brought into global markets is crucial for understanding how institutional development emerges from the historically specific actors that create a market. In this approach, the histories which shape inclusion define specific capitalists aims and labours integration with local markets. Firms and regions were not integrated in an ordered rational way but instead by concrete relationships between actually existing capitalists of which only some survived due to factors often outside of any individual capitalists' control.

This process does not represent a form of power but instead shapes how power is used in both positive and negative ways. On the one hand, Pickles and Smith (2016) taking a regionally defined market such as the European Union firms within Eastern Europe may find themselves in advantageous positions due to their relatively unique status as developing economies with a Global North led regulatory unit. Though it may not continue to be competitive in all areas, as capital is already invested and regulations for trade are well developed, they remain in a strong position even as investment slows and new investments are not continually found. In contrast, Havice and Campling (2013) have provided an archetypical example of how Global South firms face processes of exclusion due to the same phenomenon. While in the past local class compacts and relationships were able to take maintain of specific local workforce methods to engage with specific buyers, they remain dependent on these relationships even as markets change to retain any inclusion in global production networks. The shift in supermarkets from branded to non-branded Tuna undermined the value of ecologically friendly line-caught Tuna as a skillset among Oceanic island workers, however, local capital had already developed infrastructure with several buyers and subsequently withdrew from canning its brands to lower value loin processing.

This view posits a deeper discussion of why value is created; proposing market formation as a process as shaping long-term outcomes by defining actor intents which shapes which assets are developed and how they can develop. However, in focusing on a novel empirical element of production networks its contribution to discussion of value continues to emphasise rents, albeit, while seeing them as dependent on the way social relations create dependencies on specific forms of production rather than viewing them as simply a feature of specific constellations of institutions, markets, and firms.

In sum, the discussion on global production networks has identified a critique of the power relations that govern global trade and made mainstream a view that developmental outcomes are not purely the fault of Global South countries failure to develop. The embedding of this is development approach has been important for shifting the emphasis of developmental organisations towards some beneficial areas and tying in with the generalised changes towards a post-Washington consensus with an increased focus on market failures and industrial policy (Werner et al. 2014).

There are substantial limits to this, the World Bank (2017), for example, recognise all these forms of power as relevant for the participation of developing country firms in global production networks. They also recognise this as being determined by rules drawn from Global North power and directly changing how increased industrialisation. However, their advice remains focused on demand from the Global North and emphasizes the potential win-win of engagement with production networks, emphasising absolute change and only superficially recognising exploitation. In line with this much of their advice focuses on domestic reform in Global South countries as well as increasingly freeing up trade as ways to expand production networks potential.

Capturing Value and Upgrading

Connecting this literature even further to radical debates is the direct usage of a notion of value capture as central to the mechanism which determines how developmental outcomes are understood and the exact way in which uneven development is restructured. The emergence of the initial specific debate on global production networks from its earliest days embedded the world-system approaches use of Schumpeter. This model draws significant on the notion of rents as a return to the management of competition – and in particular scarcity. Thus, the forms of power identified act as mechanisms in which scarcity is maintained, managed, produced, and shared.

This has significant effects on how changes in industrial capacity are understood as developmental and underpin the global production networks understanding of change as being defined by upgrading. In contrast to typical focuses on productivity, upgrading defines change by the extent to which it affects the ability of firms to change their power to influence competition relative to other firms. Improving productivity may allow two firms to gain equally as the savings generated are shared. Producing increasingly sophisticated products, or using experience to move into other production networks, may allow access to different buyers or to take on more functions within a production network but fundamentally does not necessitate any change in power unless this is less common or easier to protect. The only way in which power therefore changes is the movement into activities which are less common or rely on an internally protectable set of assets.

This focus has remained through all approaches to global production networks, even as the simplicity of this model has been questioned. For example, it is often difficult to identify these individual forms of upgrading in reality. Often becoming more productive is a protectable asset – requiring significant labour skill and organisational capacity. Similarly, the development of more complex products often directly allowed the movement into entirely different production networks due to the separation of production networks by the quality and starkly different interdependencies required when dealing with more complex luxury products (Ponte and Ewert 2009).

The notion of upgrading as allowing increased value capture, as a theoretical approach to both explain uneven development and in general as a developmental process runs into significant further problems due to its explicit emphasis on profits as a ratio. This is essential to the Schumpeterian basis of its analysis in which product prices are held as effectively market-determined while the sale price in which value is realised is modified by the ability realise rents as a return to scarce assets. Defined in monetary terms as a continual protected entrepreneurial profit for innovation.

Though this remains a useful theoretical apparatus for identifying the relationship between power and outcomes the aim of capital as an actor is to produce with any profit not just a higher ratio to investment. This can also involve simply an absolute increase in capital invested and returned. Thus, in many cases firms may not be interested in the risky investment required to upgrade. Indeed, Blazek (2015) found substantial evidence that downgrading is a common strategy – why face increased competition in high-profit low volume sectors, challenging innovative firms or trying to replace functions currently held by core economies with deeper institutional support when the mass scale lower quality global production networks offer the chance of large scale investment.

This problem underpins a gap in evidence on the effect of upgrading on development understood as social conditions. Particularly outcomes for labour. There is evidence that around many sites of upgrading we do see increases in wages, however, they do not parallel the apparent forms of upgrading which increase value capture and are often highly localised. The increasing need for specialised labour is linked to beneficial changes. However, a crucial division is that the need for more specialised labour is not a necessary feature of increased value capture. Increasing productivity does tend to require an increasingly specialised workforce although at a regional scale this may result in unskilled workers being removed from production and thus not result in an aggregate change. Firms moving into higher value-added activities within a production network follow a similar process, however, as they maintain an ability to capture value and often need to protect their position within chains, they are more likely to retain unskilled workers to support higher skilled activities. In contrast, movement between production networks producing goods of different qualities or different goods entirely is highly dependent on the extent to which this requires the use of new assets and skill composition rather than simply altering inputs (Tokatli 2012).

The problem we see continuously here then is not that value capture is an irrelevant process. Instead, it is that when we can identify it there is a problem with understanding how much value is ever captured except its apparent that it does not involve the direct replacement of core activities value. This can be identified particularly when we see firms from the Global South directly taking on previously core functions. Here we see that rents are common, even routine, as a feature of the competition. This is a challenge to the typical view that the core difference between low and high-value activities is effectively representative of how more complex products provide more extensive opportunities for rents.

Tokatlis (2012) work on Turkish apparel firms identified that they have maintained a competitive position for European retailers. Indeed, many cannot neatly be called 'suppliers' as they often engaged in activities such as marketing, branding, and retailing, which are understood as high value-added, alongside assembly and component production. This did not always involve the firm becoming a buyer, and often represented peripheral firms engaging in diversification strategies in which these activities supported lower-value activities for core-oriented production networks while, on appearance, high value-added activities were used to compete within peripheral markets. Furthermore, although peripheral firms used these advances to support value capture in peripheral production networks, in core production networks it often appeared as a risk, as core firms expected them to utilise these capabilities to directly design items to be sold in core economies for little additional return. Here then, the ability to overcome barriers to entry and even protect them to produce rents appears secondary to the scale of these rents reflecting the specific production networks they are utilised in.

The global market moving success of global peripheral suppliers show similar evidence. Though rarer, and largely only existing in the larger Global South economies, these firms consolidated their role in multiple sectors due to their support for the sustained expansion of core consumer product markets. In doing so they not only developed increasing power in these markets but actively contributed to their creation. These firms have been able to rapidly outcompete peripheral rivals and have substantially upgraded as the scale of their production acted as a scarce asset allowing them further expansion into activities understood as high value-added. Similar dynamics as Turkish firms are, however, evident. For example, Yue Yuen, the core supplier for Nike, has dominated its suppliers by vertically integrating subcontractors and design, and has even produced its innovative logistics services which directly manage lead firms' stock rooms. This has allowed it to generate its particular rents as it has sought greater control over its suppliers and maintain its lead firm role over them. In spite of this, its ability to pass on price increases to its buyers is limited, and even in its domestic market, it cannot command similar prices to Nike despite its extensive role in a range of their products.

In the absence of a clear approach to understanding how individual activities move from being low to high-value several problems emerge as the advantages of being in a high-value production network are substantial. The scale of value generated identify provides an ability to lead production networks, the scope of production networks as final product scale determines the range of inputs that can be included and provides territories with the ability to continually support themselves through large scale investment. This depth is significant for differentiating the features of similar commodities quality. For example, the ability of core supermarkets to cushion food prices from fluctuations in global commodity markets relies on the scale of their production due to working in high-consumption markets requiring extensive integration with financial and commodities markets

The process we can identify here does explain the initial statistical evidence presented at the start of this section. These cases all represent genuine changes in the productive capacity of some areas of the Global South through engagement with global production networks – this has often involved extensive capitalisation and upgrading. However, underpinning it is a failure to engage with the process of devaluation that is intertwined with this. For example, the genuine changes in consumption we have identified have emerged in part through global south firms increasingly being capable of producing lower quality consumer goods for cheap through the benefits gained from this process. However, without an engagement with how value is created, it is not clear how this process will produce actual commensurability between the production of the Global North and Global South.

Limitations of Value Capture

The benefits of looking at value capture are useful in an analysis of uneven development is beneficial for multiple reasons. It represents a direct transfer between two sites provides a succinct way of understanding how the production activities in one country actively contribute to another. It is also directly visible in many specific cases. Firstly, there are numerous mechanisms for foreign-owned firms to directly transfer the profits they make to other locations. This is also a problem for considering the extraction of profit in core economies through their primary role in the globalised financial sector.

These not only represent clear cases in which value produced in one territory is moved to another but furthermore can be recognised as directly reflecting features of Global North domestic market depth which are incredibly difficult for any Global South country to displace. In particular as any capitalist in the Global South has the freedom to make money through these markets as well! The domestic markets of the Global North define not only quality due to the competition shaping consumption in these markets being led by high wages, but furthermore, create the need for extensive local innovation to maintain this competition and investment capacity to reflect the massive scales of capital required to match these markets depth.

The argument becomes more difficult when we are dealing with the direct changes caused by taking advantage of low-cost wages though. This certainly creates a profit which firms in the Global North can take advantage of. This may even represent an asset in itself as the ability to take extensive risks, afford choosing between and keeping multiple suppliers simultaneously, access to the extensive business services required to manage the massive information and organisational capacities to maintain complex production networks, all reflect a specific often territorially rooted set of infrastructure. However, outside of the depressingly common but often temporary cases in which particularly brutal methods are utilised to push Global South suppliers and labour below their socially acceptable reproduction rates, which may represent abject poverty, the normalisation of specific value for certain forms of labour should be considered a permanent change in how capitalism values the skills required to create a specific use-value (see Smith 2016 for several accounts of this process and a discussion of it as a form of value capture).

This distinction requires a careful approach. In over-relying on the view that the only advantages from global production networks for the Global North require rents, it is possible to overly associate uneven development with a distortion of "true capitalism" in which imperfections caused by power and protected the hierarchy between states are the sole reason for continued failures of development. This problem is common in approaches which draw heavily on the monopoly capital thesis, such as world-systems theory, and the subsequent rewriting by more mainstream scholars such as Schumpeter. In these approaches, the role of power in structuring completion was taken as the central organising factor of firm success. In contrast, although price changes governed by other elements such as labour costs, changing technology, and reorganisation of social relations are relevant they are considered secondary influences.

In contrast to relying solely on an understanding of power, what is crucial in identifying the scale of value created is reshaped by the processes that govern average costs of production. Though individual firms may pay more or less than this in making an initial investment in concrete labour, capital, and inputs they will only realise a return in monetary value equal to the amount of labour that is realised as abstract labour equal to average production costs. Though this often-requires complex combinations of labour skill and specific capital to achieve adequate levels of productivity labour remains unique not only in its contribution to value but also in its immobility and relatively sticky pricing at a territorial level.

In the circumstances in which we see initial transfers of value across borders, this may represent instances of transfer through the deliberate under-pricing of novel Global South firms competing with firms in the Global North. However, as part of the process of specialisation that global production networks have depended on tradable goods, that is commonly exported rather than solely produced domestically, there is typically a reversion in the average costs towards the lowest value labour required to put the right capital and skills into motion. The competition between Global South suppliers and potential for access to some non-protected elements of capital further supports this process of devaluation in that once firms have secured a position through the use of low-cost labour the pressure of increasing productivity is not removed either.

The consequences of this for theory are to further support the crucial view that there is no intrinsic difference between the labour of the Global South and Global North except for the territorial state they are allowed to work in. Though a hierarchy of the value of some skills can be identified capitalism can organise these skills for production in set units that defines their valuation.

The cost of recognising this process of devaluation is limited for the political implications of current focuses on value capture. Though direct transfers become less visible they still have a direct impact on the advantageous circumstances those in the Global North find themselves in, furthermore, arguing that those in the Global North do not gain direct advantages through the devaluation of consumer goods remains through is reverse through a focus on the effect on reproduction.

The Relevance of a Global Production Network Focus

In identifying devaluation as an intrinsic process of how global production networks have changed the structure in which the Global South can grow though engagement in global capitalism, alongside real processes of value capture, offers a fertile area for further analysis of the contradictory way in which they change rather than end uneven development. By approaching this problem through a critical reappraisal of the global production networks approach three crucial areas also become more visible due to its focus on identifying the complexity of concrete production networks and the variety in how power can be utilised by individual actors.

The first interjection of the global production network approach is that it moves beyond viewing the global economy as made up of easily distinguishable sectors understood by their industrial form. Instead, it views sectors are representing both generalised activities as well as specific relationships in which they are embedded, defining qualitative norms and the interaction between specific structures of firms and markets as specific industries. This shift in the scale of analysis from sectors to industries, and indeed to specific production networks within these, has wide consequences.

This is not often emphasised by global production scholars despite representing its core division from world-systems theory in the initial formulation of the approach by global value chain scholars and the starting point from which its analytical differentiation to a focus on specific chain relationships proceeds. However, it also produces a tension around the extent to which this causes industries to become solely represented by the specific relationships they are embedded in and removed from their objective similarities to other scales of market-industrial organisation.

Focusing on the specific nature of industries has allowed the introduction of several mechanisms which have become central to analysing governance. This has been especially important for understanding the role of differences which drive the valuation of differentiated uses of sectors, such as the ability to organise production networks and the apparently "insubstantial" elements of this such as controlling technological processes and branding relationships.

The presence of these elements also allows recognition of production networks as often meeting a specific derivation of sectoral demand; representing how they organise production which matches qualitative measures of quality. This can be done in multiple ways which are often not reducible to sector: requiring the ability to codify and translate the requires to match specific cultural norms, the ability to utilise economies of scale to match large markets and needs for large portfolios of similar goods, or the ability to manage intensive divisions of production to facilitate customisation.

Focusing on this scale of analysis is the central way in which the global production network approaches an understanding of how competition is organised. Furthermore, this scale is largely ignored in radical political economy which tends to abstract it is to sectors determined generally. Though radical political economy should not exclude systemic analysis, and indeed it remains crucial to fixing the global production networks approaches overwhelming focus on individual production networks, identifying how this co-determines one another is essential to taking the actual structure of global trade seriously.

The second interjection of the global production network approach is a recognition of the additional costs that involvement in production networks involve as a feature of cross-sector relationships. These represent the element of productions cost which are explicit, however as they derive from the agglomeration of individual firms in different sectors as specialised forms of specific production facilities producing for what we understand as industries. Though typically the current global trading system is understood as driven by labour arbitrage, the importance of this needs be weighed against the actual costing and construction of functional production networks.

Often several costs essential to successful transactions are negotiated between lead and supplier firms. Examples of this include access to finance, paying for the costs of technological licencing, investment in infrastructure, and the costs of engaging in the social networks in which information can be effectively shared; together representing the massive expansion of infrastructure necessary for ensuring commodities can be made, moved, sold, and stored. These costs are often non-tradable and supported by specific regional agreements but are crucial to the actual structure of costs which lead the Global North to engage in the investment and relationship development required for any positive outcomes for the Global South.

This is also part of how quality in the Global North is often understood. For example, the value of oil production implicitly includes the transportation costs with minimal stoppages and extensive communication of demand. These can also represent direct costs for the licensing of technology purchased as services, which although disciplining profitable production costs, are also separated from the purchase of inputs for production itself. Appearing as a necessary cost of maintaining a form of quality though not necessarily a part of productivity itself.

These costs are typically understood as being returned to unproductive actors, and thus do not create value. However, they often represent a necessary role which must be advanced to secure production is valorised and subsequently at least ensure the movement of created value to third parties as part of this. How they are organised therefore represents a distinct cost which is subtracted from the created value. Though these are studied extensively, the global production network embeds them in the geographical networks required for global production. Crucially, also identifying how they continue to be geographically embedded in specific notions of quality and scales of production (notably through Selwyn 2012s work on Brazil).

The last element of the debate which the global production network approach can help expand is class struggle. To some extent, this is a relatively limited debate among scholars within this approach. It has emerged primarily in discussion of the actual developmental impact of production networks and in attempts by critical scholars to identify the role that class struggle may play in actually supporting forms of power and maintaining sites of upgrading which would otherwise be lost.

The connection to industries and emphasis on individual development of labour around specific production networks adds a concrete focus to this which can be lost in other approaches though. Though production networks often do not result in development change which alters uneven development their effect on the structure of labour skill and rapid intensification of capital use are crucial areas for further investigation. Firstly, not only to identify how the creation of an increasingly skilled workforce may provide sites for future struggle. But also, to improve our understanding of how those who appear to be winning from production networks in the Global South are still disadvantaged from an international perspective.

The individual production network focus also provides a way to integrate an understanding of the specific historical class structures which may be underpinning current positions of advantage and disadvantage. Due to the historical nature of individual production networks development they are often reliant on a scaling up and adaptation of national labour-capital relations rather than their simple replacement by a globalised model; determining the trajectories of even similar commodities for the same markets as it continually shapes the way resources such as land could be brought into production and formed a part of labours reproduction as well as other vectors of oppression such as Gender. For example, the maintenance of low-cost non-union sources of labour within the Sri Lankan apparel industry relies on the maintenance of traditional gender roles has separated the organisation of labour into distinct groups.

Conclusion

To conclude, the global production network approach offers a way to look at uneven development which centres the flurry of complex inter-capitalist relationships that shape global production, investment decisions, and choices over labours management. In this approach class and sectoral composition remain analytically national but interconnected and can only be recognised by identifying the various sites for production and demand which exist. Though in itself it currently cannot provide a complete explanation for uneven development the perspective, tools, and models of mapping and organising how to identify specific trade relationships are vital tools. Significant problems exist within it, and it is worryingly amenable to co-optation by global capitalist development institutions. However, this reflects its narrow focus and attempt to produce clear concrete identifiable causes. Work to improve it will thus be expansionary, building on its radical roots to identify the wider systemic process of devaluation that shape uneven development.

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